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### Impact of Covid-19 Pandemic on Digital Transformation in India: A Study

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#### Abstract

With the emergence of Covid-19 pandemic whole World including India is forced to announce country wise lockdown. This article tries to highlight the impact of Covid-19 pandemic on digital transformation in India in public sector like Education, Healthcare, Retail sector and in private sector. New learning-based App like DIKSHA, TUTOPIA were introduced to cater the students for their education. In Healthcare sector, Aarogya Setu App was introduced to Covid-19 related information and Cowin App was introduced to monitor the Vaccination programme. In

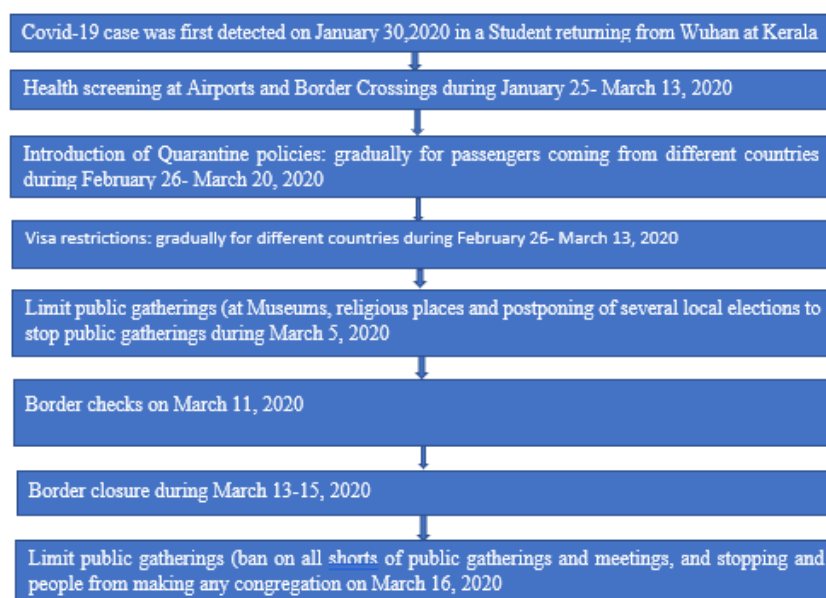
Retail sector, new e-commerce App like Grofers and BigBasket were introduced to fulfil the supply of daily essential commodities for the general public. More and More persons are inclined to digital payment through UPI in semi-urban and rural areas also. Private sector started their office through work from home basis and more than 80% employees of the companies were followed the same basis during the pandemic period. So, this paper actually shows that India's economic condition more depends on technological transformation during Covid-19 pandemic.

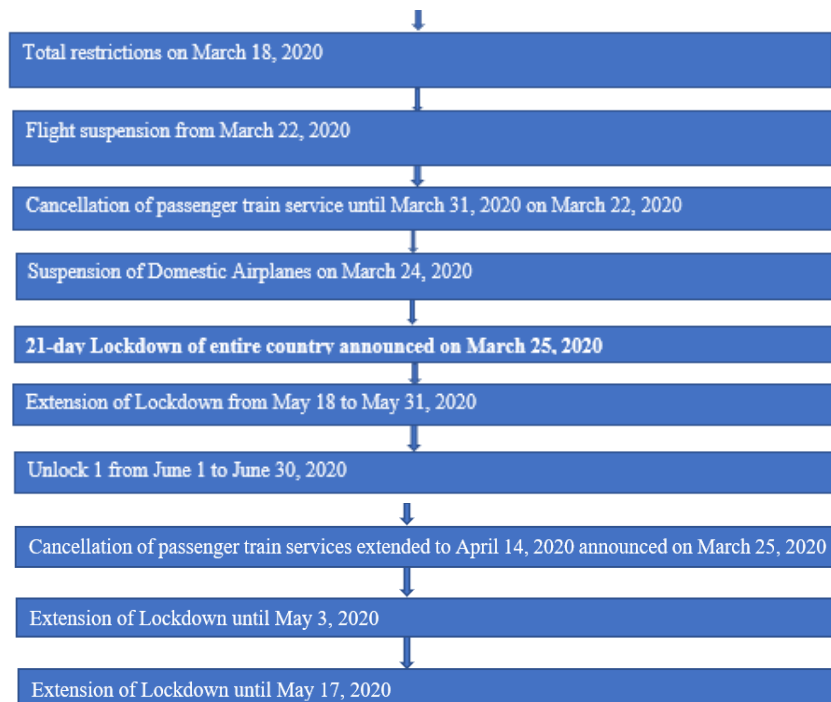
**Keywords:** Digital Transformation, Education, Retail Sector, Healthcare, UPI

