

# **SUSTAINABLE DEVELOPMENT AND INNOVATIONS FOR POST PANDEMIC SURVIVAL**

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**Dr.K.Sasi Kumar**  
Editor-in-Chief



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# **SUSTAINABLE DEVELOPMENT AND INNOVATIONS FOR POST PANDEMIC SURVIVAL**

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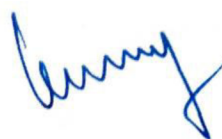
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## **EDITORIAL MESSAGE**

We take great pleasure in welcoming you to our Edited Book. The immediacy of e-based publication makes it possible for us all to be fully connected to each other and to developments in our field and to be directly involved in ongoing knowledge construction.

With several economies gearing towards the end of lockdowns, it's time for organizations to implement Post-COVID-19 business recovery strategies. Although it will let organizations restore balance to an extent, total recovery from the crisis is going to be a long and strategic battle. With these concepts in mind, we invited with scholarly discussions to facilitate new ideas for business sectors. This book also stands as a platform for Students and research scholars to express their innovative business models and solutions.

We are thankful to all academicians, research scholars and students who have contributed for this edited book. We also acknowledge the valuable suggestions and support offered by our colleagues and students. We are delighted that you are joining us as readers and hope you will also join us as contributors.



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## TABLE OF CONTENTS

<i>S.no.</i>	<i>Contents</i>
1.	<i>ANATOMY AND PHYSIOLOGY IN POST PANDEMIC N.Mahalakshmi &amp; S.Susitha</i>
2.	<i>A SUSTAINABLE DEVELOPMENT MODEL FOR SOCIAL ECONOMY ORGANIZATION IN POST PANDEMIC SURVIVAL S.Revathi</i>
3.	<i>NEEDS AND DEVELOPMENT IN SOCIAL ECONOMY DURING PANDEMIC AND POST PANDEMIC S.Semmalar &amp; G.Aruna</i>
4.	<i>SUSTAINABLE DEVELOPMENT AND INNOVATION FOR POST PANDEMIC SURVIVAL BUSINESS AND MANAGEMENT M. Varalakshmi &amp; M. Sathiyapriya</i>
5.	<i>ROLE OF ENGINEERING SECTOR IN POST PANDEMIC SURVIVAL Mr.S.Mutharasu</i>
6.	<i>INNOVATIVE AND RETHINKING BUSINESS STRATEGIES POST PANDEMIC: A THEORETICAL APPROACH Neha Sakhlecha &amp; Dr.C.Nithya</i>
7.	<i>A STUDY ON THE ROLE OF DIGITAL MARKETING DURING PANDEMIC  Mr. Muthukumar K, Dr.Vignesh Ramamoorthy H &amp; Mrs. Prabavathi V</i>
8.	<i>SUSTAINABLE DEVELOPMENT IN ENVIRONMENTAL MEASURES FOR POST PANDEMIC RECOVERY G. Katheeja Mary, M. Saranya</i>
9.	<i>HUMAN RESOURCE DEVELOPMENT ON ROLE OF RESEARCH: POST PANDEMIC GLOBAL SCENARIO Dr.Chaganti Rami Reddy</i>
10.	<i>CUSTOMERS' STRATIFICATIONS TOWARDS INNOVATIVE FINANCIAL SERVICES IN RETAIL BANKING – A COMPARATIVE STUDY ON PUBLIC AND PRIVATE SECTOR BANKS IN PALAYAMKOTTAI S Jaya kumar &amp; Dr.K.S.Arockiasamy,</i>
11.	<i>A STUDY ON CUSTOMER SATISFACTION TOWARDS ROYAL ENFIELD BIKE WITH SPECIAL REFERENCE TO TIRUPATTUR TOWN Dr.R.Nagalakshmi &amp; Dr.C.Krishnaveni</i>
12.	<i>SUSTAINABLE DEVELOPMENT FOR POST PANDEMIC IN HEALTH SCIENCE M. Saranya &amp; G. Katheeja MARY</i>
13.	<i>BEYOND COVID-19: THE FUTURE FOR ONLINE TEACHING AND LEARNING IN HIGHER EDUCATION Dr.Vignesh Ramamoorthy, Manoj K</i>
14.	<i>OUTLOOK FOR E-VEHICLES ON THE IMPACT OF COVID -19 S.Jeevitha</i>
15.	<i>UNSUSTAINABLE TO SUSTAINABLE DEVELOPMENT RELATED LIFE SCIENCE POST PANDEMIC PERIOD M. Sathiyapriya &amp; M. Varalakshmi</i>

16.	<i>A STUDY ON SUSTAINABLE DEVELOPMENT OF ONLINE PAYMENT METHODS USING MOBILE APPS WITH SPECIAL REFERENCE TO THE GENERAL PUBLIC IN TIRUPATTUR DISTRICT</i> <i>P.Dhatchayani &amp; Dr.G.Deepalakshmi</i>
17.	<i>PHYSICAL FITNESS IN DAILY LIFE</i> <i>Dr.Dibakar Debnath.</i>
18.	<i>SUSTAINABILITY AND POST-PANDEMIC SURVIVAL IN SOCIAL SCIENCE</i> <i>C.B Sumathi &amp; C.Nithya</i>
19.	<i>ASSESSING DISRUPTIVE INNOVATION FROM THE PERSPECTIVES OF NEW ENTRANTS AND INCUMBENT PLAYERS IN INDIAN INSURANCE MARKET</i> <i>Silky Kumari</i>
20.	<i>THE IMPACT OF SOCIAL MEDIA STRATEGIES TOWARDS ONLINE SHOPPING</i> <i>S.Krishnamoorthi</i>
21.	<i>SUSTAINABLE AGRICULTURE DEVELOPMENT IN INDIA –PANDEMIC SURVIVAL</i> <i>Dr.G.Chelladurai1, Ankith Kamalashi-Ramesh2, Dr.Paulraj Ponnaiah3</i>
22.	<i>SUSTAINABLE DEVELOPMENT AND INNOVATIONS FOR POST PANDEMIC SURVIVAL COVID-19: IMPACT ON HEALTH OF PEOPLE &amp; WEALTH OF NATIONS</i> <i>Mrs.Jenifer V</i>
23.	<i>A STUDY ON ENVIRONMENTAL SUSTAINABLE DEVELOPMENT IN POST PANDEMIC</i> <i>Geethalakshmi S</i>
24.	<i>A STUDY ON EMPLOYEES MOTIVATIONAL TECHNIQUES IN ORGANIZATIONS SPECIAL REFERENCE TO TIRUPATTUR DISTRICT.</i> <i>V.Tamilarasi &amp; MS.A.Athiyaveni</i>
25.	<i>THE IMPACT OF CLIMATE CHANGE</i> <i>Anjali.M</i>
26.	<i>THE EFFECT OF PANDEMIC COVID-19 ON INDIA'S EDUCATION</i> <i>Dr.Vignesh Ramamoorthy H, Ms.Priyadharshini N, Dr.Loveline Zeema J</i>

## ANATOMY AND PHYSIOLOGY IN POST PANDEMIC

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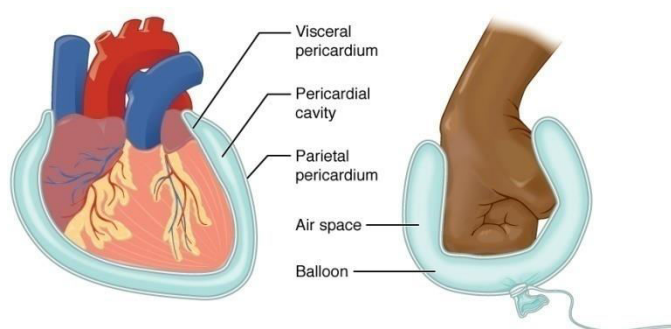
### Abstract

*The reason of a limb being subservient to each help and motion, its far reasonable to export locate in sure joints the previous predominating, and in others the latter. When the reason of help is conspicuous, the joint can be referred to as static joint. The maximum putting differences among the static and dynamic articulation lie within side the members of the family of the adversarial surfaces. To give an explanation for this part of my feedback a few preceding attention of the importance of movable joints is necessary. I premise attention that the standard ball and socket joints are found handiest in which a well- described ball is embraced with the aid of using a really perfect socket. No such joint is discovered outdoor of the vertebral column. While the articulations among the our bodies of the vertebral are protected within side the amphiarthroses, the centre intervertebral mass despite the fact that constitutes trine ball and the adversarial vertebral surfaces and the thickened peripheral fibrous bands uniting our bodies represent collectively the socket inside which the ball plays.*

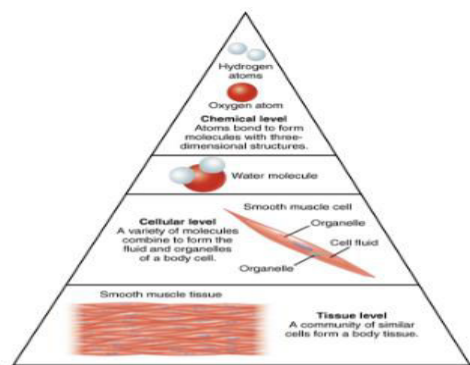
### 1. Introduction

In this paper we're discussing approximately the means and significance of Anatomy and body structure at some stage in the submit pandemic Standard working techniques for gross anatomy laboratory within side the new standard. To country that the arena has been modified with the aid of using the Covid-19 pandemic is so apparent as to be uninteresting. Relating human body structure content material because of Covid-19 a method to keep students in contact body structure in instances of social distance because of pandemic. Compare and comparison anatomy and body structure, inclusive of their specializations and strategies of take a look at. Discuss the essential courting among anatomy and body structure

Human anatomy is the medical take a look at of the frame's systems. Some of those systems are very small and may of a microscope. Other large systems can with no trouble be visible manipulated, measured, and weighed. The phrase anatomy comes from a Greek root which means reduce aside human anatomy changed into first studied with the aid of using looking at the outside of the frame and looking at the injuries of infantrymen and different injuries. Later, physicians have been allowed dissect our bodies of the useless to reinforce their information. When a frame is dissected. The global has been within side the grip of novel corona virus pandemic maximum of the year. The impact from the SARS-Cov -2 disaster on human fitness and the worldwide economic system has been profound.



**Figure2 Heart feature**



**Figure 3 Triangle level**

## 2. Meaning of Anatomy and Physiology

### 2.1 Anatomy

- The phrase Anatomy is derived from the Greek phrases

ANA + TOMY

↓                      ↓

Apart to reduce

- The take a look at of the form and shape of the frame of organisms or dwelling beings.
- Distinct information of the shape of diverse structures of human frame is supplied in human anatomy.
- For e.g , the form, size, weight, shape and area of all of the organs of the excretory machine which includes lungs, kidneys, big intestine, liver, skin, and so on
- Anatomy may be described because the technological know-how handling human frame shape and courting amongst relationship among systems.

## **2.2 Physiology**

- Human Physiology is the take a look at of all the structures of human frame and their mutual courting
- It may be stated that Physiology is the take a look at of hoe the frame and its components feature.

For example, due to human Physiology, we get the information of capabilities of human coronary heart.

- In, the capabilities of diverse structures which include respiration machine, digestive machine, apprehensive machine, skeleton machine and muscular machine of organisms are studied.
- Human Physiology may be described because the technological knowhow handling the take a look at of human frame.

## **3. Importance of Anatomy and Physiology**

### **3.1. Knowledge Approximately Anatomy**

- Anatomy gives the information of shape of diverse organs
- We get information approximately about shape, size, area and weight of structures of our frame.
- Knowledge approximately period and width approximately diverse organs which includes bones period and shape.

### **3.2. Physiology Gives the Information Approximately the Feature of Diverse Organs**

- Detail information approximately capabilities of diverse organs of frame.
- Knowledge approximately potential and functionality of organs and structures.  
E.g. Nervous machine, muscular machine, respiratory machine, excretory machine and so on.
- Knowledge approximately percent of white twitch fibers and pink twitches fibers.

### **3.3. Useful With inside the Prevention from Sports Activities Injury**

- Sports harm which includes strain, sprain, fracture, dislocation of joint and so
- Proper information approximately anatomy and Physiology may be save you from sports activities harm at some stage in schooling and opposition that why, we use shielding device in video games to offer safety to smooth organs.

### **3.4. Serve With inside the Procedure of Rehabilitation**

- Rehabilitation procedure method get better the participant overall performance equal as earlier than the harm.
- Knowledge approximately Anatomy and Physiology is vital for rehabilitation Process.
- E.g information approximately varieties of bone, joints, ligaments, tendons, and so on

### **3.5. Used Within Side the Choice of Sports Activities**

- With the assist of anatomy we recognize approximately the shape and size with muscular machine Knowledge approximately the feature (potential and functionality)  
Eg the frame weight of a sports activities character for a protracted distance race need to be much less and he need to suitable in cardiovascular patience and greater percent of pink or gradual twitch fibers.

### **3.6. Facilitate With inside the Education of Schooling Programme**

- Good schooling programme may be planed for exclusive sports activities men and women with the assist of suitable information of anatomy and Physiology.
- Physical schooling teacher/teach has primary information approximately shape and physiological limitations/capacities of individuals. Then they make powerful schooling programme.

### **3.7. Help to Recognize Approximately Chemical Modifications at Some Stage in Workout**

- . When we participate in recreation and sports activities pastime quantity of chemical modifications takes place.
- The information approximately such chemical modifications may be obtained via human Physiology.

### **3.8. Understanding the Anatomical and Physiological Variations amongst Male and Female**

- Structure of male and women each are exclusive
- Physiology capabilities of male and women are exclusive (menstruation in women and so on)  
E.g. there are exclusive shape of shoulder amongst male and women. Therefore the burden of device such Shot, Discus, Hammer and Javelin is exclusive for each

### **3.9. Help in Presenting First Resource to Sports Activities**

- Character approximately anatomy and Physiology offer an organization base for the safety and remedy of injured character.

### **3.10. Useful in Growing Bodily Health Management**

- For the right improvement of health component, the information of composition of all of the organs of our frame and their running effectively is vital.
- The Knowledge of the proportion of pink fibers of a person is derived with the assist of anatomy and Physiology.
- We additionally get the information of the proportion lean frame mass. That is bones, tendons, muscles, water, Ligaments, organs, and so on.
- A bodily healthy person has everyday percent of frame fat.

### **3.11. Aid in Sports Activity Message**

### **3.12. Facilitate Expertise of the Environmental Consequences on Sportspersons**

- The information of anatomy and Physiology is useful in expertise environmental consequences at the sportsperson.

- For example, the quantity of pink blood cells is improved at some stage in present process sports activities schooling at excessive altitude.
- Unused air sacs or alveoli's with inside the lungs grow to be active.
- Heart fee and respiration also are improved at such altitude. The take a look at of such consequences on sportspersons is handiest viable via the information of anatomy and Physiology

#### **4. Challenges to the Position of Anatomy with Inside the Biomedical Sciences**

The fitness and biomedical sciences, pandemics throw mild onto microbiology, immunology, public fitness, and epidemiology. That is to be expected. This increases the query of the character of anatomy. All too regularly it's been checked out in conventional phrases dictated via way of means of the schooling of doctors, inside a context furnished via way of means of surgery. This is flawlessly acceptable; however it's far deceptive if restricted to the macroscopic.

Anatomy is being pulled in two instructions: one is the humanistic and the opposite is the microscopic, the molecular, and the genetic.

These seemingly diverging instructions surely display that no wholesome field can continue to be stationary. No field may be understood other than its contexts, one in all that is presently furnished via way of means of the pandemic. Distasteful as a viral pandemic is, it opens up possibilities.

Technology is having profound implications for anatomy, as it's far for each different fitness technological know-how field, from its makes use of in plastination, 3D printing and imaging, to gene era and neuroimmunology, all of which can be applicable to college students searching for to return back to phrases with a present day knowledge of the employer of the human frame. At a time like this, it pretty proper to emphasise viruses, the immune system, and the importance of population-primarily based totally processes to ailment control. But it might be irresponsible forget what at lies on the middle of those debates-human beings, with their fragile our bodies calling out to be understood of their complexity in fitness and ailment. It is at this factor that anatomy is available in to its very own via way of means of the way wherein throws mild onto the entire human person. This is a assignment to which anatomists are referred to as an extra subject being expressed is what has been termed the "Covidization" of studies. This refers back to the distortion of studies

priorities towards pandemic-focused, Science on the price of the non-pandemic pursuits and contribution of a variety of disciplines and studies. While this doesn't usually have an effect on anatomical studies and pursuits, anatomists amongst others ought to be mentioning to tertiary establishments and provide awarding our bodies that each one fitness studies can't be approximately infectious diseases, not to mention approximately covid-19 associated studies.

## 5. Highlights

- Covid-19 pandemic has affected clinical schooling and exercise because of the closure of faculties globally.
- Most clinical faculties and educators are worried approximately the protection of cadavers for dissection throughout the Covid-19 pandemic.
- There is presently no evidence of human being inflamed because of publicity to Covid-19 useless frame.
- Common fixatives are feasible towards Covid-19 relying on time and temperature.
- Standard running processes have to be accompanied while coping with useless our bodies throughout and after the Covid-19 pandemic.
- Covid-19 pandemic can be a pointer for the overall incorporation of era with inside the anatomy and clinical curriculum.
- The way of life of cadaver dissection stays maximum typically used approach of sensible coaching and studying of human anatomy. Anatomist and clinical specialists taken into consideration cadaver dissection because the gold widespread for coaching and studying detail.
- The growth visible with inside the established order of recent clinical education establishments globally has therefore caused a proportionate growth with inside the sourcing for cadavers.

Moreover, the surge in mortality charges following the latest corona virus ailment 2019 pandemic and not using a treatment or permitted vaccine has been a supply of subject for academic, especially at the protection within side the utilization of cadavers for dissection.

Not with standing, numerous international locations maintain to depend upon unclaimed our bodies as number one supply for cadavers irrespective of the reason of death. Besides, frame body is likewise normally said to be strained throughout ailment outbreaks there via way of means of setting international locations that rely completely it in a dilemma. This look at highlighted the advocated

widespread running manner to be imbibed in gross anatomy dissection halls throughout and post- Covid-19 pandemic.

## 5. Conclusion

Anatomy is the look at systems and on the opposite hand, Physiology is the look at of hoe those systems feature and paintings collectively to create a human being. The Microscope is a device this is very crucial to scientists due to the fact the human eye can't understand gadgets which are very small however but with the assist of the microscope, scientist have located lot of various matters that has helped us alongside the manner inclusive of coming across new species, bacteria's and cures. The clinical approach is any other significance to scientists it's far a way that they use to provide an explanation for organic phenomena via way of means of the five step approach. They additionally use anatomical terminology to similarly provide an explanation for and describe and feature a not unusual place approach common of communication. Anatomical phrases are crucial especially within side the clinical area as it avoids confusion with the systems and it enables pinpoint the vicinity and offers extra accuracy.

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## **A SUSTAINABLE DEVELOPMENT MODEL FOR SOCIAL ECONOMY ORGANIZATION IN POST PANDEMIC SURVIVAL**

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### **Abstract**

*The social economy organization is one of the actors in the societies. They played an important role in addressing lightening the short and long term impacts of the COVID-19 crisis on economical and social science development in these societies. The social economy actors have assisted the recovery from the crisis by providing innovative solutions that are aimed at strengthening public services to complement government action. They can help and reshape the post-crisis economical by promoting inclusive and sustainable social innovation and economic models.*

### **Introduction**

The covid-19 crisis has exposed the affected by individuals, Societies and economies are rethink of how social and economic activities are organized. The crisis calls for strong responses based on unity, co-operation and responsibility. Social economy organizations, whose business models are built around such principles can help reshaping the post – crisis economies and societies. This note presents the role the social economy and its organization have played in the covid-19 crisis It further explains the current challenges focused by the social economy and Includes policy instruments and recommendations for supporting social economy actors in their efforts to repair and transform society.

**Key words :** Sustainable Development , Social economy Organization , COVID-19 crisis

### **Sustainability Development**

Sustainability is a board policy concept in the global public discourse that consists of three main “dimensions” or “pillars”: Environmental, Economic and social. The original meaning of sustainability and to “sustain” refers to the ability to continue over a long period of time. While Sustainable Development refers to the many processes and pathways to achieve it.

Sustainable Development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The discussion of the environmental Sustainability is often characterized by prevailing issues. For example, since the early 2000s, the dominant issues have been climate change, biodiversity loss, environmental degradation, biogeochemical nitrogen and phosphorus fluxes, and pollution, specifically plastic pollution. Sustainable consumption has also been characterized as an exhausted roadmap because our consumer societies are self-destructive from a social and ecological standpoint.

### **Key facts and messages**

- The social economy has been a pioneer in identifying and implementing innovative social solutions and alternative forms of organizing economic activity. These innovations have often been subsequently mainstreamed and adopted the rest of the economy (such as fair trade, organic food movements). These innovations contributed to social and economy transformation and will be much needed in post – COVID world.
- The COVID-19 crisis calls for re-balancing of efficiency and resilience throughout the economy. Traditionally, the purpose of the social economy has been seen to “repair” social problems (such as homelessness, labour market exclusion groups). However, the social economy can be develop a much larger role in the post –COVID phase to inspire transformation to a more inclusive and sustainable economy and society.
- The demand of the social economy has never been greater. Societies with a social economy have been ideal partners, operating at the forefront of the crisis to meet urgent sanitary and social needs. However, they are also facing the consequences of lockdown similar to other economy actors, including falling revenues.
- Recommended policy actions by national and sub national governments include:
  - Develop an action plan to achieve a transition to a more sustainable and inclusive development model, with a clear role for the social economy
  - Promote social innovations practices and co-operation, including through funds to support experimentation and innovation as is done for the technological innovation

- Continue to diversity the financial resources available to social economy organizations, through updates to legal frameworks and public programmes
- Develop a shared vision for "building back better" and ensure that social economy organizations actively participate.
- Create and share tools to provide data on social compact that are not onerous but can document progress and identify those with highest impact.

### **Social Economy Help the Post COVID-19 Recovery**

Social economy organizations put social and environmental concerns at the heart of their business model, prioritizing social impact over profit maximization. They are driven by a mission of serving the common good, protecting the general interest and increasing individual and community welfare by organizing their activity in different ways

#### **Social economy business models are distinctive in several ways : .**

- **Mobilize multiple resources:** Social economy organization can mobilize various types of resources (revenues from sales , donations , volunteering ) coming from different sources (public setter , foundations , individuals) . By gathering various reports around their projects, they strengthen their sustainability.
- **Apply Sustainable practices:** Social economy organizations implement sustainable practices that are respectful of the primacy of human needs and natural ecosystems in environment.
- **Adopt inclusive and democratic governance:** Social economy organizations involve and empower diverse stockholders in their decision-making processes. Such governance models facilitate informed decisions about economic and social impact as well as increase the degree of the society.
- **Are locally anchored :** Social economy organizations typically operate at the local level, understanding what works and what doesn't in the local context, and are particularly well-suited to respond quickly to issues that are arise in their local areas.
- **Facilitate co-operation and social innovation:** Social economy organizations expand the potential for collective social innovation by collaborating with local stakeholders. They experiment with new and co-operative ways of working to develop the social science.

#### **The Social economy can guidance societies after the COVID-19 crisis :**

- ❖ **Economy** : Social economy organizations contributes to economic development, especially to local economic development, by stimulating economic activity and creating employment, particularly for poor people who are often excluded from the labour market, contributing to GDP growth. Social economy organizations instill responsible practices, as well as sustainable and inclusive models.
- ❖ **Society** : They contributes to social cohension, particularly at the local level, by reducing inequalities through the provision of goods and services for the less well off, and fostering social capital and a sense of community by involving citizens in their activities different ways.
- ❖ **Citizens / Individuals**: The social economy is also beneficial at an individual level, as it provides basic services, often as a back-up to government services, especially for the most backward groups. It gives opportunities for peoples to participate in local projects that positively donate to society.
- ❖ **Territories** : Social economy organizations are strongly rooted in the territory where they operate, which facilitates the repaid mobilization of local stakeholders to address urgent needs.

### **Differentiated Impact on Post Pandemic on Social economy organizations**

The economic impact of the post pandemic crisis on social organizations varies greatly depending on a number of factors including the sector of activity , as well as the organizations size, age , operational mode and the financial structure.

- **Limited security cash** : Most of social economy actors do not have large reserves due to structure of their financial model, often only having reserves of few months .Even when such reserves are possible, social economy may favour the achievement of their social purpose over significant accumulation of reserves.
- **Difficulty accessing particular skill sets** : Many of the organizations do not require or have not developed the same advanced skill set as similar private sector such as skills for financial forecasting, internationalization or the digital communication.
- **Operating model dependent on volunteers** : Measures taken by many governments due to the pandemic often prevented volunteers from continuing their support of social economy. They had to find new ways to source volunteers to ensure their essential operations were maintained during the pandemic beyond.

### **Consolidation phase policy responses noted on assist adjustment to new operational methods**

Measures and instruments in the consolidation phase promote organizational changes and often assistance to adjust operations to the new realities. In order to address these issues, governments are implementing the following initiatives to support the society.

- ❖ **Continue the process of finance in the society :** By providing grants, loans and other financial services for the provision of funding to support the social economy servicers to overcome the crisis and the reshape their business model to prepare for the post-crisis environment. For example, in May 2020, the Germany approved a proposal to define social enterprises, develop a cross departmental plan to promote social innovation and social enterprises, remove potential access blockade to funding occasion, and establish a programme for research and development for social innovations.
- ❖ **Support with access to market :** Given the difficulty to sell products or services , especially for some sectors of the social economy such as hospitality or consulting , public procurement is being used as a way to engage the social economy as a supplier under exceptional circumstances.
- ❖ **Develop the necessary skills in social economy :** The COVID-19 crisis calls of new skills that society need to operate given the new reality. This support covers a variety of areas, such as assisting organizations to better use teleworking, developing new business models, and ensuring that support and advice is available to social economy players.
- ❖ **Better co-ordination between various governmental agencies :** Since many government agencies had to develop support programmers' in a very short period of time, there has been duplication of efforts which creates confusion for applicants. To address this issue, in Spain an inter-ministerial commission was set up to ensure co-ordination within the government, while an inter-territorial commission was established to support co-operation among different levels of government.
- ❖ **Improved visibility of the societies :** Governments have a role to play in educating consumers about supporting local firms and the solidarity economy. A number of governments, especially at sub national level ,have developed initiatives to promote local consumption. In Korea, the government supported the online sales of products developed by social economy organizations and promoted their private consumption.

**The immediate COVID-19 crisis should leverage the impact of the social economy as a systematic change**

Social economy organization and policy makers will need to work together with one stakeholders (private sector organizations) to bring about this transformation.

- **Social economy organizations that promote social innovations and business models :** Policy makers should strive to create an environment that promotes social innovation and experimentation and help the most promising examples to scale up, including the internationalization of relevant practices. This requires not only the right policy framework, but also dedicated funds which could absorb the risk of experimentation and promote collaboration and development of prototypes. While there are many resources for technological innovation, Those for social innovations also merit notable investment.
- **Increase public attainment schemes with a focus on sustainable and inclusive social development :** sustainable public procurement , as well as procurement with social impact, harnesses existing expenditure on public procurement and directs it towards green and inclusive growth and the attainment sustainability objectives .For example, Germany has released a two-year EUR 130 billion corona virus economy recovery programme which contains a number of measures of boost green or environmentally friendly development.
- **Develop a common vision and promote collaboration with the societies:** Representatives of this societies could be an assert in the development of a number of policies if involved from an early stage. An agreed vision of their contribution and role in development at national and sub national level could be beneficial. This role should not be decided in isolation and a dedicated task force or a collaborative space involving policy makers, the private sector, the social economy, civil society organization and academic could discuss their new version, and where social servicers might be of involved in strategic support that systemic change. The city of Amsterdam, in post-pandemic recovery plan, is shifting from a traditional model to a new approach relying on “doughnut economies” that addresses poverty and social needs while also ensuring environmental and society sustainability.
- **Continue to increase the visibility of the societies through development of tools and impact of share data :** The covid-19 crisis has demonstrated the value of social

economy organizations, yet relatively little data exists on the impact they have created. Supporting the development of appropriate tools and methods, as well as their adoption by social economy organizations could help better demonstrate their impact.

This project which represents both value chain and an ecosystem in itself, demonstrates the capacity of the social economy helps us to :

- Address immediate social needs and improve quality of life for their communities,
- React with agility and foster solidarity in extreme situation rally local actors and mobilize different resource (Funding, Volunteering, knowledge) from the range of actors (Government, Citizen, Social economy organization, Professionals)
- Implement innovative ways to co-operate between individuals , organizations and local governments, Expanding Collective Social innovation at a local level, and
- Design, Experiment and consolidate economic activities.

### **Conclusion:**

The current situation offers momentum to take bold, courageous decision to build more sustainable and inclusive future. The COVID-19 crisis calls for a rethinking of the balance of the objectives of efficiency and resilience in different areas of economic and social systems. Post –crisis efforts can be turned into an opportunity to improve people’s lives and stimulate innovation. There is where social economy organization in the society can release their full potential. More precisely , the social economy can reinforce the transition towards more resilient societies through its principles (solidarity , co-operation, social impact) and practices. The social economy can inspire responsible practices among mainstream economic players, showing that it is possible to reconcile economic objectives with environmental and social requirements. The social economy also expands collective social innovation and sustains a new forms of partnerships, gathering materials with their current situations. The social economy provides a credible and valued path to transition towards more inclusive, sustainable and resilient systems in a post COVID-19 world.

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## NEEDS AND DEVELOPMENT IN SOCIAL ECONOMY DURING PANDEMIC AND POST PANDEMIC

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### ABSTRACT

*The social economy has played an important role in addressing the short and long term impacts of COVID-19 and assisted them by providing solutions and also strengthening the services of government and public. The covid-19 pandemic led to surprising and unexpected experiences for all of us especially for students. The changes in society after pandemic is discussed in various sectors with development and innovative policies in social economy.*

### INTRODUCTION

The development and innovations for post pandemic survival occurs in life, Health, Social ,Environmental, Education and in all sectors .To succeed in social science after a post pandemic situation change Management is needed. It includes best practices to emerge from the COVID crisis stronger, more resilient and better prepared for whatever the future holds.Social economy has a vast diversity in terms of size, forms, sectors and models and unique in a many ways like resources, practices, governance, co-operation and social innovation. In this we see some of the development and innovations for post pandemic survival occurs and needs in social science .Social Science also have an important things about human behaviors, relationships etc., and also demonstrate the importance of having local knowledge.

Major Hurdles occurs in Poverty, Population Growth, Environmental Degradation, Political Instability, Diseases like Aids ,Covid-19,Flu , Dengue etc., .The spread of anything depends on Mobility ,Climate, media, Behaviour, Urbanization, and Population growth .Based on this Co-factors contributes the health impact, air Pollution, Exposure to Chemicals, Life style , Inequalities and Health care system. so the social economy is response for life style and behaviour adjustment, redesign of built environment and workplace, Digitalization, reduced Mobility, Psychological and Socio Economic Impact.

## **Sustainable Development**

Generally Development is the gradual growth of a situation that becomes more advanced and strong than previous one. Development is a unfolding of human potentials for meaningful participation in economic , social, Political and Cultural process and Institution ,so that people can improve their conditions.Sustainable development meets the needs of the present without sacrificing the ability of future generations to meet their own needs.It is improving the quality of life of the present generation without excessive use or abuse resources , so than they can be preserved for the next generation.

### **Importance of Sustainable development**

- Innovations for sustainable development
- Capacity development for Innovation
- Governance for sustainable development
- Strategies for promoting sustainable development
- Social Transformations
- Awareness, Ideas about sustainability

### **Social economy organizations transformation in society**

#### **1.Exploring alternative business models**

In business instead of focusing on profit maximization, they can provide a local cultural institution that fosters social cohesion, events that are affordable to the local community, educational activities to schools, local employment and the promotion of local culture in their communities.

#### **2.Unlocking new sectors**

Organizations can work together as a federation to streamline collection and exchange best practice instead of developing the new business on the pandemic situation for the betterment of society.In developing the sectors it should be strengthened by intensifying competition and should be demonstrated by economic potential .

#### **3.Providing services in remote areas**

During the COVID-19 crisis social economy actors also played an important role in providing services in remote areas. Services can be free delivery to remote areas in association with government sectors, Meals to school students and many more.

The values of the social economy based on serving the community, making valuable territories or developed activities in remote areas.

## **Social economy benefits during and after the COVID-19**

### **1.Economy**

The social economy contributes to economic development, especially to local economic, by stimulating economic activity and creating employment, particularly for local people, contributing to GDP growth. Social economy organizations instill responsible practices, as well as sustainable and inclusive models.

### **2.Society**

The social economy contributes to social cohesion, particularly at the local level, by reducing inequalities through the provision of goods and services for the less well off, and fostering social capital and a sense of community by involving citizens in their activities, in different ways.

### **3.Citizens / Individuals**

The social economy is also beneficial at an individual at an level, as it provides basic services, often as a back-up to government services, especially for the most vulnerable groups. It provides chance for the citizens to participate in local projects that positively contribute to society.

### **4.Territories**

Social economy organizations are strongly rooted in the territory where they operate, which facilitates the rapid mobilization of local stakeholders to address urgent needs. These organizations are also significant actors in local and regional economies as they create local jobs, reduce economic and social disparities in cities and rural areas and revitalize communities.

## **Social economies urgent needs for COVID-19 crisis**

A recent survey of social enterprises in the United Kingdom has confirmed that, despite intense difficulties to keep operating for many social enterprises, 96% of respondents said that they are actively supporting their community, staff are beneficiaries to deal with COVID-19 on top of managing their social enterprises. The main actions of the social economy across countries have included.

- **Assistance of crucial services related to health and social services.** Medical capacity was stretched supporting the influxes of patients. The service provided by the doctor to home visits for those who needed assistance and medical checks, reducing the number of unnecessary hospital visits. During the crisis, over 30% of all National Health services Community nursing and other services were provided by social enterprises.
- **Adjusting their operations to serve those in need during the crisis.** Many social actors adjusted their operations to respond to immediate needs of vulnerable and isolated communities or ensured continuing employment for vulnerable individuals.

Initiatives like these have supported the government with provision of essential services like the provision of food, health services or social support for the elderly and isolated individuals. But these services have been provided in a social response manner.

- **Developing partnerships with local authorities to help provide services and mitigate the direct impact of the crisis, especially for the most vulnerable groups.** Reliable partnerships have been built between social economy organizations and governments to help mitigate the impact of the crisis, particularly at the sub national level regions and municipalities. Many municipalities were under pressure to provide assistance to at risk groups, including a large share of the elderly population.
- **Serving governments cope with concrete bottom-up solutions.** Social economy actors are experts of what works and what does not at the grass roots level and are driven by the desire to improve the socio-economic system for the better, which makes them a valuable source on information. Many governments organized events to identify new solutions to COVID-19 related issues.

#### **Social economy business models**

- **Mobilize Multiple resources:**

Social economy organizations can mobilize various types of resources like revenues from sales, public subsidies, donations volunteering coming from different sources like public sectors, enterprises, foundations, individuals. By gathering various supported around their projects, they strengthen their sustainability. The capacity to mobilize financial and non-financial resources from different sources can be explained by the double mission of the social economy that is valued by diverse actors for the different benefits it produces.

- **Sustainable operating practices:**

Social economy organizations implement, sustainable practices that are respectful of the primacy of human needs and natural ecosystems in the environment.

- **Adopt inclusive and democratic governance:**

Social economy organizations involve and empower diverse stakeholders in their decision -making processes. Governance models facilitate prior decisions about economic and social impact as well as to increase the degree of democracy in society.

- **Facilitate co-operation and social innovation:**

Economy organizations can expand the potential for collective social innovation by collaborating with local stakeholders like citizens, civil, society, policymakers, entrepreneurs and researchers. They experiment with new and co-operative ways of working to develop place-based solutions, building on collective goals and the complementary assets of different types of actors. While sharing common principles and practices, social economy organizations show a great diversity in terms of legal forms, size, outreach and sectors.

Social economy organizations are active in a wide range of sectors. While traditionally they have been involved in the provision of social services and healthcare, social economy organizations are present throughout the economy.

Social economy actors and policy makers will need to work together with other stakeholders including academia, citizen-based organizations and private sector organizations to bring about these transformations.

This is especially important for the development of strong local network, where local companies and the social economy could work together by experimenting and implementing new responsible practices. To help the social economy play its transformational role, policy makers could consider the following policy options.

- Provide financial resources for social economy organizations that promote social innovations and to adapt business models or operations.
- Promote public schemes with a focus on sustainable and inclusive social procurement.
- Develop a common vision and promote collaboration with the social economy.

**Summary of social economy organizations during and after the COVID-19 crisis:**

Measures	Urgent response phase	Consolidation phase	Transformational phase
Financial support	Financial support to help social economy organizations cover their fixed costs via grants and accessible loans	Continued easing of access to finance through credit guarantee schemes	Grants and loan access for social economy organizations with a focus on development of new business models, experimentation for social innovation and scaling.
Access to market		Public procurement to engage the social economy as a supplier under exceptional circumstances.	Public procurement schemes that integrate additional social and greening clauses.
Labour market	Job retention and unemployment support schemes to allow social economy organizations to preserve workers during the crisis.		
Promoting cooperation	Creation of collaborating tools with social economy organizations through	Better coordination between various government	Involvement of the social economy in strategic discussions to transition to a more

	online discussion to inspire actions .	initiatives and development of new partnerships to explore novel solutions and social innovations	inclusive and sustainable local development model, development of a dedicated strategy and action plan .
Visibility enhancement		Improved visibility of the social economy through promotion of the sector campaigns to buy local and better social impact measurement tools.	
Safety related	Distribution of personal prospective equipment for selected sectors to social economy actors.		

### Technology During COVID-19

During pandemic artificial intelligence played an important role identifying , tracking and predicting. The science and technology department composed of data science effectively handled many projects like disease tracking, medical imaging, drug development and others.

Drones and robots are used to transport food and medicine, to disinfect in public places. It provided medical staff with faster and cheaper diagnoses. So it access greater benefits in dealing with the daily challenges.

### Education During COVID-19

Many countries have announced temporarily closed for schools and colleges, which has affected 91% of students life. This increases the risk of mental illness among students. The pandemic not only affected students and teachers, but also made a undesirable consequences related to digital learning, internet and food security.

It is worth noting that these effects are not absolute. During the pandemic, the education system uses technology or social media to overcome the digital divide in learning. Some of the countries use smart communities to achieve telecommuting, which is conducive to the realization of the “ Quality Education “ in the SDGs.

### **Tourism During COVID-19**

International travel, tourism demand and the hotel industry have become highly sensitive to the impact of **COVID-19**. **Some countries and regions have** implemented entry and exit bans, thereby reducing people’s willingness to travel. World Tourism organization data shows that 70% fall in international arrivals for the first eight months of 2020. These negative effects are obvious, but keywords with high relevance such as sustainable tourism represent the new development direction of tourism and promote the reduction of crowded tourist attractions and facilitate social isolation.

### **Conclusion**

Innovation is increasingly essential for an effective response to and recovery from the COVID-19 pandemic. Innovation in development and humanitarian responses to the pandemic have tended to focus on incremental improvements in biomedical fields. The transformations include empowering approach, challenging existing norms and practices. Thus innovation efforts can and should become more main stream across the sector, both as a means in addressing the urgent needs and by accepting the future challenges.

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## **SUSTAINABLE DEVELOPMENT AND INNOVATION FOR POST PANDEMIC SURVIVAL BUSINESS AND MANAGEMENT**

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### **ABSTRACT**

*It has been two years since the COVID – 19 pandemic penetrated the deepest care of human civilization and made us realize the power of mother nature. The outbreak of the corona virus that has begun in December 2019 drastically affected the whole world and continuous to adversely impact lives, livelihoods and the economy. The impact of pandemic COVID-19 is observed in every sector. The world such as the economy, retail sector, tourism sector, industry, education, etc,*

### **INTRODUCTION**

In the post pandemic world, consumer behavior and business practices will be different in significant ways from their pre-pandemic patterns. The pandemic may been analyzed as an accelerant of changes that were already underway. Online shopping has now eclipsed brick and mortar storefronts, which were already in decline before the pandemic. Moreover, the trend toward convenience and delivery is now entrenched. The pandemic's push for work from home was a major acceleration of trends toward more flexible work hours companies will spend flexible work hours, saving money on real estate and reducing business travel. In the post-pandemic world technology is the new leverage that allow certain businesses to scale their services in an impressive manner. The stock market has already rewarded companies with the ability to harness technology to reduce costs while expanding services. The pandemic was been building for decades.

### **SUSTAINABLE DEVELOPMENT**

When people hear the word sustainability they often think of things that benefit the environment for example, recycling and solar power. While sustainability does very often

bring about environmental benefits, sustainability is about much more than the environment alone. It's simply the ability of something to be sustained, so when we talk about sustainability what is it We are trying to sustain our ways of life on earth as well as earth's ability to meet our needs not just today but in the future as well. Most businesses have a person responsible for the companies environmental sustainability.

Economic sustainability is where people are able to make enough money to support their needs and businesses. It's about the continued success of the economy for all people

Social sustainability is where all people have the opportunity to get the resources and economic success they need while not facing any exploitation or discrimination of any kind.

For example business want more money but often have negative environmental and social impacts in doing so. socially people want to support their families, but that often means limiting business and environmentally impact

## **IMPACT OF COVID -19**

The united nations sustainable development goals, or SDGs, are a series of goals that aim to end poverty, protect the planet, and improve the lives and prospects of everyone by 2030. The most vulnerable are especially impacted.

In 2015, the UN members states made it their mission to achieve peace and prosperity by 2030. To measure government's progress towards this mission they established 17 sustainable Development Goals. But COVID-19 has presented a unique challenge in accomplishing several key SDGs.

The pandemic has deprived children of their regular education, which impacts SDG 4: Quality education and its goal of helping people escape poverty. It is estimated that 90% of students worldwide are already out of school. In low income countries, children of the richest 20% have a 79% education completion rate. It is also estimated that education online is out of reach for at least 500 million students worldwide.

The COVID -19 pandemic has disrupted the global economy and India is no different . The economic impact of the COVID-19 pandemic in India has been largely disruptive .

India's growth in the fourth quarter of fiscal year 2020 went down to 3.1% according to the ministry of statistics, on May 31, the Indian government released the data for GDP that during the financial year 2020-2021, GDP contracted by 7.3%. It is the most severe contraction from the time India got its independence. The reasons behind this trajectory are obvious lockdown leading to the closing of business units, increasing unemployment rate and significant decline in domestic consumption.

The corona virus pandemic also impacts export and imports. India's export in April 2020 fell by 36.65% year-on-year, while imports in April 2020 fell by 47.36% as compared to April 2019. This results in its affect on Indian economy.

## **ECONOMIC RECOVERY FROM COVID 19**

As the calendar turns to the second half of 2020, countries around the world are still battling the COVID-19 pandemic. In just six months, more than 11.4 million infections have been confirmed in at least 188 countries and territories, and more than a half million people have died. As the virus spreads, it is also leaving economic destruction in its wake. The pandemic has forced governments around the world to enact

What the International Monetary Fund has called "the Great Lockdown" measures including travel restrictions, nonessential business closures, and social distancing policies.

There is a complex relationship between the path of virus, the effectiveness of virus containment & economic support policies, and the behavior of the private sector.

This is highly uneven recovery. This is like a tale of two recoveries. It is best of times for advanced economies and probably it is the worst of times for emerging market and developing economies.

In Indian economy recovering

GST mop – up rise 4% to Rs 95,480 cr in September as recovery picks up pace. But steeply falling revenues and central grants has led to 18 biggest states reporting a collective revenue deficit of 285% of budget estimates in April – June. The consolidated fiscal deficit of the centre and the states is expected to touch 13% of GDP this fiscal, said SBI report.

Automobiles sales

Car companies like Maruti and Hyundai reported an increase in sales in September, Mahindra & Mahindra reports a 17% increase in tractor sales and Bajaj Auto registered its highest exports ever last month.

But corporate India's created profiles have hit the lowest in a decade and the stress is likely to continue this year

The Unified Payments Interface(UPI) transaction stood at 3.39lakh crore in september with November of transactions at 180crore.The transaction were higher by over 10% from in august

Generally bank credit growth is said to be directly linked to the economic activity , which is set to contract by over 10%

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## **ROLE OF ENGINEERING SECTOR IN POST PANDEMIC SURVIVAL**

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### **Abstract:**

The corona pandemic almost affects the every sector all over the world, in terms of personal quality of life, education system, and personal welfare of every individual. This situation leads to several innovations and creations in all the development sectors for the better survival after pandemic. Even though this corona pandemic improves innovations and developments in medicines, digital transactions and biotechnology, engineering sector also plays a vital role in implementation of these kinds of new innovations. The main aim of this chapter is to discuss about the contributions and developmental areas in the engineering sector to improve the sustainability.

### **Introduction**

The overall uncertainty and unprecedented nature of corona pandemic impacts the economic conditions, survival criteria and other development processes. By analysing the growth level of different countries and other related areas, it exactly shows that this crisis leads to problems. All these parameters will be considered while designing engineering related innovations and creations.

### **Engineering in a pandemic**

The engineering field and respective department engineers play a dynamic and vigorous role in our daily lives in response to the COVID-19 pandemic situation. While the pandemic had shattering globally, the engineering community worked in a organized manner to meet out the sudden demands of coronavirus elimination and also finding chances for positive change.

### **Challenges for Engineers**

#### **1. Remote Working Tools**

When the pandemic condition disturbs the global activities, all the businesses and even education sectors moved to online platform. During this condition trying to get everyone

involved with remote access to the tools and practices has been a real challenge. Most of the people engaged on laptops from their places, desktop computers and smartphones.

Higher officials and superiors have to make challenging decisions about working nature and technologies to be used. Many companies are starting to settle into video conferencing mode and online meeting applications. Even though it's been comfortable, better to use the conventional methodology of working experience.

## **2. Adapting to the Reality**

When lockdowns are suddenly implemented everywhere, nobody think about this situation will prevail for over the years without any real solutions. But the reality is to work from your kitchen table, trying to help your kids with online classes and so on. Days are passed for long term, all of us should figure out some situation adoptability and particularly in our working conditions and new creations.

All the company officials must help their employees to work in a specific workspace in their home, to communicate with their co-workers, and to develop effective plans to reduce interruptions and stress.

## **3. Technical Difficulties**

Based on the type of engineering field we are working, as a manager you may responsible for dealing and taking decisions on the technical concerns. In turn all the subordinates and workers need to help their officials in difficult conditions for the development of company.

## **4. Post-pandemic world**

To manage the of the virus spread and to control their harmful effects, changes are expected in society and way of life to ensure that it will not repeat again and so that we may continue living in a safe and sustainable society.

## **Key Innovations in Engineering**

### **a. Robotic Arm to disinfect public spaces**

Robots are used to disinfect crowd areas to reduce corona virus spread. Lot of robotic technologies are available in the market, but they are not able to move the objects from one

place to another. However they may be used in different perspective to clean the places effectively. Hence this reduces the risk factor for workers and improves human security.

#### **b. Thermal Cameras to Detect Fever and Conduct Contact Tracing for COVID-19**

The innovation of thermal scanner and imaging camera checks for elevated blood temperature but it can trace the person's contacts. He also developed a cryptographic tool to ensure the privacy of the person whose temperature is being checked.

### **Conclusion**

Whenever the people face the pandemic situation globally all the field of workers contribute to their level best and help the people to lead the life normally. In this section the challenges and some important innovations contributed by engineering sector have been discussed and also advantages and challenges. Similarly all the engineering sector experts and technicians must come forward to design new things, to help mankind.

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## **INNOVATIVE AND RETHINKING BUSINESS STRATEGIES POST PANDEMIC: A THEORETICAL APPROACH**

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### **Abstract:**

*Life is like a journey of River always in a flowing stream, and at times , an unpredictable adventure . With whatever condition and situation we came across it has to be laid successfully. In this article we are framed with the theoretical approach of Innovation Business research in the sustainable economic situation. Innovation is one of the principle key to business research in the present scenario. We need to apply Innovative, Sustainable , scalable perspectives in today's style of Business and Marketing..By understanding the concept of Passive Income , ESBI model , QQS Formula , Recurring Revenue Model, Process Orientation, Technological revolution acceptance business plan with an effort to gain clarity it can be very useful for the SMEs next we'll dive into each model individually to give you insights and ideas for how you can create your own "automatic customers. who grew thriving businesses using recurring revenue models with Positive Mind, Positive Vibes , Positive life after being the Victim of dangerous COVID pandemic.*

*Keywords: Innovation, Passive income, ESBI model, QQS formula, Revenue Recurring Model*

### **INTRODUCTION:**

The pandemic was a wake-up call that the unexpected and the unintended are more tangible and feasible than anyone previously anticipated. For many, it has been a bitter reality: hardcore, costly, and still unresolved. There were many small business that have faced the shut down phase, that was the situation during pandemic . Once the environment was somewhat relax with covid wave there was a big challenge for the SMEs to what next .

Many have to start from the scratch . A big question for them after pandemic period , once you have lost it becomes very difficult to start up again .Every Negative situation has a possibility of New Rise of Business acquisition with break through from the break down.

Aim  $\implies$  Ready  $\implies$  Fire

The solution is Simple that's Transformation & Innovation – transcending the old Formation . Innovation is the most important tool of business mechanism(**Nawal Abdalla Adam et al.,2021**). Modern marketing and Business enterprises have transformed in recent years,shifting from company centric , Monocular and transactional marketing lens to a customer-centric , process oriented and usage –based one (**Hartwig& Jacob, 2021**). . Marketing has also diverged into three distinct sub disciplines: marketing strategy, consumer behavior, and marketing analytics (**Mehta et al., 2020**).Typically , when studying Market , it is assumed that they are static , anatural concluding since the pace of change is slow but one thing for sure COVID-19 outbreak taught that market are dynamic( **Jaworski, Kohli, &Sahay, 2000**). We must learn from this outbreak to secure and sustain in the business need to follow certain new ideas , create innovation and Building a business that requires time upfront but allows you to work less as the business gets going is a great way to gene If you don't find a way to make money while you sleep, you will work until you die.” The goal is to achieve a steady flow of cash without the daily commitment of a full-time jobrate (**Warren Buffet**).What the world calls failure, we called it a turning point (**T.T Rangarajan**),Unintented consequences are life's way of showing you the possibilities you havenot thought about. Unintended consequences are Existences way of telling you that it has a different plan for you..a plan larger than what you intended. With help of various innovative ideas and business models e

The sustainability in the business is the first step for the exponential growth . Working with the minimum operation profit gives the backbone support to the retailersThe RRM model Recurring revenue Model .alerts that never leave the sure for unsure.TodayProfitability = Product + People + Process Orientation . It means focusing on business process ranging from customer to customer instead of placing emphasis on functional and hierarchical structures (**Rejiers ,2006**).

Another booming factor after or during the COVID is The Technological revolution , World has witnessed that the technology helps to expand the business and brings out the Business automation feature for smooth and risk free transaction .Pandemic has let the many sectors and industries to breakdown it is the technology usage which helps the small to big enterprise to stay in the Market. The understanding of SME sustainaibility significance may lead to the effort in promoting technological innovation in todays Business with the hands on social

networking, computerized record, and online marketing are the main factors to explore (Nurulhasan et.al,2016). Various softwares and apps have been developed to ease the work of SMEs like MARG, Connecteam, Square etc.

To enhance the small enterprises and boosting up the self confidence **Robert Kiyosuki** gave a game changer ESBI model for all to expertise in its field and generate income even in our physical absence, “Create that system or Investment that will generate income for long term “ (**Robert Kiyosuki**) .

Even the ordinary people or a common man was stressed out and was forced to rethink and find some permanent way of generating income with its limited resources. The idea was to build a habit of saving and investing in that area which will generate cash for years so the concept of passive income will be very fruitful for all who wants to utilize their resources to encash it permanently on regular basis. Even an Ordinary person can start its passive Income if it understands

- Skill - The one which we learn – What I know skillset
  - ,passion- deep Interest- What I like i.e Excitement
  - talent - The one we are born with - What Market want Customer Demand
- Combination of these three will generate Income for the many years to come

### **What is Passive Income**

It is an Income with less effort and returns for ever. It is like a mango tree , once sowed the seeds it will take time to grow but will give you the fruits for 200 years.

There are two types of income :

- Linear Income
- Residual income

**Linear Income** :Its an income where how much you work that much you earn. Work stops Income stops .Professionals like Doctors, engineers , Lawyers etc are traditional areas of income.

**Residual Income** : In this we create a Business models ,once setup will continue generating income for years..

There are numerous ways to generate passive income to get our assets working for us:

There are numerous ways to generate passive income to get our assets working for us:

- |                    |                       |
|--------------------|-----------------------|
| • Long term stock- | Properties            |
| • Rental Income    | Subscription services |
| • E-Books          | Licensing             |
| • Storage Units    | Annuity Build         |

In this way common people residual income will not be ideal instead , investing in correct area with proper knowledge will help them to earn money even if you are sleeping..

### LITERATURE REVIEW:

In less than two decades the world has experienced three outbreaks of deadly Coronavirus,including recent pandemic COVID variant **TauseefAhmeh (2020)**.Almost every corner of the world is being affected by this pandemic severely impacting the world economy **Md.ManwarMukarram,(2020)**.Due to pandemic trade has also been largely affected, the impact of this outbreak will have a longterm effect on globalization all private and public sector are under its influence **Donald (2020)**.In order to overcome from this situation it is important that to do anything in this world that is worth doing, we must not stand shivering in the bank and thinking of the cold and danger, but jump in and scramble through as well as we can(Sydney Smith).

The current research modifies the different innovative practices using different Business models. The integration of business sustainability models for the purpose of highlighting the need and prescriptions for more urgent and effective socio economic and environmental crisis resolution is a social innovation and can be encouraged both within and outside of business academics.(**Mark starik, 2013**). Business model innovation can be achieved through exploring new ways to generate cash flows (**Sorescu et al., 2011**)In **Fabian Eggers'** contribution, "Masters of Disasters? Challenges and Opportunities for SMEs in Times of Crisis," he identifies small- to medium-sized businesses with low or unstable cashflow as particularly vulnerable during crises, as they are currently struggling for profitability. In addition, entrepreneurial orientation and market orientation can be combined into an entrepreneurial marketing post-disaster business recovery framework that highlights that seeking opportunities, organizing resources, creating customer value, and accepting risk are markedly different in a post-disaster context.In a pandemic , technology especially telecommunication technology will be the solution , not the problem(**Mc.Connell, Patrick**

,2020)It is the technology advancement which will help in the linking business with its several customers.Business models affect technological innovation performances and helps in regrowth of business (Biang,Hu 2014).The Innovative practices of SMEs have a significant impact on the performances and survival of SMEs (**Nawal Abdalla& Ghadah Alariff 2021**). Despite the core business strategies today's market demands fast information and updation .Technical innovations are must and a simple solution for fast growth (**Nuruhasan Abdul Rahman et.al,2015**).So to survive and gain sustainability the use of digital technology helps SMEs to cope with the consequences of the pandemic(**Guo et.al,2020**). Besides the technology there are several factors which leads to business scalability, it is through product, people and process orientation.According to(**Kohibacher, Markus2010**) in his article explains the process orientation structure manages the product and people with profitable service.

### **Rethinking and Shifting - Desire into action:**

Nature, when she adds difficulties, adds brains (Emerson). Exigencies create the necessary ability to meet and conquer them (Wendell Phillips).

The nighty picture of Wuhan flashing the deadly Coronavirus news spreaded over 250 countries around the globe , but the outburst has given several moral boosting messages to the world either socially or economically. Enterprises which have achieved great heights through unintended consequences have made greater impact on the world economy .Business Entities made big changes in response to the pandemic and there's no going back.They define different Normal by adopting several innovative and practical approaches with either:

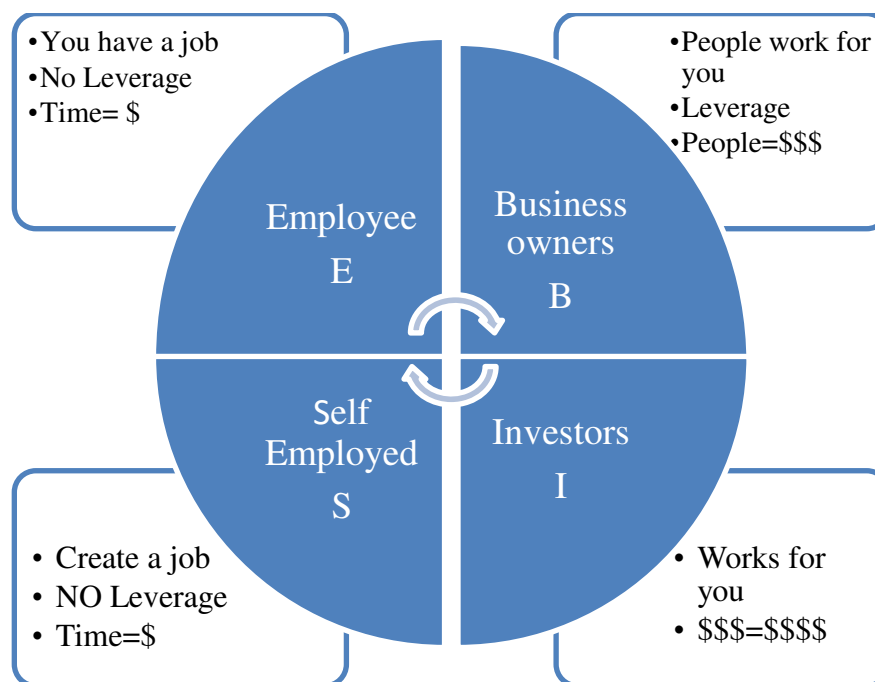
- Moved to more Cloud-based business activities
- Accelerated process /business automation
- Adjusted their approach to change management
- Fixed permanent changes to organization strategy

### **Where to from here**

The pandemic was an alarm call that the unexpected and the unlikely are more tangible and plausible than anyone previously anticipated. It has given a bitter, painful experience to the economy,Business executives must accept that pandemic-induced changes in strategy,

management, operations, and financial inclusion are to stay in. In this article we are to discuss certain Innovative Business model which will help the small as well as big entrepreneurs to take up their business to another level. Robert Kiyosaki (American Businessman), introduced a game changer Model to grow your business in the post pandemic period for the population. Create that system or Investment that will generate income for long term

### ESBI Model:



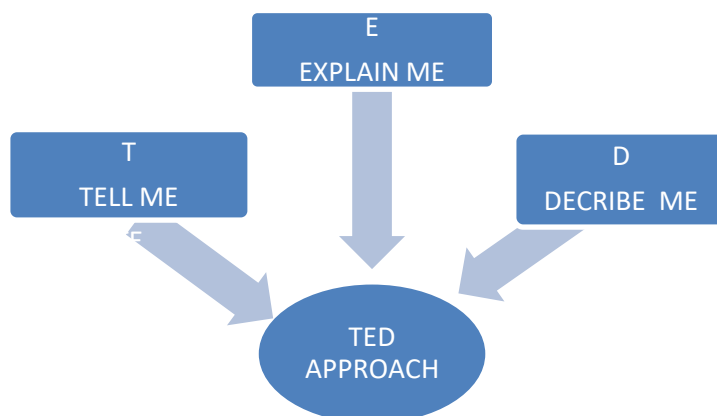
### From Customers trends:

**Probing:** How to and what to ask from Customers.” The day you know what to ask to your customers you grow to enrich your business.”

### ❖ OPC model

- O- Open Questions
- P- Probing Questions
- C- Closing questions

Asking a Question is your responsibility but at the right time asking a correct question is your intellectuality. Following the TED approach makes the customer to feel like friendly and makes easier to convert it in our permanent customer.



:

### QQS Model:

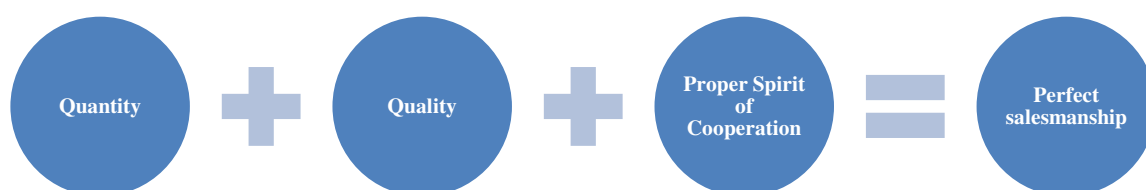
“Courtesy and Service are the watchwords of merchandising today, and they apply to the person marketing personal services even more directly than to the employer.” When we come to acknowledge that the customer who really employs us, we should round the clock reviewing what Hillcalls our QQS Rating ...

It is a perfect salesmanship formula for accelerating growth in the business. To market personal services effectively ( which means a permanent market t satisfactory price , under pleasant condition ), one must adopt and follow the QQS formula –Quantity plus Quality plus the proper Spirit of Cooperation equals perfect salesmanship of services.

QUALITY = Creating the greater efficiencies

QUANTITY = Everything at all time

SPIRIT = Agreeable, Harmonious behavior



**Revenue Recurring Model :**

The Revenue recurring model assures the business a certain amount of gross margin or revenue at scheduled time. For new beginners it's very important to sustain in the market following this model will help them to raise their business in an Exponential growth

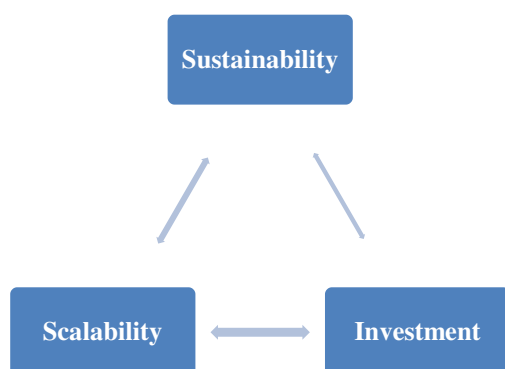
**For Exponential Growth**

Step 1- SUSTAINABILITY – with minimum operating profit

Step 2 - SCALABILITY- ability to increase the business performance

Step3- INVESTMENT - Investing external fund through funding agency

Sustainability is the Customer retention achieving a minimum margin profit it is the initial requirement for the scalability of the business.

**RRM Model**

$$\text{Profitability} = \text{Product} + \text{People}$$

There are several Organisations who believe that Product( quality) is the basis for profit .but many times its not true , we need to work not only in the front end but focused on Back end operation

❖ Front end operation – People + Product = Profit

There are several small businesss work with this trend to gain profit on focusing in their product itself..

But to have a thriving growth in the business its need to workin the Back operation.i.e focusing on the product along with its scalability, to reach to as many customers as possible to make it available...

- ❖ Back end Operation - Process orientation it may lead to scalability with the following Steps :



- Standard Operating Procedure
- System of Efficiencies
- Quality Control
- Physical to digital

Applying the Model in the correct way will help SMEs to propagate their Business and earn money with less effort for many years. Many industries have shifted from the singular sales model to the recurring revenue model.

Empowers businesses to generate constant revenue by providing ongoing access to their products or services in exchange for regularly scheduled payments.

### **Technology Acceptance:**

There was a time when we used to buy things physically i.e going to shops and places to search the product of their choice, Pandemic outbreak has changed the way of marketing from one window to another level window. Now the SMEs Business may use the technology for their assistance ..

### **Business Automation :**

Whether we are running a small or a big enterprise, automation is the best way to streamline the operations and drive business growth. It is a cluster of technology applications that performs repetitive tasks enabling to engage employees for higher value tasks. The best example of technology assistance in business is ERP i.e Enterprise Resource planning

### **Enterprise Resource planning:**

It is a business management software to keep the updates of the business in daily basis without affecting the employees time .as Business needs change and they expand , their system should keep up with them, it's a smart way to handle and maintain several operations smoothly it helps in :

- |                    |                       |
|--------------------|-----------------------|
| • Stock Management | Profitable Push sales |
| • Rack management  | Compliance management |

- |                         |                         |
|-------------------------|-------------------------|
| • Alert management      | Collabrative management |
| • Profitable push sales | Data back up            |
| • Behaviour forecasting | Auto pilot              |

Business Automation is very esae way to fasten the work of the employess without many hassles ERP softwares are the key element for maintaining better use of resources and customer satisfaction There are several applications available in the market who have captured more than 50% of market with their extraordinary featureslike MARG , CONNECTTEAM, SQUARE.

It gives 24\*7 and 365 days work ability , auto remindera and alerts , transparency for the accelerated growth of Business.

## CONCLUSION:

This study aims to explore the different Innovative measures to help SMEs to forecast revenue, plan growth, expand market, retain more customers, and ultimately enhance profits. When the whole world was threatened with deadly Virus ,there are the ways to overcome with that negative situation and regrowth of the business economy . With the correct application of Innovative Business models shifting from active income to passive income to create and protect the value of your money.

This paper aims to bring the opportunity from the crisis and adversity from Hopeless End to Endless hope. Although the study was based on theoretical basis it lacks the practical implication and there are several sectors to explore for further studies.

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## A STUDY ON THE ROLE OF DIGITAL MARKETING DURING PANDEMIC

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### ABSTRACT

*As COVID-19 spreads across the globe, people everywhere are learning to cope with a new way of living. Customer retention has been a crucial aspect of the pandemic, with marketers understanding the need of generating money from current customer bases while the pandemic's consequences make development into new areas less likely for many at this time. Businesses will be able to use digital marketing efforts that focus on creating relationships with customers and building customer loyalty, rather than short-term profit, to produce long-term profit in the aftermath of the epidemic. The global pandemic of the corona virus (COVID-19) has caused changes in advertising, marketing, promotional, and media spending, causing businesses and brands to reconsider their existing and future advertising and marketing strategies to maintain a steady stream of income. The paper focus on the role of digital marketing during pandemic. The article highlights the need for and importance of role played by the digital marketing during pandemic. The descriptive research is used in the paper to give a clear idea about the topics enlighten.*

**Key words:** digital, epidemic, media spending and pandemic,

### 1. INTRODUCTION

The COVID-19 problem is hastening e-spread commerce's to new enterprises, customers, and product kinds, implying a long-term shift in e-commerce transactions from luxury items and

services to common needs. Policymakers should take use of the possibilities of digital revolution in retail and related sectors to help businesses adapt and increase social distance while ensuring that no one is left behind. Though limits may be eased in the coming months and businesses can resume normal operations, operations will never really return to the way they were - at least for the time being. Consumers have adopted new purchasing habits, one of which is the ease of shopping online. Customers' behaviours have shifted to make internet shopping the new standard after they were left with little choice but to do so. In addition to convenience, many shoppers are apprehensive about purchasing in person. It is critical for a business owner to consider digital marketing for their company in order to prevent losing clients who may not feel comfortable, or just do not want to, return to in-person purchasing.

## **2. DIGITAL MARKETING**

Digital marketing refers to advertising delivered through digital channels such as search engines, websites, social media, email, and mobile apps. Using these online media channels, digital marketing is the method by which companies endorse goods, services, and brands. Digital marketing also called online marketing is the promotion of brands to connect with potential customers using the internet and other forms of digital communication. This includes not only email, social media, and web-based advertising, but also text and multimedia messages as a marketing channel. Essentially, if a marketing campaign involves digital communication, it's digital marketing.

Digital marketing is the act of selling products and services through channels such as social media, SEO, email, and mobile apps. Basically, digital marketing is any form of marketing that involves electronic devices.

## **3. REVIEW OF LITERATURE**

### **3.1. BASICS OF DIGITAL MARKETING**

- **Define Your KPIs**

Key Performance Indicators (KPIs) are metrics used to define the success of a campaign. KPIs can include anything from page views to click-through-rates (CTR), new subscribers, and more. It's important to establish which metrics matter most to a campaign before start planning since they'll help in developing the strategy.

- **Build Brand Awareness**

Having a stellar product or service is critical, but without brand recognition, one can easily lose sales to more established competitors. Consumers buy from brands they trust, so building that trust through awareness campaigns and testimonials can help establish a strong reputation. Focus more on impressions and views rather than clicks and conversions (although the latter are certainly welcome). The early stages of marketing are all about getting the product or service in front of as many people as possible, so don't get caught up in the lack of sales just yet.

- Optimize for Local

If the company provide a product or service within a specific geographic region (e.g., landscapers, florists, plumbers, etc.), be sure to target those areas to reach people nearby. In addition to creating informative content on the website, consider Google Ads that target localized keywords and audiences.

- Create Helpful Content

Nobody wants to be pitched or sold to, but most people head to Google to get questions answered. Rather than create a site that reads more like a catalog, create a knowledge base where people can find the information they're looking for. Become an authority for the niche by maintaining a regular newsletter or blog to share information and establish the brand as a reliable resource. If a company creates content that ranks highly in search engine results, they'll be leading more people directly to the site, who may then click around before ultimately making a purchase or contacting. The longer a visitor is engaged with the site, the better the chances of closing a deal when they're ready to buy.

- Get Social

Building a robust social media presence is a major component of digital marketing. The company doesn't need to have a presence on every platform but know which networks make the most sense for the brand. Identify where the target audience is most active. In addition to posting updates on a regular basis, engage with people and relevant accounts to work toward creating a community (rather than just trying to rack up followers). Once they've built a strong base, they can start experimenting with promoted posts and social media advertising.

### **3.2. DIGITAL MARKETING TO NEXT LEVEL**

Employers are fast recognising that digital marketing is a must-have talent. And it's no surprise that, as the market evolves, mastering digital marketing and advertising is becoming increasingly important for businesses. Those who do not will be left behind, especially during pandemics such as the corona virus. Advertising need a substantial expenditure to test various choices and determine what works and what does not. Because of the economic downturn, keyword rates and competition are at an all-time low, as are many corporate budgets. As a result, brushing up on digital marketing methods is a smart idea to lay a foundation for success—both as a candidate for a marketing position and as a business owner.

Companies that have already begun to pivot to a digital marketplace are best positioned to survive in this climate. However, having a working website and an ecommerce store is only half the battle. The ability to bring people to those product pages is just as crucial. Under the umbrella of search engine marketing, this covers social media advertisements and Pay Per Click (PPC) initiatives (SEM).

### **4. IMPORTANCE OF DIGITAL MARKETING**

The significance that has set it in is marketing strategy altered in light of COVID-19; business owners wishing to engage with customers and retain those connections are re-aligning marketing tactics. The personal ties they've worked so hard to create with clients over the years are undeniably valuable. The ever-increasing desire for connection is pushing toward an increased digital presence to bridge the gap in the "new normal," where face-to-face encounters are no longer driving daily activities. In looking ahead to 2020-21, consider if you've kept up with the transformation in how companies communicate with customers in the aftermath of the epidemic. While no single recipe exists on how to structure your business' internet marketing plan, there are a few things to consider when navigating the digital spectrum to its fullest as to engage clients and customers during these unprecedented times where seemingly more people are turning online for customer engagement.

### **5. NEED FOR DIGITAL MARKETING**

While there is no one-size-fits-all solution for structuring your company's internet marketing strategy, there are a few things to keep in mind when navigating the digital spectrum to its full potential in order to engage clients and customers during these unprecedented times when more people are turning to the internet for customer service.

People are increasingly relying on their phones' online surfing capabilities, thus having a digital presence and local search optimization is critical. Brand awareness is improved through digital marketing. Since there are so many channels on the web with marketing potential, getting the message out about new brands is easier than ever before.

## **6. CUSTOMER JOURNEY DURING COVID'19**

Customers' urgent demands may be met today with care, creativity, and new tools, and stronger relationships can be formed in the post-COVID-19 age. COVID-19 has devastated lives and livelihoods all across the world in a short amount of time. It has also spurred a reconsideration of what customer care means for vulnerable people and the customer service teams that assist them. Examining customer journeys and satisfaction indicators to determine what consumers desire has suddenly given way to a pressing need to answer what they require.

A customer's engagement with a firm, particularly in times of crisis, may have an instant and lasting impact on his or her feeling of trust and loyalty. As millions of people are furloughed and withdraw into seclusion, how companies they frequent and rely on offer experiences and service that meet their new requirements with empathy, care, and concern will be a fundamental barometer of their customer experience. Now is also the time for CX leaders to place themselves at the forefront of the longer-term transformations in consumer behaviour that this crisis has brought about. It will be critical to keep a constant eye on shifting customer preferences and to innovate quickly to redesign experiences that are relevant in a new environment. Four CX strategies may shape short-term reactions, develop resilience, and equip customer-forward firms for success in the days after the corona virus, all of which go hand in hand with this approach. Focusing on care and connection; meeting consumers where they are now; reinventing customer experience for a post-COVID-19 future; and developing skills for a fast-changing environment are among them.

## **7. RESEARCH OBJECTIVES**

1. To determine the role of digital marketing during pandemic.
2. To bring out clearly the importance of digital marketing during the pandemic situation.

3. To analyze the importance of digital marketing to the customer.
4. To examine the need for digital marketing during pandemic.

## **8. ROLE OF DIGITAL MARKETING DURING PANDEMIC**

- The COVID-19 problem has pushed e-spread commerce's to new enterprises, customers, and product categories. It has provided customers with access to a significant variety of products from the convenience and safety of their homes, and has enabled firms to continue operation in spite of contact restrictions and other confinement measures.
- Despite persisting cross-country discrepancies, the COVID-19 issue has increased dynamism in the e-commerce sector and broadened the breadth of e-commerce, especially through new enterprises, customer categories (such as the elderly), and items (e.g. groceries). Meanwhile, in many nations, e-commerce transactions have turned away from luxury items and services and toward basic necessities that affect a huge number of people. Some of these changes in the e-commerce landscape will likely be of a long-term nature, in light of the possibility of new waves of the epidemic, the convenience of the new purchasing habits, learning costs and the incentive for firms to capitalize on investments in new sales channels.
- Despite some governments' efforts to promote e-commerce during the COVID-19 crisis, digital gaps exist, implying that not everyone was able to engage. Furthermore, in the event of expanding Omni-channel sales models or novel means of delivery, rules that are not tailored to e-commerce might create impediments for enterprises. While many of these issues existed before to COVID-19, the present crisis, as well as the increasing role of e-commerce for consumers and businesses, has increased the need for legislative intervention.
- Systemic concerns relating to connection, financial inclusion, skills, and trust (e.g., digital security, privacy, and consumer protection) have been brought to the forefront for consumers. To solve this issue, governments might provide rural and underserved communities with inexpensive and high-quality broadband, as well as improve financial inclusion. and foster trust and the acquisition of skills to participate in e-commerce.

- For firms, policy makers should reduce regulatory uncertainty to support the creation of innovative business models, e.g. in the context of an increasingly complementary relationship between offline and online sales strategies.
- Governments also need to address the particular need of SMEs, including by ensuring a fair playing field in the context of intermediated services (e.g. online platforms). Ensuring sufficient competition in the retail sector and a well-functioning enabling environment for e-commerce, including communication services, logistics or trade, is also crucial.

## 9. CONCLUSION


The effects that COVID-19 has had on businesses are unexplainable. With many businesses still stressing daily to survive, it is helpful to understand any method that can help a business owner in these unprecedented times. Digital marketing has been around for quite some time now, but within the last year many business owners have understood truly how essential the digital marketing is. During national lockdowns, many businesses have been forced to shut down with an unknown answer as to when they can reopen. Digital marketing is highly beneficial and effective for all types of businesses owners. Digital marketing allows customers to continue to provide their products and services to customers, even if it is in an unconventional way, while restrictions remain.



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## **SUSTAINABLE DEVELOPMENT IN ENVIRONMENTAL MEASURES FOR POST PANDEMIC RECOVERY**

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### **Introduction**

*The COVID-19 pandemic has been brutally pathetic people's live and health. It has been having economic and social reactions for all over the world. Countries having worried efforts for the public health system and its estimates. The spread of COVID-19 has indicate the consequences of a lack of flexibility and attentiveness to deal with such a pandemic. Climate change, water pollution and the drivers of biodiversity loss such as deforestation and illegal wildlife trade, may increase the risk of further pandemics or water-borne infections, while adding a complicate risk environment through potential cascading impacts to the systemic consequences of a pandemic crisis. Now we introducing the measures and disabling dangerous ones. Producing the investments into R&D expanded and its application of new technologies. Setting up effective monitoring and evaluating the system to measures and also improve its data collection. Building public awareness and introducing incentives for the public drive demand for the green environment policies, approaches and services.*

CATEGORY: Housing and Buildings, Climate Action

### **Measure 1**

Increase energy competence of buildings by retrofitting existing buildings, insulation and displaced of boilers, lighting and household appliances with energy-efficient backups and other interventions(case study: renovation of public hospitals in Croatia)

Enlarge energy competence of buildings, including schools and hospitals by retrofitting existing buildings, insulation and displaced of boilers, lighting and household appliances with energy-competence substitutes and other interventions.

#### **Benefits**

Pursuit to enlarge the energy competence of buildings are cost-effective, with a pay-back period of 15-20 years for full retrofitting of a home or, for example, only 3-4 years for sprinkling foam insulation in new buildings.

Such pursuits are labor through, geographically spread and can foster expand or local micro, small and medium-size enterprises (MSMEs). They also lead to reduced greenhouse gas emissions when fossil fuels are used for heating or electricity generation.

Also producing chance to use bring about electricity for other purposes. Standards are well-defined and both accomplishment and efficacy are estimates. Better living conditions will also relieve some of the most burdensome and unhealthy aspects of women's daily lives and enlarge the development options available to women, their families and their communities.

CATEGORY: Economic Instruments, Climate Action, Industry

## **Measure 2**

Support to MSMEs reclaim energy-efficient products and in delivered renewable energy technologies and equipment (case study: Green entrepreneurship and innovation in Ukraine)

### **Benefits**

Investing in energy competency and renewable energy has positive effects on GDP and employment, upgrade human well-being and overall welfare, and reduces pollution and GHG emissions. Studies conducted within the EU identify a positive effect of energy competency on GDO ranging from 0.3% to 1.3% Doubling the share of renewable in the global energy mix increases global GDP by up to 1.1% un 2030, equivalent to US\$ 1.3Trillion.

Direct and indirect employment in the renewable energy sector could reach 24.4 million people in 2030 (it was 7.7 million in 2014).

Tackling energy request and energy sources have a potential business value in 2030 of over US\$4.3 trillion in current prices.

CATEGORY: Biodiversity Action

## **Measure 3**

Integrating Biodiversity into the Covid-19 recovery plans to minimize danger of future pandemics, to strengthen overall economic resilience and to support human and animal well-being (case studies: Good practice examples of integrating biodiversity into their COVID-19 response and recovery plans; ECO serve programmer in Azerbaijan)

### **Benefits**

Biodiversity loss is a key driver of emerging infectious diseases and poses other risks to businesses, society and the global economy. Investing in biodiversity as part of the response to the pandemic can help to minimize danger, while providing jobs and an economic encouragement.

Studies evaluate that spending \$260 Billion per year over 10 years, on estimates such as combating deforestation, improving management of global wildlife trade and improving disease surveillance in wild and household animals, would reduce the risk of another pandemic.

This investment is equivalent to 2% of the evaluate cost of the COVID-19 pandemic.

An analysis of 163 industry sectors and their supply chains found that US\$44 trillion of global valued added (over half of the world's GDP) is dependent on nature and its services.

Around 1.2 billion jobs globally directly depend on ecosystem services.

Estimates to protect biodiversity should also aim to avoid violation of local and international laws, and enormous and needless suffering to animals.

CATEGORY: Biodiversity Action, Tourism

#### **Measure 4**

Establishment and management of biosphere reserves through an integrated approach to nature conservation and sustainable development (case study: sustainable tourism in Czechia)

##### **Benefits**

Biosphere reserves present innovative make conversation with to living and working in harmony with nature by supporting local economic expand based on conservation and sustainable use of biodiversity.

Communities living in biosphere reserves gain economic benefits through activities such as nature-bases tourism, local food production and local gastronomy and utilization of renewable energy sources.

These pursuit have a potential to gain momentum in times when international tourism as well as mass tourism are being hit hard by the pandemic, and when food security is becoming a human security risks.

Tourism and agriculture can be linked to promote so-called "Zero-Kilometre Menu" restaurants using limited outputs.

Biosphere reserves in general embolden diverse local economies to revitalize rural areas.

CATEGORY: Tourism, Biodiversity Action

### **Measure 5**

Unlock the potential of domestic tourism to support sustainable rural and urban development (case study: Rural Tourism in Armenia)

#### **Benefits**

Considering the impact of the COVID-19 pandemic on international tourism, domestic tourism now represents an opportunity for countries to recover from the social and economic impacts of the pandemic and further support rural and urban development.

Worldwide, domestic tourism is over six times bigger than international tourism (1.4 million international arrivals in 2018).

Sustainable tourism is seen as an environmentally sensitive and inclusive industry.

Domestic tourism provides jobs for local communities and supports employment of women (worldwide, a significantly higher proportion of women, 54%, is employed in tourism than in most of other sectors) and young people.

It has a potential to become an important source of government revenue.

CATEGORY: Climate Action, Biodiversity Action, Water

### **Measure 6**

Nature-based solutions- one of the key components of the transformational change needed to adapt to climate change and help ongoing efforts to limit it (case studies: Peatlands for carbon capture and local development in Belarus, Ukraine and Russian Federation; Incentives for nature-based solutions in Switzerland)

#### **Benefits**

Nature-based solutions (NBS) are solutions that are inspired and supported by nature are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience.

The benefits are often interrelated.

For instance, NBS can improve air quality (environmental benefit), which allows a decrease in diseases related to air pollution (health benefit), which in turn allows savings in healthcare (economic benefit).

Research suggest that NBS cloud provide around 30% of the cost-effective mitigation that is needed by 2030 to stabilize warming to below 2oC.

They also provide a powerful defense against the impacts and long-term hazards of climate change.

For instance, an amount of about US\$57 billion is saved in China, India, Medico, the USA and Viet Nam each year by averting flooding damages through mangroves.

NBS help to create new jobs and economic growth, through the manufacture and delivery of new products and services that enhance natural capital.