#### 1. Introduction

Covid-19 outbreak began in Wuhan, China in December, 2019. Emergence of Covid-19 shattered the whole World economically and breakdown the health sector. Every nation were forced to switch off their working life and kept them into the room. So, interaction with the human being needed to be an important aspect at that time. As a result, people were connected and bridging the divides through digital mode. Digital transformation was seen around the World at that time. Present Study focuses on the impact of Covid-19 Pandemic on Digital transformation in India during the period of Covid-19 existence.

#### 1.1 Emergence of Covid-19 Pandemic and actions taken by the Government in India





**Source:** Ministry of Health and Family Welfare, Govt. of India and Ministry of Home Affairs, Govt. of India

## 1.2 Objectives of the study

Present Study is based on the following objectives:

1. To show the impact of Covid-19 pandemic on digital transformation in Education in India.
2. To highlight the impact of Covid-19 pandemic on digital transformation in Healthcare in India.
3. To show the impact of Covid-19 pandemic on digital transformation in Retail Sector in India.
4. To show the impact of Covid-19 pandemic on digital transformation in Private Sector in India.

## 2. Methodology

Present study is based on the exploratory and empirical in nature. Data have been collected in secondary mode from various Reports, Books, Newspapers, Magazines and Govt. Data sheet.

## 3. Analysis, Presentation and Findings

### 3.1 To show the impact of Covid-19 pandemic on digital transformation in Education in India

During Covid-19 pandemic and succeeding announced lockdown period, nearly 119.57 million primary level students, 117.42 million secondary students and 123.61 million higher studies students (UNESCO, 2020) [3], were stuck into their room due to lockdown announced by the Govt. Many of which specially students of higher studies covering 10+2, 10, Graduation and Master Degree were allowed to switch over to distance mode of learning. A comprehensive initiative called PM e-ViDYA has been initiated as a part of Atma Nirbhar Bharat Abhiyan on 17<sup>th</sup> May, 2020 which includes:

DIKSHA (one nation one digital platform) is the nation's digital infrastructure for providing quality e-content for school education in the States and UTs and QR coded energized text books for all grades are available on it. 35 out of 36 States and UTs have adopted DIKDHA platform and contextualized the content as per local need.

One earmarked Swayam Prabha TV Channel per class from class 1 to 12 (one class one channel)

Extensive use of Radio, Community Radio and CBSE podcast- Shiksha vani.

Special e-content for visually and hearing impaired developed on Digitally Accessible Information System (DAIS) and in-sign language on NIOS website/ YouTube.

Further, the Ministry of Education, Govt. Of India has undertaken a proactive initiative, named, MANODARPON covering a wide range of activities to provide psychosocial support to students, teachers, and families for mental health and emotional wellbeing during the Covid-19 outbreak and beyond.

West Bengal Govt. Had taken an initiative to launch TUTOPIA learning App for Live class, interaction with the teachers and stored video classes for Secondary and Higher Secondary students and total 4,29,691 students were registered in the App.

Virtual mode of class in Google Meet, Zoom, Microsoft Team, JIO Meet were undertaken during the period of Covid-19.

Moreover, it has been observed that in 2020, Gross Enrolment ratio in Primary, Secondary and Higher Secondary level increases to 99.9%, 75.48% and 29.4% as compared to 2019 i.e., 96.83%, 73.79% and 28.6% (UNESCO, 2020) [3].