CATEGORY: Agriculture and Food Security, Climate Action and Biodiversity Action

### **Measure 7**

Support sustainable and climate resilient agriculture that contributes to economic profitability, Healthy Environment, Social and Economic Equity (case study: Climate resilient agriculture in North Macedonia)

#### **Benefits**

Globally, Agricultural production and consumption are projected to be 60% higher in 2050 than today.

Unsustainable agricultural practices and industrialized agriculture have negative impacts on soil, water, air and human health, representing an eternal cost paid for by governments and taxpayers.

Agriculture contributes and estimated 19 to 20% of GHG emissions.

Excessive use of antimicrobials in animal and human healthcare leads to an estimated 33000 human deaths in the EU every year.

Despite the large share of industrialized agriculture, it is estimated that in the ECA region, more than 100 million people are exposed to moderate or severe food insecurity.

The dual threat of extreme weather and the economic downturn caused by COVID-19 may worsen the situation, especially in the net food importer countries where food availability may decrease on average by about 20%.

Rural women, responsible for half of the world's food production and producing between 60 &80% of the food in most developing countries, are particularly vulnerable to those threats.

CAREGORY: Biodiversity Action

### **Measure 8**

Acknowledge the importance of forests for human health and well-being and integrate the health and nutrition aspects in forest management planning (case study: Protecting Georgian forests from space)

#### **Benefits**

Besides timber and the provision of ecosystem services, forests have important benefits for human health (mental, physical and spiritual), well-being and nutrition.

Forests provide edible products (Fruits, Leaves, Nuts, Seeds, Mushrooms, Honey, Wild Meat, etc.,) that contribute macro and micro nutrients to a healthy diet, both for rural and urban populations.

A survey of over 17000 households in 28 European countries showed that almost 92% had consumed wild forest products in 2015.

At least 60% of current medicinal plant products may be obtained from wild harvesting.

Physical activity conducted in parks and forests reduces the risk of both mental illnesses such as depression and non-communicable diseases.

The healing potential of forests has manifested itself also during COVID-19 outbreak.

Forests and parks buffer noise, reduce the urban heat island effect and absorb pollution from traffic and industry.

However, the loss and fragmentation of forest habitats, expansion of human populations into forests areas and increased contact of humans with wild animal products largely contributes to the outbreak of a number of zoonotic diseases such as Malaria, Dengue, Fever, Lyme disease HIV, Ebola and currently, COVID-19.

**CATEGORY: Waste Management**

### **Measure 9**

Introduce Environmentally Sound Healthcare Waste Management through Minimization Of Waste And Application Of Best Available Techniques And Best Environmental Technologies

#### **Benefits**

Broadly speaking, medical waste generation increases exponentially in an epidemic outbreak and may, if improperly collected or treated, accelerate disease spread and pose a significant risk to medical staff, patients and waste collection and treatment staff.

The safe, equitable and environmentally-sound handling, treatment and final disposal of this waste is therefore essential to prevent negative effects on human health and the environment.

In general terms, if medical waste management is environmentally sustainable, it respects the waste hierarchy by prioritizing the avoidance or minimization of wastes generated and ensuring that those generated are less hazards, so that the need to manage wastes and or the associated risks and costs are reduced.

CATEGORY: Transport and Mobility, Climate Action

### **Measure 10**

Promote low-carbon urban transport through improved urban and or mobility planning, through shifting to sustainable travel means, improved vehicle fuel efficiency and electrification

#### **Benefits**

The Transport sector accounted for 23% of global GHG emissions in 2010 and remains one of the fastest growing sources of global emission, despite advances in vehicle efficiency.

A range of transport-related climate mitigation actions and policies across the world's urban areas could save 2.8 Gt of GHG emissions annually by 2050 and could yield substantial economic, social and health-related benefits.

Investments in expanding public transport and improving vehicle efficiency could create more than 3 million net jobs annually in OECD cities, and between 3 million and 23 million net jobs annually in non-OECD cities, in the period to 250.

Vulnerable populations, who are often more likely to live and work in polluted areas, would benefit disproportionately from interventions that improve air quality.

CATEGORY: Transport, Air Quality, Climate Action

### **Measure 11**

Promote Cycling In Urban Areas To Decrease Air Pollution And Improve Health Of City Dwellers Through Developing And Investing In Cycling Policies Implementation.

## Benefits

The value of health benefits from investments in cycling infrastructure can amount to more than five times the investment needs.

Several studies have shown that health benefits of cycling in a city well outweigh the risks associated with individual increases of air pollution exposure or motor vehicle accidents.

Investing in cycling infrastructure brings benefits such as relieving congestion and improving the air quality.

By also transporting goods in inner cities, bicycles can be a cheap and often faster alternative to a car.

For longer trips, the combination of cycling and train or metro is appropriate.

Therefore, investing in cycling infrastructure can also encourage a modal shift as more people will use the train.

CATEGORY: Infrastructure, Transport and Mobility

## Measure 12

Improving and Innovating Rail Transport As A Component Of An Overall Aim To Develop Green Infrastructure Contributing To Sustainable Growth.

### Benefits

In terms of investments, rail transport represents an action that is sustainable and offers the largest climate mitigation compared to road and air transport.

Rail is six times more energy efficient than road and nine times less CO<sub>2</sub>intensive than road for freight and air travel for passengers.

The average CO<sub>2</sub>emission per passenger and per kilometer reaches 8.6 with a train versus 168g with a plane and 207g with a car.

Rail helps to lower health damaging air pollution levels in urban centres, boosts urban sustainable development, lowers land use, and increase city livability.

Investing in rail infrastructure, maintenance and operation stimulates economic growth with long-term benefits and creates green jobs.

In Europe infrastructure managers are amongst the biggest investors.

In 2016, they invested a total of EUR34.8 billion in existing line enhancement and the construction of new lines.

CATEGORY: Transport and Mobility, Air Quality, Biodiversity Action

### **Measure 13**

Promote Greener Cities (Including Through Nature-Based Solutions), Urban Air Quality And Healthy Urban Lifestyles To Build Resilience To Respiratory Diseases And O The Health Impacts Of COVID-19  
Benefits

Every year around 7 million premature deaths in the world or 1 in every 8 are attributed to the joint effects of household and outdoor air pollution.

Of these air pollution-related deaths, 94% occur in low and middle-income countries.

97% of cities in low and middle income countries with more than 100000 inhabitants do not meet WHO air quality guidelines; this may cause an increase in premature deaths caused by air pollution by 50-100% by 2050.

The economic consequences of air pollution are significant, in terms of costs to global healthcare services and reduced productivity.

Air pollution costs the global economy more than US\$5 trillion every year in welfare costs (4.8% of global GDP) and around US\$225 billion in lost income.

As the COVID-19 pandemic has shown, drastic measures to reduce exposure to the virus led to some short and long-term public health benefits, but they came at a high cost.

CATEGORY: Water, Waste Management

### **Measure 14**

Provide Equitable Access To Clean Water, Sanitation And Hygiene Through Investing In Resilient Water And Sanitation Infrastructure And Systematic Hygiene Services Provision For All And In All Settings.

Benefits

Sewage and waste water emptied into rivers, lakes and nearby streams pollute resources of drinking water and affect plant and aquatic life.

Every year millions of people die from diseases caused by inadequate water supply, sanitation and hygiene.

Diarrhea is one of the main causes of death in children under 5 years old.

An estimated 829000 deaths attributable to poor sanitation, unsafe water and inadequate hygiene occurred from diarrheal diseases in 2016 globally, equivalent to 0.5 of all diarrheal deaths.

Poor sanitation and unsafe water cause nearly 20% of workplace deaths and cost around \$260 billion in lost productivity every year.

The burden of inadequate access to water and sanitation is often felt disproportionately by women and girls.

In societies where women and girls are responsible for water collecting, they need to walk long distances to fetch clean water, with significant costs for their physical and mental health and their education.

Educational institutions that have inadequate water, sanitation and hygiene (WASH) related facilities also cause girls to spend less time at school.

Poor WASH services in health care facilities impair patient safety, quality of care and infection prevention control.

It is more cost-effective to investing in water and sanitation than to deal with the consequences of under-investment.

For example, \$1 spent on improving sanitation brings a return of \$5 by keeping people healthy and productive.

The market for obs in the sector is promising, with significant potential for growth.

CATEGORY: Water

### **Measure 15**

Support Sustainable Water Management By Increasing Water Use Efficiency Across Sectors And Through Ensuring Sustainable Withdrawals And Supply Of Freshwater To Reduce The Number Of People Suffering From Water Scarcity.

Benefits

Quality of water and waste supplies are essential to support health and livelihood conditions and economic development.

The analysis in the United Nations World Water Development Report 2016 estimates that 42% of world's total active workforce are heavily water dependent.

Investment in infrastructure and operation of water-related services can provide high returns for economic growth and for direct and indirect job creation.

Water investments can also lead to production systems that are more labor intensive  
Example:

In building and operating infrastructure for irrigation and water supply, distribution and treatment.

Sustainable water management is also essential driver of green growth and sustainable inclusive development.

Not investing in sustainable, climate resilient water management may, on the other hand, present costs related to disruption of water resources, declining crop yields and food stocks, severe disease outbreaks, and an increase in conflict and in number of refugees and internally displaced persons.

## **Conclusion**

This brief highlights how forests and the forestry sector provide essential services and products to support health and livelihoods during times of crisis, how investing in sustainable forest management and forestry jobs offer opportunity for a green recovery and how healthy forests build resilience against future pandemics. In this context, it proposes policy recommendations to ensure that forest-based solutions be considered for recovery from the COVID-19 pandemic and building back better.

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10. UNDP Cultiv@te - a Global Innovation Initiative for Sustainable Agriculture supports local innovators, technology experts, corporate mentors, and financiers to co-design solutions with farmers and policy makers. More information, including on finalist start-ups from Armenia and Uzbekistan are at: <https://www.agorize.com/en/challenges/undp-cultivate>

## HUMAN RESOURCE DEVELOPMENT ON ROLE OF RESEARCH: POST PANDEMIC GLOBAL SCENARIO

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### Abstract

*Akkermans et al. (2020) categorize the pandemic as a “profession surprise” (p. 1), that can have a disruptive impact on an individual’s thought-approaches regarding their profession. They argue that at the same time as over the years it could give upward push to profession exploration and change, it is able to additionally carry painful short-time period consequences in phrases of task losses, accelerated lack of confidence and decreased salary.*

*The COVID19 pandemic sheds a sturdy mild on place of work inequality. Injustice. Aside from the confusion of regular lifestyles and operating styles, an epidemic there are extreme and worrisome variations in remedy and circumstance. Productive and reproductive labor. How can I get over an epidemic? Does the place of work effectively understand and fee the contribution of reproductive work?*

*We awareness on ethics of care as a foundational thing of gaining knowledge of and human development. Care is proximal and contextual and expressions of care require managers and HRD experts to have interaction with and cope with personnel’s desires in a manner that recognizes the complexity of character situations. This might also additionally result in the transformation of paintings and offices and convey personnel right into a greater participatory, inclusive and democratic courting with employers. We provide 4 hints for a way HRD practitioners can nearly embed an ethics of care technique inside organizations.*

*This article is applicable to human aid development (HRD) pupils and practitioners who’re interested by constructing sustainable, worrying and healthful workplaces in a post-pandemic world*

**Key words:** *HRD, Covid-19, Post-Pandemic, Role of HRM, Employee Role, Global, Sustainable Development, Human Capital, Productive, Work Places*

## Introduction

The COVID19 pandemic sheds a sturdy mild on place of work inequality. Injustice. Aside from the confusion of regular lifestyles and operating styles, an epidemic there are extreme and worrisome variations in remedy and circumstance Productive and reproductive labor. How can I get over an epidemic? Does the place of work effectively understand and fee the contribution of reproductive work?

The fast unfold of the COVID-19 virus had a profound and instant impact on businesses and offices worldwide. A crumble in client demand, supply chain volatility, and financial uncertainty resulted in lots of businesses combating for their very survival. Because of lockdown restrictions, tour bans and social distancing getting into pressure together with the closure of non-crucial businesses, many businesses needed to flow hastily into the virtual space, reconfiguring organizational systems and methods for far away operating. With confined time to regulate to new operating arrangements, many organizational leaders grew to become to Human Resource Development (HRD) practitioners for help to put into effect agile staff strategies (Yawson, 2020). As sellers of organizational alternate and specialists in uncertainty (Mavin et al., 2007), HRD practitioners are strongly located to offer management and applicable recommendation in instances of crises. The responsiveness of HRD to the COVID-19 pandemic is testimony that HRD is now no longer a static discipline; it has interdisciplinary roots that permit it to contain principle and exercise towards accomplishing the purpose of enhancing mastering at work.

Early studies contributions within the discipline as compared HRD to an amoeba (Galagan, 1986) or octopus (McLean, 1998), spotting HRD as a dwelling and evolving discipline that attracts upon a variety of disciplines. It is likewise responsive and reactive to new demanding situations and circumstances. Indeed, in latest years, we've visible a great growth of HRD beyond the conventional provision of schooling and mastering, towards analyzing how HRD can meaningfully make contributions to broader political, social and financial goals (Callahan et al., 2017; Kim, 2012; MacKenzie et al., 2012; Wang, 2012). We can therefore expect that the COVID-19 pandemic has had and could maintain to have a substantial and actual impact on how Human Resource Development is conceived, framed, and added with inside the years to come. In this article, we keep in mind how HRD would possibly reply to the demanding situations posed through the COVID-19 pandemic. We argue

that an ethics of care method gives the opportunity for a readjustment of center HRD values, which in turn, can also additionally permit a remodel and transformation of labor practices.

Although Gilligan (1982) is sort of exclusively credited with conceptualizing an ethics of care method as attitude on moral reasoning, discussions of care in ethics date returned to early Greek writings. The method has additionally been addressed through famed philosophers inclusive of Kierkegaard and Heidegger (Reich, 2007). Yet, to date, with a few super exceptions (Armitage, 2018; Bass, 2009), little has been written making use of an ethics of care method inside an HRD context. The article first identifies a number of the contradictions, and specifically the troubling variations with inside the remedy and standing of effective and reproductive labor, uncovered through the COVID-19 pandemic and the way those tensions have additionally emerged with inside the HRD literature. It then considers how an ethics of care body can foster extra inclusive decision-making and prioritize man or woman desires and relationality. Finally, we offer hints on how HRD practitioners can embed an ethics of care method inside businesses and discover how HRD can also additionally evolve as a discipline of implemented exercise to build sustainable, being concerned and healthful offices in a post-pandemic world.

### **Contradictions Exposed via way of means of the COVID-19 Pandemic**

The abilities of agencies and countrywide governments to address the complexities springing up from the COVID-19 pandemic has been appreciably tested. The pandemic has been a sizable accelerator for the growing use of digitization and automation of labor. It has showcased the ability for brand spanking new conversation technology to enable many workforce participants to paint more efficiently from domestic (Goldstein, 2020). Research through Gartner (2020) discovered that 1/2 of all agencies had greater than 80% in their employees running from domestic at some point of the early tiers of the coronavirus pandemic with few worries raised over tiers of productivity. Indeed, the pandemic caused sizable modifications in painting practices and structures and price financial savings from decreased application and office area costs. Yet, for a few people, a loss of casual social engagement has accelerated loneliness and isolation and exacerbated intellectual fitness worries (Carnevale & Hatak, 2020; Gao & Sai, 2020).

Working from domestic at some point of the pandemic has additionally uncovered demanding situations associated with psycho-social risks, mental detachment from paintings and healing and healing from paintings-associated stressors.

Shumate and Fulk (2004) discuss the significance of domestic as a safe haven from paintings and that the boom in remote running has blurred the limits among paintings and domestic. Chawla et al. (2020) become aware of the issue of unplugging and highlights the encroachment of labor into personal existence and own circle of relatives area. Volman et al. (2013) argue that being capable of transfer off after paintings is crucial to overall performance on next paintings days, supporting individuals exercising manipulate over all factors in their lives. During the COVID-19 pandemic, the loss of bodily distance from the house running surroundings has made the clean distinction among paintings and existence greater difficult. For many people, the scars of the COVID-19 pandemic enjoy can have a long-time period effect on their profession outlook.

Akkermans et al. (2020) categorize the pandemic as a “profession surprise” (p. 1), that can have a disruptive impact on an individual’s thought approaches regarding their profession. They argue that at the same time as over the years it could give upward push to profession exploration and change, it is able to additionally carry painful short-time period consequences in phrases of task losses, accelerated lack of confidence and decreased salary. Both Hite and McDonald (2020) and Spurk and Straub (2020) argue that gig people are specially uncovered to the profession surprise of the pandemic as they’ll now no longer advantage from monetary assist mechanisms to be had to different classes of people.

Indeed, Rubery et al. (2018) argue that such people frequently get hold of low pay, short-time period contracts, inadequate and variable hours and confined get entry to education opportunities. Those maximum laid low with layoffs are unskilled. In March and April 2020, within the U.S., affected industries have been the ones dominated through blue-collar, hospitality, and manufacturing people (Dmitrieva et al., 2020). While the long-time period results of the pandemic at the commodification of labor remains uncertain, Spurk and Straub (2020) desire that it’s going to assist a dialogue on how gig people and people much less professional can reap higher employment situations and task security in a post-pandemic world. Throughout the coronavirus pandemic, there was a lot of dialogue of the role of important people within the U.S. (Hu & Schweber, 2020; Malpani et al., 2020) or key people within the U.K. (Francis-Devine, 2020; Office for National Statistics, 2020).

Nurses, care providers, cleaners, postal people, transport drivers and grocery store assistants, to call a few, regularly obtain decrease profits regardless of having a better exposure to the dangers of contracting the coronavirus (Butcher, 2020; Hill, 2020). Indeed, the U.K.

Health Minister, Matt Hancock, pronounced that the loss of lifefee of retail assistants became 75% betteramongstguys and 60% betteramongstgirls than throughout the general population (House of Commons, 2020a). Research via way of means of Farquharson et al. (2020) shows that 60% of key people are girls, growing to nearly 80% in thefitness and social care area specifically.

Furthermore, Sandher (2020) states that foreign-born immigrant'swithin side the U.K. are over-represented in key employee categories. In the U.S., immigrants additionallyconstitute disproportionately excessivestocks of people in numerouscritical occupations which includes healthcare. This reality has been underscored during the COVID-19 pandemic. Foreign-born people have performed a substantialposition in frontline pandemic reaction sectors (Batalova, 2020). These researchreplicate a broader global fashionwhereingirls and minorities endure the bestduty for care paintings and whereinmonetarypaintingsis split into efficient and reproductive categories (Robinson, 2006).

Böhm and Land (2012) classify efficienthard work as salaried hard work that directly produces items and offerings that upload surplus monetary value, while reproductive paintings does now no longeralwaysupload value, but “is important to make sure the every day maintenance and ongoing replica of the hard work force” (Schutte, 2002, p. 138). Such classifications deliverupward thrust to gendered roles and expectanciesapproximately the approacheswhereingguys and girlsmustmake a contribution to paintings and society (Peters &Blomme, 2019). This leads Hartmann (1981) to finish that “patriarchy rests essentially in guys`s control over girls`shard workenergy” (p. 15).

These energy inequalities enlarge to different marginalized organizationsgrowingsimilarly injustice on the intersections of gender, race, sexual orientation, religion, ability, and social class. The COVID-19 pandemic has additionallyuncovered the inherent fragility of worldwidedeliver chains and markets. Cascio (2014) argues that globalization over the previous few decades has causedelevated outsourcing to places with reasonably-pricedhard work and abundant natural resources. He extols the blessingsof worldwidehard work markets deliveredapproximatelythru foreign direct funding and worker mobility, and keeps that businesses of all kinds have grow to bewithout boundary lines to each their clients and employees. Yet, the pandemic has unmasked societal vulnerabilities to long-distance, worldwidedeliver chains.

Widespread manufacturing facility closures and disruptions to distribution and shipping networks followed via way of means of a pointy boom in call for for healthcare supplies (Khot, 2020; Ranney et al., 2020) has reignited a debate approximately nationalization of strategic industries to make sure get admission to the deliver of critical equipment. This has been followed via way of means of discussions approximately addressing competencies shortages and local competencies gaps within the hobbies of securing country wide infrastructure, a situation that similarly exacerbates the talk round immigration and ethnic minorities within the workforce.

### **Human Capital and HRD: Developing Humans or Developing Resources?**

The anxiety between “growing humans” and “growing resources” has long existed on the coronary heart of Human Resource Development. Advocates for a human capital method to growing personnel have lengthily espoused the view that funding in worker talents is needed to satisfy an organization’s strategic goals (Gaudet et al., 2017; Hooi, 2019; Sheehan & Shanahan, 2017). Such processes pick out cost in leveraging human belongings to decorate productiveness and performance, as a consequence increasing competitiveness and sustainability (Mitsakis & Aravopoulou, 2016). In those terms, personnel are considered for his or her utilitarian cost as bundles of knowledge, capabilities and attributes which are issue to appreciation and depreciation and may be handled as surely some other thing within the manufacturing process (Nafukho et al., 2004). This worldview recognizes the very tremendous strength of capitalist markets and the instinctive force inside businesses to growth shareholder returns, profits, marketplace share, and worker productiveness at minimal cost (McGuire et al., 2005). Indeed, Sambrook (2012) argues that this hard, calculative performance-primarily based totally method surely reduces human really well worth to financial output within the pursuit of company and capitalist goals.

This resource-primarily based totally stance has been countered through researchers promulgating a extra humanistic, worker-targeted method to improvement. By spotting that the worker revel in of businesses isn't always unitary, such studies has frequently set about documenting the structural inequalities that exist within the place of work and the way strength and privilege perpetuate oppression within the place of work (Bass, 2009; Bierema, 2010). Efforts at constructing extra inclusive organizational cultures targeted round shared values of justice and equality confirm the primacy of valuing and respecting human difference and getting to man or woman needs (Kormanik & Nwaoma, 2015). Indeed, such

workbroadens obligations of the sector of HRD past a conventional cognizance on organizational improvement, education and improvement and profession improvement (Collins, 2017). Within this broader context, improvement will become an pastime directed at increasing an man or woman`s potential to characteristic as a mature, self-directing man or woman (Kuchinke, 2010) and the inherent legitimacy of HRD lies in an cognizance of, respect for, and cognizance on man or woman human pursuits and capabilities.

Escaping from a resource-primarily based totally view of worker really well worth opens up opportunities for advancing notions of democracy and social justice inside businesses. It establishes area for selling socially aware practices inside businesses via ethically accountable management and management (Bierema&D`Abundo, 2003). It also de-objectifies human exertions inside businesses and instils the perception of a company conscience (Ardichvili&Jondle, 2009) via which the rights of people and groups are reputable and upheld. In this way, businesses may be guided through ethical concepts and values that form organizational life, have an effect on organizational pastime and mildew worker behavior (Hartman, 1996).

### **HRD and an Ethics of Care Approach**

Tracing its roots to feminist ethical theory, an ethic of care makes a speciality of responding to man or woman wishes thru adopting an inter-relational method (Carmeli et al., 2017). Baier (1987, p. 721) describes care as “a felt challenge for the best of others and community with them.” As such, an ethics of care method demanding situations the orthodoxy of free-marketplace capitalism and immoderate individualism and acknowledges that HRD practice wishes to be knowledgeable via way of means of moral values and social and ethical obligation that places human beings on the middle of essential decision-making (Armitage, 2018). Moreover, care is understood as a generative intentional interest aimed toward fostering growth, healing, empowerment, and self-actualization (Mayeroff, 1971). As such, Armitage (2018) argues that an ethics of care technique is rooted in an overriding emphasis at the fundamental significance of human lifestyles and the giving and receiving of take care of oneself and others is a foundational component of the human experience.

Care is regarded as a essential basis for gaining knowledge of and human improvement (Hamington, 2004; Nicholson & Kurucz, 2019). While gaining knowledge of has lengthy been understood as a natural, ongoing and self-directed process (Burgoyne & Hodgson, 1983), HRD is planned and interventionist in directing gaining knowledge of closer

to the success of person and organizational outcomes (Stewart, 1998). In so doing, Stewart argues that HRD may be an device of emancipation. A comparable argument is superior by Kuchinke (2010) who keeps that the exercise of HRD lies on the interface between the general public and the personal. He asserts that improvement is a duty that imposes responsibilities at the giver and the recipient. He sees improvement as supporting people and businesses to enhance their capacity to broaden themselves and argues that people and businesses have obligations as stewards in their talents to enhance themselves, communities, and society as a whole.

Exhibiting care withinside the place of business acknowledges the want for employers to help the bodily and intellectual well-being of workforce now no longer completely via formal regulations and strategies, however via a contextual and private technique that entails communicate and acknowledges the specific situations of person personnel. As such, Noddings (2013) argues that a key component of an ethics of care technique is that it's miles each proximal and contextual. She keeps that care is grounded in an information that human beings are endowed with an identity, located in contexts, and embedded in relationships. For his part, Bauman (2011) contends that efficient place of business relationships require an expression of care and an hobby withinside the well-being of personnel and stakeholders.

Investing withinside the care of others needs each engagement and involvement, as nicely as a popularity of the complexity of person situations (Bass, 2009). In a profession context, Hite and McDonald (2020) discover they have an effect on of social, paintings and own circle of relatives factors affecting how personnel set priorities when it comes to their paintings and lifestyles. A post-COVID paintings context might also additionally inspire employers to convert in preference to reform paintings to create possibilities for personnel to fulfill their person desires in a brand new and unique way. Moreover, employers can offer extra organizational identification via reassuring worker worries approximately their protection and safety and via designing paintings to supply extra which means and purpose (Bauman & Skitka, 2012).

An ethics of care technique additionally demanding situations employers to cope with social justice worries withinside the place of business. Byrd (2018) asserts that social injustice refers back to the repression of person and civil rights, inhibiting an worker`s gaining knowledge of capability withinside the place of business. Caldwell (2017) argues that for personnel to study and carry out effectively, they have to be handled as valued

companions and HRD practitioners have to display a true commitment to their welfare and growth. He identifies HRD practitioners as moral guardian's within the place of business who have a responsibility to paintings for the personnel's hobbies at the same time as additionally pleasurable their obligations to the organization. To discharge their role, Byrd (2014) continues that HRD practitioners should own a moral attention that drives them to create organizational cultures constructed round shared values of fairness, dignity, recognize and justice. From this standpoint, Fine (2009) asserts that management behavior and decision-making ought to be fashioned now no longer through organizational demands, however through a consistent set of moral standards.

### **Implications for HRD Practice**

An ethics of care technique gives the possibility for a readjustment of middle HRD values, which in turn, might also additionally permit a redecorate and transformation of labor practices. The COVID-19 pandemic has been a giant cause for extrude in organizational operating practices. For many personnel, operating from domestic has long gone from being a bendy gain to being a need with the bounds among own circle of relatives and paintings present process renegotiation and cautious management. Helping personnel to regulate to operating from domestic adequately and efficiently is a primary and essential precedence for HRD practitioners.

An ethics of care technique acknowledges that the COVID-19 pandemic will certainly have a giant effect on an employee's health, wellness and career and that assisting personnel to steady a good paintings-lifestyles stability is essential. Technological answers aren't a panacea here—rather, one-to-one relational paintings is had to make sure personnel sense connected, blanketed and concerned in a spatially-dispersed place of job. Indeed, Li et al. (2020) argue that that is an onus on HRD practitioners to put together personnel in growing new abilities to fulfill a swiftly converting paintings context.

Embracing an ethics of care technique will provide an possibility for the readjustment of HRD values. In doing so, HRD practitioners can paintings to uphold the cost and integrity of all personnel and show a proper challenge for the welfare of others—a key factor of the AHRD expert requirements on ethics and integrity (Academy of Human Resource Development [AHRD], 2020). By taking an lively position in safeguarding the welfare of personnel, HR practitioners can assist to decrease the long-term bodily and mental consequences of the crisis. In doing so, it's far was hoping that HRD might also additionally

evolve as a area of implemented exercise to construct sustainable, worrying and healthful places of work in a post-pandemic world.

Practically, how do businesses enforce an ethics of care technique? We provide 4 suggestions. First organizational leaders want to foster a operating environment constructed upon the pillars of compassion and care (Dutton et al., 2006; Guinot et al., 2020). Such places of work cost the open expression of emotion as essential to assembly the welfare wishes of personnel. Second, an ethics of care technique argues that there's a duty on businesses to root out tactics that masquerade as imparting identical possibilities to all personnel yet, in reality, such tactics privilege efficient exertions and refuse to challenge occupational structures that perpetuate place of job inequalities. Third, organizational values want to exist as techniques for action, as opposed to definitely statements of virtue. According to Kanov et al. (2004), values are systemic mechanisms allowing a collective reaction to ache and struggling inside the organization. They argue thatOrganizational values can impact how people think, sense and act, constructing the collective capability for motion in reaction to character circumstances. Fourth, it is incumbent upon groups to expand an structure that gives sturdy psychosocial guide structures for all employees. A mixture of centrally coordinated mechanisms and programs (Guinot et al., 2020) blended with tasking managers to frequently test at the welfare of people and groups will assist groups notice, sense and reply to worker ache and suffering.

## **Conclusion**

The pandemic has proven that the capitalist machine is predicated upon reproductive exertions for its very survival, but continuously undervalues this shape of work. Indeed, recenta long time have visible an growing commodification of exertions because of developments associated to globalization and new technology (Rubery et al., 2018). Rhetoric suggesting that “weare all on this collectively,” which has been espoused through a few political leaders (Guterres, 2020; House of Commons, 2020b; White House, 2020) famous a loss of appreciation for the differential effect of the pandemic on various groups. It highlights the relative sheltered and privileged function of a few organizations and identifies social justice fault strains in how the pandemic disproportionately impacts ladies and minority groups.

An ethics of care method acknowledges the ethical responsibility of HRD practitioners to defend the protection and wellness of all personnel. As a subject of exercise

centered on human improvement and human flourishing (Kuchinke, 2010), it's far incumbent upon HRD to provoke a dialogue on how we understand and price care withinside the administrative center. Such a discourse desires to study how care withinside the administrative center may be normalized as a herbal human need. From a theoretical standpoint, this could contain increasing our information of HRD past its conventional foundations and adopting extra humanistic techniques to safeguarding worker welfare and boom withinside the administrative center.

The disruptive effect of COVID-19 gives the possibility to resume HRD in line with frameworks inclusive of the United Nations sustainable improvement desires (Zarestky & Collins, 2017). For too long, HRD has been complicit in managerialist agendas that have centered on useful resource optimization and the pursuit of sustainable competitive gain to the exclusion of environmental and societal considerations (Adhikari, 2010; Clardy, 2008; Otoo et al., 2019). Indeed, it could be argued that investments in administrative center gaining knowledge of have frequently been framed completely in phrases of dual desires of growing earnings and performance (Park & Jacobs, 2011). An ethics of care method brings individuals, groups and groups collectively right into a contextual relationship thru which an moral compass is used to manual decision-making primarily based totally upon the desires of others (Haddock et al., 2010). Participation, inclusion, dialogue, and engagement are valuable to the procedure of transformative social change (Pettersen, 2008). Moreover, it urges groups and HRD practitioners to readjust values systems to reassert the primacy of humans over earnings and self-interest. Taking time to look out for personnel desires and protect their mental fitness and wellness is a center duty of compassionate groups.

Uncertain instances regularly offer possibilities for mirrored image and curiosity (Reio, 2020). In a current contribution, Bierema's (2020) invitations us to "prevent and carefully have a look at the approaches we live, work, lead and learn"(p. 347). Through adopting an ethics of care technique, we are able to re-middle the "human" on the coronary heart of HRD. Doing so would boost HRD scholarship and exercise thru forging new requirements for administrative center justice and inclusion (Bierema, 2020). An ethics of care technique is beneficial as an alternative to androcentric theories of justice (Held, 2006; Tronto, 1989) and may be viewed as emancipatory, gender-neutral, and open to each ladies and men (Kennedy, 2016; Pettersen, 2008; Slote, 2007; Tronto, 1993). It strengthens and complements human capacity for empathy and courting thru constructing responsiveness to the wishes of others. By displaying a true hobby in administrative center injustice and a

willingness to take corrective action, HRD practitioners can end up effective advocates for the dismantling of structures of oppression that subjugate people on the idea of gender, race, sexual orientation, religion, ability, and social class.

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**CUSTOMERS' STRATIFICATIONS TOWARDS INNOVATIVE FINANCIAL SERVICES IN RETAIL BANKING – A COMPARATIVE STUDY ON PUBLIC AND PRIVATE SECTOR BANKS IN PALAYAMKOTTAI**

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**ABSTRACT**

*The economic performance of a country is measured in terms of its sectoral contribution. In recent times there has been a growing service sector worldwide and in the Indian context also this sector is gaining momentum in the various service industries that come under the ambit of service sector. In this regard, the contribution of financial sector is one among the highest. This indicates the growing demand for the services of banking and insurance sectors. This is due to the effect of the financial sector reforms which had resulted in the growing competition among the banks including public sector banks. In order to survive in the fierce competition faced by the domestic banks due to the entry of international players' rapid innovation and introduction of new financial instruments, understanding enhancing customer's needs and extensive use of information technology have become essential. However with the availability of similar technology among almost all the banks, it is felt that it is only through the provision of still better services to its customers, a bank can survive in the market. Customer service is a philosophy that affirms the professional commitment which believes in the ultimate satisfaction of customers' wants. The above statement clearly indicates that customer service is beyond spot transactions. Customers are not homogeneous in their behavioral pattern, attitude, needs and expectations.*

*Key words:*

*Banking, Financial services, Innovative, Perception*

**Introduction**

Banking Sector in India has passed through different stages in tune with the economic and political policies of the successive governments. The banks were nationalized for

providing the facility of easy finances aid to people with multifarious needs and demands. Accordingly, controlled mechanism started prevailing in the administration of banks, with more powers vested with the Government and Reserve Bank of India. This state of affairs along with the poor work culture of the employees, affected the delivery of expected services to the customers. The government started thinking on streamlining the functions of the banks to ensure the concept of financial inclusion under the new economic policy. The effect of globalization had a direct impact on the banking sector. It had to witness a paradigm shift and stunning revolution in its operation. Deregulation as a consequence of globalization concept led to disinvestment in public sector banks and entry of private sector banks both domestic and foreign.

This is a new approach to the marketing of bank services. The emphasis here is on viewing the customer as a long term business relationship rather than confining attention to the particular transactions. Banks take on the role of all weather friends and establish a firm relationship so that the customers manage all their banking transactions with them. In relationship banking banks develop highly personalized relationships with the client group.

The floodgate of economy was opened and the banking sector reforms became an urgent need since 1991. The economic reforms marked the entry of private and foreign players with modern technology. It intensified the competitive ambience. “Technology-driven” products and services flooded the market. Economic and structural reforms on the basis of Narasimhan Committee Report brought a total change in the outlook of banking sector. ‘Anywhere Banking’ and ‘Any Time Banking’ got their entry into the functioning of banks. The usual patronage given to traditional banking gradually, made way for the entry of customized banking services like account opening, investment advisory services, photo credit cards, debit cards, Biometric, ATM, Smart Cards, Internet banking, tele-banking, EFT, NEFT, RTGS, Shared Payment Network System, digital payment system, tax advisory services, fixed deposits and bank assurance services.

## **Review**

**Manuchehr Irandoust** (2016) made a study titled, “Modelling Consumers' Demand for Organic Food Products: The Swedish Experience”, This paper attempts to examine a few factors characterizing consumer preferences and behavior towards organic food products in the south of Sweden using a proportional odds model which captures the natural ordering of dependent variables and any inherent nonlinearities. The findings show that consumer's

choice for organic food depends on perceived benefits of organic food (environment, health, and quality) and consumer's perception and attitudes towards labelling system, message framing, and local origin. In addition, high willingness to pay and income level will increase the probability to buy organic food, while the cultural differences and socio-demographic characteristics have no effect on consumer behaviour and attitudes towards organic food products. Policy implications are offered.

**T. Mohanasoundari and A. Kalaivani** (2016) in their study titled, “A Study on Consumers Preference towards Organic Products- in Tirupur District”, Organic is the one of the fastest growing agricultural markets due to consumer’s increased concern about their own health, the environment, and the reported crises and emergencies worldwide on food safety and environmental issues in recent decades. It has now become an alternative for an increasing number of consumers that are worried about the presence of chemicals residues and the negatives consequences on the environmental caused by chemical intensive production methods. To explore the potential market for customers, it is important to know how consumers relate issues of food quality and food system. The aim of this project is to educate in depth the behavioral process of customers with respect to organic food.

**Tina Vukasovic** (2015) made a study titled, “Attitudes towards organic fruits and vegetables”, Organic food market is very challenging in Europe and developing rapidly with different rates between western and eastern part. Consumers have raised great interest to healthy and tasty diet with high nutritional compounds, confidence in food safety, environmental and animal welfare concern and also sustainability. The objective of this paper is to gain knowledge about attitudes toward organic fruits and vegetables among European Union (EU) consumers. Results indicated that organic buyers tend to be younger and higher educated than those who do not buy them. In addition, consumers’ trust in the authenticity of the goods and price are also issues. According to the research results an important task for the producers will be to increase consumers’ knowledge of what an organic product is and how to differentiate it in the marketplace. Along with knowledgeable and educated consumers, consumption could be raised on another level.

### **Objectives**

1. To study on customer’s preference and perception towards innovative financial services.
2. To study on preference and prospects of banking services

3. To analysis the factor motivating for using banking services.

### **Scope of the study**

This study is mainly concerned with the customer perception and preference towards innovation financial service Comparative Study on Public and Private Sector Banks in Palayamkottai. The researcher makes an attempt to study the socio- economic background of the customers in tirunelveli, the problems faced by financial service in commercial banks, identification of innovation financial services Comparative Study on Public and Private Sector Banks in Palayamkottai.

### **Hypothesis of the Study**

Based on the objectives of the studies the following null Hypothesis was formed.

1. There is no significant relationship between the age of the respondents and their level of satisfaction.
2. There is no significant relationship between the educational qualification of the respondents and their level satisfaction.

### **Research Methodology**

Designing suitable methodology and selection of analytical tool is important for a meaningful analysis of any research problems. This selection is denoted to the statement of the methodology, Data were collected from both primary data and secondary data were collected from the annual credit plan of the lead bank scheme, sampling procedure, Method of analysis and tools for a analysis. Sampling Design: There are 10 banks, which include four public sector banks, four private sector banks and two other categories“ of banks under lead bank scheme in Tirunelveli District. For the purpose of collecting primary data from the beneficiaries, The 150 beneficiaries are selected under convenient sampling method.

### **Sample design:**

The research has selected the convenience sampling methods. The researcher has chosen 150 customers on innovation financial service in commercial banks were from the population as per the convenience of the researcher.

## SERVICE QUALITY GAP

This section discusses the customers' service quality gap measured for each of the service items under the five broad dimensions

### Service Quality Gap In All Sample Banks:

#### Tangibility Dimension

Tangibility dimension consists of the following factors:

1. Printing passbook and statement of account
2. Supportive to tax file
3. Innovative Retail Banking services are cyber risk free.
4. Save money as of no need to travel to branch
5. Use of modern technology in services
6. ATMs are conveniently located and provide fast service

In the Table an attempt has been to discuss the perceived and desired levels of average scores and the resultant service quality gap of 150 respondents of the sample banks that arises in the case of the tangibility dimension.

#### Service Quality Gap in the Banks: Tangibility Dimension

Description of factor on Tangibility	Perceived level		Desired level		Gap	
	Score	CV	Score	CV	Score	CV
Nearness to Residence /office	13.62	-1.66	-129.3	13.62	-1.66	-129.3
Friendliness of bank personnel	14.5	-2.3	-45.3	14.5	-2.3	-45.3
Working place compulsion	15.2	2.03	-56.2	15.2	2.03	-56.2
Convenience	15.6	1.02	-56.2	15.6	1.02	-56.2
Rate of Return	4.6	5.03	-55.2	4.6	5.03	-55.2
Good will of the bank	5.2	6.01	-25.3	5.2	6.01	-25.3

Source : Computed from Primary Data

Table shows that in the case of the perceived level of service quality on tangibility dimension. "Printing passbook and statement of account, brochures and pamphlets"

constituted the highest service of all the sample banks with a value of (4.20). The next highest tangible factor is “ATMs are conveniently located and provide fast service” which has a score of (4.1). It is followed by the “The banks atmosphere was very pleasant” (3.42), “Save money as of no need to travel to branch”(3.2), “Innovative Retail Banking services are cyber risk free” (3.6) and “Use of modern technology in services” (3.2).

### **Service Quality Gap in Reliability Dimensions VS factors motivating**

1. To save time and energy
2. To reduce transaction cost
3. To protect environment
4. Mandatory
5. Convenient to use
6. To reducing carbon foot print
7. No Queue
8. Better customer service
9. More number of services
10. Time restriction for transaction

In Table it is attempted to discuss issues in the case of the perceived and desired levels of average score and the resultant service quality gap that arises in the case of the reliability dimension of the 100 respondents of all sample banks.

Service Quality gap in the Banks: Reliability Dimension

### **Service Quality Gap in the Banks: Reliability Dimensions**

Description of factor on <b>Reliability</b>	Perceived level		Desired level		Gap	
	Score	CV	Score	CV	Score	CV
Nearness to Residence /office	<b>4.61</b>	<b>13.62</b>	<b>-1.66</b>	<b>13.62</b>	<b>-1.66</b>	<b>-129.3</b>
Friendliness of bank personnel	<b>2.13</b>	<b>14.5</b>	<b>-2.3</b>	<b>14.5</b>	<b>-2.3</b>	<b>-45.3</b>
To protect environment	<b>1.2</b>	<b>15.2</b>	<b>2.03</b>	<b>15.2</b>	<b>2.03</b>	<b>-56.2</b>

Convenience	11.2	15.6	1.02	15.6	1.02	-56.2
Necessity	5.1	4.6	5.03	4.6	5.03	-55.2
No Queue	2.3	5.2	6.01	5.2	6.01	-25.3
Rate of Return	2.6	2.5	5.3	5.6	-9.6	-5.6
Better customer service	-1.66	13.62	-1.66	-129.3	-1.66	13.62
More number of services	-2.3	14.5	-2.3	-45.3	-2.3	14.5
Good will of the bank	2.03	15.2	2.03	-56.2	2.03	15.2

Source : Computed from Primary Data

Table shows that in the case of the perceived level of service quality on tangibility dimension. “Take control of my finances at any time” constituted the highest service of all the sample banks with a value of (6.56). The next highest tangible factor is “Take control of my finances at any time” which has a score of (6.3). It is followed by the “No time restriction (3.42), “Control over transactions financial”(3.2), “Convenience in bill payment” (3.6) and “Developed privacy policy” (3.2).

### **Service Quality Gap in All Banks: Responsiveness Dimension**

The perceived and desired levels of average score and the resultant service quality gap of all customers in the case of the responsiveness dimension of all the banks are shown in Table

The responsiveness dimension consists of the following factors

1. Complaints and queries are rectified without any delay
2. Latest schemes, financial products and financial services are being informed to the customer
3. Easy to access any information at anytime/anywhere
4. Provides up-to-date information
5. Website updated regularly
6. Fast transaction service
7. Bank shows promptness in feedbacks about inquiry
8. Proper action in case of wrong online transaction and customer inquiry

9. Delivers emails to their customers on regular basis about new updates and related service

### Service Quality Gap in Banks: Responsiveness Dimension

Description of factor on Responsiveness	Perceived level		Desired level		Gap	
	Score	CV	Score	CV	Score	CV
To save time and energy	<b>6.61</b>	<b>-129.3</b>	<b>-4.66</b>	<b>13.62</b>	<b>-1.66</b>	<b>13.62</b>
To reduce transaction cost	<b>1.13</b>	<b>-45.3</b>	<b>-1.3</b>	<b>14.5</b>	<b>-2.3</b>	<b>14.5</b>
To protect environment	<b>2.2</b>	<b>-56.2</b>	<b>103</b>	<b>15.2</b>	<b>2.03</b>	<b>15.2</b>
Mandatory	<b>3.2</b>	<b>-56.2</b>	<b>1.02</b>	<b>15.6</b>	<b>1.02</b>	<b>15.6</b>
To reducing carbon foot print	<b>3.1</b>	<b>-55.2</b>	<b>2.03</b>	<b>4.6</b>	<b>5.03</b>	<b>4.6</b>
No Queue	<b>3.3</b>	<b>-25.3</b>	<b>5.01</b>	<b>5.2</b>	<b>6.01</b>	<b>5.2</b>
Convenient to use	<b>5.6</b>	<b>-5.6</b>	<b>3.3</b>	<b>5.6</b>	<b>-9.6</b>	<b>5.6</b>
Better customer service	<b>-1.66</b>	<b>13.62</b>	<b>-1.66</b>	<b>-129.3</b>	<b>-1.66</b>	<b>-129.3</b>
More number of services	<b>-1.3</b>	<b>14.5</b>	<b>-2.3</b>	<b>-45.3</b>	<b>-2.3</b>	<b>-45.3</b>

Table shows that in the case of the perceived level of service quality on tangibility dimension. “Complaints and queries are rectified without any delay” constituted the highest service of all the sample banks with a value of (6.62). The next highest tangible factor is “Latest schemes, financial” which has a score of (3.3). It is followed by the “Proper action in case of wrong online transaction and customer inquiry (5.6), “Delivers emails to their customers on regular basis about new updates and related service”(-1.3).

### Service Quality Gap for All Dimensions

The customers’ service quality gap between their perceived and desired levels of satisfaction of public sector banks in the area can be seen vide table

**Service Quality Gap for All Dimensions**

S.No	Dimension	Total Score	Average	Standard	Coefficient of Variation
1	Tangibility	8.76	5.49	62.67	62.67
2	Reliability	7.91	5.00	63.21	63.21
3	Responsiveness	10.59	5.18	48.91	48.91
4	Empathy	11.02	7.10	64.43	64.43
5	Assurance	10.18	6.27	61.59	61.59

Source: Computed from primary data

Table shows a dimension wise analysis and indicates that the highest average among all dimensions was found in the case of empathy with a score of 11.02. The next highest average was found in the case of responsiveness with 10.59. This was being followed by assurance with a score of 10.18. Financial aspect took up the last position with a score of 7.91 and tangibility with a score of 8.76.

An analysis of the standard deviation indicates that the highest among all dimensions was found in the case of empathy with 7.10. The next highest standard deviation was observed in the case of assurance with 6.27 followed by tangibility factor 5.49. The lowest standard deviation among all dimensions was found in the case of reliability aspect with 5.00 followed by responsiveness factor with 5.18.

An analysis of coefficient of variation of the dimension indicates that the highest variation among all dimensions was found in the case of empathy factor with 64.43 percent. This was followed by the reliability dimension with 63.21 per cent. Responsiveness aspect had the least variance of 48.91 per cent and proceeded by tangibility with 62.67 per cent.

**FINDINGS:**

1. Reliability dimension entails consistency of overall performance and dependability. For this reason, it is able to be said that service providers honour their promises. Specifically, this involves accuracy in billing and resolving the complaints within the designated time. Of the five aspects, customer feedback has revealed that the largest gap exists in 'providing services as per the committed timeframe as is evident from the highest mean difference value of -1.80.

2. Assurance is the freedom from any risk and doubts, also service providers are expected to be the experts of the services they deliver, which involves customer faith over correct usage charges, confidentiality of the call details, profile and documents and availability of updated information with the customer service staff. For assurance, the major gaps perceived by the customers exists in 'Customer service gets support from organizations -1.30', 'Customer service staff can be trusted -0.59', 'Customer feel secured while dealing -0.

3. The important factors motivating for using banking services among the male customers are more number of services and to protect environment and their respective mean scores are 4.3331 and 4.3111 and among the female customers, to protect environment and more number of services and their respective mean scores are 4.3333 and 4.2333

4. The important factors motivating for using green banking services among the customers— who are in the age group of below 25 years are to protect environment and mandatory and their respective mean scores are 4.4400 and 4.2800, among the customers who are in the age group of 25-35 years, to reduce transaction cost and more number of services and their respective mean scores are 4.2923 and 4.2769. The important factors motivating for using green banking services among the customers who are in the age group of 35-45 years are to protect environment and more number of services and their respective mean scores are 4.2889 and 4.2667, among the customers in the age group of 45-55 years, to protect environment and more number of services and their respective mean scores are 4.3000 and 4.3000 and customers who are in the age group of above 55 years are to protect environment and more number of services and their respective mean scores are 4.8000 and 4.8000.

## **CONCLUSION:**

Persistently weak economic condition in the global and domestic markets have perhaps been the single most important reason for moderate growth in recent times rather than availability of finance should not be a constraint considering India's attractive as a major investment destination for global investor community. They should visits each branch of the participating bank, at least once in a month; during his visits he should guide the branch manager in removing bottlenecks and The Bank officials should consider the power of the repayment of the beneficiaries before sanctioning the loan.

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**A STUDY ON CUSTOMER SATISFACTION TOWARDS ROYAL ENFIELD BIKE  
WITH SPECIAL REFERENNCE TO TIRUPATTUR TOWN**

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**Abstract**

*Marketing is the process of performing market research, selling products and/ or service to customers and promoting them via advertising to further enhance sales. It generates the strategy that underlines sales techniques, business communication, and business developments. It is integrated process through which companies build strong customer relationships and create value for their customers and for themselves. The term marketing concept holds that achieving organizational goals depends on knowing the needs and wants of target markets and delivering the desired satisfactions. It proposes that in order to satisfy its organizational objectives, an organization should anticipate the needs and wants of consumer and satisfy these more effectively than competitors. An orientation, in the marketing context, related to a perception or attitude a firm holds towards its product or service, essentially concerning customers and end-user. Throughout history, marketing has changed considerably in time with consumer taste.*

*Key words: Customer satisfaction, Consumer taste, Customer Perception*

**1.4 OBJECTIVE OF THE STUDY**

- To know about the experience after purchase relating to various parameters; (bike performance, Service, mileage
- To determine the factors that affects the satisfaction of a Bullet user.
- To understand overall performance of Royal Enfield bike.

- To know the suggestions from the customers for the improvement of the Royal Enfield bikes.

## **SCOPE OF THE STUDY**

This investigation incorporates customer's reactions and mindfulness towards the brand items and administration of Royal Enfield. The outcomes are restricted by the example measure 100 and in this way the conclusion of just chosen shoppers will think about. Basically, this is exceptionally fundamental factor for the achievement of any organization.

## **STATEMENT OF THE PROBLEM**

The service feature offered don't meet customer needs. The service specification defined do not meet management's perception of customer expectation. Specifications for service meet customer needs but service delivery is not consistent with those specification. The service does not meet customer expectation, which have been influenced by external communications. Customer judgment of high/low quality based on expectations vs. actual service. Lack of marketing research; inadequate upward communication; too many levels between contact personnel and management. Employee performance is not standardized; customer perceptions are not uniform. Marketing message is not consistent with actual service offering; promising more than can be delivered. A function of the magnitude and direction of the gap between expected service and perceived service.

## **SIGNIFICANCE OF THE STUDY**

The investigation with respect to a notorious brand that is over 100 years of age opens limitless potential outcomes. Given of the task and asset restriction, satisfied shoppers are the advantages of the organization. For fulfilling buyers, the organization offers consideration regarding that whole factor which gives customer's fulfillment. Along these lines, the suitable information about the purchaser fulfillment is basic. Factor investigation of the parameters on which the buy choice has been based. Discovering the fulfillment of after sales service and spares among clients. Mapping the fulfillment of the Bullet client.

## **RESEARCH DESIGN**

India auto industry is currently growing at the pace of around 18% per annum, has become a hot destination for global auto players like Volvo, General Motors, and Ford. The design of the research is descriptive in nature. The data was collected from the customer using Royal

Enfield in Tirupattur by questionnaire, convenience sampling is adopted for collecting data. The sample size was 120.

## **ROYAL ENFIELD PLANTS**

Royal Enfield has one manufacturing and assembly facility in Chennai, Tamil Nadu. This manufacturing plants has been functional since 1955 and still producers the Royal Enfield Bullet 350cc and 500cc models.

### **1.8 LIMITATION OF THE STUDY**

- The study is restricted only to the organized sector of two wheeler industry.
- Sample size was confined to 100 respondents keeping in view of time and cost constraints.
- This project has been taken up at the undergraduate level and the knowledge and experience of the student is limited and hence may not be professional enough.

## **REVIEW OF LITERATURE**

Ravichandran et al(2010)<sup>18</sup> emphasized that the financial liberalization has led to intense competitive pressure and private banks dealing in retail banking are consequently directing their strategies towards increasing service quality which fosters customer satisfaction and loyalty through improved service quality.

Md. Hussain Kabir and Therese Carlsson (2010)<sup>19</sup> Concentrate the discusses and analysis expectations and preparations about service quality in car service center. The aim is to analyses and research and research about the role of service quality for creating customer perception and to find out the gap between expectations and perceptions through the customer point of view. The perception can be described as satisfaction or lack of satisfaction. The survey was conducted as a case study and was based on the quantitative method.

Mohammed & Alhamadani (2011)<sup>20</sup> examined the level of service quality as perceived by customers of commercial bank working in Jordan and its effect on customer satisfaction . In their research service quality measure is based on modified version of SERVQUAL as proposed by Parasuraman et al (1988).

Mr. Debasis Tripathy,(2014)<sup>22</sup> A Study on Consumer perception Towards Wheeler Bikes. “This study is based to identify the consumer satisfaction of bikes at Allahabad, city of Uttar Pradesh. The study concludes that Honda and Bajaj show maximum satisfaction whereas TVS remains last.

Hoda(2015)<sup>25</sup>” A Study Analysis the Satisfaction of youngsters in making purchase decision of Bike or Scooters in and around Landarn Near Mohali.” The Asian country two-wheeler business has return great distance since it’s humble starting in 1948 once Bajaj motorcar started commerce and merchandising vespa scooters in India. Since then, the client preference have modified in favor of motorcycle and gearless scooters that score higher on technology, fuel economy and aesthetic alternatives , at the expenses of medal-bodies in gear scooter and mopeds

Dumitrache etal (2016)<sup>26</sup> The electric vehicles industry is continuously evolving. A such electric vehicle is the electric bicycle (e-bike), Electric bicycle, like another electric vehicles, implement a HLDC motor (Hrushless Direct Current Motor). This paper presents a way of designing and using an electronic module for an e- bike. The paper shows how a low power.

## **MAKETING STRATEGY OF ROYAL ENFIELD**

Marketing mix of Royal Enfield analysis the brand/company which covers 4PS (Product, Price, Place, Promotion) and explains the Royal Enfield marketing strategy. The article elaborate the pricing, advertising & distribution strategies used by the company.

## **ROYALL ENFIELD ACHEIVEMENTS &AWARDS**

- Royal Enfield overlook top world brand Harley Davidson in terms of sale; approximated 3,00,000 sold by Harley Davidson`
- Royal Enfield sales jumped up to 43 percent in January 2015.
- Royal Enfield made profits worth RS.558 crore in 2014.
- Royal Enfield Thunderbird 500 was given the 2012 Enthusiast Motorcycle 250cc-500cc award.
- Royal Enfield Thunderbird was conferred with “ Motorcycle of the Year” award foe above 250cc category in 2015.

- Royal Enfield won the 2012-13 Motorcycle Manufacturer of the Year award.
- Royal Enfield Continental GT generated ‘ Indian Motorcycle of the Year’ award in 2014.
- Bullet Classic C5 was bestowed upon Best Bike (Metric- Stock) at the Bearly Cruzin Classic Car and Motorcycle Show in Arizona, USA, in 2009

## DATA ANALYSIS AND INTERPRETATION

### AGE OF THE RESPONDENTS

S.NO	AGE	RESPONDENT	PERCENTAGE (%)
1.	20 to 25 years	40	40
2.	26to30 years	43	43
3.	31to35years	15	15
4.	Above 36	2	2
	<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

### INTERPRETATION:

The table clearly shows that the age group of the respondents. Out of 100 respondents 43% of the respondent are belongs to the age group of 26to30 years,40% of the respondent are belongs to the age group of 20to25 years, 15% of the respondents are belongs to the age group of 31-35 years and 2% of the respondents are belongs to above 36 years.

### OCCUPATIONAL STATUS OF THE RESPONDENTS

S.NO	OCCUPATIONAL STATUS	RESPONDENT	PERCENTAGE(%)
1.	Student	16	16
2.	Private Employee	33	33
3.	Government Employee	16	16
4.	Self Employee	21	21
5.	Others (Specify)	14	14
	<b>Total</b>	<b>100</b>	<b>100</b>

**SOURCE: Primary Data**

### INTERPRETATION:

The above table shows that the 33% of the respondents are Private Employee,21% of the respondents are Self Employee, 16% of the respondents are Student,16% of the respondents are Government Employee, 14% of the respondents are Others

### INCOME OF THE RESPONDENTS

S.NO	INCOME PER MONTH	RESPONDENTS	PERCENTAGE(%)
1.	Less than 15,000	10	10
2.	15,001 to 20,000	30	30
3.	20,001 to 30,000	40	40
4.	Above 30,000	10	10
	<b>Total</b>	<b>100</b>	<b>100</b>

Source: Primary Data

#### INTERPRETATION:

The above table shows that the 40% of the respondents are 20,001 to 30,000, 30% of the respondents are 15,001 to 20,000, 10% of the respondents are Less than 15,000, 10% of the respondents are Above 30,000.

#### MODELS OF ROYAL ENFIELD BIKE

S.NO	MODELS OF ROYAL ENFIELD BIKE	RESPONDENTS	PERCENTAGE(%)
1.	Bullet 350	46	46
2.	Bullet 500cc	4	4
3.	Classic 350	46	46
4.	Classic 500	4	4
	<b>Total</b>	<b>100</b>	<b>100</b>

Source: Primary Data

#### INTERPRETATION:

The above table shows that the 46% of the respondents are Bullet 350, 46% of the respondents are Classic 500, 4% of the respondents are Bullet 500cc, 4% of the respondents are Classic 500.

#### PURCHASING MODEL OF ROYAL ENFIELD BIKE BY THE RESPONDENTS

S.NO	PURCHASING MODE OF ROYAL ENFIELD BIKE	RESPONDENTS	PERCENTAGE(%)
1.	Installment Payment	36	36
2.	Loan/EMI	38	38
3.	Gift from partner	26	26
	<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

#### **INTERPRETATION:**

The above table shows that the 38% of the respondents are Loan/EMI, 36% of the respondents are Installment Payment, 26% of the respondents are Gift from partner.

#### **SATISFACTION LEVEL OF RESPONDENT TOWARDS AFTER SALES SERVICE OF ROYAL ENFIELD BIKE**

S.NO	AFTER SALES SERVICE OF ROYAL ENFIELD BIKE	RESPONDENTS	PERCENTAGE(%)
1.	Highly Satisfied	72	72
2.	Satisfied	24	24
3.	Dissatisfied	4	4
	<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

#### **INTERPRETATION:**

The above table shows that the 72% of the respondents are Highly Satisfied, 24% of the respondents are Satisfied, 4% of the respondents are Dissatisfied.

**TABLE 4.8**  
**FUEL CONSUMPTION FOR ROYAL ENFIELD BIKE**

S.NO	FUEL CONSUMPTION FOR ROYAL ENFIELD BIKE	REONDENTS	PERCENTAGE(%)
1.	Low	14	14

2.	Average	44	44
3.	High	42	42
	<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

**INTERPRETATION :**

The above table shows that the 44% of the respondents are Average, 42% of the respondents are High, 14% of the respondents are Low.

**SATISFACTION LEVEL OF BIKE MILEAGE**

S.NO	SATISFECTION LEVEL OF BIKE MILEAGE	RESPONDENTS	PERCENTAGE(%)
1.	Yes	98	98
2.	No	2	2
	<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

**INTERPRETATION:**

The above table shows that the 98% of the respondents are Yes, 2% of the respondents are not satisfied.

**THE SATISFACTION LEVEL OF RESPONDENTS TOWARDS THE PERFORMANCE OF THE BIKE**

S.NO	SATISFACTION LEVEL WITH THE PERFORMANCE OF THE BIKE	RESPONDENTS	PERCENTAGE(%)
1.	Highly Satisfied	62	62
2.	Satisfied	38	38
3.	Dissatisfied	0	0
	<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

**INTERPRETATION:**

The above table shows that the 62% of the respondents are Highly Satisfied, 38% of the respondents are Satisfied, 0% of the respondents are Dissatisfied.

**SOURCES OF AWARENESS OF ROYAL ENFIELD BIKE**

S.NO	SOURCES OF AWARENESS ROYAL ENFIELD BIKE	RESPONDENTS	PERCENTAGE(%)
1.	News Paper	30	30
2.	Advertisement	14	14
3.	Friend	56	56
	<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

**INTERPRETATION:**

The above table shows that the 56% of the respondents are Friend, 30% of the respondents are News Paper, 14% of the respondents are Advertisement

**PURPOSE OF USING ROYAL ENFIELD BIKE**

S.NO	PURPOSE OF USING ROYAL ENFIELD BIKE	RESPONDENTS	PERCENTAGE(%)
1.	College	12	12
2.	Style	66	66
3.	Office	20	20
4.	Others	2	2
	<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

**INTERPRETATION:**

The above table shows that the 66% of the respondents are Style, 20% of the respondents are Office, 12% of the respondents are College, 2% of the respondents are Others.

#### **RATING OF BIKE BY THE RESPONDENTS**

<b>S.NO</b>	<b>RATING OF BIKE</b>	<b>RESPONDENTS</b>	<b>PERCENTAGE(%)</b>
1.	Excellent	40	40
2.	Good	46	46
3.	Average	12	12
4.	Poor	2	2
	<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

#### **INTERPRETATION:**

The above table shows that the 46% of the respondents are Good, 40% of the respondents are Excellent, 12% of the respondents are Average, 2% of the respondents are Poor.

#### **FINDING SUGGESTION AND SOLUTION**

##### **FINDINGS**

- ☐ Majority (43%) of the respondents are belongs to the age group of 26 to 30 years .
- ☐ Majority (33%) of the respondents are Private Employees.
- ☐ Majority (40%) of the respondent's income level is Rs. 20,001 to 30,000.
- ☐ Majority (46%) of the respondents use Bullet 500& Classic 500 bikes model.
- ☐ Majority (38%) of the respondents purchase Royal Enfield bike through Loan/EMI.
- ☐ Majority (100%) of the respondents are considering other brand before buying the Royal Enfield.

- ☐ Majority (72%) of the respondents are Highly Satisfied after the sales service of Royal Enfield bike.
- ☐ Majority (96%) of the respondents are agreed the complaints lodged by the customer.
- ☐ Majority (44%) of the respondents rate of fuel consumption for Royal Enfield bike belongs to Average.
- ☐ Majority of the (98%) of the respondents satisfied with the bike mileage.
- ☐ Majority of the (100%) of the respondents will you get spare spots of Royal Enfield in market belongs to Yes.
- ☐ Majority of the (100%) of the respondents company providing best product in market in
- ☐ Majority of the (62%) of the respondents highly satisfied with the performance of bike.
- ☐ Majority of the (50%) of the respondents which version of Royal Enfield product are better belongs to Old version & New version.
- ☐ Majority of the (56%) of the respondents how you know about Royal Enfield bike Friend.
- ☐ Majority of the (66%) of the respondents purpose of you use your bike belongs to Style.
- ☐ Majority of the (50%) of the respondents liker Power of Bike.

## **SUGGESTIONS**

- ☐ The price of Royal Enfield is very high when compared to competition. The company has will established can provide some gifts and discounts to the customers.
- ☐ The dealer is also required to provide discounts on cash purchase.
- ☐ The company also tries to give certain offers to the dealer so as improve his efficiency in the selling Royal Enfield products which other company also give to their dealer.

- ☐ As television as the common media for advertising frequent advertisement must be shown in local city cable.
- ☐ As the dealer has arranged neon bulbs for advertising in the showroom in the same way.
- ☐ The company should provide the warranty for some parts like clutch plates mark.
- ☐ The dealer is promotional strategy should provide test rides in colleges and after some special gift like diaries pen, bags etc.
- ☐ The dealer is required to maintain all colors of Royal Enfield Sports at all time & it is available to customer at right him.
- ☐ Give more advertisement in Tirupattur town.
- ☐ To come with different color of the bikes with new models.
- ☐ Royal Enfield Company should take of resale value of bike. Resale value is high compared to other bikes.
- ☐ All spares, accessories should be available at the service stations on proper time.
- ☐ To improve the design for wheels for a better road with safety driving.
- ☐ The new Royal Enfield exhibits international styling at its bests. A part from a classy double tail lamp and masculine fuel tank.
- ☐ Mono suspensions for better stability and comfort

## CONCLUSION

A variety of two wheelers have entered into the two wheeler market. This has increased the competition because of competition Sales of two wheelers might have decreased . Therefore, the Royal Enfield Company has to keep in mind the latest competition prevailing in the market while fixing the price of its two wheelers particularly Royal Enfield Bike Because of Royal Enfield Company believes in excellence in the technology it has achieved more than one million customer satisfaction within part of the years from its launch No other India two wheeler company has achieved its progress within short period. As per market research carried out by Enfield company it is found them it is the number one

company in two wheeler segment. By considering all the findings of is hope that the company & dealer will sing a sweet song of a future.

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## SUSTAINABLE DEVELOPMENT FOR POST PANDEMIC IN HEALTH SCIENCE

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### **Abstract**

*The COVID-19 pandemic is a major health corner that has changed millions globally. The purpose of this chapter was to evaluate the effect of the pandemic on mental health and quality of life among the general residents in the Middle East and North Africa (MENA) region. A total of 6142 adults from 18 countries within the MENA region completed an online opinion poll between May and June 2020. The psychological impact was evaluate using the Impact of Event Scale-Revised (IES-R) and the social and family support impact was estimated with questions from the apparent Support Scale (PSS). About 42% reported acquiring increased support from family members. 40.5% were paying more attention to their mental health and over 40% reported spending more time resting since the pandemic was initiated. The COVID-19 pandemic was associated with mild emotional impact while it also encouraged some positive impact on family support and mental health awareness among adults in the MENA region. Intermediary targeted towards unsafe groups such as females and younger adults is necessary.*

### **Introduction**

#### **A Summary of Global Scientific Responses to the Coronavirus**

##### **December 31**

- \* The government of Wuhan (China) turn up dozens of cases of pneumonia of unidentified.
- \* After that, Chinese researchers recognize a new virus that had infected hundreds of people in Asia: SARS-Cov-2. There was no evidence that the virus could transmit easily from human beings to human beings.

##### **January 11**

The Shanghai Public Health Clinical Centre produce online the first genome sequence of the coronavirus that caused COVID-19.

Based on the segment, governments, biotechnology enterprises and universities quickly requested copies of specific viral genes. The world's most advanced laboratories began to orchestrate the new virus.

### **January 30**

\* The World Health Organization (WHO) proclaim the coronavirus outburst a global emergency, commencing that the virus was spreading rapidly and that a coordinated response was being needed.

### **February 11**

\*Enterprise specializing in DNA compounds was flooded with orders for parts of the virus, which were mandatory for verifying discriminating tests and for developing probable vaccines.

\*Scientists from countries with more advanced R&D systems joined their Chinese counterparts in a race to develop a vaccine for the virus to assuage the current pandemic and avert future outbreaks.

### **February 15**

\* Researchers at the University of North Carolina started to create a copy of the virus situated on the genome sequence issue on January 11. The synthetic virus would enable the study of therapy, vaccines, and viral mutations.

\* Gene union enterprises agreed on a policy on who could buy a copy of the complete copy of the novel coronavirus would need to undergo specific and detailed examination.

### **March 2**

\*Moderna Healing reported having submitted mRNA1 vaccine to the NIH to commence welfare testing (Phase I). It took the venture 42 days to develop the vaccine allowing for it had access to the viral genome.

\*NIH recruited volunteers for the Phase 1 trial of the Moderna vaccine. Regeneron Medicament, CureVac, and Inovio Pharmaceuticals also announce developing an mRNA vaccine and would begin Phase I trials in April. France's Sanofi began fundraising for a more ordinary vaccine that would take 6 months to expand with testing to begin in 2021.

### **March 11**

\* The WHO officially proclaims the novel coronavirus outbreak a pandemic, recognizing the failure of global efforts to contain its spread thus far.

### **March 16**

\*The WHO inscribe large-scale diagnostic testing to produce epidemiological data essential for research and public health decision-making.

### **March 18**

\* Laboratories and research centre in several countries around the world began serology testing to detect the presence of antisera for the novel coronavirus in people.

\* Serology tests were carried out to identify debris who might donate their blood to patients seriously ill with COVID-19 to help boost the latter's immunity. The tests would also help conjecture the number of undiscovered cases.

### **March 23**

\*Three months after the outbreak of the pandemic percussive results of clinical trials on the safety and potency of drug reuse candidates for COVI-19 were declared.

### **Policy Interventions to Respond to the Crisis**

Duplication to the crisis reflects substance progression in the institutional functions of several LAC countries to roll out science and technology policies. In dissimilarities to the global pattern in pandemic response (with science responding faster than science policy), public policy in the region seems to have taken the lead in light of an apparently slower response in research.

Indeed, science, technology, and innovative agencies and ministries in various LAC countries have acted quickly with various initiatives. Table 6 come up with a non-exhaustive list of some of the policy responses, followed by a cavernous analysis. The takeover of this document is a more complete in spite of the fact that still non-exhaustive, list.

#### **i) Support for Scientific Research Projects**

### Calls for mission-oriented research on topics related to the pandemic

In the past 2 decades, funding scientific research through calls for proposals or edible has become conservative practice is associated with the National Science Foundation of the United States and such calls are now a dominant part of the science-policy toolkit all over the world.

The wide spread agency in charge of science and technology policy circulates a call for proposals to groups of researchers (based in laboratories, universities, and enterprises) to play a part in a competitive process all over which the best projects are awarded pre-determined amounts of financing. These calls are on occasion open(to any research project in any field) but more often they focus on scientific speciality or topics related to particular problems that society needs to acknowledged better.

The furthest back is usually referred to as “mission-oriented research”, and examples embrace several fairly recent calls (began in March 2020 in several countries) aimed at mobilizing scientific capacity to respond to the challenges posed by the pandemic. In cases such as the Innovate Program in Peru, Mission-oriented research focused on technology-based upheaval, summons on the scientific and business clique to participate in hackathons.

#### ii) Support for Innovative Science, Technology-Based Developments

Financing Science and Technology-Based Business innovation projects related to the pandemic

Often, Science and Technology agencies are also skilled protagonist of science and technology-based innovation. Just as there have been calls for scientific research projects related to COVID-19, there have been more calls for enterprises, both established enterprises, and start-ups, to come up with inventive projects that take one ingredient of the pandemic or another by making use of new improvement in science and technology.

The nature of the behind time is alike to that of research projects but with 2 atmost variations: the target audiences called upon to partake are mainly enterprises (although they may team up with laboratories or universities), and calls for enterprises to focus much more on practical and short-term aspects of the pandemic, such as making ventilators, developing tests, conducting epidemiological studies on the characteristics of the spread of the virus, or using

digital technology (artificial intelligence and geolocation, etc.) to improve policymaking in a midst during in the crisis.

A noteworthy sample is Uruguay's National Agency for Research and Innovation (ANNI) which has launched 3 specific calls for proposals, one on the design and commission of technological evolutions, applications, and gadgets to suppress the spread of COVID-19 by way of ingress to information; a second on Making Ventilators and Third one on projects that raise public awareness of SARS-Cov-2 related treatment and care and facilitate protective quarantine.

In Spain, the academies elaborate in the response to the crisis are working with the Bio-Technology enterprises to generate diagnostic tests. There are already 4 certified companies capable of producing Polymerase Chain Reaction (PCR) tests. The European Commission offered €80 million in funding to the enterprises Curves to speed up the evolution of an mRNA-type vaccine for the coronavirus. The European Innovation Council Accelerator received more than 1000 schemes from SMEs with innovations related to preventing the spread and lightening the bump of the coronavirus. It will allocate €164 million in grants in May 2020

Science Policy Priorities of Major Federal

### **Office of Science and Technology Policy (OSTP)**

- \* Developed research agendas to acknowledge the Geographical issuing of the virus, maturation period, potential expansion, and persistence of the virus on surfaces, which has been demonstrated to be essential for informing decontamination and social separation excretion.

- \* Elevated the formation of the COVID-19 Open Research Dataset (CORD-19) the largest assemblage of scientific compositions with more than 52000 educational articles related to COVID-19 and the extraction of coronaviruses.

- \* Accommodate a call to action on Kaggle to artificial intelligence specialist from close tp the world to expand new strategy for analyzing the CORD-19

### **National Institutes of Health (NIH)**

The NIH is nowadays focused on studying the features of the virus and expanding vaccines and therapies. In February, the NIH began a clinical trial to estimate the safety and influence of an experimental drug that could be used on people who already have COVID-19. On March 16, the NIH launched a 6 week clinical trial of a vaccine expanded by Modern Therapeutics. The Goal of the first phase is to estimate various doses for protection and the ability to bring a resistant response. The trial was floated with record speed.

### **Centre for Disease Control and Prevention (CDC)**

The CDC is waged on developing the testing capacity to record the radiate of COVID-19 and protect against new infections.

### **National Science Foundation (NSF)**

The NSF is supporting “Non-Medical, Non-Care” coronavirus research projects by way of a Rapid Response Research funding Mechanism which is set in motion when calamity occurs. One of the first gauges that hold up by this call for proposals studies how the composition of the coronavirus combat substitutes in temperature and dampness.

### **Department of Energy (DOE)**

The DOE is undertaking proposals on how the science and computing armature of its laboratories could be used for coronavirus research. The Oak Ridge National Lab is a supercomputer to model molecular synergy between the coronavirus and more than 8000 drug combinations. The Argonne National Lab uses its advanced photon source to map the protein structure of the coronavirus to identify budding drug preys.

### **Psychology of Sustainability**

In the report of Chandler (2020), the psychology of sustainability and the criteria for relative improvement are associated with socio-economic progress, foremost to developed living standards. The study by Srivastava et al.(2020) proposed that the management of sustainability relates to ecology, equity, and economy. Meanwhile, Cawright et al.(2020) observed that COVID-19 affects the quality of life as the overall economic, ecological, and equity atmosphere have converted.

On the report of Bastola et al.(2020) psychological and sustainability, factors women up with the well-being and allow psychological improvements. Recycling, dismantling, and

demolishing factors are pretentious by sustainability. The psychology of sustainability also relates to deconstruction, recoverability, and oxygenation (Lacus et al.,2020). Using the micro-dimension of grasps creates an opportunity to increase awareness that eventually enables involvement in self-centered improvement criteria.

### **Impact of Coronavirus Disease on the Psychology of Sustainability and Quality of Life**

Political, environmental, and economic particular collectively resolve sustainable improvement psychologically. These aspects also resolve how humans should spend their current lives so that the same quality of life can be transferred to and enjoyed by future generations. According to minimal changes in human life slowly alter the future, but future generations will not perceive their lives as the outcome of change; they will think that people before them have led their lives in similar ways. World Wars and pandemics have impacted our at hand lives. Moreover, the COVID-19 pandemic has noticeably impacted the political, environmental, and economic aspects of human life on which emotional improvement and sustainability are secondary.

Many people all over the world are losing their jobs. i.e) their income. Profit margins and revenue generated by different organization have dropped. To save the economy and their citizen's mental health from the epidemic, various countries have prolonged strategies but, years of struggle will be required to regain economic stability.

Moreover, the COVID-19 pandemic and the linked crises have disturbed people's mental well-being, mainly employees who have lost their jobs. The well-being of employees working from home is understood as the gap between their salaries and individual lives has decreased (Pratt and Frost, 2020). .

### **Sustainable Development Goal: Good Health and Well-Being**

SDG 3 is ambitious, setting out to reduce or get rid of some health-related problems, including:

\* Maternal humanity and avoidable deaths of newborns and young children.

- \* Catching diseases like AIDS, Tuberculosis, And Malaria, as well as deaths from non-communicable diseases, substance abuse and mental disorders.
- \* Secure universal health coverage, and mainly access to reproductive health services.
- \* The health bump of the environment, as well as dangerous chemicals, pollution, and climate change.

#### What Can I Do to Create a Healthy Future?

- \* Get wholly vaccinated for COVID-19 as soon as I'm able to do so, and assure other, routine vaccinations for myself and my children are up to date. Make a plan to get the flu vaccine to assure hospitals aren't overrun with virus as the pandemic continues.
- \* Abide to practice social distancing and wear a face mask when appropriate, mainly in crowded, indoor areas where there might be at risk or unvaccinated people.
- \* Thank medical professionals and curtail workers who have put their health and the health of their loved ones at risk during the pandemic.
- \* Vitalize my company to prioritize health investments and partnerships, as well as the mental health of employees and stakeholders.
- \* Speak out opposed to economic and social disparities that lead to unfair access to healthcare.
- \* Take steps to reduce my bump of the planet so I don't contribute further to climate change.

#### Conclusion

This pandemic has educated us that the entire world is linked. If we do not work in combination and co-operate, humanity will suffer drastically. We need to implement a few changes so that we not only appear from this crisis but are also able to prolong with our lives healthily and sustainably.

Firstly, marketing processes must be are customized. Instead of blindly following brands and attain attracted to the logos, etc., enterprises should try to meet their customer's demands. Dispensable use of plastic products should be sternly prohibited.

Secondly, any health-related issue should be handled at a global level. If we limit ourselves to our exact race, ethnicity, culture, nationality and background, humanity will not be able to sustain this pandemic. assured budgets should be allocated and policies prioritizing health in different regions and cultures should be planned.

Thirdly, people from all cultures and interests such as health professionals, scientists, environmentalists, researchers, politicians, sociologists and ethicists should assist and work to improve the current situation.

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## BEYOND COVID-19: THE FUTURE FOR ONLINE TEACHING AND LEARNING IN HIGHER EDUCATION

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### ABSTRACT

*Supporting the additions and expanding on the great results related with higher ed's reaction to COVID-19 can upgrade the quality and dissemination of internet instructing and learning, develop assets and framework, and eventually save foundations important time and cash. The COVID-19 pandemic has constrained the world to take part in the universal utilization of virtual learning. And keeping in mind that on the web and distance learning has been involved before to keep up with progression in schooling, the size of the current emergency is phenomenal. Theory has now additionally started with regards to what the enduring impacts of this will be and what schooling might resemble in the post-COVID period. As far as some might be concerned, a quick retreat to the practices of the actual homeroom is required. Online training has customarily been seen as an elective pathway, one that is especially appropriate to grown-up students looking for advanced education open doors. In any case, the development of the COVID-19 pandemic has required teachers and understudies across all degrees of training to adjust rapidly to virtual courses. Sometimes, guidance moved on the web, then, at that point, got back to the actual study hall, and afterward moved back online because of additional floods in the pace of disease. In different cases, guidance was offered utilizing a blend of distant conveyance and eye to eye: that is, understudies can go to on the web or face to face. Regardless, teachers just needed to sort out some way to make it work, considering the affordances and requirements of the particular learning climate to make opportunities for growth that were possible and compelling. This paper examines on the Future for Online Teaching and Learning in Higher Education, after the pandemic.*

**KEYWORDS:** Educator, Constraints, Learning, Online and Pandemic.

## 1. INTRODUCTION

To say that the COVID-19 pandemic essentially interfered with the typical activity of instructive establishments overall is a colossal misrepresentation of reality. As per UNESCO, the instructive encounters of almost 1.4 billion understudies of any age were upset. In a strangely quick activity for advanced education, the COVID-19 pandemic constrained schools and colleges to move their courses online while personnel, managers, and staff worked somewhat to ensure a huge number of understudies and themselves. From that point forward, remote courses, far off understudy support administrations, far off graduation functions, and distant grounds visits turned into the new standard, all pointed toward controlling the fast spread of this dangerous infection. The orderly difficulties at first originated from planned operations, lacking equipment and programming, and educational plan and appraisal changes. A huge and shifted number of staff and understudies were ill-equipped to educate or advance from a distance. Absence of admittance to computerized gadgets, to the web, and to adequate transmission capacity further uncovered the waiting issues of the advanced gap. Numerous establishments needed hearty internet based projects, adequate informative plan and innovation staff, suitable course-improvement processes, and additionally enough organized understudy support systems.

With crisis remote instructing as the main choice, even the web-based schooling skeptics and doubters had no real option except to get on board with that fleeting trend, applying instructing systems that copied homeroom guidance trying to empower understudies to move to a higher level or even alumni. A contention can be made that the crisis remote showing has been a distortion a deviation from the ordinary on the web and study hall informative practices in advanced education and a transitory, momentary answer for the pandemic emergency. It is vital to recognize that there is a contrast between very much arranged and created internet based courses or distance instruction programs and the diverse techniques cobbled together briskly to fulfill the pressing needs of the circumstance. By and by, the illustrations gained from the experience ought not be disposed of. What illustrations have advanced education understudies, workforce, and chairmen gained from the pandemic? Are the examples valuable? What gains were made, and how could advanced education tackle and develop those gains?

Advanced education's COVID-19 reaction brought about an unstructured lift in internet instructing and learning, quick sent the reception of more expansive based web based learning procedures and advances, and showed a flexibility that made a model for greatness in web based educating. Ideal outcomes arose out of endeavours to fill the huge instructive hole made by the pandemic. Organizations have developed their inventories of online courses. Workforce, maybe shockingly, have discovered that they can create and take part in virtual study halls. Personnel and understudies who had not recently viewed as internet learning as valid training have had a sample of it. Employees acquired new innovation abilities. Foundations with a negligible impression in the web-based climate conveyed huge quantities of crisis remote courses all the while, showing the potential for adaptability in the web based learning mode. The positive encounters acquired during this period offer expect a few decent long haul results regardless of this destructive circumstance. Be that as it may, time, exertion, and imaginative assets will be needed to enhance these increases and make them manageable.