### 3.2 To highlight the impact of Covid-19 pandemic on digital transformation in Healthcare in India

Healthcare sector was totally a challenging one during the rapid emergence of Covid-19 outbreak in India. Whenever Covid-19 took massive shape in the month of April and May, Ministry of Health and Family Welfare, Govt. of India launched Aarogya Setu App on 26<sup>th</sup> May, 2020 to detect total no. Of infected patients, active no. Of patients, deaths etc. As of now 21,73,00,000 (Aarogya Setu, Ministry of Health and Family Welfare, Govt. of India) have downloaded this App.

Ministry of Health and Family Welfare, Govt. of India had opened COWIN portal for registering names for Vaccination. This digital platform provided data of the total

no. of vaccination around the Country. 1<sup>st</sup> Dose followed by 2<sup>nd</sup> dose and precautionary booster dose are conducted through this COWIN portal or App. As of now, total 205,91,39,182 vaccination is done. COVAXIN, COVISHIELD Vaccines are given through this App.

### 3.3 To show the impact of Covid-19 pandemic on digital transformation in Retail Sector in India

Due to the emergence of Covid-19 pandemic, physical retail industry and short and medium business houses were closed during lockdown period. People were faced problems to buy essential goods for livelihood. In this context, digital transformation played an important role. Indian e-commerce business witnessed an exponential growth of 36% in online order in the last quarter i.e., October, 2020 to December, 2020 with the market volume of \$46.2 billion. Consumers were more inclined to make e-payment through UPI, India's digital payment facilitator regulated by RBI. Since March, 2020 when Covid-19 faced the first nation wise lockdown, the volume of UPI transaction has increased to nearly 240%. In semi-urban cities and rural areas, the use of internet made contributor to the rise in digital payments. The NITI Aayog sustainable development goals India index 2020-21 report revealed that 55% of the Indian population have internet connection compared to last year's 49%.

The Indian e-retail market faced a growth in 2021 despite two months nationwide lockdown. During the same period, India's retail market increased by 5%. The demand for online goods and products were necessary during lockdown period. So, major players in online grocery like Grofers and Big Basket saw a huge demand for essential items and groceries. The demand for health and fitness products were increased during the lockdown period. E-pharmacies also saw a rise in demand during the pandemic with the implementation of e-prescriptions in healthcare services. Supply of medicine was done through e-commerce during the period of lockdown through the App like Pharmacy, Sastasundar, MedPlus, Apollo Pharmacy etc.

### 3.4 To show the impact of Covid-19 pandemic on digital transformation in Private Sector in India

From March, 2020 i.e., after the announcement of lockdown, most of the private sector were shut down their offices. People lost their job. Companies stopped producing their products. In these circumstances, Govt. Started the concept of Work from Home and most of the private companies were followed the same route to continue with Work from Home with the advent technology of cloud-based tools like Zoom, Google Meet etc. After reducing the infection rate Govt. Started to open few offices with 10% to 20% people and rest 80% were continued their office from their house. Small and medium sized private entities faced a huge problem during the pandemic time.

### 4. Conclusion

In 2020, the Covid-19 pandemic spread rapidly across the World including India which represents challenging in both public sector and private sector. People were completely stuck into the room and most of the persons started losing their job. Present Study shows the impact of Covid-19 on digital transformation in public sector i.e., education, healthcare and retail sector and private sector. The purpose of this paper is to make an awareness about digital transformation because of emergence of Covid-19 outbreak.

Education sector, Healthcare, Retail sector and Private sector are highly influenced by the rapid digital transformation. Every people are connected with each other through digital mode like WhatsApp, FaceBook etc. Expansion of the business of the information technology companies is seen during the period of outbreak of Covid-19. Govt. of India makes campaign for digital India during the period of pandemic. Economy of the Country lot depends on technological transformation. The concept of Artificial Intelligence, Internet of things, Cloud computing should come forward to enhance digital transformation. It has been seen that investment in IT companies over the period of Covid-19 has increased rapidly.

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