## **2. MAINTAINING AND BUILDING ON THE GAINS**

Supporting the additions and expanding on the great results related with the reaction can upgrade the quality and appropriation of web based instructing and learning, develop assets and framework, and eventually save establishments significant time and cash. However the advantages acquired from powerful educational advancements can't be completely acknowledged except if the developments are tackled and systematized. Supporting the additions made during the pandemic can prompt scaling those developments for more extensive applications. Rather than being treated as disengaged systems appropriate to extraordinary ventures, advancements can become acknowledged parts of establishment practice. The advantages of web based showing advancements can be imparted to staff inside and outside the starting foundations. Endeavours should be made to guarantee that personnel, executives, and educational originators all are given the devices to record and take on inventive methodologies or gains.

## **3. INSTITUTIONAL CULTURE AS A FACTOR IN SUSTAINING GAINS**

An organization's way of life could be a deciding component in the worth it puts on empowering and empowering advancements in instructing and learning, trial and error, and innovativeness. The acknowledgment and successful finishing of instructive advancements depends on a steady key chairman who has the vision, drive, and obligation to produce cooperative associations among workforce, scholarly innovation support units, staff improvement workplaces, and other help faculty accused of overseeing web based learning. The method involved with organizing the increases made during the pandemic should be a foundation wide procedure. The result will upgrade projects and course contributions as it gives a stage to absorbing and overseeing developments.

Any negative quirks got in the hurry to give pandemic-period courses or waiting thoughts about the nature of crisis remote showing should be scoured off. Since past endeavours to further develop instructing and learning were regularly seen to be aimless and transient in nature, deliberate endeavours ought to be made in the post-COVID-19 time to try not to rehash those botches and to guarantee dispersion and absorption of the advancements. Schools and colleges should make a move to re-examine framework wide drives that support academic and mechanical gains and develop a suffering creative culture. As David Ward, previous chancellor at the University of Wisconsin-Madison, noted: "Many sections of our educational programs would have further developed results and limit assuming the advancements were taken on at the right scale. Ward required the dismissal of since quite a while ago held practices that ruin valuable chances to serve understudies better, and he cautioned that it tends to be counterproductive to make clumsy and irregular endeavours at change.

#### **4. POST-PANDEMIC RESPONSES**

##### *i) What's Next for the Emergency Remote Courses?*

In the post-COVID-19 time, foundations may re-evaluate the crisis courses to decide how they could be developed to fulfil the essential guidelines, configuration, and nature of online courses. Of the numerous crisis courses created during the pandemic, there could be those that ought to be rescued. This will include impressive time and exertion considering the assets that will be required, including the contribution of institutional pioneers, personnel,

informative fashioners and technologists (IDTs), and other inside voting public. The reaction that school and college pioneers exhibited during the pandemic to keep their entryways open and guarantee that guidance proceeded proposes that with a similar intensity, versatility, and commitment, they can further develop web based learning courses and embrace the imaginative practices that worked. The post-COVID-19 period could be a period for advanced education to make an arrangement for viable distance learning, especially by establishments that had falled behind. It will be a period to foster approaches and methodology for internet learning, to survey and decide the best advances and conveyance techniques for web based learning courses, to collect the right web based learning group for course improvement and improvement, and to get ready staff in course advancement and web based educating.

#### *ii) What's Next for Emergency Remote Teaching?*

At the point when life at schools and colleges gets back to business as usual, organizations might not need to dispose of all their crisis remote courses. Courses can be reconsidered to decide how they may be retrofitted to meet arrangement and quality suggestive of instructively sound web based educating and learning norms. These courses could frame the impetus for the fast turn of events and arrangement of new internet based courses and projects. The best endeavours and shells of courses created as crisis drives can be developed and regulated. Naturally, this will be a laborious undertaking, considering the time and assets responsibility that will be required. Institutional pioneers should assume a significant part in this work, altering their essential intends to give the required assets, including staff, innovation, approaches, and strategies. Endeavours to improve or foster internet based courses can expand on existing quality norms for instance, the quality measurements from the Online Learning Consortium Quality Scorecard Suite, Quality Matters, or UPCEA, the relationship for proficient, proceeding, and online training.

The most common way of further developing crisis remote courses bears the cost of a fantastic chance to present the utilization of set up benchmarking apparatuses, agendas, and rubrics to personnel who are new to devices that action the nature of web based learning. Rubrics serve the significant job of assisting workforce and course engineers with

incorporating fundamental course components. The improvement cycle of the crisis remote courses could be steady. All around planned web-based courses have been viewed as practically identical to or as compelling as conventional study hall guidance. With a sensible and imaginative methodology, the conveyance of web based gaining would transform from a crisis fuelled emergency response into an approach to reconsidering how to design, improve, and best convey online guidance. The method involved with creating quality web-based courses requires cooperative endeavours among staff and the educational plan specialists. An additional advantage to advanced education from the means taken to further develop the crisis remote courses might be that personnel will utilize the experience to further develop their customary study hall guidance and half-breed course improvement and conveyance.

### *iii) What's Next for Instructional Designers and Technologists?*

IDTs assumed key parts in the use of innovative and instructive choices to the creation and sending of crisis remote educating. Inside Higher Ed announced: "More than 3/4 [of instructors] said they got help from educational innovation staff individuals (78%) and distributed discussions (76%), while around 66% referred to instructing and learning focuses and informative planners.

Before the pandemic, the utilization of advances and material teaching methods to propel guidance was refined with the help of IDTs. The pandemic time intercessions further demonstrated the worth of IDT experts as establishments went to them to help staff and to make ideal and educated use regarding innovative and educational answers for increase the organization of the crisis remote courses.

In the post-COVID-19 time, advanced education organizations will depend on the administrations of these experts considerably more. Connecting with IDTs will be fundamental to recognizing gains, reusing the crisis remote courses, guaranteeing the maintainability of the increases, and creating alternate courses of action to relieve future crises. The act of relying upon one IDT to serve a whole establishment won't do the trick in this endeavour. The requirement for IDTs-frequently the alumni of Instructional Design and

Technology programs-can't be overemphasized and will typically increment. Enrolment of IDTs where there are none or too couple of signs an organization's availability to work on the quality and chance of virtual guidance. Institutional acknowledgment of the worth of IDTs, and backing of the divisions that give informative innovation and web based learning administrations, is supported.

*iv) What's Next for Students?*

The post-COVID-19 period will be the ideal opportunity for advanced education to construct or reposition web based figuring out how to serve understudies better, especially for organizations that slacked in these endeavours before the pandemic. In this post-pandemic period, schools and colleges ought to foster plans that will ensure understudies' availability to learn online in typical times as well as in case of interruptions to study hall guidance, guaranteeing that there are no barricades to coordinated and nonconcurrent internet learning.

The pandemic uncovered the industriousness of the computerized partition. When gotten some information about the difficulties of remote instructing and learning, 65% of employees and 77 percent of managers detailed that understudy who don't have PC advancements or web associations, or who live in regions with low transfer speed, are cut off from instructive open doors. A huge test to internet learning and the plausibility of instructive innovations has been admittance to active encounters in science labs, studios, music centres, and other specific learning conditions. In such cases, very much evolved advanced re-enactments, instructive computer games, expanded reality, or potentially exhibitions in cross breed models, augmented reality, and intuitive learning applications could fill in for customary lab or studio learning conditions. For understudies with helpless organization associations, establishments could consider elective methodologies, for example, pre-bundled informative materials made accessible through CDs, streak drives, digital books, or portable media, in blend with printed materials.

Not all school/college understudies will have figured out how to cherish internet getting the hang of during the pandemic, yet organizations ought to expect a proceeding with need for

this method of guidance and should track down ways of supporting understudies who choose web-based learning in view of its adaptability or different advantages. Whenever the pandemic push nearby understudies into the new learning design without planning or experience, some coming up short on specialized information, self-control, or successful time-usage abilities to prevail in an internet learning climate. As business as usual returns, new or returning understudies who choose to proceed with internet learning for some of or every one of their classes might well require organized direction to web based learning-direction that will incorporate a complete exhibit of the abilities important to explore a computerized learning climate.

Understudies' fruitful internet based advanced education experience doesn't rely altogether upon the nature of guidance. Non-scholarly help administrations, for example, enlistment and records, book shops, library assets, assistive administrations to guarantee ADA consistence, lawful administrations to guarantee FERPA consistence, innovation backing, scholastic and individual directing administrations, profession direction, and endless other help assets ought to be accessible to online understudies. As organizations plan for a post-COVID-19 re-visitation of classes, thought should be given to building the limit and the foundation that help these administrations. Understudies learning a ways off might be isolated by reality, yet they actually need the help gave to grounds based understudies.

#### *v) What's Next for Faculty?*

Before the pandemic, data on the best way to instruct from a distance, across all disciplines during a crisis, was restricted. While there have been past interruptions due to tremors, cyclones, the H1N1 pandemic, and other cataclysmic events, nothing can come close to the greatness and force of COVID-19. It would be a slip-up to accept that all staff abruptly created fundamental abilities or an energy for internet educating because of the crisis remote instructing.

The post-COVID-19 time offers a potential chance to further develop the internet showing experience for staff and to work on the nature of web based learning for understudies. One

review showed that 34% of personnel portrayed themselves as "not in any manner experienced" in educating on the web before the pandemic and that main 22% depicted themselves as "extremely experienced. An unmistakable consequence of the crisis remote instructing is that essentially all employees have been compelled to contemplate online guidance. No matter what the phase of their vocation, employees were relied upon to convey their courses from a distance during the pandemic.

Staff presently should be, and should be, essential for an expert advancement work to enhance the crisis remote courses, procuring the important abilities for creating and conveying on the web and cross breed courses. Those employees who needed earlier internet showing experience before the pandemic will most particularly require extra preparation to participate in web-based guidance.

*vi) What's Next for Institutional Leaders?*

Great authority assumes a significant part in where and when innovation is effectively carried out during the time spent educating and learning. This incorporates initiative at the institutional and the unit levels. The acknowledgment and powerful fulfilment of instructive developments depends on the help of a boss, a key institutional manager who, alongside spurred personnel and drew in staff, has the vision, drive, and obligation to carry the task to completion.

Senior administrators in higher education need to rethink how to plan, advance, and deliver system-wide online instruction, harnessing what has been gained from the pandemic experience. Institutional leaders must be prepared to re-evaluate their institutions' commitments to online learning when campuses fully open again, adjusting priorities to meet needs across all institutional levels, developing online educational policies that ensure high-quality pedagogical and technological strategies, creating operational processes and procedures for online learning, developing strategies to revamp the emergency remote courses, integrating online learning in their strategic plans, and developing long-term support and maintenance structures.

Rather than discarding all emergency remote courses, leaders should carefully reexamine these courses, documenting ways they can be redesigned to improve quality and identifying innovative processes that can be adopted for greatest efficiency. This will require some effort, considering the commitment of human and technological resources that will be required. But the result will be worth the effort. Institutional leaders are in a position to create the vision, earmark funds, authorize the hiring of key personnel, and lead the institution in salvaging and repurposing the emergency remote courses. They are also in the position to determine if the best approach for the institution is to partner with online program managers (OPMs).

Leaders must also engage in their own professional development as they assess what worked and what failed during the emergency. This professional development will afford the opportunity to gain a deeper understanding of online learning and instructional technology—an understanding that will guide them in formulating policy. About 80 percent of polled administrators said that new administrative policies in response to the pandemic had created a challenge to remote teaching and learning; 70 percent said they plan to invest in training opportunities for faculty to improve online teaching skills, and 36 percent stated that they will invest in more-sophisticated online course design.

#### *vii) What's Next for Technology Infrastructure?*

Beginning in March 2020, as the pandemic closed campuses, institutions with available technology infrastructures and no plans for broad-based emergency remote teaching scrambled to cobble together courses for students. Zoom, Webex, Skype, BlueJeans, and other videoconferencing platforms became the new classroom. Educators used Blackboard, Adobe Connect, Google Drive, Microsoft Teams, and Google Workspace for collaborations and for delivery of course content. Various learning management systems were also utilized. In the post-COVID-19 world, faculty and administrators will need to identify the technologies that best suit their plans for online course development and deployment. Institutions can make up for inadequacies in their pre-pandemic technology infrastructure and ensure campus-wide support by assessing their needs, negotiating funding, and investing in the essential technologies that fit their online learning plan. In addition to the technologies mentioned above, other technologies that support online learning will be helpful, including

learning analytics, assistive technologies for teachers or learners with disabilities, and highly rated programs offering relevant emerging technologies such as augmented reality, virtual reality, artificial intelligence, gamification, electronic portfolios, e-books or e-textbooks, and course capture systems.

## 5. CONCLUSION

The pandemic tested the resilience of colleges and universities as they executed online learning on a massive scale by creating online courses, adopting and adapting to unfamiliar technologies, engaging faculty en masse in remote teaching, and successfully meeting the instructional needs of students. Those experiences and lessons should not be discarded. The next phase for higher education in a post-COVID-19 world is to harness what worked well during the emergency response period and use those experiences to improve institutional practices for the benefit of both internal and external constituencies in the future.

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## OUTLOOK FOR E-VEHICLES ON THE IMPACT OF COVID -19

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### ABSTRACT

*After nearly a century with the internal combustion engine dominating the personal transformation sector, it now appears that the electric vehicle is on the verge of experiencing rapid growth in both developed and developing vehicle markets. The broad Scale adoption of the*

*E-vehicle could bring significant changes for society in terms of not only the technologies we use for personal transportation, but also moving our economies away from petroleum and lessening the environmental footprint of transformation. Here we discuss the role of standards, related training and certification for the electric vehicle. It is argued that the potential for the e-vehicle will be stunted without adequate attention being paid to standards, not only in terms of maintaining compatibility between jurisdictions, public safety, and helping to ensure environmental sustainability.*

### INTRODUCTION

In future the clean air will become a luxury in many parts of the world; especially after pandemic is a distressing fact. It's very important to take some immediate action to prevent pollution of our environment. Electric vehicles could be a part of preventing pollution to the environment. E-vehicles (EV) and their production have recently come out as the latest trend in the automobile industry with various applaud and known automobile companies such as Tesla, Nissan, Chevrolet, Hyundai, Kia and many more. Even, a debate has emerged among the automobile world, regarding how favourable an asset the electric vehicles actually are for the environment and whether they are veritably benefiting the environment at the cost of their acquire prices.

EV's generate considerably lower emissions over their lifetime than vehicles running on fossil fuels, irrespective of the source that generate the electricity. This becomes extremely advantageous when we factor is how the lower emissions are saving the pedestrians and the

locality from breathing in poisonous gases. The CO<sub>2</sub> emissions of e-vehicles however are much cleaner compared to the emissions from the most eco friendly petrol engines. The ICE vehicles even the new ones, discharge large amounts of health harmful particle pollution. The emission of these particles can have various grave health consequences which include asthma, heart attack and cancer and many other diseases. The e-vehicles meanwhile are not directly emitting these particulates into the street air.

As e-vehicle manufacturing is becoming popular every day, its market share is also expected to rise greatly. India's GDP is expected to grow by an amazing apart from reducing environmental pollution , EVS can lower oil import by about \$60 Billion by 2030.To mitigate environmental issue, the Government of India decided to promote e-Vehicles to reduce pollution. E-vehicle development is critical to achieve the sustainable goals while the hit of Covid-19 strikes the market and brings challenges to the whole industry.

## **HISTORY OF E-VEHICLES**

The history of the origin of e-vehicles dates back to the mid-19th century. In 1828,a specific type of electric motor was discovered by Anyos jedlik. The first mass-produced e-vehicles appeared in America in the early 1900's. In 1902 the Studebaker Automobile Company entered the automotive business with electric vehicles, through it also entered the gasoline vehicles in 1904.The nickel-iron battery, one of the earliest rechargeable batteries was favoured by Edison for use in electric cars. The emergence of metal oxide semiconductor (MOS) technology led to the development of modern e-vehicles.

Another important technology that enabled modern highway capable electric cars is the lithium iron battery, invented in the 1980's by John Goodenough Rachid Yazami and Akira Yoshino , which was responsible for the development of e-vehicles capable of long distance travel. During the late 20th and early 21st century , the environmental impact of the transportation infrastructure based on petroleum. Along with the fear of peak oil, led to renewed interest in an e-vehicles transportation infrastructure. A key advantage of e-vehicles is regenerative braking, which recovers kinetic energy, typically lost during friction braking as heat , as electricity restored to the on board battery.

Most electric vehicles use lithium iron batteries. Lithium iron batteries have higher energy density, longer life span and higher power density than most other practical batteries. Complicating factors include safety, durability, thermal breakdown and cost. Increasing the battery's lifespan decreases effective costs. Nickel metal hydride battery batteries were made by general motors. These battery types are considered outdated due to their inclination to self discharge in the heat. A patent for this type of battery was held by Chevron, which created a problem for their worldwide development. These factors coupled with their high cost, has led to lithium iron batteries leading as the predominant battery for EVs. The prices of lithium iron batteries are constantly decreasing, contributing to a reduction in price for e-vehicles.

From 2010, EVs started becoming popular apart from public transport, the most surprising fact is that by 2016 September, almost 1 Million electric vehicles were delivered globally. This was the decisive moment of the global acceptance of e-vehicles. The speed to acceptance was so good that by 2019, Almost 4.8 million cars were sold and by 2020 , it reached to million unity. By 2019 the speed to acceptance was so good that, almost 4.8 million cars were sold, and by 2020, it reached 10 million units.

### **IMPORTANCE OF E-VEHICLE**

Many of the cities in India have the worst noise pollution levels in the world. Electric vehicles are used to a reduction in noise pollution levels in the cities. Energy competence and emission reduction has improved in automobiles. There are people who choose to purchase an electric vehicle because these vehicles are better for the environment. As such having an electric vehicle helps keep planet healthier. Many electric vehicles run on five cents a mile due to the fact that electricity is largely less expensive than gasoline. Electric vehicles does not have oil and don't require that maintenance task or others associated with a gas engine. Gasoline vehicles are quite noisy. But electric vehicle on the other hand are nearly silent in nature. The credit varies based on the make and model of the vehicle.

Electricity is one of the clean sources of energy available for transportation today. Other energy sources such as coal, petrolieum, biomass and nuclear can be converted into clean source of electric energy. The ease of storage of electricity is one of the prime reasons for electric vehicles have gained popularity as an alternate fuel option at global level. Electric vehicles can charge the battery by grid power supply, hence no on road polluting emissions.

Battery run EVs provide low running and maintenance costs to users, due to lower cost of electricity. Battery is the important part of an Electric vehicle. A successful Electric vehicle should have a battery with less weight, more storage capacity, durability, rapid recharge capacity, comparatively lesser costs. Performance of an EV depends on the performance, efficiency and reliable operation of battery.

Types of e-vehicle

1. Battery e-vehicle
2. Plug-in Hybrid e-vehicle
3. Hybrid e-vehicle

### **AFTER PANDAMIC REASONS TO PREFARE e-VEHICLE**

Expedite electric vehicle adoption during the post pandemic will:

1. Economy Impulse

The International Labor Organization estimates more than 14 million workers have been adversely affected by the pandemic just in the United States and Europe. Acquiring massed electric vehicles and building infrastructure can immediately create jobs and impulse sustained economic activity. Although job growth will likely come from sectors outside the rapidly automating vehicle manufacturing sector, many studies conclude that EVs will provide a net benefit to total job growth, with evaluate noting up to 2 million new jobs by 2030 in the charging and maintenance sectors and somewhere else. There is no better investment to impulse economic activity than one that requires large upfront investment and provides long-term cost savings.

2. Save Money

Despite their large upfront costs, electric vehicles can have a less cost of ownership and save money in the long term. Bloomberg calculated that e-buses started to produce a lower cost of ownership than diesel buses by 2018, assuming the bus drives at least 160 kilometers a day. These cost savings can help governments and companies build their emergency funds and weather operational shortage during times of essential or low demand.

3. Create New Proceeds Streams in Emergencies and Times of Low Demand

There are additional uses and proceeds streams associated with e-vehicles, especially those with big batteries such as buses, delivery vehicles and municipal trucks. In times of emergency or low demand, heavy duty e-vehicles (or an aggregated network of smaller batteries) can be used to provide stable electricity to hospitals and other essential services through vehicle-to-grid solutions. For example, in Virginia, Dominion Energy expects to replace 50 diesel buses with EVs by the end of 2020, enlarge to more than 1000 vehicles by 2025 with state approval. When the plan is fully executed, the batteries in the bus fleet could store up to 105 megawatt per hours of electricity, it enough to power more than 10,000 homes. This builds on a pilot project led by the University of Delaware, where electric cars ended up give rise to more than \$100 per car, per month.

#### 4. Retain Local Air Quality Improvements

Over the course of the Covid-19 pandemic shutdown, air pollution dropped by almost 60% in many of the cities. E-vehicles have no tail-pipe emissions, release less heat and produce less noise compared to conventional vehicles. Categorize e-vehicle adoption now would help retain air quality developments and lowered health risk in communities. These benefits can be further improved by using e-vehicles to improve renewable energy integration.

#### Safer and More Sustainable Transport in a Post-COVID-19 World

The COVID-19 situation has shown that effective public transport is necessary to keeping cities running. By serving required workers in health care, emergency services, food services, and other parts, public transport has become a service not just for some people but for all urban residents.

But corona virus pandemic lockdowns are also putting an unbelievable strain on public transit systems worldwide. Transit ridership is down between 50 to 90%, on top of a long-term decline in many places. San Francisco's BART system is losing \$55 million a month, from decreased ridership and less sales tax revenue. In Brazil, reports show a daily loss is more than \$188 million (R\$1 billion). Some governments are beginning to conciliate to protect public transit systems from going bankrupt: the U.S. CARES Act included \$25 billion in emergency relief for transit agencies, for example. While emergency actions may be necessary to keep systems afloat in the short term, governments should also be thinking long term. Public transport is one of the best investments that can create jobs quickly while

reducing carbon emissions, making roads safer and improving people's access to jobs and other opportunities.

Public transport can create and maintain jobs faster than other transportation investments. In United States, a study of the effects of the last large economic provocation after the Great Recession, found that public transport investments generates 16% more jobs per dollar than new bridge and road construction and generated 31% more jobs per dollar than new construction of roads and bridges, and repair work on roads and bridges. Investment in biking and railroads, public transport after the Great Recession created an estimated 138,000 jobs, 15% of total jobs created under the entire program, in the South Korea.

Beyond being a green impulse investment, public transport offers extensive benefits to society, since it is more effectual than private vehicle use emits less greenhouse gas per person and spews less air pollution, which kills nearly 8 million people every year. It is also much safer than extensive use of private vehicles, which can help stem the rising tide of road deaths. Compact, transit-oriented development encourages walking and biking that can make for healthier residents and public transport can provide more impartial access to education jobs, and services than large highway networks – a benefit to urban resilience, as the current COVID-19 predicament brings to light.

For economic recovery governments, development banks and agencies can make public transport an integral part of provocation collection by the following ways.

### **1. Ensure Stability to Transport Operations**

As the corona virus pandemic shrink, economic activity is expected to resume slowly, at least initially, and public transport is likely to continue facing limited demand. Public transport will need reliable bear to provide revive confidence from riders and quality of service that may have agitation about sharing public space with others. State and National governments may need to provide continued cash incorporations to provide reliable and quality public transport and make sure that systems are still around and effective once full demand returns. This will maintain critical jobs for workers in a struggling economy. In the United States, 430,000 jobs were supported by public transport.

This is also a time to think about again the revenue model to support public transport. Funding public transit with fares alone has been a continued challenge, and in a restricted economy, public funds to steadily close this gap may not always be a applicable solution,

especially in developing countries. Economic impulse programs could explore innovative and new approaches to revenues, such as obstruction pricing and parking management, to raise money, reduce demand for private vehicles, and encourage use of public transport, walking and biking.

## **2. Create High-Quality Bus and Transit Infrastructure**

Cities have an opportunity to use road space more creatively when the massive reduction in car traffic throughout urban cores during the corona virus pandemic. Public transport riders want speedy service, reliability, safety, low fares, and comfort. One way to improve the first two attributes is to implement exclusive or preferred bus lanes in addition to expanded cycling and walking infrastructure.

Dedicated bus lanes and BRT (bus rapid transit) systems can help to improve the travel times and access to jobs while reducing emissions and making roads safer. Over the last 15 years Mexico City has built seven BRT corridors for serving nearly 1.5 million riders every day. While growth in bus rapid transit world widely has slowed, larger cities can use this moment to consider tactical expansions. In Minneapolis-St. Paul, for example, for decreasing travel time through prepaid boarding, limited stops and specially designed stations, Metro Transit has built two rapid bus lines that have an additional nine corridors are planned but waiting funding that could come through economic intensive. In some countries, speeding up transit projects may also make sense and there may be other mass transport projects in the pipeline, such as metro or light rail.

## **3. Modernize and Electrify Bus Fleets**

There is a great opportunity to scale up the electrification of public bus fleets with economic incitement packages coming in many countries. Total lifecycle costs of electric buses are nearing the costs of traditional diesel buses, but electric buses have higher upfront costs, creating a blockade to entry for many cities. To help Shenzhen become the first city in the world to convert its entire public bus fleet to e-buses, China's national government provided a subsidy of \$150,000 per bus. Similar reason could be included in new incitement packages to help cities get over the initial acquirement hump and begin to reap the significant air quality and greenhouse gas emission benefits of electric buses.

In other places, more imperceptible upgrades may be the best investment, particularly in African cities, where hundreds of independent minibus operators are the dominant mode of

transport. Kigali, Rwanda, for example, has been introducing larger capacity buses promote “tap-and-go” cashless payments, free Wi-Fi and covered bus stops. The digitalization of public transport systems in all cities is a wide area of investment that can help improve quality of service – and therefore ridership – significantly.

#### **4. Invest in Cycling and Walking**

Out of necessity, cycling has pour in many cities during COVID-19 lockdowns. It’s simply the best way to get around for many needed tasks. The need for quality spaces for s has wayfarer also increased, with some cities turning over streets to walkers. These modes are not only sturdy; they are economical, encourage healthy lifestyles, stimulus regional economic benefits and are integral to people’s access to public transport.

Smart investments that follow safe design principles can significantly reduce the rate and severity of road accident as well, from protected bicycle lanes on busy city streets to wider sidewalks and converting tactical streets to low-speed zones, bicycle boulevards or shared spaces.

Milan, one of Europe’s most polluted cities and hardest hit by the COVID-19 pandemic, recently announced plans to permanently convert 35 kilometers of streets to cycling and walking as parts of attempt to reset its economy and encourage commerce over the summer.

#### **5. Get Governance Right**

The COVID-19 pandemic has revealed the interrelated nature of the modern world, where what happens in cities, does not stay in cities. Yet urban planning often remains ruptured and uncoordinated, with significant consequences for public transport. Now is the time to expand coordination between cities, city-regions and national governments, using the imperative of immediate COVID-19 responses as a steppingstone to address other long-standing accordance issues.

Lastly, investing in green incitement packages can stimulus enhanced climate action in the transport sector toward achievement of the Paris Agreement as well as in meeting the Sustainable Development Goals, which include targets to halve road deaths and provide access to safe, affordable, accessible and reliable public transport for all by 2030.

These principles can help ensure incitement packages enable cities to not just build back after the COVID-19 pandemic, but to build back better – to generate crucial jobs and increase

access to opportunity for a greater cross-section of society; to increase ridership through better service; to continue reducing excretion, and to help roll back the lash of road deaths and injuries.

## **CONCLUSION**

As the most widespread global pandemic in the past two years, COVID-19 has caused irreversible impacts on human society and the economic system, with no exception for the e-vehicle industry. In this article we discussed about the possible implications for global e-vehicle development and future outlooks.

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## UNSUSTAINABLE TO SUSTAINABLE DEVELOPMENT RELATED LIFE SCIENCE POST PANDEMIC PERIOD

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### ABSTRACT:

*Every 100 is an pandemic now CORONO virus and the number of victims is increasing. we ought to saw in the world with COVID 19. Some would like to post pandemic but may not be our panel COVID was declared a pandemic such a wide reach explosive magnitude, the world braced itself for the impact. Lockdown were imposed, economics brought to a grinding halt and travel was shutdown. All of us were stuck where we had to embrace what COVID 19 had in store of us. within a few weeks COVID propagated like a chain million dead to put that perspective, many of us suffered fever, breathlessness, many of us loss our jobs and also savings many were left homeless. An enemy better or worse COVID-19 had changed us permanently. As the world is coming back on its feet and trying to regain its pre 2020 from and trying to retrace.*

### INRODUCTION :

COVID-19 was an liable to be transmitted to people disease affected by newly find unexpectedly virus corona virus. It had having a sudden and sticking impact on the world community; on humans lived and health livelihoods, economies and behaviors . This disease is spreading through the contact with the person, COVID-19 was first indentified in December 2019 in Wuhan city of china. In March 2020 WHO is transmitted by airborne droplet infection and through contact with infected surface.

The symptoms of covis-19 can be very mild to severe. In mild cases, symptoms were absolutely no breathing difficulties. The most common symptoms are fever, dry cough, respiratory problem, muscle pain and loss of taste or smell. We can use same safety measures for the proportion against the disease. We have to sober out nose and mouth with mask while going outside. We should washing our hands regularly with soap and water. We should also

sanitize our hands frequently. We have to avoid touching our eyes nose and mouth. We should maintain a distance of at least five to six feet. Lockdown and a regulation requiring people to remain indoors between specified hours, typically at night to contain the spreading of the virus impacted the way children learn, the way humans earn. Humans didn't have any work because all the financial, social and educational activities were totally closed for a long time. It has affected all sectors of the economy. We should come out of this situation back to our regular work and normal life.

## **UNSUSTAINABLE DEVELOPMENT**

Unsustainable development occurs when the progress occurring now is at the expense of future generations. For example, not showing a proper sense of responsibility towards the environment through exploitation of resources generates waste and pollution that damages ecosystems. THE INDICATORS OF UNSUSTAINABLE DEVELOPMENT ARE

- The degradation of the environment.
- Bad planning
- The exploitation of resources.

Due to the increasing size of cities and the spread of urban population has resulted in the cities and towns face the pressures of waste management, transportation, fresh supply of air and clean water and access to clean and green environment.

The unsustainable development puts many pressures on the natural environment due to the action of extracting something, especially effort or force of energy resources from the ecosystems.

## **SUSTAINABLE DEVELOPMENT**

Sustainable Development means living in harmony with the nature in full recognition of the needs of all other species. It is not just "the survival of the fittest", we must help the weakest species to survive because each species has a role to play that is finally favourable to the earth and all its human population. In other words Sustainable Development

is development that met the necessity of the present, without compromising the ability of future production to meet their own necessity.

We must necessity to change the way we working and live now , but this doesn't meaning of our quality of life will be make smaller.

A Sustainable Development approach can bring many benefits in the short to medium term. Eg: Health & Transport- Instead of driving, switching to walking or cycling for short journeys will save your money, improve your health and is often just as quick and convenient.

The focus of Sustainable Development is by a great distance broader than just the environment. It is also about make sure that does not occur able to withstand force, healthy and just society. This means an assembly of people for a particular purpose the diverse needs of all people in existing and future communities, actively encourage personal well being, social cohesion and the action, and creating equal opportunity.

Sustainable development provides an approach to making better decision on the issues that affect all of our lives. By incorporating health plans into the planning of new communities. For instance, we could ensure that house/home have easy access to healthcare and leisure a place, amenity.

## **SOME OF THE OF THE GREAT SIGNIFICANCE MEASURES FOR SUSTAINABLE DEVELOPMENT ARE AS FOLLOWS:**

### **TECHNOLOGY**

Using appropriate technology is one which is locally adaptable, eco-friendly, resource efficient and culturally suitable. It's usually integral parts of relating resources and relating labour. Indigenous technologies are more useful, cost-effective and sustainable. The technology should use less of sources and should produce minimum waste.

### **REDUCE , REUSE AND RECYCLE APPROACH**

The three-R near to someone in distance support minimization of resource use, using them again and again instead of passing it on to the waste a small and the action or process of converting waste into the materials goes a long way in reach by effort, skill the goals of

sustainability. It make smaller the use of persuation on our resources as well as reduces waste generation and pollution.

### **PROMOTING ENVIRONMENTAL EDUCATION AND AWARENESS**

Producing something environmental education the place in the middle of all being taught process will greatly help in changing the thinking pattern and feeling about something of human towards our earth and the environment. Introducing subject right from the school stage will inculcate a feeling of belongingness to earth in small children. 'Earth thinking' will gradually get incorporated in our thinking and action which will greatly help in transforming our lifestyles to sustainable ones

### **IMPROVING QUALITY OF LIFE INCLUDING SOCIAL CULTURAL AND ECONOMIC DIMENSIONS**

Development shall not the centre of interest just on one-section of already having a great deal of money people. Rather it should compromise have a portion of something with other of an advantage between the rich and the poor. The tribal, ethnic people and their cultural heritages hold also be conserver. Having the power to move heavy weights community participation should be there in a course and use of an idea. Population growth should be stabilized.

#### **Impact of COVID-19 on YOUR WARDROBE.:**

The must have fashion item of past 2 years was a small piece of cloth around our face and they must nave pocket item of past2 years was a small bottle of sanitizer for example: there always a sequence of items you confirm before you leaving your home or work place it goes something like-Phone (most important of course), wallet and keys after covid 19 it has become something like-phone, wallet, keys and sanitizer that is a small but crucial addition

### Impact of covid-19 on MENTAL HEALTH:

Feelings of worry, depression and suicidal thoughts rapidly during the COVID 19 pandemic. A study conducted by the centre of Disease control found that the percentage of Americans reporting causing or resulting in a feeling of miserable dejection of a feeling of worry increased about three times and the percentage of people with symptoms of depression increased about four times, estimate with existing level . Over all the survey found that nearly 41% of participants reported symptoms of at least one mental health issue. It is entirely clear as to what is the reason behind this worrisome situations but factors relating to the pandemic such as social isolation, domestic violence, closure of school and universities , un employment, financial worries, as well as the threat of the disease itself, may be the contributing factor .these after effects of COVID 19 are invisible and this will continue as a silent epidemic in its own and is affecting million world wide. There is an urgent need to address the mental health consequence of the pandemic, such as the through increased access to resources for diagnosis and treatment of mental health condition. Also social distancing condition has promoted the expand use the tele health. We at med make simpler believe that no one is alone, help is always able to be used . If you or someone you know needs help, contact the National suicide Prevention life line of Asara help line number, Fortis Helpline Number, Icall help line number.

### Impact Of Covid-19 on the region

An example of New Zealand Home to 5 million people New Zealand reported peak of around 1500 cases and by April daily cases dropped to around 150 per day and when the world was struggling to breath in this pandemic, on April 26 New Zealand reported zero cases with only twenty five deaths. Since the pandemic began . On March 15 So what exactly did the New Zealand administration do? Well, On the 11th March 2020 who declared the covid 19 as a pandemic, and March 15, even though there were just Six cases nationwide at that time, the country began mandatory Quarantines for all visitors. This was at the time one of the most strict policies in the world regarding Covid. Just Ten days later , New Zealand began a complete, countrywide lockdown, including a moratorium on domestic travel.

## COVID CASES

### **Covid-19 on RESTRICTION**

Restriction means grocery stores, Pharmacy, Hospitals and petrol stations were the only business allowed. Vehicle travels were restricted; and social interaction was limited to within household.

NZ Prime minister made clear, concise statements about the situation to the nation, supported, by a team of Scientists and health professionals. A few days after the lockdown, she announced that instead of just slowing the transmission of the virus, New Zealand has set a course of eradicating COVID -19 from its shores. By cutting off the arrival of new cases and choking out the existing ones with the restrictions. The interesting thing about New Zealand is that the citizens got on board with the authorities. On day one of the lockdown, the streets and highways were empty, the shops were closed, and everyone stayed home that brought us to the crux - New Zealand is an example for the global to see and position their own state of not achieving maximum productivity. Coordination and cooperation between the people, authorities and medical professionals is a must if one wants to bottle such a deadly virus.

### **CLIMATE CHANGE:**

There are two sides of a coin- when humans suffered and the economy down nature flourished. Researchers from several institutions presented results in a virtual conference on December 7 at the American Geophysical Union's 2020 fall meeting. They found that Deforestation rates are decreasing in some places, air pollution is diminishing, water quality is improving and snow is becoming more reflective in some areas since the pandemic began earlier this year. Satellite images also show a reduction in environmental pollution in this time period. One study found that the concentration of an air pollutant called particulate matter Particulate matter decreased around a third to a fourth of the pre-pandemic level in India. Another study found that there was a 40% decrease in water pollution in city of Manhattan during despite this, it seems the positive developments the pandemic. In spite of this, it having a particular quality the positive being developed have been short-lived – and

overstated. Air pollution levels have before returned to pre-pandemic levels in 12 significant world cities. Research also allowed that the dramatic make fall vertically in air pollutants and greenhouse gases will have very little impact on global warming. This is because the change made were temporary, and have come at the greatest possible cost. The production of single-use plastics and waste has increased consider, especially as PPE usage surged, but all hope is not lost – COVID-19 has shown us just how difficult it will be to address climate issues, it has also shown what humans can achieve as a collective.

### **IMPACT OF COVID-19 ON EDUCATION:**

The Impact of pandemic covid-19 was observed in every sector around the world. The education sectors of India as well as world are unsuccessful way influenced by this. However, Impact of COVID-19 on education has few positive consequence apart from the many negative aspects of the pandemic.

### **POSITIVE IMPACT OF COVID-19 ON EDUCATION:**

The Pandemic situation induced people to learn and use digital technology and resulted increasing the digital literacy. Learning materials are shared among the students easily and thee questions are resolved through E-mail, SMS, Phone calls and using different social medias like Whatsapp or facebook, Students are able to manage their time more efficiently in online education during pandemics. Teachers have also adapted anew methods of teaching like through PPTs, videos, video conferencing which are considered as one of the best and fort learning medium of teaching, students area had the power, skill to analyze more in such manner as to achieve a desired results what they are being taught and definitely learn new computer skills as they have to do lets of assignments through computer or laptops only.

### **NEGATIVE IMPACT OF COVID-19 ON EDUCATION:**

It has created many negative impacts on education- classes have been suspected and exams at different level postponed. Admission process got delayed. Most of the recruitments got postponed due to COVID-19, placements for students may also be affected with companies delaying the on board of students. Unemployment was expected to be increased due to this pandemic. Other problems is also that not all teachers, students are good at it or at least not all of them were ready for this sudden transition from face to face learning to online learning. Thus the online teaching-learning method during pandemic COVID-19MAY ENOUGH THE

GAP between rich, poor and urban, rural . As the schools were closed there is no mid-day meal programme which seriously impacted 115 million children who face malnourishment due to school closure. As there was no school and no food the rural poor considering their girl child a burden to the family . They get them married keeping 2.5 million more girls around the world at the risk of child marriages in the coming five years. Somewhere, students are missing their school life where they used to enjoy a lot with their friends apart from studying and other extra-curricular activities. An emotional relationship is created between teacher and students who was not there in the digitalized learning. Laboratory based practical studies in subjects like engineering and medical was important which is not possible in this pandemic period which is again a being less to such students.

### **CONCLUSION:**

The year 2020 was going to be most remarkable period of 21st century with million of death all over the world and degraded economy of countries which are worst affected. Moreover digitalized learning gave birth to a new kind of discrimination between those who have access to internet and those who did not have and the main important thing. But apart from the certain challenges and looking at current situation online studying was the only option available to students.

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**A STUDY ON SUSTAINABLE DEVELOPMENT OF ONLINE PAYMENT  
METHODS USING MOBILE APPS WITH SPECIAL REFERENCE TO THE  
GENERAL PUBLIC IN TIRUPATTUR DISTRICT**

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**ABSTRACT**

*This study investigates the sustainable development of people during the pandemic with the operation of e-payment methods using Mobile Apps with special reference to the general public in Tirupattur and how it influences digital addition in the study. Using simple arbitrary slice, this study collected data from 150 responded. Data analysis was used to assay the data. This study rebounded that there is a significant difference between age groups 18 to 28, 29-39, above 40 and over on frequency of operation of benefit and online payment. In the case of internet and mobile payment, except for age groups 26 to 41, other age group replies showed a significant difference in operating frequency. It's a farther plant that device druggies are more in the age group of 18 to 25, which are salaried and the largely favored device is a mobile phone for frequent use for e-payment. Further, 150 of the repliers said that they've stored their word information on their device. So, they're prone to Novelty pitfalls, Agent-related pitfalls, and Digital-technology related pitfalls. From the study, it's apparent that the study area is too far from digital transactions and it's the responsibility of the bank account holders to uses the e-payment system for a speedy, secured, and smooth sale.*

***KEYWORDS: Pandemic, Online payment method, using mobile apps, digital fiscal addition.***

## INTRODUCTION

The Mobile apps have been evaluated for transaction purposes to make people's lives easier. During covid and pandemic, people have to sustain their development so for making their lives safer these apps are useful in all the ways. Where it is been used all over the world.

## REVIEW OF LITERATURE

There is a wild expansion in the number of cell phone users and the number of endorsers in different telecom networks has moreover expanded (**Vaidhya (2020); Stalin et. (2016); Singh, (2008)**).

The utilization of e-retail sites like amazon. in, flipkart.com, snapdeal.com, and tatacliq.com has enormously expanded (**Aeron et al., 2019**)

The provision of 4G services and daily internet data packs for mobile subscribers by all telecom providers (**Khandker & Joshi, 2019**)

From the previously mentioned reasons, it is obvious that the clients and potential clients of the e- installment framework are expanded in India. To become monetarily included was a great rationale in the public authority among individuals when the Indian Prime Minister Mr. Narendra Modi started a plan named "Pradhan Mantri Jan Dhan Yojana" in the year 2014. In November 2016, the public authority made an incredible unforeseen declaration on demonetization, which induced people to routinely utilize the e- installment framework.

After these advances, the emphasis on monetary consideration demanded more on computerized banking rather than blocks and concrete - ordinary banking. To comprehend this unique situation, the Reserve Bank of India comprised a High-Level Committee on Extending of Digital Payments and the council has presented a report in the year 2019, in which, they clarified with regards to the most common way of coming to advanced monetary consideration (High-Level Committee on Extending of Digital Payments, 2019). The cycle is diagrammatically delineated below.

Step:1 Unbanked users



Step:2 Banked



Step:3 Active Banking Users



Step:4 Digitally enabled



Step:5 Digital users

People believe e - payment systems because of the speedy performance of financial transactions, which could be monetary and non-monetary as well. A study found that trust and security are considered the most important factors in the - payment system (**Barkhordari et ., 2017**).

**Hamid and Cheng (2020)** conducted a study among Malaysian adults on the risks involved in the usage of electronic payment systems and the usage of different payment methods using the Technology Acceptance Model (TAM). The study resulted in less significance of risk when compared with the volume of transactions and a highly significant difference between risk and cash transactions.

Chen et al ., (2018) conducted a study on the usage of e-transaction among Japanese youngsters using TAM. They found that there was an association between e-payment system usage with age and gender. Also found that male and old-age people use e-payment than other people. However, the young Japanese tend to use conventional payment systems than an e-payment system because they do not trust the e-payment system.

## **RESEARCH METHODOLOGY**

As per the census 2011, the total population of Tirupattur district is 79,629. According to Krejcie and Morgan (1970), the sample size above 1000 was 200, which was the minimum required sample for this study. the response is finalized as 150 and hence the sample size was conformed to 150. Simple random sampling was used to collect the data by enquiring random person whether he/she is mobile app used for transactions and requesting to respond. This study is made by primary data.

The questions contained demographic variables such as gender, age, education, income, employment status, and the number of members in the family. Other variables were access to e-payment services, usage frequency of e-payment services, types of transactions using the e-payment system, payment for different transactions, awareness.

## **OBJECTIVE**

### **Primary objective**

- ❖ To study whether the people are interested in using mobile apps for transaction

### **Secondary objective**

- ❖ To study the popular app used by the customer
- ❖ To study the purpose of mobile app usage for transaction
- ❖ To study whether a mobile app is safe or not for transaction
- ❖ To study when it is evaluated

## **HYPOTHESIS**

H1: The age of the respondents has a significant difference in the frequency of usage of mobile apps for the Transactions.

H2: Age and purpose of mobile apps used for the transaction.

## LIMITATION AND SCOPE

This study has considered the population in Tirupattur as a study area. This could be further extended to other districts and the unbaked population could be directly pulled into e-payments.

## ANALYSIS AND INTERPRETATION

**TABLE NO 1 AGE OF RESPONDENTS**

S.NO	ITEMS	RESPONDENTS	ANALYSIS
1.	Age below 18	10	6%
2.	19-28	25	16%
3.	29-39	40	26%
4.	Above 40	75	50%

It seems that Table 1 that 6% are aged below 18, 16% of people are 19-28, 26% of people are 29-39 and 50% of respondents are above the age of 40.

**TABLE NO 2 NO OF RESPONDENTS**

S.NO	ITEMS	RESPONDENTS	ANALYSIS
1	Male	73	48%
2	Female	77	51%

It seems that Table no 2 has 48% of Male respondents and 51% of female respondents

**TABLE NO 3 APPLICATIONS USED BY RESPONSE**

S.NO	ITEMS	RESPONDENTS	ANALYSIS
1.	Google pay	99	66%
2.	Phone pay	26	17%
3.	Paytm	23	15%
4.	Amazon	2	1%

It seems that Google pay is the most used application by the respondents were is been analyzed as 66% with 99 respondents

**TABLE NO 4 REASON FOR USING MOBILE PAYMENT APPLICATIONS**

S.NO	ITEMS	RESPONDENTS	ANALYSIS
1.	Convenience	20	13%
2.	Saves time	123	82%
3.	Detailed application	3	2%
4.	Quick payment	4	2%

It seems that 13% is convenient, 82% saves time, 2% detailed application, 2% quick payment so it is in lead because of time-saving with 82%.

**TABLE NO 5 PROBLEM FACED BY MOBILE PAYMENT APPLICATIONS USERS**

S.NO	ITEMS	RESPONDENTS	ANALYSIS
1.	Refund issues	58	39%
2.	Network issues	61	41%
3.	Security issues	20	13%
4.	Not done at the time	11	7%

Table no 5 clearly explains that most peoples have network issues compared to other issues as the network issues are considered higher with 41%.

**TABLE NO 6 SECURITY FACILITY ON MOBILE APP TRANSACTIONS**

S.NO	ITEMS	RESPONDENTS	ANALYSIS
1.	Yes	132	88%
2.	No	18	12%

It seems Table no 6 analysis that 88% of people as not faced security issues and 12% of people faced the security issues

**TABLE NO 7 PURPOSE OF APPS ARE USED**

S.NO	ITEMS	RESPONDENTS	ANALYSIS
1.	Bills	52	35%
2.	Shopping	62	41%
3.	Medicine	28	19%
4.	Other transaction	2	1%

It seems that Table no 7 has interpreted that the purpose for apps usage is mostly for shopping with 41% and the next nearest lead is for Bills with 35%.

**TABLE NO 8 MONTHLY MONEY SPEND USING THESE APPS WITH AGE**

S.NO	AGE	MONTHLY USAGE	RESPONDENTS	ANALYSIS
1.	Age above 18	Less than 10%	9	6%
2.	19-28	11-25%	15	10%
3.	29-39	25-35%	30	20%
4.	Above 40	Above 40%	96	64%

It seems that Table no 8 above aged people use this mobile app for transactions with 64%.

### CONCLUSION

From the study, it is concluded that more than 50% of people in the study area are still in the online payment using mobile status and have become active transaction app users. Hence, it is the responsibility of the people to know how effective it is used by the individual as the aged person income is the transaction made by them is high so the digital transaction is based on the individual income.

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## PHYSICAL FITNESS IN DAILY LIFE

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### **Abstract.**

*Regular performing Physical activity and exercise can help people to remain healthy, energetic and independent as you become older. Regular physical exercise plays a vital role in life to preventing various types of diseases and different stroke. It also helps in preventing and reducing heart disease, obesity, blood sugar fluctuations, cardiovascular diseases and Cancer. All the components or characteristics of physical fitness play a crucial and significant role in learning and doing the physical exercise techniques and reaching sound health namely strength, speed, elongation, agility, flexibility and all the qualities that result from the union of two or more of them. The ways to be dynamic active in regular physical activities with regular walking; cycling, different sports, recreation and play, and it can be done for any time at any level of skill for enjoyment by everyone to keep our body fit.*

*Regular physical activity is truly proved to prevent and manage various types of diseases like heart disease, stroke, diabetes and several cancers. It also helps to prevent hypertension, preserve healthy body weight and develop mental health, quality of life.*

### **Physical Fitness in Our Life**

Physical fitness makes bones and muscles strong, and also it leads to better health and well-being lives, cures various types of health problems, and decreases the risk factor of different diseases like blood pressure, diabetes, and cancer, so on, and also promotes a better status of life. Stress can be reduced by doing regular physical activities, Tension and depressed give the better feeling to the people. Physical fitness is a condition of health or well-being and, more specifically, the ability to perform in sports and game. Physical fitness is normally

attained through proper nutrition, modest energetic physical exercise, and sufficient amount of rest along with a recovery plan.

We can develop our regular physical fitness and body composition by taking healthier food choices and regularly engaging in both exercises aerobic and anaerobic exercises.

Physical Fitness is referred as the capability of the body to perform different types of regular physical activities without feeling exhausted.

Physical fitness is consider on the basis of some particular devices, and some scientific tests, then compared to the perfect level of fitness, and also determined the capability of the personal fitness methodical.

Fitness is divided into two ways: general fitness, which measure to good health and comfort fitness, which touches to an appropriate type of exercise. Good fitness can be obtained by getting proper nutrition and taking enough fragments.

### **Components of Physical fitness**

All the components or characteristics of physical fitness play a crucial and significant role in learning and doing the physical exercise techniques and reaching sound health namely strength, speed, elongation, agility, flexibility and all the qualities that result from the union of two or more of them.

Determining the segments of physical fitness differ from school to school and from one scientist to another according to their points of views, but all most they agreed on some fundamental fitness components, and we addressed few of them here.

### **Muscle Strength**

Muscle strength can be referred as the capability of muscle to execute as much as energy possible to the body. Number of factors that making effect on muscle strength; such as muscle size, number, and kind of fibers, and addition to the psychological factors.

### **Body Composition**

Body composition is generally the proportion of fat mass in the body, and also muscles, bones, cartilage, and other important parts of the body.

### **Speed Fitness**

Speed is the quickness movement of the limbs of the body. It is concerned with short period of time. Speed is indicates time a muscle to exert the required physical effort and it is also affected by many types of physical factors; such as muscle fibers, strength, elasticity, as well as a strong nervous compatibility.

### **Balance and Coordination**

Balance refers the body's balancing ability during the movement and standing condition as long as possible. It is effect by the unity of the body's organs, its base of equilibrium, and its elevated center of gravity, as well as the Earth's gravity line,

### **Flexibility**

Flexibility is an individual's capability to perform regular activities to the greatest extent muscle of the body. It is influenced by the well mobility of the joints, the extent of the muscle. Continuously and regular training process system. It has an effect on muscle flexibility.

### **Agility**

Agility is the ability to move of an individual to change the direction of the body quickly, whether it may be on the ground or in the air, with shortest possible time.

The agility of the body is affected by many kinds of factors; the most important are: the unity of the nervous system, muscle capability, as well as the different type of physical activity.

### **Cardiovascular Endurance**

Endurance is the expression of the capability of the body and its muscles to the possibility of tiredness and depression while exercising some particular physical activity.

This is an important and crucial element of fitness and must be accessible to those who work require long period of time to work.

Neuromuscular amity

Neuromuscular amity is the ability to do more than one movement at a time. Neural amity is affected by normal body amity, that is, the amity of movements that body makes during the period of the day.

### **The Principals of Physical Fitness in Life**

No question that physical fitness is a vital part in every person's life, as a decent person has complete an ideal weight and it can maintain easily without any difficulties . It also reduced many common and uncommon diseases and health problems by doing regular physical exercises.

Fitness also has an important impact on the muscular system of the body and it works to develop strengthen, and it helps to bring down the common diseases, specially heart disease and excessive obesity.

Psychologically fitness can magnify one's self-confidence and bring down the stress, anxiety or depression. It also helps to build bewitching personality of human.

There are many vital benefits of physical fitness for the body. It leads to improve overall health condition and also it leads to increases the size of the lungs, heart.

### **Social Gain of Physical Fitness:**

Physical Fitness executed more social experiences to builds our personality and also increases social and moral values. Social gains of physical fitness lead to improve the socialization and interconnect with the society.

### **Health Benefits of Physical Fitness:**

Physical fitness helps to improve the overall health state of the individual and it has vital role to developing the lungs and stimulating them to work frequently. It helps to synchronize the heart rate, and develops the capacity of organs of the muscular system.

In addition to improve the body strength and composition, and also develop the attractiveness of the persona's personality.

### **Psychological Benefits of Physical Fitness:**

Sports and game leads the individual's capacity to delivered himself, and develop the ability to control emotions, which improves actions in embarrassing situations of life.

## **The Way to Improve Physical Fitness Level**

There are some ways to improve physical fitness, namely:

### **Exercise Regularity:**

More than a week number of times a person should perform exercise.

### **Exercise intensity control:**

When performing the exercise the heart rate should be reached

The maximum rate. It depends on according to the age, as subtracted from 220, the maximum number of heartbeats is 220 minus 50, or 170 beats per minute for a 50-year-old.

### **Exercise Time:**

Period of exercise should be more than usual. When we need to lose our body weight then it may need to do more physical exercise regularly.

### **Change Exercise Type:**

During period exercises should be changed from time to time. Suppose we are walking constantly, we can change or move on to jogging, then jogging, or move to another exercise altogether.

## **Benefits of regular physical activity**

### **1. Exercises control weight.**

Physical Exercise can help or prevent excess weight gain or help maintain weight loss. When we are engaging in physical activity it helps to burn individual's calories. More intense physical activity helps to burn more calories.

Regular trips to the gym are great, but nothing to worry if we can't find a large chunk of time to exercise every day. Any amount of activity is better than none at all. To reap the benefits of exercise, just get more active throughout your day — take the stairs instead of the elevator or rev up your household chores. Consistency is the key.

### **2. Exercises combat health conditions and diseases.**

Prevent of heart disease and high blood pressure and also our current weight is, being active boosts high-density lipoprotein (HDL) cholesterol, the "good" cholesterol, and it decreases unhealthy triglycerides. This one-two punch keeps your blood flowing smoothly, which decreases your risk of cardiovascular diseases.

Regular exercise helps prevent or manage many health problems and concerns, including:

- Stroke
- Metabolic syndrome
- High blood pressure
- Type 2 diabetes
- Depression
- Anxiety
- Many types of cancer
- Arthritis

It can also help to improve cognitive functional capacity and helps to bring down the risk of death from all causes.

Physical activity stimulates brain chemicals which may lead us to feel happier, more relaxed and less anxious.

We may also feel energetic about our appearance and our self when we exercise regularly, which can boost to our confidence and lead to improve self-esteem.

### 3. Exercises boost energy.

It is sure that regular physical activity exerted to improve muscle strength and it is boost endurance to develop.

Exercise delivers oxygen and nutrients to our tissues and also helps efficiency of cardiovascular system work.

### 4. Exercises promote better sleeps.

Regular physical activity helps to fall sleep better, get better sleep and deepen sleep. Just don't exercise too close to bedtime, or may be too energized to go to sleep.

#### 5. Exercises spark sex life.

Regular physical activity boosting energy levels and increases our level of confidence of physical appearance, which may boost sex life better.

#### 6. Exercise can be fun.

Exercise and physical activity can be enjoyable when we are performing. Enjoy the outdoors or simply engage in activities that make people happy. Physical activity can also help people connect with family or friends in a fun social setting.

To add physical activity to our day

Now days we are all busy and rushing with our own way to work. We are not bother about our health condition. If we are stuck at work or school all day it can be hard to find time to be active in life. On really busy days it can seem impossible to even get outside and take a walk. Regular physical exercises are more crucial matter not only to our physical health, but also mental health as well. There are lots of benefits that come with being active such as weight control, lower cholesterol and lower stress levels.

Here are some ways to incorporate physical activity into your daily routine:

- Take a walk with stairs. We've probably heard this one before but taking the stairs is a great way to add movement to our day and increase efficiency of heart rate. If we are able to continually take the stairs we will be able to see the results of our body being active when we can reach the top without being out of breath.
- Stand and take a walk. Sitting on the chair for long periods of time has been proven to have negative effects such as higher risk for heart disease and obesity. We must take a break every hour or so to get up and take a walk around will help prevent some of these negative effects.

- Be always active. Before getting ready for work do sets of physical exercises and push-ups or jumping exercise. It won't take a lot of time and it will set a positive mood and healthy condition for the rest of our day.
- Use a pedometer. It is truly easy to find and track our steps. Suppose if we don't have a fitness tracker, our phone automatically keeps track of how many steps you are taking. Seeing the number of steps we take get higher and higher throughout the day is fun and it is always a great feeling to see that we have met our step goal.
- Add movement exercise to house work. Focus on posture and the different muscle groups we're using while doing chores such as vacuuming or washing the dishes or clothes. For added exercise, listen to music while doing housework- dancing will add some activity to our day and add some fun to our chores.

#### Some key factors

- Regular physical activity has vital significant health benefits for the hearts, bodies and minds
- Regular physical activity contributes to preventing and managing various diseases such as cardiovascular diseases, cancer and diabetes
- Regular physical activity reduces symptoms of depression, stress and anxiety
- Regular physical activity magnify efficiency of thinking, learning, and perfect judgment skills
- Regular physical activity makes healthy growth and development in young people
- Regular physical activity leads to improves overall well-being

#### Physical activity

WHO defines physical activity is bodily movement with help of skeletal muscles of the body that requires energy expenditure. Physical activity leads to all kind of body movement. Both moderate- and vigorous-intensity physical activity leads to improve body fit as well as cognitive capacity.

The ways to be dynamic active in regular physical activities with regular walking; cycling, different sports, recreation and play, and it can be done for any time at any level of skill for enjoyment by everyone to keep our body fit.

Regular physical activity is truly proved to prevent and manage various types of diseases like heart disease, stroke, diabetes and several cancers. It also helps to prevent hypertension, preserve healthy body weight and develop mental health, quality of life.

In connection of conclusion in young children are becoming overweight due to lack of physical activities. They do not taking part in any physical activity and they do not know the importance of physical education. Children must be aware about the role of physical education in the society. It is possible when someone is educated and aware about the knowledge of their health and the way to live a healthy well-being lifestyle.

Involving in regular physical activity may leads improvements in an individual's physical health condition, cognitive efficiency, and also psychological well-being. Physical activities help to reduced risk for different kind of diseases, and help to improve in physical functioning, fitness, and overall quality of life style.

In order to live a healthily life, it is essential to exercise regularly for development mental and physical growth.

### **Recommendations**

1. Regular physical activity helps to make better health and well-being has been an important theme throughout life.
2. Experts are agreeing that for energetic health, physical activity should be performed regularly. It is most important recommendations or advice to the people of all kind of ages to perform minimum of 30 minutes of regular physical activity of moderate intensity. It is also acknowledged that for most people, greater health benefits can be obtained by engaging in physical activity of more vigorous intensity or of longer duration.
3. Experts are consulting with a physician before beginning a new physical activity program for people because some people suffer from various chronic diseases, like cardiovascular disease and diabetes or those who are at high risk for these diseases. All the experts are also suggested to the men over age of 40 and women over age of 50 to consult a physician before they start a vigorous physical activity program.

4. Currently recommendations from field experts they also suggest that cardiorespiratory endurance activity should be supplemented along with strength-developing exercises which at least twice per week for adults, in order to improve musculoskeletal health, well maintain performing the regular activities of daily life, .

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## **SUSTAINABILITY AND POST-PANDEMIC SURVIVAL IN SOCIAL SCIENCE**

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### **Abstract**

*In this paper, we discuss about the sustainability development of post pandemic in our everyday life. Corona virus crisis that can be applied to climate change. Our recovery plan should place greater emphasis on economic and environmental resilience. Societies are measured in part by their ability to grow from collective crises as well as their ability to learn from them. Climate change also poses a psychological challenge during the current pandemic.*

### **Key Words:**

*Climate Change , Global Sustainability, Health Services*

### **Introduction:**

As a devastating pandemic sweeps the globe, lives and livelihoods are at risk at rattling . Mortality and infection rates rise, restricting residents' movements. The economy is weakened, governments resort to extraordinary measures, and individuals and corporations make adjustments. Within a blink of an eye, Corona virus has thrown the world's operating assumptions out of whack.

### **Global Climate Change after the Pandemic**

We often forget that only a few months ago, the debate about short months age, the debate about climate change, the socioeconomic impacts and the efforts to mount a collective response were gain to begin to have success. Sustainability, indeed was rising on the agenda of many public and private sector leaders-before the un sustainability, suddenly became impossible to avoid.

### **Lessons From The COVID-19 Pandemic For Tacking The Climate Crisis**

On 22<sup>nd</sup> April of every year , people come together for Earth Day to celebrate the planet and environmental protection. This year marks the 50<sup>th</sup> anniversary of Earth Day, but the corona virus disease outbreak means celebrations will look very different from usual.

Scenes from previous years of millions of children and young people marching for climate action have been replaced by empty streets and deserted public spaces.

While climate change and COVID-19 are very different challenges, they do share some key points. Coronavirus and climate change are globally and they do not respect the line demarcating recognized limits of established political units, both require countries to work together to find solutions. The global community has shown that it can act to address a crisis, with administrations, corporation and individuals taking measures and changing deportment in response to the Pandemic. When we are joining to work together, even small personal actions when put together, like physical distancing, can make a big difference, helping us to overcome big challenges.

### **The Influence of Climate Change on Corona Virus Transmission**

We don't have direct evidence that climate change is influencing the spread of COVID-19, but we do know that climate change alters how we relate to other species on Our health and risk for infections are directly related to the health of our planet. Due to the rising temperatures, animals big and small at sea and on land are heading to the poles to escape the heat. In essence, that means animals are coming into contact with other animals they normally won't, which creates a new way for pathogens to spread. Many of the root causes of climate change also increase the risk of pandemic. Globally, deforestation for agricultural purposes is the leading cause of habitat loss. The habitat demolition of animals or people and share germs. Large livestock farms can also serve as a source for deluge of irresistible from animals to people. Less demand for animal meat and more sustainable animal husbandry could decrease emerging infectious disease risk and lower carbon emissions.

We have many reasons to take climate action to improve our health and reducing risks for infectious disease emergence is one of them.

### **Infectious Disease Spread As a Result of Climate Change**

Climate change has already made conditions more favorable to the spread of some infectious diseases, including Lyme disease, waterborne disease such as *Vibrio parahaemolyticus* which causes vomiting and diarrhea, and mosquito-borne disease are those spread by the bite of an infected mosquitoes such as Zika virus, West Nile virus

### **Actions Can Take To Prevent Future Outbreaks**

We can make many smart assert to avert another eruption. Associated , state, and local agencies can support public health management and science, we can provide more funding for needed research, early response to outbreaks, and supplies for testing. And we can do much more to control the illegal living trade. We also need to take climate action to averting the next pandemic. For example, anticipating desertification - a root cause of climate change, can help stem biodiversity loss as well as slow animal migrations that can increase risk of infectious disease spread. The recent Ebola epidemic in West Africa probably occurred in part because bats, which carried the disease, had been forces to move into new habitats because the forests they used to live. Since seduce need a tropical forest climate.

Re-thinking our agricultural practices, including those that rely on raising tens of millions of animals in close quarters, can prevent transmissions between animals and spillover into human populations. Reducing air pollution caused by burning fossil fuels like coal, oil and natural gas also helps keep our lungs healthy, which can protects from respiratory infections like corona virus.

We are referring to the practical things that we want do to mitigate the negative impacts of our changing world, we need to drastically decrease greenhouse gas emissions. To bring into existence electricity from low-carbon energy sources like wind and solar decreases harmful air pollutants such as nitrogen oxides, sulfur dioxide, and carbon dioxide that lead to more heart attacks and stroke as obesity, diabetes, and premature deaths that put further strains on our health care systems.

Now we are ready to face pandemics and also about keeping people healthy at baseline. if we have a population in the U.S where a third of our population are obese, and 5-10% of people have diabetes, were going to be immensely more vulnerable. were people in the U.S are basically not healthy, it has to do with our diets, pollution, and climate change. We have an chance here to concede that prevention is by far the best approach to protecting health.

When COVID-19 eases, and we are ready to restart our economy, we can make our work force healthier and more climate-resilient through scaling-up our investments in low-carbon technologies.

**Identify the sections most at risk, and how and why both COVID – 19 and Climate change mistreat them:**

People with chronic health conditions, lower income, and communities of color are disproportionately impacted by both COVID -19 and climate change, and pollution at the heart of both problems as a new Harvard T.H. Chan School of public health study confirms.

**Keep Learning for Better Tomorrow**

Due to COVID-19, over 1 billion children are being deprived of their education due to nationwide school closure. This risks creating a engendering less furnish to take measures on, or deal with the impacts of the climate change. But Children and family are trying their best to keep learning. All children should be equipped with the resources, including remote learning and technology, to continue their education, even, if they are not physically at school.

A good education is one of the most valuable tools we have to fight climate change, because it provides children and young people with the skills and knowledge they need to create a better tomorrow. We can help them use this time at home to build their strengths, their creativity, and their desire to confront any Challenge.

**Climate and Disaster –Resilient Water, Sanitation and Hygiene**

Hand hygiene, safe water and social distancing can be practiced to collect water and access sanitation facilities. Yet late worldwide appraise find that 3 billion people lacked soap and water at home. 900 million children lacked soap and water at their school, and 40% of health care availability were not equipped to practice hand hygiene at points of care. Formed access to water inhibits the practice of hand washing to reduce risk of infection. Crowding of water points increases the risk of contamination within and between communities. Lack of sanitation and hygiene facilities risks household contamination.

Adequate water, sanitation and hygiene services for households, schools and healthcare facilities are essential to prevent the spread of infectious diseases including COVID-19. The low levels of converge of these basic services in many parts of the world reflect substantial inequalities between and within countries and contribute to the vulnerability of these populations to the pandemic- as well as other disasters and exacerbations from climate change.

Resilient wash services are also critical to achieving sustainable growth and the SDGs. The average benefit of investing in resilient infrastructure, which includes WASH services in addition to other types of resilient infrastructure, in low and middle income countries is \$4.2 trillion, with \$4 in benefit for every \$1 invested. This is an opportunity to move away from shallow sources powered by manual labor or fuel, to solar powered multi use system.

Conservation would also would also create a cleaner environment, reducing CO<sub>2</sub> and other toxic emissions including air pollution, and creating a more sustainable future for children. Ultimately, improved social, economic as well as environmental indicators as a result of safe and green education will contribute to many of the SDGs for societies as a whole, while also reducing risk for the most vulnerable reaching the last mile and every child.

### **Climate Smart and Disaster- resilient Health Services that have a Minimal Environmental Footprint**

In the coming months, significant investments will flow into healthcare as part of COVID-19 response and recovery. Investments should go to functions that address both pandemics as well as the wider risks, including those exacerbated by climate change- prioritizing risk informed programming across the spectrum and health systems strengthening.

According to the Convention on the Rights of the Child, children have a right to a healthy environment. However environmental risks are growing and now account for 1 out of 4 child deaths. Children are particularly vulnerable to many forms of environmental pollution, they breathe and consume more air, water and food per unit of body weight than adults, and hence where pollution contaminates these natural resources, children experience more polluted air, water and food per unit of body weight compared with adults.

All right structure, and create a small recoup. In order to strengthen health systems, they should be geared to addressing not just direct risk factors, but also proximate risk factors, which often stem from environmental hazards and pollution. This requires, but is not limited to, improved communication for behavior change within communities, so that people understand better how to prevent disease, infection and risks to their health rather than only treat it.

Health waste management is , seemingly insurmountable issue for many countries around the world-developed and developing alike, certainly even more so how with Covid response and precautions. Overburdened or misinformed, capacities to manage waste safely are often limited , and standard affordable materials are creating large amounts of plastic waste that piles up. This leads to poor practices, such as highly toxic open burning or dumping where inevitably the floods of waste reach water supplies and create secondary health burdens, including antibiotic resistance and a broad spectrum of contamination . It is important to note that landfills are a major source of methane from the decomposition of waste – which also at times combusts into fires.

### **Youth Engagement on Environment / Climate Change**

Young people and children are rising to the challenge that COVID-19 present us. Young People are also becoming stronger agents of for action on climate and environment. 77% considered climate change one of the most pressing issues facing young people today. 98% though that governments needed to tackle this through urgent action. Spurred by young people, over 4 million people called for climate action on the eve of the UNGA and there have been about 14 million strikers on Fridays for the Future rallies.

### **Climate Responsive Social Protection**

When a crisis hits, effective social protection support is often a extremely important element in determining whether families and children can quickly return to normally or their life paths will be permanently come back to their normal life. All too often, however, national systems are either too weak to respond, or are not designed to have the flexibility to adjust, for example, to reach those that most need support with easily accessible and timely cash transfers while families and communities recover. such as capacity building of communities and local government on climate risks.

### **Conclusion**

The pandemic cannot be used as an excuse to slow down our collective efforts to combat climate change, rather it should be seen as an opportunity to accelerate our efforts. This crisis has emphasized the importance of sustainable, affordable and equitable services, across all the program areas UNIEF works. We will need to work together develop solutions, improve

monitoring and build a stronger system that is capable of dealing with the multitude of similar challenges and risks ahead of us- whether they be infectious disease or climate change environmental degradation.

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## **ASSESSING DISRUPTIVE INNOVATION FROM THE PERSPECTIVES OF NEW ENTRANTS AND INCUMBENT PLAYERS IN INDIAN INSURANCE MARKET**

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### **ABSTRACT**

*In today's dynamic, volatile, and worldwide competitive corporate environment, disruptive innovation (DI) is becoming a strategically important innovation type. The DI theory is crucial for understanding entrant-incumbent connections and showing how their interactions alter the market's nature. The primary goal of this research is to use an empirical reviews approach to examine disruptive innovation from the perspectives of new entrants and incumbents. The chapter argues that disruption is a constant force at work, and that incumbents can avoid it by putting in place the necessary safeguards and having the correct human resources in place to anticipate and deflect genuine potential disruptive threats. For incumbents, assessing the potential disruptiveness of innovations is a critical but difficult undertaking. However, most of the published methodologies are instance specific, and the existing literature focuses solely on technological and market considerations. The study demonstrates the steps taken by upstarts to displace leading firms and the responses that can be provided by the latter against disruption. It extends its scope to significance of DI, reasons for failure of incumbents in DI battle, and barriers to effective implementation of disruptive innovation. Multiple industries are disrupted via way of means of tech-savvy new entrants that modernize the manner purchasers and providers interact. The coverage enterprise resists such transformation regardless of the competitive emergence of virtual start-ups that try and alternate the conventional working model. Insurance gamers cope with a complicated enterprise that calls for coverage know-how and enjoy past virtual know-how. Barriers to access which includes law or capital requirement, passive demand, and conservative consumer journey, and the technicality of the enterprise choose the location of incumbents and project the scalability and financial sustainability of insurtechs.*

## INTRODUCTION

Banking is changing from a branch-based model to one that relies on information technology (IT) and big data, as well as highly specialised human resources. Banks and markets have been increasingly interwoven even before this shift began, with a greater share of intermediate activity becoming market-based. In their core businesses, such as payment and advice services, banks are facing increased competition from other intermediaries, who are becoming increasingly digital. With the rise of the FinTech industry, which can be defined as the application of innovative information and automation technologies in financial services, a shift in the use of technology in producing new services and business models has been unfolding.

The adoption of many new digital technologies, as well as the acquisition of users linked with them, has accelerated significantly. Indeed, digital disruption is causing huge changes in the industry, leaving incumbents with potentially outmoded legacy systems and overextended branch networks to meet the service requirements that new competitors can supply. In terms of user-friendliness of the interface and transparency, customers have new service expectations.

Digital technology has the potential to have a significant impact on increasing competition and lowering costs. In terms of enhancing competitiveness and contestability in banking markets, digital technology may have a significant impact. Banking will shift to a platform-based, customer-centric paradigm, requiring incumbents to restructure. This digital disruption has the ability to boost efficiency through innovation, diversify supply, and make the financial system more competitive, resulting in market expansion and financial inclusion. This upheaval will put pressure on incumbents' margins, possibly leading to higher risk-taking, and will spark a race to seize the sector's rents. In order to enhance efficiency, incumbents must restructure at the same time as new competitors enter the market, and new dominating positions should not become established. FinTech and, in particular, BigTech, are newcomers.

To be sure, the significant change is presently coming from advanced interruption of the area, which is leaving occupants with possibly old inheritance innovations and overstretched branch organizations to serve the norms of administration that new contenders can give. Clients have new assistance assumptions as far as ease of use of the point of interaction and straightforwardness.

Digitalisation will profoundly change the financial and insurance ecosystem, affecting all aspects of the insurance value chain, including product creation, pricing/underwriting, sales and distribution, policy and claims management, and asset and risk management. Furthermore, insurance market participants are now confronted with a new insurance scenario 4.0 that will allow them to join a new ecosystem created by the growth of connections between traditionally segregated industries and new rivals. Every player in the insurance industry must contend with and operate in a macroeconomic environment in which InsurTech start-ups, or emerging enterprises pursuing technology-driven business models, are rapidly developing.

## **LITERATURE REVIEW**

(Eling and Lehmann, 2018)- Digitalisation will profoundly alter the financial and insurance ecosystem, affecting all aspects of the insurance value chain, including product creation, pricing/underwriting, sales and distribution, policy and claims management, and asset and risk management.

McKinsey (2019)- According to the study, the true challenge is figuring out the correct mix of collaboration between these two sorts of companies. InsurTech, as innovators and bearers of new technologies and applications, will act in the value chain, providing technological support to this process of transformation, while incumbents focus their activities on customer relations development.

Christensen, Raynor, & McDonald, 2015-DI refers to the process by which a newcomer's innovation first establishes itself in a niche market. The newcomer then enhances the performance of the innovation over time, undisturbed by the incumbent, and finally introduces it into the mainstream market, decreasing the incumbent's market share.

(Langley, 2007).- We recognise time as an important factor in dealing with changes in a dynamic environment. As a result, specifics about why, when, and how a DI occurs become discernible. We suggest that seeing disruption through the lens of a process adds a new dynamic dimension and illustrates how it emerges, develops, and grows. It thus advances DI theory by considering non-linear effects of action and attempting to comprehend how such patterns emerge.

(Christensen, 2006)- Disruption is a relative phenomenon that explains how tiny businesses replace or cause existing businesses to fail, and it may be measured by comparing different business models.

(Rafii & Kampas, 2002)- The occurrence of disruption is evitable provided incumbent firms have intelligent, courageous and open-minded executives who can sit together to deliberate thoroughly on core competitive threats and generate plausible ideas to forestall those threats.

(Heong, 2019)- Since the implementation of this ideology, a few start-ups have entered the insurance sector to try to establish innovative solutions. Unlike traditional players that offer a whole range of services and products, new entrants specialise on a specific area to strengthen a single vertical or product. Because they are smaller, they do not wish to follow all of the rules set by means of the MAS. They are also more adaptable to the market since they are more nimble. Those start-ups, however, are no longer able to upset the market. These insurtechs have entered the market to provide a direct buy facility that aims to shorten and simplify the acquisition process.

## **RESEARCH METHODOLOGY**

A research study is a systematic approach to tackling a research topic. It can be considered of as a branch of science concerned with how scientific research is conducted. We'll look at the various steps a researcher takes to study his or her research problem, as well as the reasoning behind them. Not only must the researcher be familiar with the study methodologies and procedures, but also with the approach. Researchers must not only know how to create indices or tests, calculate the mean, mode, median, standard deviation, or chi-square, and use specific research techniques, but they must also know which methods or techniques are relevant and which are not, as well as what they mean and indicate and why.

Researchers must also be aware of the assumptions that underpin particular methodologies, as well as the criteria by which they can determine which techniques and processes are appropriate for which situations. All of this means that the researcher must design his or her methodology for his or her problem, which may vary from one to the next. For example, an architect designing a building must deliberately assess the foundation of his decisions, i.e., why and on what basis he chooses a specific size, number, and position of doors, windows, and ventilators, utilises specific materials rather than others, and so on. Similarly, in research, the scientist must subject research decisions to scrutiny before implementing them.

Research in common parlance refers to a search for knowledge. One can also define research as a scientific and systematic search for pertinent information on a specific topic. In fact, research is an art of scientific investigation. Most research projects are used for descriptive studies in which the researcher seeks to measure such items as, for example, frequency of shopping, preferences of people, or similar data.

## RESEARCH DESIGN

Sources of Data Collection: There are 2 sources of data collection, i.e. Primary Source and Secondary Source of data.

### **Primary data**

- ❖ For collecting the primary data the survey was done through questionnaire, which was personally given to respondents and was filled through interacting with different age groups, sex, region and occupation.
- ❖ Finally analysing the data of various areas and trying to study about various influence factors.

### **Secondary data**

- ❖ For theoretical overview, secondary data was collected from various papers and different website.
- ❖ The source of data collection for the observation is Primary data which is collected from the Questionnaire. Primary data are originated by a researcher for the specific purpose of addressing the problem at hand.

## OBJECTIVES

To analyse whether digitalization has changed the purchasing behaviour of insurance.

To examine what are the most important criteria for someone to purchase insurance.

To study whether an Insurtech will disrupt the market in the near future.

## DATA ANALYSIS

### Gender

From above chart male were 65.6 % and female for 34.4% this shows that male were more conscious about the digital disruption insurance than the female and had more knowledge and interest regarding Insurance innovation.

Which area are you belongs to?

From above chart urban people are 48% and semi urban are 27.3% so it shows that urban people are more aware on the insurance which rural has so less 16% which shows they have little knowledge about digital insurance.

Why do you need Insurance?

From above chart health insurance is 24% and investment is 21.3% so people are most needful insurance are health and they investment in education of insurance above chart education and tax benefit are 18.7% and 19.3% respectively.

Which type of Insurance do you have?

From the above chart vehicle insurance is 28.7% and health insurance is 27.3% there is slight difference from which people are taken those insurances and life insurance is 26.7% so we can see from the chart people are more interest for every insurance. Mostly people are taking all type of insurance by seeing the chart.

Which digital social media influenced for insurance ?

From above chart u can see the responses have more percentage for Instagram is 30.7% this social media influenced more than Facebook is 28.7% and it impacted a lot in the social media used by the people for better digital platform for buying the insurance.

What is the advantage of having the insurance products?

From above chart for advantages of taking insurance for the people has more on for getting sufficient financial support after retirement and less financial burden are equal percentage is 30% shows that they need to improve the financial status in the future and also worried about the educational fee payment.

Which of the following factors are most important when it comes to choosing an insurance package to buy?

From the above chart for most important to choosing an insurance to buy it has more on their people own choice of their recommendation it has 18% which shows that personal idea is most important and also online reviews social media is 17.3% which is insurance can be followed by digital media now a days and some of them people experience and features, brand has most to choose to buy insurance.

Which channels do people trust the most in terms of their level of security when interacting with their insurance providers?

From above chart for people trust most their level of security for face to face is 24.7% which is to interact with insurance providers and for the social media is 23.3% and also with mobile application is 18.7% this shows they mean most security insurance provider which they believe

Where insurtechs are focusing?

From the above figure, it shows that mostly insurtechs are also focusing on Health Insurance compare to other. Out of 150 respondents, In terms of lines of business, 44.7 percent of insurtechs are focused on health, 29.3% on Property and casualty insurance, and the remaining on life Insurance. Insurtechs typically focus on risk insurance, where they have created innovative access points to the value chain.

Which of the following Disruptive Technologies Reshaping Insurance Operations?

From the above figure, it shows that the most disruptive technologies in the insurance industry today are machine learning, artificial intelligence, and architecture like blockchain. AI enable computer systems to learn and evolve over time. Insurers have no choice but to adapt to changing times in order to stay relevant in a competitive sector. These four

technologies are reshaping the insurance operation. The data shows that out of 150 respondents' 36 percent is Artificial Intelligence ,22 percent is Blockchain and remaining 20.7 percent is both Big data and IOT Technology.

What percent of insurance claims are fraudulent?

From the above figure, it shows that the 48 percent of insurance are fraudulent in India. It shows that the respondents have knowledge about the frauds happening in India. Frauds exist in various forms, and they typically occur in rural and semi-urban areas where insurers lack the necessary infrastructure to inspect them, or when local officials who are supposed to confirm events are corrupt.

Insurtechs are more focused on

From the above data, it shows that Insurtechs are especially focused Growth and reducing acquisition expenses. The above given figure shows that 58 percent of insurtechs are focused on growth and 42 percent on cost reduction respectively.

Which of the key trends has mostly impacted Insurance Value Chain which insurers need to identify?

From the above figure, it shows that mostly people have chosen pricing, distribution and marketing which means these are the mostly impacted value chain which insurers need to identify.26 percent is for pricing24.7 percent is for marketing and 20.7 percent is for distribution. And remaining 16.7 percent and 12 percent is for product development and claims respectively. Besides, these whole 5 key trends have impacted the insurance value chain which had to be identified by the insurers.

In insurance, in which area should the digitalization be done in priority?

From the above data, it shows that mostly respondents have chosen Health Insurance area which should be given priority in terms of digitalization that is 49 percent. After that 26.7 percent for life insurance and other disability and automobile insurance for 16.7 and 7.3

percent. The majority of health-insurance companies are segmented businesses that have been designed for specialisation and efficiency in existing procedures. The respondents have chosen as if digitalisation happens in Health Insurance it also be able to reduce spending on medical services in the long run. Furthermore, digital efforts can act as a catalyst for organisational change. Payors can use digital initiatives to reinvent their business processes and consumer engagement strategies and make the necessary changes. We use the term "digital" to refer to a wide range of technology and applications that enable more efficient automation, improved decision making, stronger connectivity with customers and other external stakeholders, and sophisticated data-driven innovations.

What are the biggest challenges facing the insurance industry?

From the above figure, it shows that the biggest changes facing the insurance industry are social inflation, climate change, Supply chain disruptions, Infrastructure and Global Taxation. All the factors which are affecting the insurance industry is approximately same in percentage. Social inflation, climate change, and economic inflation—the three topics that received the most attention on the insurance sector's earnings reports have one thing in common: they are exogenous factors, or externals over which the business has little influence. The forthcoming infrastructure will also benefit the insurance business by generating projects that would necessitate construction insurance and surety bonding.

Incumbent insurers can counter the insurtech threat by maximizing their distribution adopting and new technologies?

From the above data it shows that most of the people are neutral and agree to the point that Incumbent insurers can counter the insurtech threat by maximising their distribution advantages, adopting new technology, and engaging ecosystems, incumbent insurers can counter the insurtech challenge. 42.7% have chosen neutral and 31.3% have chosen agree to the statement.

Do you believe that an Insurtech will disrupt the market in the near future?

From the above figure, it shows that mostly people thinks that Insurtech will disrupt the market in near future.32.7 percent people have chosen the option neutral and 31.3 percent people have chosen the option agree. It shows that most people agree that Insurtech will disrupt due to the technology and advancement in nature.18.7 percent disagree that Insurtech will disrupt the future.

Do you think digitalization in the Insurance industry is happening at fast pace?

From the above figure, it shows that mostly people agrees that digitalisation in the industry is happening at fast pace.38% of people is agreeing that digitalisation happening at fast pace, 34 percent people are neutral that neither it is faster nor slower and 14.7 percent are strongly agreed to the point. Other 13.3 percent are disagreed to the statement. Customers' interactions with insurers are changing as a response to new digital technology. Many insurers were forced to accelerate their digital goals by a pandemic. We are seeing signs of significant change in the insurance industry all around the country.

Did digitalization has changed the purchasing behaviour of insurance?

From the above figure, it shows that 53.3 percent of people are agreed that digitalisation has changed the purchasing behaviour of Insurance.22 percent are neutral that it has changed also and not changed also.13.3% people have chosen strongly agree and other 10 percent are disagreed that the digitalisation has changed the purchasing behaviour of insurance. Transparency was introduced in by digital platforms, which allowed customers to actively participate in the purchasing process. Life insurers have also been able to speed up underwriting decisions and minimise policy issuance times thanks to technological advancements. And also now a days al the payments are done by mobile app only. Any person can buy insurance and make payments through various apps.

Is being tech savvy sufficient for an entrepreneur to disrupt the insurance industry?

From the above data, it shows that most people think that being tech savvy sufficient for an entrepreneur to disrupt the insurance industry. 40.7 percent of people have chosen agree and 38.7 is neutral. It shows that tech savvy is sufficient for entrepreneur to disrupt the industry as now a days technology is growing very much and it's changing the tradition ways of payments and buying insurance. FinTech's have been attempting to disrupt the banking sector for over a decade, with many of them starting as start-ups. They operate at a fraction of the cost of traditional banks, as they are not burdened by banking operations, branch networks, or old IT systems. They made inroads into previously dominating business lines by designing unique items and delivering them digitally in a fraction of the time.

Do you believe the insurance is over regulated?

From the above survey, it shows that mostly people are neutral about that the insurance is over regulated. 44.7 percent is neutral, 32.7 percent is agree and other 17.3 percent is disagree to the statement. The body of statute law, administrative rules, and jurisprudence that governs and regulates the insurance sector and people engaged in the business of insurance is known as insurance regulatory law. This regulatory framework is based on the Act, which declares state control and taxation of the business to be in the "public interest" and gives it clear precedence over federal law. Every state has its own set of laws and regulations.

How Regularly do you pay premiums?

From the above data, it shows that 31.3 percent people pay premiums half-yearly, 26 percent people pay quarterly and then yearly is for 22 percent and the least premium pay is monthly. It shows that most people are comfortable in all the premium pay options as difference between them in percentage is less as comparing all the option.

Which online app will you use for Insurance?

From above chart it shows that google pe is 33.3% and Paytm is 30.7%, phone pe is 21.3% so this analysis is about which payment app shows more interest to the people to buy

insurance and pay the premium at monthly or half yearly or yearly at some fixed price when they bought the insurance

## CONCLUSION

From the survey of the topic we have analysed that male proportion is more than female that interest shows about the digital disruption insurance and many of the people need the health insurance and also other insurances like which has education and they also invest some of the money for insurance and tax benefits and from the analysis people were taken vehicle insurance because of the accident cause on the road and proportionally they have the health and life insurance and it influenced more on the digital social media which can easily impact towards it and also public thinks about the financial burden and education investment to buy the insurance in various type of packages which they refers on personal recommendation and also online google search reviews for better to trust in terms of their level security which people interact on insurance providers for the face to face so that they can know more about the which insurance would me more better .in my survey analysis nowadays everything is digital platform so they pay the insurance premiums on Paytm and phone pe app.

Insurtech has a competitive advantage in the early adaptation of new technology. For sales and service, almost all insurtechs use a digital customer interface, but many insurtechs are also adopting newer technologies and concepts that incumbents are only beginning to experiment with. For incumbent insurers, insurtechs definitely pose a market risk. They will initially target attractive profit pools unleashed by digital and capture share among particular client categories with their nimble operational strategy and digital advances. Insurtech start-ups have only just begun to address the potential value pools; the industry is still in its infancy, but it is already having an impact.

Insurtechs can approach the market in fundamentally different ways than traditional insurers. Insurtechs benefit from their independence from old products, processes, and IT systems. They may create digital processes, products, and systems from the ground up using cutting-edge technology. Insurtechs, like fintech's, focus on certain value pools in the industry rather than attempting to deliver end-to-end solutions. Less investment and faster profits result from simpler IT and operations.

**RECOMMENDATION/DISCUSSION**

Traditional insurers can learn from the fintech experience in banking when devising strategies to adapt to the insurtech challenge. That knowledge aids in determining the scope of the threat as well as the opportunities it presents. Insurers can get started by focusing on three major topics: the innovation landscape, their own priority action areas, and potential operating models. Insurers' innovation strategies, in particular, must be more externally focused in order to regularly monitor and assess the insurtech innovation ecosystem. Insurance incumbents, on the other hand, must examine their business and strategic pain points in order to have a clear picture of which areas of the value chain and which lines of business may be improved efficiently with insurtech innovation. By collaborating with and being inspired by insurtech, incumbents may be able to digitise more quickly and effectively, improving their chances in the new digital world.

There are several options incumbents can take to deal with insurtech: they either create the technology-enabled business model internally or buy the company outright. Between building a digital lab and founding a corporate venture capital fund, collaborating with an insurtech and partnering with a venture capital fund, there are many choices.

However, there is no one-size-fits-all solution, and each strategy is unique to the context, company goals, and pain issue being addressed.

As digital innovation continuously redefines the next-generation insurance ecosystem, the risks insurtechs pose to existing business models are serious.

As digital innovation continuously redefines the next-generation insurance ecosystem, the risks insurtechs pose to existing business models are serious. It is well understood that incumbents must change or risk losing market share. They will have to handle the significantly higher level of consumer involvement that insurtechs are achieving in particular. Many operational areas will benefit from adaptation, including cost savings, better capital allocation, and increased income production. Insurers must assess the innovation landscape, compare their in-house technical capabilities to insurtech solutions, and weigh their alternatives for going forward, which include anything from digitising operations to purchasing or partnering with insurtechs.

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## THE IMPACT OF SOCIAL MEDIA STRATEGIES TOWARDS ONLINE SHOPPING

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### Abstract

*The present progressed advanced Digital Marketing strategies revolve around remarketing and retargeting. Remarketing is a method for interfacing with the customers who recently communicated with your site. Consider what is going on in which a user came to your site, added his beloved items to cart yet didn't checkout. Remarketing permits you to retarget him with the advertisements of items that he has in his truck. Focused on remarketing gives the user an exceptionally enticing doubt making the possibilities of change a lot higher. Google Ads Remarketing and Facebook pixel are the most popular remarketing stage which you can use as contextual analyses for your task. The use of the internet based technologies, especially social networking sites such as Facebook and Twitter as business platforms can be a critical strategy in enhancing an online retail outlets reach and operational effectiveness. Social network has gained remarkable attention in the last decade and as the evolution take place, accessing social network site such as Twitter, Facebook, LinkedIn, Instagram and YouTube have become truly reasonable. As a huge populace utilizes either friendly organizing site, it has become extremely advantageous for organizations to arrive at their customers through these sites.*

### Introduction

The Internet based Applications, Social media and other digital communications technologies are major part of everyday life for people in the world. Internet based technologies and social media give online firms the open door to defeat the limits of size, buyer reach and contend all the more really with huge, regular (disconnected) retail firms. Purchasers utilize the web innovation not just to purchase the item on the online, yet in addition to look at costs, item includes, and after deals administration offices. Besides, web-based media and other internet based applications have extraordinary potential to increment both nearby and global open doors for online retail shops whenever utilized in strategically. The present innovation driven world, long range informal communication destinations have turned into a road where retailers can stretch out their promoting efforts to a more extensive

scope of customers. Social Media Marketing, similar to all marketing, centers on definitely standing out of your ideal interest group and fashioning an association. While Social media can be utilized to straightforwardly advance items and gives, it's anything but a powerful means to interface with new users Soon organizations like Facebook and Twitter. Social Media is a spot to really collaborate with users and let them know what makes your image remarkable - not torrent them with direct marketing.

## **POST COVID-19 DIGITAL MARKETING TRENDS**

Brands have changed from offline to online marketing during the Covid19 pandemic. They set out drawing in with audiences online and recognized the genuine capability of advanced level. Emerging from the pandemic, customers will have various assumptions that brands should be aware of. These are some key post-pandemic patterns:

- ☐ Content conveyance will be founded on the need and worth gave.
- ☐ Steady perception of changing customer conduct will be vital.
- ☐ Shoppers will recollect and believe brands who were there for them during the difficult stretches. Remaining associated is, hence, significant.
- ☐ Advancement in business processes is more basic now than any time in recent memory.
- ☐ Brands should lay out multi-channel promoting methodologies.

## **Social Media marketing Strategies**

For making it simple to begin, there are five fundamental points of support to think about while making your web-based media procedure.

1. Objectives: Define the results of your endeavors and how you'll quantify them.
2. Interest groups: Research and profile your optimal Customer.
3. Content Mix: Create web-based media programming in light of repeating content prime examples.

4. Channels: Choose the best of the accessible informal communities you need to devote your chance to and why you'll utilize them.
5. Process: Set up the framework and apparatuses to execute your technique productively.

### **Social Media marketing Strategies for online shopping**

The role of social media strategies for online based shopping cart stage. With more than 93% of the total populace effectively involving online media in their regular routines, it has gradually started to affect their buying choices. While individuals actually rely upon the suggestions of their friends, the effect of online media is evident. The universe of web based business runs on web traffic. In any case, the most common way of drawing in possible buyers to your business site through online media isn't just basic. In spite of the fact that it sounds straightforward, there are numerous things, firmly related, that require a ton of consideration. The method involved with making enduring progress requires more than essential strategies.

#### **1. SETTING UP GOALS:**

The initial phase in building a viable system is to set up benchmarks. You should have an unmistakable thought of the achievement you are going towards. Whenever you've set the benchmarks, you can begin dealing with the strategies to arrive. You should be quite certain with regards to quantifiable objectives, which can be recorded as follows:

- The traffic you anticipate from the online media channel.
- The quantity of fans and endorsers that you anticipate.
- The proportion of leads and changes to web traffic.
- The sort of posts that can assist you with building better commitment.
- The connection between crowd development and real deals.
- Benchmarking will assist you with characterizing the particular objectives you need to accomplish toward the finish of the quarter. This will give you an unmistakable and exact work objective, which can be the initial phase in giving your business a critical lift.

## **2. KNOW THE CUSTOMER CONTENT PREFERENCE:**

It is fundamental to follow and get what your customers are searching for. Depending upon the inclinations of your possibilities, you can deal with content and post routinely to address their issues. You can decide to gather the data straightforwardly from your shoppers or screen the collaboration of your interest group via web-based media stages.

## **3. HOW EXACTLY VISITORS INTERACT WITH YOUR CONTENT:**

In view of the information from these significant regions, you can make a timetable to post the right substance, which can bring you better web traffic to the particular online media stage. This will assist you with figuring out what was powerful and what was not. In view of this, you can join the conduct with groundbreaking plans to foster something that would assist your business with pushing ahead. This is the most effective way to find your great practices.

## **4. FOCUS ON SHARING RATHER THAN SELLING:**

While numerous customers are straightforwardly reached by web-based media locales to start their purchasing venture, they don't really visit the online media website fully intent on purchasing. Everything revolves around building quality connections, building trust, and afterward making the last stride of selling. In ordinary B2B deals, leaders ought to cooperate with the substance via web-based media destinations prior to addressing the sales rep.

## **5. MONITORING PROGRESS:**

With the improvement of Social media system, you want to carefully notice the advancement and change in shopper conduct. You can decide to make reports, survey plans, speak with colleagues, and inform them of current updates. Web-based media patterns are continually changing and you really want to set up a powerful methodology to oblige them.

## **6. TRACKING PROGRESS:**

As you foster your social media strategy, characterize how you will follow progress and change practices, like announcing, assessing your arrangement, and conveying updates to individuals from the group consistently. Patterns change and your web-based media system needs to consider that.

## **Various Types of Social Media Marketing**

Beside from the likes of Facebook, Twitter, and Instagram, online media marketing takes a wide range of structures, for example,

- content marketing/content creating
- Advertising/sponsorship
- influencer Marketing
- Social Media Management/Community management
- paid media
- building your following
- Contributing to forums
- Reviews

## **Importance of social media strategies for business**

### **1. Constructs Brand Awareness and Recognition**

Acquiring brand mindfulness and memorability is one of any business' most significant promoting objectives. That is on the grounds that buyers need to purchase brands they perceive. Numerous customers even have specific levels of brand devotion, which prompts long haul business benefits. Fortunately, web-based media takes into consideration simple and powerful brand building. Social media has an advantage over customary media since it can get your image before individuals significantly more rapidly and without any problem. Besides, it gets your crowd taking a gander at your image in any event, when they aren't contemplating your image or item.

### **2. Creates Conversation around Your Brand**

A solid online media advertising system will create discussion about your image, items, and accomplices.

### **3. Comprehends Your Target Customers' Interests**

You want to know what your objective customers are keen on in the event that you will attempt to contact them successfully. You can do this by checking their social discussions around specific points. This is called social tuning in, and can assist you with getting what's vital to your crowd while recognizing patterns they're following. You may likewise find out with regards to what they're battling with, which can assist you with making content tending to those trouble spots.

#### 4. Gives Platforms to Tell Your Brand's Story

Utilizing social media is an incredible method for sharing your image's main goal and offer stories. Successful narrating can enormously affect your image's picture. These accounts can be straightforward or broad relying upon your thought process will be best.

#### 5. Helps You Gather Data about Your Audience

Audience research is like social tuning in. It look through the watchwords your crowd will utilize, yet it's more centered around your particular item. You can utilize online media to accumulate this data.

#### 6. Gives Responsive Customer Service

Customers currently anticipate that organizations should deal with their solicitations through online media. A solid interest in client care can assemble significant connections between your organization and your clients. With online media, the test of client assistance stays as requesting as it had previously. Online media takes into consideration quick communication and client input. Organizations can likewise react to their clients immediately. 71% of purchasers who have had a positive involvement in a brand on a web-based media stage said they were bound to prescribe that brand to individuals they know, so having a web-based media client assistance system is critical.

#### 7. Helps Build Customer Loyalty

What might actually be preferable over building mark devotion free of charge? Clients follow and communicate with the brands they appreciate. Indeed, 90% of individuals say they purchase from brands they follow via web-based media. It's an undeniable direct relationship: If clients follow you, they are bound to pick you versus your opposition. Besides, assuming they're steadfast clients, they'll expand your traffic.

#### 8. Helps Drive Traffic to Your Website

Social media marketing can help with sending clients straightforwardly to your website. Web crawlers are incredible, yet being excessively dependent on query items implies you're passing up a huge load of expected traffic. Web-based media channels take into account more assorted inbound traffic streams. However informal communities are incredible for getting traffic to your site, you really want to think about what to post, yet how frequently to post too. You would rather not become that domineering advertiser, or you'll switch off your clients. It's great to follow a set timetable for posting your substance. This guarantees your substance is posted reliably.

#### 9. Tweets Can Show Up in Google Searches

Social media can help with third party referencing and may in a roundabout way affect SEO. Google and Bing show tweets in indexed lists. This element permits individuals to see what others are talking about with regards to the point they are keen on. It is more significant for points that are moving, as more up to date tweets will spring up on the web crawler results page.

#### 10. Recognizes and Connect With Potential Business Partners and Collaborators

Social media makes it conceivable to make associations with new individuals. Here are a few different ways you can use this to help your business:

**Facebook Groups:** 1.8 billion individuals use Facebook gatherings. With a huge number of gatherings on Facebook, odds are good that you'll meet some potential colleagues in a couple of those. Tracking down those gatherings and getting involved can assist you make associations with the people who should work together with your image.

**LinkedIn:** LinkedIn was made to assist experts with interfacing with potential colleagues, associates, or representatives/bosses. Truth be told, 72 % of B2B Buyers use LinkedIn to share significant data about their business. By utilizing LinkedIn's organization of more than 467 million individuals, you can do your exploration and observe the people who should work together.

**Twitter:** Not just does Twitter permit you to arrive at clients, however it additionally goes about as a stage to contact the ideal individuals for your business. You can exploit Twitter's rundown capacity to make gatherings who may be useful to your web-based media

objectives. Then, at that point, you can focus on your commitment to those potential colleagues.

Instagram: Instagram has become perhaps the best stage to arrive at brand partners and content makers. Indeed, Instagram coordinated efforts are on the ascent and powerhouse showcasing is relied upon to develop to be worth more than \$13.8 billion. Makers on Instagram currently can add brands to their liked "brands list" to impart who they would open to work together with. This additionally gives makers need when organizations begin looking for new individuals to work with.

#### 11. It's Cost Effective

Natural social media advertising is (generally) free. It's allowed to make online media profiles and post natural substance. For some's purposes, that might be sufficient, and the nature of the substance might advance the substance all alone. Notwithstanding, on the off chance that you might want to go above and beyond and advance it further, paying for advancement will assist with expanding openness.

#### 12. Assists with Repurposing Content

Everybody realizes reusing is great, so why not reuse your substance? You put a ton of work into it, and it should be seen. You can reuse the very substance that you have on a blog entry or video, and put it on your web-based media stages. This permits you to contact a crowd of people that could have missed your substance the initial time around. It additionally fortifies your image's informing and might give your substance a SEO support.

#### 13. Assists You Stay Current With Industry News

It's as of now been demonstrated that web-based media can assist you with interfacing with possible colleagues or colleagues engaged with your industry. Moreover, by following and observing your opposition and other industry organizations, you can see what new things they're attempting to achieve.

#### 14. Social Media Can Help Establish You As a Thought Leader

Everybody needs to be viewed as a pioneer. You need individuals to check out you and your substance first at whatever point they have an inquiry. So how would you stand apart in front of the horde of other business experts in your industry? Online media can assist with that.

Social media permits you to arrive at an unbelievable number of individuals. Your potential crowd is tremendous, so the initial step is to limit who your interest group is, and afterward make content that connects with them. Online media not just permits you the chance to post extraordinary substance, yet it opens pathways for you to associate and draw in with your adherents. After you assemble that association with them, they're bound to return to you assuming they have an inquiry regarding your industry.

#### 15. Can Help You Identify Trends in Consumer Behavior and Opinions

Social media can impact buyer conduct. Seeing the amount of an impact it has is significant. Online media can likewise give you significant understanding to how your shoppers settle on their buy choices and what their general assessments are of latest things. How might you discover what these patterns are? Greetings yet again, social tuning in. Paying attention to what customers are talking about with regards to your image or items can assist you with finding what's working in your procedure, and what are some client trouble spots. Getting what values are essential to your purchaser can assist you with showcasing to them. Web-based media stages have made spaces for individuals to voice their viewpoints about the news, legislative issues, items, or whatever else that may right now drift. Twitter even has a "What's going on" area on your landing page so you can see what purchasers are talking about with regards to what's moving.

#### 16. Can Help You Do Competitor Research

Nearly everybody is via online media. In any event, 4.48 billion individuals are... what's more that incorporates your rivals. That is not really something awful for you since you can screen their online media to get a few pretty huge experiences. The main thing you want to do is recognize who your rivals are and what their online media system is. You can do this by watching out for their online media profiles and examining what kind of content they post. You could utilize different insightful instruments to perceive how you and your rivals analyze.

### Conclusions

The pandemic has encouraged us to be more intelligent than at any other time to be ready to run lives even in the lockdown. Innovation has become more grounded as individuals are presently more capable, experienced, and ready to deal with the framework on the web and get by on computerized media. In the current situation, digital is at the core of all

organizations and Digital marketing is a fundamental instrument in the possession of brands and advertisers for executing showcasing systems during the pandemic time frame. The effect of Social media on Customer buy choices can be clarified by many variables: social evidence, the entrance of web-based media, and the accessibility of online retail. In any case, it's getting increasingly more hard to make your image stand apart via web-based media. Focusing on the right stage, building imaginative web-based media showcasing efforts, and utilizing around date advancements will assist you with that.

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## **SUSTAINABLE AGRICULTURE DEVELOPMENT IN INDIA –PANDEMIC SURVIVAL**

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### **Abstract**

*The COVID-19 pandemic has resulted in immediate, serious, and worldwide human health issues. Necessary countermeasures to the virus, e.g. quarantines and other restrictions, will remain in place for many months and have uncertain end dates. We are already witnessing the indirect effects of the pandemic on agricultural systems across the globe. Farmers have thrown away a lot of their crops because there has been a huge drop in demand for restaurant and commercial food services, as well as restrictions on labour, processing capacity, and storage.*

*Key words: COVID-19, Pandemic, Agriculture systems, Agricultural policy*

### **Introduction**

A pandemic shock can have a greater economic impact due to lost human lives than a weather shock such as a drought, flood, or trade embargo. Undoubtedly, all these shocks affect agricultural systems. However, pandemic shocks affect all sectors of an economy. A pandemic disrupts demand and supply of food, impacting the global supply chain, while droughts tend to be localized, affecting only the associated sector or stakeholders (Mishra et al., 2021). Similarly, shocks due to a trade embargo affect a particular sector and can be corrected in the short-term with suitable policy measures. For instance, in the case of supply shortages due to droughts, globally linked wholesalers and retailers procure from other sources to avoid adverse effects. On the other hand, a pandemic can have a bigger and more negative impact on a country. It can even put it into recession.

The pandemic-led crisis has wreaked havoc on both the Indian and global agricultural systems. A global food security crisis is potentially looming that cannot be countered without understanding the impacts of COVID-19 on the agricultural system, especially in developing

countries. A host of food exporting nations, viz., Kazakhstan, Myanmar, Russia, and Vietnam, have imposed cereal trade restrictions like bans, quotas, and licensing, which are distorting the global food supply. Disruptions in supply and/or value chains lead to food wastage, unleashing volatility in prices and having implications for food and nutritional security. For instance, Bangladesh witnessed a significant level of food wastage in perishables like milk and vegetables, and reduced consumption of non-vegetarian items like poultry products and fish—a major source of protein—owing to misinformation concerning the spread of COVID-19 (Termeer et al., 2020a). For some time, India too has witnessed a steep reduction in consumption of poultry meat for some time due to the same reason, causing enormous income loss to poultry farmers. The poverty rate has increased by 9% during the lockdown period in Ethiopia, and a survey of 3107 households revealed income loss for 38% of casual labourers, while 90% reported food affordability as a major concern (de Roo and de Boef, 2020). Kenya witnessed around a 15% fall in crop productivity due to disruption in extension services and increased demand for vegetables and staples due to stockpiling. The poverty rate in Kenya is likely to rise by 13%, with an estimated 3 to 3.5 million slipping from food security in the near future. The impacts of COVID-19 in Mali are abysmal. About two-thirds of the households surveyed (n = 1766) said they were hungry, even though the average cost of food hasn't changed much.

The COVID-19 crisis is expected to throw millions of workers into unemployment. The ILO estimates a loss of 300 million full-time jobs in terms of hours worked (ILO Monitor, 2020). The same organization also predicts that the 2 billion informal workers across the globe will be the ones most affected by the crisis. The loss of jobs and income will be directly reflected in poverty indicators. According to the World Bank, the share of the global population in extreme poverty (living on a per capita monthly income of less than US \$1.90 PPP a day) that had fallen below 10% is now expected to rise again, and a contingent of between 71 and 100 million people will return to the extreme poverty condition (Mahler et al. 2020). Globally, the IMF forecasts a 4.9% decline in the GDP for the year 2020 (World Economic Outlook (WEO) 2020). This decline will be felt most intensely in emerging exporting countries. In Latin America, for example, ECLAC (United Nations Economic Commission for Latin America) predicts that the region should return to the economic situation of 10 years ago (CEPAL 2020).

### **India's Position in World Agriculture**

As far as India's position in the world's agriculture is concerned, it is the largest producer of pulses, okra, mango, banana, and lemon and the second largest producer of wheat, rice, groundnut, tomato, onion, cabbage, cauliflower, brinjal, etc. (Table 1). India produces more than one fifth of the global production of paddy and pulses. Similarly, it accounts for more than 20% of global production of many horticultural crops, including okra, cauliflower, brinjal, banana, mango, and papaya. However, the area of concern is the low level of productivity of major field and horticulture crops in the country.

### **Capital and credit of agro business in India**

The scarcity of capital in general is a major constraint for agricultural productivity enhancement and diversification. Any losses on account of disruption to harvesting or markets should be covered under the Pradhan Mantri Fasal Bima Yojana (PMFBY) scheme. Farmers of high-value commodities like fruits, vegetables, flowers, dairy, and fish, who are at the forefront of the farm diversification strategy, have suffered higher losses due to COVID-19. These farmers need appropriate support. Semi-urban and urban informal operations and small and medium enterprises (SMEs) carry out much of the tertiary activity related to the agriculture and food sector. The lockdown has had a significant impact on their employment and economic viability, which will in turn impact farmers. These enterprises facilitate postharvest handling and processing of agricultural products. Supporting SMEs would help them to survive, maintain value chains and create markets for farmers. To help small businesses in the agribusiness industry deal with the crisis and connect directly with farmers even after COVID-19, it's important for banks to give them reasonable and easy credit lines. This will help them manage the crisis and connect with farmers.

### **Change in other agriculture production at the state level of India**

**Horticulture:** Horticulture, being a perishable crop, was adversely affected during the lockdown even though there was no restriction on the sale of fruits and vegetables in the market, except a ban on the operations of rural haats. All states except Gujarat (5%), Rajasthan (2.5%) and Karnataka (1.7%) have witnessed a decrease in production in the horticulture sector. People in Himachal Pradesh, Chhattisgarh, and Tamil Nadu lost 18%, 17.9%, and 13.9% of their weight.

**Poultry:** This sector was most strongly impacted in all states (except Arunachal Pradesh, where production was reported to increase by 25%), with production declining by a significant amount. The decline in production levels was the sharpest in the states of Haryana (37.2%), Madhya Pradesh (34.2%), and Uttar Pradesh (31.9%). The fall in the production levels of poultry could be directly attributed to the lower demand for poultry products due to the widespread fear that the COVID-19 virus may spread among poultry birds.

**Dairy:** The dairy sector was one of the least adversely affected sectors after crop production as the demand for dairy products was relatively stable and the supply chain also did not face large-scale disruption during the lockdown. At the all-India level, overall dairy production declined by 6.6%, but this decline was of a similar small magnitude across most major states. The states of West Bengal (11.9%), Jharkhand (13%), and Chhattisgarh (11.5%) reported the largest decline in the dairy sector, mainly due to a decline in demand for milk products, as most of the restaurants and sweet shops remained closed during April 2020.

**Fisheries:** The full range of activities required to deliver fish and fish products from production to the final consumer is subject to indirect impacts of the pandemic through changing consumer demands, market access, or logistical problems related to transportation and border restrictions. This has led to serious disruptions in the fishing supply chain. All states except Telangana (an increase of 7%) witnessed a decline in fishing production. Amongst the larger states, those which faced the biggest decline were Maharashtra (23.5%), Madhya Pradesh (22.7%), and Andhra Pradesh (21.7%).

**Pig/Sheep/Goat:** This sector has also been adversely affected by the pandemic, but to a much lesser extent. One of the reasons for this was that, in some regions, there has been an increase in pig, sheep, and goat consumption as it is considered a safer alternative to poultry. Telangana and Arunachal Pradesh have seen an increase in production levels of 10% and 25%, respectively. Nagaland (25%), Haryana (17%), and Madhya Pradesh (16.3%) are three of the states that have seen the biggest drops in production.

### **A pandemic's lessons for rethinking Indian agriculture**

#### **Modifying consumer behaviour**

Consumer behaviour and nutrition choices are intrinsically linked to decisions that women take as mothers, cooks, caretakers, and farmers in Indian households, as has been evident even during the pandemic. Women's ownership of agricultural lands or houses is also critical

in the decisions they get to make within households. Education of women is positively correlated with a reduced prevalence of anemia and malnutrition, and so must be included in policy-level strategies. Women who work in agriculture should be encouraged by the right policies, but state land policies must also address these important aspects for better nutrition.

### **Funding for nutrition-sensitive agriculture**

The COVID-19 pandemic's health fallout would expectably drive major public investments towards the health infrastructure and related resources. The second biggest challenge would be addressing issues of hunger and nutrition for a country of 1.3 billion people, especially the poor and underprivileged. Not prioritising allocations to research on nutrition-sensitive agriculture at these times would be an error. There should not be any money left over for the under-invested research and innovation ecosystem in agriculture because that would be bad for the whole industry.

### **COVID-19's Impact and Recovery on Agriculture and Gender**

The impacts were profound and already in June 2020, it was clear that they would be lasting due to observed and experienced losses in income and associated depletion of savings, borrowing from wherever it was feasible, selling of assets, and foregone expenditures on more varied and higher-quality foods and health. In some cases, women's savings were used first, and women more often skipped meals and experienced food insecurity. These are realities that have already emerged in mid-to-late 2020 and can not be easily reversed. Many of these COVID-19 impacts will be felt across generations, particularly the reduced quantity and quality of foods consumed as well as the lack of access to education of South Asian children, and most acutely of poor children. Before COVID-19 health effects and the costs of morbidity and mortality for people and businesses in much of South Asia in early 2021, all of these effects were already visible.

Governments have an important role to play in the post-COVID scenario. Farm families are suffering due to COVID, so the government needs to provide more assistance, such as education and capacity-building opportunities targeted at women and low-income households in the hard-hit areas. For immediate relief, agriculture extension and outreach services need to be enabled to provide easier access to food and nutrition through food packages and cash transfers. Partnerships between the private sector and civil society organizations or women's groups (with a focus on women or community-level) are also important to strengthen,

including through government assistance to support these types of partnerships. More support can be provided to the marketing of agricultural products during the COVID pandemic (Figure.1). Learning from COVID, a more holistic social protection system is needed to deal with risks including financial and insurance (health, but also weather and crop insurance, pension), and easier access to inputs and technology. Those short-term relief programs need to be paired with programs that help women, especially those who are most at risk, have more power and rights in shaping their food and forest systems. These programs should help women, especially those who are most at risk, have more power and rights in shaping their food and forest systems by creating and supporting democratic, inclusive, and participatory spaces.

### **The Indian government's response to the COVID-19 pandemic**

The first responses of the government of India to the COVID-19 pandemic in the country involved thermal screenings of passengers arriving from China, the country from which the coronavirus disease 2019 originated, as well as of passengers arriving from other countries. As the pandemic spread worldwide, the Indian government recommended social distancing measures and also initiated travel and entry restrictions. Throughout March 2020, several shutdowns and business closures were initiated, and by the end of the month, the Indian government ordered a widespread lockdown. An economic package was announced in May 2020. On March 3, 2020, the Indian government stopped issuing new visas. Previously issued visas for the nationals of Iran, South Korea, Japan, and Italy were suspended. All visas were suspended on March 13, except for diplomatic and other official visas, as well as visa-free travel for overseas citizens of India. Indians returning from COVID-affected countries were asked to be quarantined for 14 days. These measures were expanded to include citizens from Europe, Gulf countries, and Asian countries, including Malaysia, on 17–18 March. The land border with Myanmar began to be restricted on March 9th, at the initiative of the state governments of Mizoram and Manipur. On March 13, the government of India closed passenger traffic from all neighbouring countries other than Pakistan. The traffic from Pakistan itself was closed on March 16.

Agriculture as a career choice in the post-pandemic era

In the context of COVID 19, the eminent scientist Dr. M. S. Swaminathan has called for strong agricultural genetic diversity to strengthen food security. He also explained through his early research on potatoes, focusing on the spread of pests and diseases, how India could be prepared for the spread of diseases, including viruses, while ensuring food security. After a pandemic is over, the country's young people, who make up 50% of its population, should become agricultural scientists and academicians, entrepreneurs, and educated farmers to make sure that the country's food supply, nutritional needs, and health are not lost in the midst of a new world.

ICT (information and communication technology) in agriculture is a field with a huge scope for entrepreneurship as well as employment generation for graduates and postgraduates. According to a study by FICCI, agri start-ups, which are growing at a rate of 25% year-on-year basis, can offer technological solutions for helping the Indian farm sector.

A greater number of startups are needed to connect farmers with buyers, including retailers, e-commerce, processors, cloud kitchens, and even directly to consumers. To address post-harvest challenges too, startups have a role to play by starting work near the farm by offering modular and affordable storage and processing solutions. These storage facilities are intended to give farmers an option to sell the produce at the right price and at the right time. Already, agricultural scientists have created startups focused on accurate and timely assessment of soil moisture and developing data-driven controlled irrigation models. Younger agricultural graduates have launched business platforms that provide farmers with advisory services for crop monitoring, including institutional credit and crop insurance (Figure 2). Agricultural engineers with an interest in artificial intelligence can look forward to a bright future in industries using satellite images to geotag farms, assess crop health, and estimate output. They can also get absorbed in building algorithms for farm monitoring and models for artificial intelligence to automate and improve predictably yields and farmers' incomes.

## **Conclusion**

COVID-19 has affected the functioning of food systems all over the world. This paper seeks to identify and analyse the agricultural food production patterns after the pandemic era. The crisis under analysis also revealed modifications in these actors' behaviors in food markets, noticeable in changes in consumption patterns and in the ways demand for food was met.

However, an analysis of the information and data that has been gathered shows that the food system is able to withstand the effects of the pandemic and that the system's entities, especially food producers and eaters, are able to adapt to changes.

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*Sustainable Development and Innovations for Post Pandemic Survival COVID-19: Impact on health of people & wealth of nations*

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**Abstract**

*The prophetic warning by the Nobel Laureate Joshua Lederberg<sup>1</sup> that “the microbe that felled one child in a distant continent can reach yours today and seed a global pandemic tomorrow” has once again proved its relevance with the emergence of coronavirus disease 2019 (COVID-19) as the latest pandemic that is affecting human health and economy across the world. COVID-19 pandemic erupted in the Wuhan City of People’s Republic of China in December 2019. The PR China, under its obligations for International Health Regulations (2005), reported to the World Health Organization (WHO) that between December 31, 2019 and January 3, 2020, 44 cases with pneumonia of unknown an etiology had taken place<sup>2</sup>. Soon, the disease spread rapidly within and outside the Hubei Province and engulfed many countries, with Thailand, Japan and the Republic of Korea as the initially affected countries<sup>2</sup>. The Chinese authorities identified the virus to be a new coronavirus which was subsequently named as severe acute respiratory syndrome (SARS)-CoV-2 by the International Committee on Taxonomy of Viruses<sup>3</sup>. The WHO also named the disease due to this virus as COVID-19<sup>4</sup>.*

**Introduction**

As of February 29, 2020, a total of 85,403 confirmed cases and 2,838 deaths had taken place with no respite in geographical spread, mortality, morbidity and economic loss due to the virus<sup>5</sup>. The data currently available indicate mild symptoms in almost 80 per cent of the infected individuals but higher vulnerability of the elderly, especially those with underlying medical condition. The case fatality ratio is less than that seen in two recent epidemics due to SARS-CoV-1 and Middle East respiratory syndrome (MERS)-CoV, but greater transmissibility and rapidity of the spread are the observed characteristics of this virus<sup>6</sup>. Various predictions have been made for the spread of COVID-19 including by a leading Harvard epidemiologist Marc Lipsitch who warns that the coronavirus will infect up to 70 per cent of humanity within a year<sup>7</sup>.

pandemics and emergence of new pathogens

Pandemics of various infectious diseases with millions dying have been recorded in the history for the past several centuries. The pandemics continued in the current millennium too, and COVID-19 is the latest and certainly not the last pandemic. One of the reasons for the occurrence and delayed response to pandemics is the lackluster approach to building capacity to respond to infectious diseases. With the availability of antibiotics, even the Surgeon General of the United States of America, William Stewart, said in 1967, “The time has come to close the book on infectious diseases”<sup>10</sup>. But it was not to be. The past three decades have seen emergence of almost 40 new pathogens, most of which are viruses including HIV, hepatitis C virus and coronaviruses that have caused pandemics, novel-influenza viruses, etc<sup>11</sup>. Many non-technical but popular publications have also highlighted the persistence and revival of infectious diseases<sup>12</sup>.

### **Pandemics and human development**

It has been generally believed that poverty and underdevelopment predispose to infectious diseases. Although true to some extent, the occurrence of the ongoing COVID-19 in developed countries also highlights the fact that developed countries and rich populations are not immune to the outbreaks of infectious diseases. Sufficient evidence in support of this contention using human-made weapons of mass destruction and nature’s agents of mass destruction has been provided to support the aforesaid assumption<sup>13</sup>.

There exists an inextricable relationship between human development and infectious diseases.

United Nations Sustainable Development Goals also recognize this in its Goal No. 3.14. This fact has been highlighted for the last several decades in popular literature<sup>15</sup>. There is another side of development. Ecological changes brought about by the development activities include new technology, construction of new irrigation channels, dams, deforestations, migration of people, high density of populations, emergence of urban ghettos, globalization of food and increasing international travel. All these facilitate rapid spread of infection across the

countries<sup>16</sup>. Some of these factors have been responsible for the rapid spread of COVID-19 across international geographical borders.

Global warming, or the climate change, is another factor that may have acted as a predisposing factor for the emergence and spread of several epidemic-prone diseases<sup>17</sup>.

### **Impact of pandemics on global economy**

Pandemics adversely impact the economy of all affected countries. Poor get hit the most. This has been documented earlier<sup>18</sup>, and even the United Nations has indicated that the pandemics threaten national security<sup>19</sup>. A comprehensive study extending over a period between 1950 and 1991, involving 20 countries including developed, developing, and underdeveloped countries, revealed that the increasing prevalence of infectious diseases will not only increase human mortality and morbidity, but also result in gradual erosion of State capacity and increase in poverty<sup>20</sup>. This pathogen-induced economic decline was found to have a negative effect of such measures of state capacity as fiscal resource, resilience, reach and responsiveness, autonomy and legitimacy. There has been evidence to support the claims that infectious diseases constitute a verifiable threat to national security and State power. Infectious diseases' prevalence was found to have a negative association with the ability of the state to maintain the armed forces with adverse effect on State security<sup>21</sup>.

Many industrial units in PR China, Republic of Korea and other countries with large number of cases of COVID-19 had to be closed down within a month of onset of the outbreak. PR China having interrupted the supply chain to other countries has adversely affected its industrial production, thus undermining trade and tourism. The world tourism body has estimated the cost to world tourism to be around US\$ 22 billion<sup>22</sup>. Economists warn of a reduced global economic growth since 2009. Concerns about the pandemic have already ruined global stock exchange markets. Both World Trade Organization (WTO) and Organization for Economic Cooperation and Development (OECD) have indicated COVID-19 pandemic as the biggest threat to global economy since the financial crisis of 2008-2009.

### **Conclusions**

Microorganisms antedated human beings. They will continue to cause pandemics because of their ingenuity and basic survival instinct<sup>23</sup>. It is obvious following the spread of COVID-19 that notwithstanding the phenomenal advances in epidemiology, disease biology, molecular biology, genomics and proteomics, humanity is still unable to predict and prevent the

unsuspected onset of epidemics and pandemics of infectious diseases. It is essential to strengthen biomedical research, improve healthcare delivery system, establish a permanent 'watch-dog' body and create an improved communication and coordination mechanism for the diverse agencies responsible for mitigating the broader adverse consequences of pandemics. This will require not only national efforts but a coordinated global response through international agencies and development partners.

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## **A STUDY ON ENVIRONMENTAL SUSTAINABLE DEVELOPMENT IN POST PANDEMIC**

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### **Abstract:**

*The calamity caused by COVID-19 has affected research in a variety of ways. The global outbreak of corona virus disease 2019 (COVID-19) is affecting every part of human lives, including the physical world. The remedial taken to control the spread of the virus and the slowdown of economic activities have significant effects on the environment. Therefore, this study intends to explore the positive and negative Sustainable development, environmental impacts of the COVID-19 in post pandemic.*

### *Key Words:*

*Sustainable Development, Pandemic, COVID-19, Environment, Pollution*

### **Introduction:**

The pandemic resulted from the novel corona virus has caused a global crisis and affected people physically, mentally, and economically. This pandemic will shows the memories of generations of people, and unfortunately, the impact caused by the pandemic cannot be erased by any sort of rapid remedies. The whole world itself to fight the COVID-19, and the key elements of the society, especially the government, healthcare system, private institution, school, colleges, industries and the public, contributed their joint efforts to achieve the common goal of mitigating the spread and eliminate the corona virus even if it leads to a consequential impact in terms of economic crisis. From another way, the cataclysm impact made by the pandemic crisis need to be assessed, and proper measures taken to implemented so that humanity can thrive with minimal impact in the post – pandemic period.

### **Sustainable Development:**

It can be defined as “assembling the required of the present without understanding the ability of future engendering to meet their own requires”.

Sustainable development is the effective nature in use of economic development while preserving the environment and ecosystem so that not only the requires of presents are fulfilled but also for the future generations.

### **Measures Of Sustainable Development:**

- Using appropriate technology
- 3-R Approach
- Promoting environmental education awareness
- Population stabilization
- Conservation of nonrenewable resources
- Usage of renewable resources

### **How To Achieve Sustainable Development**

- Reduce our province on rock and fossil fuels such as coal, oil and natural gas.
- Reduce our dependency on synthetic chemicals.
- Reduce our destruction of nature - includes clearing of forces and natural habitats for human needs.
- Ensure that we don't give up people from gathering their requires to achieve environmental sustainability. We must maintain a stability between environmental and economic sustainability.
- Recycle and reuse as many waste products and resource possible.
- Make more goods that last longer .

- Depend on renewable sources of energy, sun wind, biomass, flowing water, geo thermal and tidal.
- Sustain Earths Biodiversity with prominence on safeguarding secondary habitats of the wild species.
- Stabilisation of population growth

### **Sustainable Development Problems:**

- Disagreement between stake holders : each stakeholder has different priorities and hence it is extremely difficult for all to agree upon common goal of sustainable development.
- Uncertainty: there is always uncertainty regarding different global environmental issues and the manner in which they interact with global system.
- Consumption and lifestyle.
- Arguments over cause and responsibility.

### **What is Environment?**

- The Environment is everything around us It includes all of the living and Non-living things with which we interact.
- We are dependent on the environment for Air, Water, Shelter, Food and Energy.
- Environmental science is an interdisciplinary study of how humans interact with the environment.
- The goals of environmental science are to learn:
  - ☐ How nature works.
  - ☐ How the environment affects us.
  - ☐ How we effect the environment.
  - ☐ How we can live more sustainably without degrading our life-support system.

**Principles:**

- Holistic Approach
- Social Justice
- Inter and Intra – generational Equity
- Sustainable management of resources
- Mutual reinforcement
- Utilization of local resources
- Social Responsibility
- Public Participation
- Effective action in view of gravity of perceived threat

**Four Scientific Principles of Sustainability:**

To live sustainably we should copy nature

- Reliance on solar Energy
- Biodiversity
- Population Control
- Nutrient Recycling

**Sustainability and Nature Capital:**

Natural Capital is a key component of Sustainability. Natural resources and natural services that keep us and other life forms alive and support our economies. Natural capital is supported by solar capital (energy from sun).

**Natural Capital Degradation:**

- ☐ Human activities degrade natural capital.

□ The exponential increasing flow of material through the world's economic systems depletes resources and pollutes the environment.

### **Sustainability: The Integrative Theme**

The ultimate goal is an environmental sustainable society that meets the needs of the people in a just and equitable manner without compromising the future generations. Protect natural capital and live off of its income.

### **Environmental Problems:**

Experts have identified four basic causes of Environmental Problems

- Population growth
- Unsustainable resource use
- Poverty
- Failure to include harmful environmental cost of goods in market price.

### **Biodiversity And The Economic Response To Covid-19:**

□ Biodiversity makes present day and succeeding human health. Yet it is being destroyed at an unparalleled and accelerating rate, with 25% of all plant and animal species now threatened with extinction. It is critical that countries integrate biodiversity considerations into their COVID-19 response and wealth recovery plans.

□ Safeguarding biodiversity is very important for keep away from the next pandemic. Close to more than half of come out infectious diseases in humans come from other animals. Land-use change and wildlife misuse increase infectious disease risk by people and domestic animals in close presence to antibody-carrying wildlife, and by disorderly the ecological processes that keep diseases in check.

□ The economy and human well-being also depend on biodiversity for food, clean water, flood protection, deterioration control, creativity for innovation and much more. Over half the world's global domestic product is moderately or highly dependent on biodiversity. The ongoing decrease of biodiversity that poses important chance to community. Finding in biodiversity as part of the COVID-19 policy response can help to minimize these risks, while issuing immediate jobs and wealth stimulus.

□ While government and business leaders have accepted the importance of a “green recovery”, the focus has been primarily on climate change. Yet biodiversity loss and climate change are challenges of a similar magnitude and urgency, and are fundamentally connected together

□ A number of countries have included biodiversity measures in their COVID-19 law answer. Examples of biodiversity measures include changes to regulation on wildlife trade to protect human health, and job programmes focused on ecological functionality, sustainable forest management and invasive species control.

□ In spite of some good practice examples, many countries have weakened environmental by law or introduced motivation measures that pressurize to drive further biodiversity loss. Analysts suggest that the volume of potentially harmful spending dedicated as part of the economic recovery from the COVID-19 crisis exceeded the volume of spending beneficial to biodiversity.

□ Governments following steps to integrate biodiversity considerations into the COVID-19 reopening plans, and drive the life changes needed to halt and then reverse biodiversity loss;

- Make sure that COVID-19 economic recovery measures do not undermine biodiversity.
- Step up investment in biodiversity conservation, sustainable use and restoration.
- Put a charge on biodiversity loss.
- Foster cross-sectoral and international collaboration.

### **Positive Environmental Effects:**

#### **1. Reduction of Air Pollution**

- General reduction in air emissions and air pollutants concentrations due to the lockdown measures. Changes differed among countries, among cities and within cities. Decreases of up to 70% in *NO2* concentrations in traffic stations. And decreases of up to 70% in

*NO2* background concentrations.

- Smaller decreases in *PM10* concentrations. Reductions in *PM10* is up to 35% in traffic stations and up to 20% in background concentrations.
- Now due to this pandemic, the number of Vehicles plying on the roads have become less, Factories have shutdown and hence in the cities all over the world.
- Particulate Matter 2.5 or PM 2.5
- PM 2.5 is one of the most harmful forms of air pollution. It is included in the category of group carcinogen and it is so small. That it can be travel from your lungs into your blood stream which wills not only respiratory problems. But also Heart attack and can also cause premature deaths. It is so deadly that WHO has estimated that every year worldwide more than 4 million people are killed due to PM 2.5 caused heart diseases , Strokes, Lung Cancer , Chronic and respiratory infections etc.
- Now, due to this pandemic lockdown even the PM 2.5 levels have reduced worldwide. More than 77,000 lives have been saved due to decrease in air pollution.
- In Lock down days we are able to view the clear blue sky in different cities across the country and are able to see stars at night. Also the number of people dying of air pollution would have become less. The lives of people must be getting saved due to the fall in air pollution.

#### **Air Pollution Due To Nitrogen Dioxide:**

- Nitrogen dioxide (*NO2*) is a toxic gas. that is emitted from the engines of cars, Buses, Trucks and from factories. The World Health Organization (WHO) states that this gas is more in concentration than 200 micrograms per cubic metre ,then it can cause an enormous inflammation in your breathing pipe which can be lead to problems like Asthma and Heart diseases etc.

## 2. Reduction Of Water Pollution

Water pollution is common for developing country like Bangladesh and India, where domestic and industrial wastes are throw away into rivers without treatment. During the lockdown period, the major industrial sources of pollution have completely stopped , which helps to reduce the pollution level. For occasion, the river Ganga and Yamuna have reached a unusual level of purity due to the absence of industrial pollution on the days of lockdown in India. Due to ban of public gathering, number of tourists and water activities more reduced in many places and due to COVID-19 lockdown, the Grand canal of Italy turns clear, and reappearance of many aquatic species.

Water pollution are reduced in beach areas in Malaysia, Thailand, Maldives, Bangladesh and Indonesia and also due Covid-19 to lockdown amount of food waste is reduced in Tunisia, which ultimately reduces soil and water pollution. The amount of industrial water consumption is also reduced then extreme amount of solid trashes is generated from construction and manufacturing process for water and soil pollution also reduced.

## 3. Reduction Of Noise Pollution:

Noise pollution is uplifted levels of sound, generated from different human activities (e.g., Machines, Vehicles, Construction Work, Bus, Train, Industries etc.,) which may lead to

adverse effects in human and other living organisms. Noise defeatist effects on physiological health, along with cardiovascular disarrays , hypertension and sleep shortness of human. It is reported that, world around 360 million people are prone to hearing loss due to noise pollution. Moreover, due to travel restrictions, the number of flights and vehicular movements has drastically reduced around the world, which have ultimately reduced the level of noise pollution. Past few years, tourism has witnessed a growth because technological advancement and transport networks, due to outbreak of COVID-19 and local restrictions the number of tourists has reduced in tourists spots around the world.

### **Conclusion:**

Environmental Sustainability is one of the biggest issues in present days. By increasing population has raised several questions on sustainability of natural resources on our planet. Due to urbanization, industrialization, modern agriculture practices have polluted air, soil and water around the globe. This chapter Environmental sustainability will cover all issues on post pandemic COVID-19 and ideas to world so as to use it for a better future for all life forms on Earth.

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**A STUDY ON EMPLOYEES MOTIVATIONAL TECHNIQUES IN  
ORGANIZATIONS SPECIAL REFERENCE TO TIRUPATTUR DISTRICT.**

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**ABSTRACT:**

*The purpose of the study is to know the employees motivational techniques used in the organization. The employees motivational is one of the key important factors used to terminating the success of the organization. It helps the employees resulting in their performance and productivity. The questionnaire design taken by the researcher to collect the necessary data from the respondents. Multiple choice and dichotomous question. A sample size is 50 employees was considered to this study. The statistical tool is used for the study is simple percentage analyzing method. The result of the study shows that the employees are motivated by the various motivational factors.*

**KEYWORDS:**

*Employees Motivation, Motivation Techniques, Performance, Productivity, Organization*

**.INTRODUCTION:**

Motivation results from the interaction of both conscious and unconscious factors such as the intensity of the desire or need incentives or rewards value of the goals, and expectations of the individuals and of his/her peers. These factors are the reasons one has for behaving a certain way. Most of the employees need motivation to feel good about their jobs and perform optimally. Some employees are money which motivates while others find recognition and rewards are personally motivation. Motivation levels within the workplace have a direct impact on employee performance and productivity. There are the several ways employers can motivate employees and drive worker productivity. The techniques of employees motivation are job enlargement, job enrichment, job rotation are some of the basic approaches. The job enlargement involves expanding the job of an employee that has them

doing more work of similar nature to what they already do. The job enrichment is an attempt to give workers more control over their tasks and more responsibility for design, execution and output .the workers assume some of the functions previously carried out by his/her immediate supervisor or by the other staff. The job rotation is a practice whereby each employees learns to several operations in manufacturing process and rotates through each in a set period .the job rotation has important implications for firms learning. The techniques for increasing motivation are creative a positive work environment, set goals, providing incentives, recognize achievements, share profits, solicit employee input, provide professional enrichment and some various techniques are used in the organization.

### **SCOPE OF THE STUDY:**

- ☐ This study helps us to find out various motivational techniques followed in the organization.
- ☐ This research gives better opportunity to know the employer and employees relationship in the organization.
- ☐ To study the changes in performance of the employees according to the benefits provided in the working environment.

### **LIMITATION OF THE STUDY:**

- ☐ Time plays an importance variable that limits the scope of the study. There was limited time to conduct the research and to know the responds to the questionnaire.
- ☐ There was bias regarding the responds to the questions placed in the questionnaire
- ☐ The sample size is limited and acts as a limiting factors.

### **REVIEW OF LITERATURE:**

DR.C.B.GUPTA : The motivation may be defined as the process of stimulating someone to adopt a desired course of action. In order to identify the willingness of a person to work hard for the achievements of organizational objectives his/her motives must be satisfied by offering by incentives.

TAPOMOY DEB: Motivational skill: The employee's motivation to change or come to terms with his behavior is a major factor in counseling skill. They use a participative management

style to encourage the employee's sense of problem ownership. Only then will the employee be motivated and committed to the chance and action required.

ROBERT DUBIN : Motivation as something that moves the persons to actions and continuous him in the course of action already initiated. It refers to the way a person is enthused at work to intensify his desire and willingness to use his potentiality for the achievement of organizational objectives.

LATHAM: Motivation is defined as a psychosomatic process that directs a person to behave and react in away that helps them to satiate certain unfulfilled needs.

FREDERICK HERZBERG: Herzberg motivation theory is one of the content theories of motivation. These attempt to explain the factors that motivate individuals through identifying and satisfying their individual needs. Desires and the aims pursued to satisfy these desires.

TAYLOR'S: Motivation theory is premised on the fact that employees are motivated to be productive by one thing money because of this Taylor believed that management should exercise close control over employees, to ensure that they were getting their money's worth.

#### **OBJECTIVE OF THE STUDY:**

- ☐ To identify an employee motivational techniques in the organization.
- ☐ To study the important factors which are needed to motivate the employee.
- ☐ To study the motivational techniques used in the organization.
- ☐ To analyses the various aspects that motivate the employees.

#### **RESEARCH METHODOLOGY:**

The research methodology refers to the steps taken by the researcher to solve the research problem. It facilities research to be efficient as possible yield maximal information. The sampling plan gives details on person who was surveyed, how they were surveyed and how many were surveyed. The sample area which is being selected for the studies is organization in Tirupptur district . a sample size of the study is 50 employees working in the organization. The sampling procedure adopted is non probability convenience samplings are taken for the purpose of the research. The questionnaire design to the study is multiple choice and

dichotomous question methods. The statistical tool used by the researcher for analyzing the data by the researcher is simple percentage analyzing method .

Simple percentage method = No. of respondents / Total no. of samples \*100

### RESEARCH HYPOTHESIS:

H0: There is no significant relationship between the employer and employees in the organization.

H1: There is a significant relationship between the employer and employees in the organization.

### DATA ANALYSIS AND INTREPRETATION:

TABLE SHOWS THE MANAGEMENT IS INTERESTED IN MOTIVATION THE EMPLOYEES

S.NO	PARTICULARS	NO.OF RESPONDENTS		PERCENTAGE
1	Agree	15	30	
2	Strongly agree	20	40	
3	Disagree	7	14	
4	Strongly disagree	8	16	
	TOTAL	50	100	

INTERPRETATION : From the about table 40% of respondents are strongly agree with the motivation by the management,30% of the respondents are agree with the motivation by the management,16% of the respondents are strongly disagree with the motivation by the management ,14% of the respondents are disagree with the motivation by the management.

TABLE SHOWS THE INCENTIVES PROVIDED BY THE ORGANIZATION

S.NO	PARTICULARS	NO.OF RESPONDENTS		PERCENTAGE
1	Financial incentives	12	24	
2	Non financial incentives	25	50	

3	Both	13	26
	TOTAL	50	100

INTERPRETATION : From the about table 50% of the respondents are non financial incentives which is provided by the organization,26% of the respondents are both which is provided by the organization,24% of the respondents are financial incentives which is provide by the organization.

TABLE SHOWS THE FINANCIAL MOTIVATION PROVIDED BY THE ORGANIZATION

S.NO	PARTICULARS	NO.OF RESPONDENTS	PERCENTAGE
1	Incentives	10	20
2	Bonus	20	40
3	Increasing salary	12	24
4	Other financial incentives	8	16
	TOTAL	50	100

INTERPRETATION: From the about table 40% of the respondents receive bonus as financial motivation by the organization,24% of the respondents are increasing salary as financial motivation by the organization,20% of the respondents are incentives as motivation by the organization,16% of the respondents are other financial incentives as motivation by the organization.

TABLE SHOES THE NON FINANCIAL INCENTIVES PROVIDED BY THE ORGANIZATION

S.NO	PARTICULARS	NO.OF RESPONDENTS	PERCENTAGE
1	Promotion	25	50
2	Involving in decision making	12	24
3	Recognition	9	18
4	Other non financial incentives	4	8

TOTAL            50        100

INTERPRETATION: From the about table 50% of the respondents receive promotion as non financial incentives provided by the organization,24% of the respondents receive involving in decision making as a non financial incentives provided by the organization,8% of the respondents receive recognition non financial incentives provided by the organization,8% of the respondents receive other non financial incentives provided by the organization.

#### **FINDINGS:**

- ☐ 40% of the respondents are strongly agree with the motivation by the management.
- ☐ 50% of the respondents are non financial incentives provided by the organization.
- ☐ 40% of the respondents are receive bonus as financial incentives provided by the the organization.
- ☐ 50% of the respondents are receive promotion as non financial providing by the organization.

#### **SUGGESTION:**

They management can provide financial incentives to motivate the employees in the organization.

To motivate the employees the organization can create some awareness programs and help them to reduce their stress level and motivate them to work with full energy and free of mind.

The organization should work on motivating the employee because the employees and not encourage.

The study shows that the employees are neutrally motivated by the management or by the higher authority.

#### **CONCLUTION:**

A motivated employee is a valuable asset, who can deliver immense value to the organization in maintaining and strengthening the business and revenue growth. This paper concludes that the employee motivation is important to obtain organization success. If they're not driven properly, a management cannot achieve their organization goal easily and effectively.

## THE IMPACT OF CLIMATE CHANGE

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### ABSTRACT

*This paper is an aim to attempt the impact of climate change. The impact of climate change has been considerably enough to threaten human health both directly and indirectly through increasing temperatures, rising sea levels, water and food supply impacts, extreme weather events like floods, droughts, earthquakes, etc., susceptible shelter and population migration. Direct effect of environmental circumstances may ease the diffusion of vector-borne diseases, water-borne diseases, cardiovascular diseases, respiratory allergies and malnutrition, etc. Indirect effects of climate change such as mental health problems and involuntary migration are also important. Children, the elderly and communities are living in poverty among the most susceptible of the damaging effects due to climate change. Environmental consequences climate change, such as extreme heat wave, rising sea-levels, changes in precipitation resulting in cyclones, earthquake, flooding and droughts, intense hurricanes and degraded air quality, affect directly and indirectly the physical, social and psychological health of humans. For instance, changes in precipitations are creating changes in the availability and quality of water, as well as resulting in extreme weather events such as intense hurricanes and flooding.*

**KEYWORDS:** *Climate change, human health, environment, natural resources, malnutrition.*

### INTRODUCTION

Climate change refers to the change in the environmental conditions of the earth. This happens due to many internal and external factors. The climatic change has become a global concern over the last few decades. Besides, these climatic changes affect life on the earth in various ways. These climatic changes are having various impacts on the ecosystem and ecology. Due to these changes, a number of species of plants and animals have gone extinct.

The climate started changing a long time ago due to human activities but we came to know about it in the last century. During the last century, we started noticing the climatic change and its effect on human life. We started researching on climate change and came to know that the earth temperature is rising due to a phenomenon called the greenhouse effect. The warming up of earth surface causes many ozone depletion, affect our agriculture, water supply, transportation, and several other problems.

## **CLIMATE CHANGE**

India is both a major greenhouse gas emitter and one of the most vulnerable countries in the World to projected climate change. The country is already experiencing changes in climate and the impacts of climate change, including water stress, heat waves and drought, severe storms and flooding, and associated negative consequences on health and livelihoods. With a 1.2 billion but growing population and dependence on agriculture, India probably will be severely impacted by continuing climate change. Global climate projections, given inherent uncertainties, indicate several changes in India's future climate:

Global observations of melting glaciers suggest that climate change is well under way in the region, with glaciers receding at an average rate of 10–15 meters per year. If the rate increases, flooding is likely in river valleys fed by these glaciers, followed by diminished Flows, resulting in water scarcity for drinking and irrigation.

All models show a trend of general warming in mean annual temperature as well as decreased range of diurnal temperature and enhanced precipitation over the Indian Subcontinent. A warming of 0.5oC is likely over all India by the year 2030 (approximately Equal to the warming over the 20th century) and a warming of 2-4oC by the end of this century, with the maximum increase over northern India. Increased warming is likely to lead to higher levels of tropospheric ozone pollution and other air pollution in the major cities.

Increased precipitation including monsoonal rains is likely to come in the form of fewer rainy days but more days of extreme rainfall events, with increasing amounts of rain in each event, leading to significant flooding. Climate models also predict an earlier snowmelt, which could have a significant adverse effect on agricultural production. Growing emissions of aerosols from energy production and other sources may suppress rainfall, leading to drier conditions with more Dust and smoke from the burning of drier vegetation, affecting both regional and global Hydrological cycles and agricultural production.

Uncertainties about monsoonal changes will affect farmers' choices about which crops to plant and the timing of planting, reducing productivities. In addition, earlier seasonal snowmelt and depleting glaciers will reduce river flow needed for irrigation. The large segment of poor people (including smallholder farmers and landless agricultural workers) may be hardest hit, requiring government relief programs on a massive scale. Finally, migration, especially from Bangladesh, may strain resources and India-Bangladesh relations.

The most important impacts of climate change will likely include the following:

**Agriculture:** High-input, high-output agriculture will be negatively affected even as demands for food and other agricultural products rise because of an increasing population and expectations for an improved standard of living. Millions of subsistence and smallholder farmers will experience hardship and hunger through being less able to predict climate conditions. To a certain extent, trade may compensate for these deficits.

**Water:** Glacier melt may yield more runoff in the short term but less in the medium and long terms. More severe storms (especially cyclones) will cause more damage to infrastructure and livelihoods and exacerbate salt water intrusion in storm surges. Changes in the timing and amount of monsoon rains will make the production of food and other agricultural products more uncertain, so that, even in good-weather years, farmers will be more likely to make decisions leading to lower-productivity.

**Exacerbation of Inequality:** The welfare of those who are affected by climate change and who have limited means to adapt may act as a force that can change governments, strain public budgets, and foster unrest. About one-third of Indians are extremely poor, and 60 percent depend upon agriculture for their livelihoods.

**Energy:** As India searches for additional sources of energy to meet rising demand, climate change mitigation efforts may constrain its use of indigenous and imported coal, oil, and gas, while development of nuclear energy will be slow at best and likely to encounter opposition. Other non-emitting technologies will require technology transfer and capacity-building.

**Migration:** India receives immigrants from a number of countries. Under climate change conditions, it may be flooded with many more, particularly from Bangladesh. Such migration may exacerbate tension between the two countries as well as putting a strain on Indian central and state governments. Adaptive capacity in India varies by state, geographical region, and socioeconomic status. Studies point to influential factors such as water availability, food

security, human and social capital, and the ability of government (state and national levels) to buffer its people during tough times. Where adaptive capacity is low, the potential is greater for impacts to result in displaced people; deaths and damage from heat, floods, and storms; and conflicts over natural resources and assets.

**State Planning:** Past performance and current trends suggest that Indian state capacity will continue to expand and should be able to manage increased pressures from climate change effects out to 2030. Uncertainty in climatic trend lines beyond the 2030 timeframe prevents any accurate assessment of the state's capacity to respond over the longer term. If Indian policymakers become preoccupied with mitigating near-term impacts of climate change, they will probably not have the leisure to implement measures to deal with more severe effects beyond 2030. Even if climate shifts over the longer term were more certain, the Indian democratic system inhibits administrations from planning beyond the next few election cycles.

## CONCLUSION

If we do not do anything and things continue to go on like right now, then a day in the future will come when humans will become extinct from the surface of the earth. But instead of neglecting these problems, we start acting on them we can save the earth and our future.

Human mistake has caused great damage to the climate and ecosystem. But, it is not late to start again and try to undo what we have done until now to damage the environment. And if every human started contributing to the environment, then we can be sure of our existence in the future.

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## THE EFFECT OF PANDEMIC COVID-19 ON INDIA'S EDUCATION

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### ABSTRACT

*The global impact of pandemic COVID-19 can be seen in every industry. This has a negative impact on India's and the world's education sectors. It has imposed a global lockdown, which has had a negative impact on the lives of pupils. In India, over 32 crore students were unable to transfer schools or universities, and all educational activities were halted. The COVID-19 epidemic has shown us that change is unavoidable. It has acted as a spur for educational institutions to grow and use platforms using previously unexplored technologies. To overcome the fear of a pandemic, the education sector has taken a unique approach to surviving crises by digitising the obstacles. This pandemic has afflicted not just students, but also low-budget institutions and schools, leading to their closure. Within the Covid-19, there are both positive and bad events taking place. Technology helps students and teachers interact electronically through online classrooms, webinars, digital tests, and other means. However, the sad reality is that many pupils around the country do not have access to it. This paper focuses on some of the steps that have been taken by the Indian government to ensure that all citizens have access to quality education. The good and negative effects of COVID-19 on education are examined, as well as some useful recommendations for carrying out educational activities during a pandemic.*

**KEYWORDS:** *Lockdown, Pandemic, Technology and Webinars.*

## 1. INTRODUCTION

The disease Covid-19 has spread across the globe, forcing humanity to maintain social distance. It has wreaked havoc on the education system, which is a key driver of a country's economic prospects. The World Health Organization (recommended an official designation for the virus as COVID abbreviation for Coronavirus illness 2019 on February 11, 2020. On December 31, 2019, it was discovered for the first time in Wuhan, China. COVID 19 claimed the life of a 61-year-old man in Wuhan, China, in the year 2020. COVID-19 was declared a pandemic by the World Health Organization in 2020. The first instance of the COVID-19 pandemic was recorded on January 30, 2020 in Kerala, and the person who was infected had travelled to Wuhan, China (Wikipedia). On March 12, 2020, the first fatality from COVID-19 was recorded in India. It has afflicted over 4.5 million individuals all across the world (WHO).

According to the UNESCO study, it impacted more than 90% of the global student population in mid-April 2020, but that number has since dropped to roughly 67 percent in June 2020. COVI-19 has affected more than 120 crores of kids and youngsters over the world since its outbreak. The severe limitations and the national lockdown for COVI-19 have impacted more than 32 crores of students in India.

According to the UNESCO research, around 14 crore primary children and 13 crore secondary students are affected, making them the two most afflicted levels in India. Following the observation of the corona virus pandemic scenario, the WHO indicated that the first step in prevention should be to maintain social distance. As a result, every country began a lockdown operation to isolate the tainted people. Schools, colleges, and universities were all forced to close their doors. Classes were halted, and all school, college, and university assessments, including entrance exams, were postponed indefinitely. As a result, the lockdown obliterated every student's timetable. COVID has offered numerous chances to transition from the demanding classroom teaching paradigm to a new era of digital teaching, despite the fact that it is an uncommon circumstance in the history of education.

Many educational institutions have been forced to cancel courses, tests, internships, and other activities as a result of the lockdown, opting instead for online learning. Educators and pupils were initially perplexed, unsure of how to deal with the issue of this unexpected catastrophe, which forced the cessation of instructional activities. However, as time went on, everyone recognised that the lockdown had taught them a lot about how to deal with pandemics in the

future. COVID 19 has thus presented educational institutions with several difficulties and chances to improve their technical expertise and infrastructure (Pravat, 2020a). Teachers and students may now continue their instructional activities through the internet, thanks to the lockdown.

Teachers used several Apps such as Zoom, Google Meet, Facebook, Youtube, and Skype to assign work to students and offer lessons through video conferencing. For affective communication, there are WhatsApp groups of guardians, instructors, students, and parents who are always in touch to discuss their concerns. A shift to digital learning may be easier in a country like China, which has a far more centralised educational system. Even in a country like the United States of America, some low-income pupils are unable to employ computerised learning arrangements and do not reach broad bands (foreign study). The situation in India is similar, in that not every kid has access to high-speed internet and digital devices, and they suffer as a result. Many sophisticated educational institutions in India are now lacking in digital capabilities to cope with the abrupt transition from traditional to online education.

The following goals were the emphasis of this study paper:

- To inform the public about the different education-related actions implemented by the Indian government during the epidemic.
- COVID-19's educational benefits will be highlighted.
- To highlight some of COVID-19's negative consequences and provide some practical recommendations for continuing education during a pandemic.

## **2. METHODOLOGY**

The data and information used in this study were gathered from a variety of national and international sources on the COVID-19 epidemic. Information was gathered from a variety of reliable places. The influence of COVID-19 on the educational system is discussed in certain papers and e-contents.

## i) Covid-19 Educational Initiatives by the Government:

The Indian government has adopted a variety of efforts to prevent the spread of the pandemic COVID-19. On March 16, 2020, the union government proclaimed a nationwide lockdown of all educational institutions. The Central Board of Secondary Education (CBSE) has postponed all secondary and upper secondary school examinations in India on March 18, 2020. The CBSE has issued new rules for test centres to conduct exams with a minimum space of one metre between students sitting the exam in classes of no more than 24 people. If the examination centres' rooms are small, the pupils should be separated into different rooms correspondingly. The Civil Services Examination 2019 interview has been postponed by the Union Public Service Commission (UPSC) (Wikipedia). Similarly, owing to the emergence of COVID-19, the majority of state governments and educational boards postponed tests. The Indian government has declared a one-day countrywide Janta-curfew on March 22 and will execute lockdown in stages beginning March 25, 2020.

The Indian government has been extending lockdown periods from time to time, employing various ways to combat the virus, but educational institutions have remained closed indefinitely. On June 29, the lockdown 6.0 was proclaimed, and it would be in place from July 1 through July 31, 2020, with minor restrictions in other areas excluding education. Almost all state government departments have taken steps to guarantee that school and college academic activities are not disrupted during the lockdown.

They've told the schools that all of their classes would be held online. The enactment of the ban has hastened the use of digital technologies. It has created a more efficient and effective approach to build new and better professional skills/knowledge through online learning. During this pandemic Covid-19 circumstance, online learning is the finest option (Pravat, 2020b). As a result, the government's digital India strategy is emerging as a critical instrument for resolving the current issue caused by Covid-19. Technology-based education is, without a doubt, more transparent in every way. In response to the problem of colleges and institutions closing, the Indian government, as well as state governments and corporate companies, have adopted appropriate measures.

For students to continue learning, the Ministry of Human Resource Development (MHRD) has created many arrangements, including online portals and educational channels via Direct to Home TV and radios. Students use popular social media technologies like as WhatsApp, Zoom, Google Meet, Telegram, Youtube live, Facebook live, and others for online teaching

and learning during lockdown. The Ministry of Human Resources and Development's (MHRD) digital projects for secondary and h education are as follows:

- **Diksha:** The Diksha portal provides curriculum-aligned e-Learning resources for students, instructors, and parents, such as video courses, worksheets, textbooks, and assessments. The content was generated by more than 250 instructors who teach in several languages under the supervision of the country's national boards of education (CBSE) and the National Council of Educational Research and Training (NCERT). Offline usage is possible with the app. It offers over 80,000 e-Books in several languages developed by CBSE and NCERT for grades 1 to 12. QR codes on textbooks may also be used to view the contents. The software is available on both the Apple App Store and the Google Play Store.
- **NCERT's e-Pathshala:** This is a multilingual e-Learning software for classes 1 to 12. In many languages, including Hindi, Urdu, and English, the app contains books, videos, audio, and other content intended towards students, educators, and parents. NCERT has uploaded 1886 audios, 2000 videos, 696 e-Books, and 504 Flip Books for grades 1 to 12 in several languages on this web page. Apps for mobile devices are available.
- **NROER:** The National Repository of Open Educational Materials (NROER) site offers a variety of resources in many languages for students and instructors, including books, interactive modules, and videos, as well as a variety of STEM-based games. For grades 1 through 12, content is mapped to the curriculum, and teachers' materials are aligned. It has a total of 14527 files in various languages, including 401 collections, 2779 papers, 1345 interactive, 1664 audios, 2586 photos, and 6153 videos.
- **Swayam:** This is a nationwide online education portal that offers 1900 courses in areas like as engineering, arts and social sciences, law, and business to students in grades 9 through 12. Its distinguishing aspect is that it is combined with traditional schooling. SWAYAM courses can be transferred for credit.
- **Swayam Prabha:** This offers 32 DTH TV channels that broadcast educational programming 24 hours a day, seven days a week. These channels may be seen with a DD Free Dish Set Top Box and Antenna everywhere in the country. The portal contains the channel schedule as well as other information. In the arts, science, commerce, performing arts, social sciences and humanities subjects, engineering, technology, law, medicine, and agriculture, the channels cover both school education (classes 9 to 12) and higher education

(undergraduate, postgraduate, engineering Out-of-school children, vocational courses, and teacher training).

- e-PG Pathshala: Postgraduate students should use e-PG Pathshala. During this time of lockdown, postgraduate students can use this platform to access ebooks, online courses, and study resources. The value of this platform is that kids may use these resources without having to use the internet all day.

## **ii) COVID-19 Positive Influence on Education:**

Despite the fact that the outbreak of COVID-19 has had numerous detrimental effects on education, Indian educational institutions have acknowledged the difficulties and are doing their utmost to give students with smooth support services during the pandemic. The Indian education system now has the possibility to evolve from a traditional system into a modern one. The following are some of the beneficial effects that can be evaluated.

- Transition to Blended Learning: COVID-19 has hastened the deployment of digital technology for education delivery. Institutions of higher learning have shifted to a mixed learning approach. It urged all instructors and students to learn more about technology. New methods of delivery and assessment of learning have created enormous opportunity for fundamental changes in curriculum creation and pedagogy. It also allows big groups of students to participate at the same time.
- Learning Management System use has increased: Learning management systems have been increasingly popular among educational institutions. It provided a huge opportunity for businesses that have been creating and improving learning management systems for educational institutions (Misra, 2020).
- Increase the usage of soft copies of learning materials: Because students were unable to acquire hard copies of study materials during a lockdown, the majority of students relied on soft copies for reference.
- Improved collaboration: There is a fresh chance for collaborative teaching and learning to take on new forms. Faculty/teachers from all around the world may collaborate to benefit from one other (Misra, 2020).

- Increased use of online meetings: The epidemic has resulted in a major increase in the use of teleconferencing, virtual meetings, webinars, and e-conferencing.
- Increased Digital Literacy: The pandemic condition compelled individuals to understand and use digital technologies, resulting in a rise in digital literacy.
- Improved use of electronic media for information sharing: Learning materials are readily shared among students, and questions are answered via e-mail, SMS, phone calls, and various social media platforms such as WhatsApp or Facebook.
- Global exposure: Educators and students may engage with peers from all around the world. The students acclimated to a global environment.
- Enhanced time management: During pandemics, students in online education are able to manage their time more effectively.
- Demand for Open and Distance Learning (ODL): During the epidemic, most students selected ODL since it supports self-learning and allows them to adapt their learning to meet their own requirements.

### **iii) COVID-19's Negative Educational Impact:**

The emergence of COVID-19 has wreaked havoc on the education system. It has had several detrimental effects on education, some of which are listed here.

- Instructive movement hampered: Classes have been suspended and tests at various levels delayed. Various sheets have as of now deferred the yearly assessments and entry tests. Affirmation process got deferred. Because of progression in lockdown, understudy experienced a deficiency of almost 3 months of the full scholastic year of 2020-21 which will additionally decay what is going on of coherence in training and the as understudies would confront a lot of trouble in continuing tutoring again after a tremendous hole.
- Sway on Employment: Most of the enlistment got deferred because of COVID-19 Placements for understudies may likewise be impacted with organizations postponing the on board of understudies. Joblessness rate is relied upon to be expanded because of this pandemic. In India, there is no enrollment in Govt. area and new alumni dread withdrawal of their work offers from private areas due to the current circumstance. The Center for

Monitoring Indian Economy's assessments on joblessness shot up from 8.4% in mid-March to 23% toward the beginning of April and the metropolitan joblessness rate to 30.9% (Educationasia.in). Whenever the joblessness builds then the training continuously diminishes as individuals battle for food rather than schooling.

- Ill-equipped educators/understudies for online training: Not all instructors/understudies are great at it or if nothing else not every one of them were prepared for this abrupt change from one face to another figuring out how to internet learning. The vast majority of the educators are simply leading talks on video stages, for example, Zoom, Google meet and so forth which may not be truly web based learning with practically no devoted web based learning stage.
- Diminished worldwide work an open door: Some might lose their positions from different nations and the pass out understudies may not land their position outside India because of limitations brought about by COVID-19. Numerous Indians may have gotten back subsequent to losing their positions abroad because of COVID-19. Henceforth, the new understudies who are probably going to enter the work market in a matter of seconds might confront trouble in getting reasonable business. Numerous understudies who have effectively helped positions through grounds meetings will be unable to join their positions because of lockdown. The Indians who have been taking care of their responsibilities abroad may lose their positions. Ongoing alumni in India are of additionally dreading for withdrawal of bids for employment from corporate areas on account of development limitation in the current pandemic circumstance.
- Expanded liability of guardians to instruct their wards: Some informed guardians can direct yet some might not have the satisfactory degree of training expected to show youngsters in the house.
- Loss of sustenance because of school conclusion: Mid-day suppers is a school dinner program of the Government of India which is intended to give better the wholesome food to young kids across the country. The conclusion of schools has genuine ramifications on the day-by-day sustenance of understudies as the early afternoon dinner plans have briefly been closed. Different investigations have brought up that noontime dinners are likewise a significant contributing component for expanded enrolment in the schools.

- **Admittance to computerized world:** As numerous understudies have restricted or no web access and numerous understudies will most likely be unable to bear the cost of PC, PC or supporting cell phones in their homes, web based instructing learning might make an advanced split between understudies. The lockdown has hit the helpless understudies extremely hard in India as the majority of them can't investigate internet getting the hang of as indicated by different reports. In this way the web based educating learning strategy during pandemic COVID-19 might improve the hole between rich/poor and metropolitan/country.
- **Admittance to worldwide schooling:** The pandemic has altogether disturbed the advanced education area. An enormous number of Indian understudies who are signed up for some Universities abroad, particularly in most terrible impacted nations are presently leaving those nations and assuming that the circumstance continues, over the long haul, a there will be a critical decrease in the interest for global advanced education.
- **Instillment of Schools, Colleges expense got deferred:** During this lockdown a large portion of the guardians will confront the joblessness circumstance so they will most likely be unable to pay the charge for that specific time spans which might influence the private foundations.

### **3. RELATED WORK AND DISCUSSIONS**

During a pandemic, India should devise innovative measures to guarantee that all children have continuous access to education. COVID-19. For efficient implementation, Indian policies must incorporate persons from varied backgrounds, including distant regions, marginalised and minority groups. To mitigate the consequences of the pandemic on employment offers, internship programmes, and research initiatives, immediate action is essential. Many online learning platforms provide many courses on the same subject with varying degrees of accreditation, methodology, and evaluation criteria. As a result, the quality of programmes may vary amongst online learning platforms. As a result, in light of the increasing rise of online learning, Higher Education Institutions (HEIs) in India must design and supply quality assurance systems and quality benchmarks for online learning programmes.

Traditional Indian knowledge is well renowned across the world for its scientific inventions, values, and advantages in the development of sustainable technologies and medicines, and these knowledge systems in various sectors should be combined with a modern mainstream higher education system. The government and educational institutions should make plans to keep educational activity going while preserving social distance. By following COVID-19 criteria, 30-40% of students and teachers can attend schools/colleges in two shifts every day to continue educational activities. In today's world, having access to technology and the internet is a must. As a result, digital capabilities and infrastructure must reach the most remote and impoverished places in order to allow students to continue their education during pandemics. It is necessary to use public monies to close the internet gap and ensure that students can continue to learn online. State governments and private organisations should devise solutions to the problem of digital education. The government and stakeholders should address some major issues related to distance learning strategies, such as the availability and access to digital devices with internet connectivity, the need for safe learning spaces, developing capabilities for teachers, families, and students to operate and navigate digital devices, and engaging lesson plans for disabled students and other marginalised groups.

#### **4. CONCLUSION**

Covid has greater effects in the Education sector. Although it has generated several obstacles, it has also resulted in numerous possibilities. To deal with the current COVID-19 dilemma, the Indian government and several education stakeholders have looked into the prospect of Open and Distance Learning (ODL) by implementing various digital technologies. India isn't yet ready to use digital platforms to bring education to every corner of the country. Students who aren't as fortunate as their peers would suffer as a result of the current digital platform selection. However, universities and the Indian government are working tirelessly to find a solution to this problem. The objective should be to use digital technology to put millions of young Indian students in a better position.

For India's millions of young students, this is a favourable situation. It is imperative that educational institutions improve their knowledge and information technology infrastructure in order to be prepared for COVID-19-like scenarios. Even if the COVID-19 problem lasts longer, there is a pressing need to maximise the use of online platforms so that students may not only finish their degrees this academic year but also prepare for the future digitally

oriented environment. In a pandemic situation like this, the notion of "work from home" is more important to halt COVID-19 spread. During a pandemic, India should devise innovative measures to guarantee that all children have access to education. COVID-19. For efficient education delivery, Indian policies must involve people from all walks of life, especially those from distant areas, marginalised groups, and minority groups. Because kids gain much from online practise, it should be continued after the lockdown. To investigate the influence of COVID-19 on India's education system, a more extensive statistical analysis may be conducted.

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