

Post COVID 19 Pandemic Impacts on Socio-economic Development

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Abstract: The impact of COVID-19 disrupts the social and economic life of everyone. COVID-19 makes negative impact on different sectors of economy. In this paper, we analysed the major affected areas like agriculture, oils, manufacturing industry, education etc because of COVID-19 pandemic. Due to restriction in mobility, tourism and aviation sector got affected which contributes major in economy growth. The global economic projection for India in 2019, 2020 and 2021 respectively from the Source: IMF, World Economic Outlook, and April 2020 is 4.2, 1.9 and 7.4 respectively. COVID-19 also impacted on environment and medical waste. Several coronavirus cases are directly related to clinical or medical waste deposited in the city. During this pandemic, all trading sector is going to be off and their jobs is on risk. Government is launching many schemes to make everyone independent and can do their own business. The present study shows the overall post impact of COVID-19 on various primary and secondary sectors of economy.

1 INTRODUCTION

In December 2019, the city in china named Wuhan experienced unusual cases that have impacted social-economic life across the globe during spring 2020. The COVID-19 crisis has a deleterious effect on global healthcare systems, which led to significant losses in the industries. It is caused by Severe Acute Respiratory Syndrome Coronavirus2 (SARS-COV-2), further highlighted the cases reported to World Health Organisation, declaring global health emergency with urgent need of effective vaccines in January 2020. It emerged over 63.3 million proved cases and more than 1.47 million deaths globally (WORLDOMETER, 2020).

Subsequently, in January 2020, this mortal coronavirus was named as COVID-19, where WHO was censured of delayed response to healthcare guidelines, which have already destroyed mainland in china as a greater number of infected people with COVID-19 symptoms. In countries, the USA and UK also questioned WHO for delayed information of COVID-19 outbreak (Sohrabhi, et al., 2020). In response to 'flatten the curve', the government of different countries has been compelled to shut down markets (AB Avi Loeb, Flattening the COVID-19 curves, [Internet]. Scientific American Blog

Network, [cited 2020 Mar 20], 2020), travel restrictions or mobility restrictions, closure of borders, self-isolations, wearing masks and gloves, following social-distancing norms. Health advisories have been laid by WHO, who smokes a lot at risk of getting infected by COVID-19. Countries like India, Pakistan, and Bangladesh have a higher risk due to lower socio-economic conditions and lack of healthcare services. Covid-19 can affect animals as well, where one animal can be a carrier of infection to another. Bynoe and Tyrell in 1996 were the first scientists who studied coronavirus which further classified coronavirus into the beta category. According to healthcare experts, it originated from China's animal market, where the definite route to harm human and because infection is still unknown. The Announcement of COVID-19 contributed towards socio-economic changes and environmental issues, affecting the economy of primary, secondary, and tertiary sectors. The primary sectors consist of extraction of raw material, where secondary involves finishing good quality products and tertiary sector include service industries. Due to the ripple effect of the eruption of Covid-19, there has been a global crash in demand for hotels, restaurants, travel services, etc. Relatively, we found an increasing demand for the Pharmaceutical Industry, and

different healthcare centres collaborated plans to develop a vaccine of coronavirus.

The Covid-19 crisis on individuals impacted the country's economy and disturbed the mind-set of people, thus leading to anxiety, loneliness resulting from self-isolation or quarantine, depression of losing jobs, salary cuts, financial loss, workload decline, etc. which triggers mental health complaints. Subsequently, labour markets are affected by government-imposed shutdowns from mid-March onwards. It considered three measures of economic hardships: a change of workload, loss of income, loss of job and further considering mental health problems as feelings of depression, anxiety, and loneliness. Therefore, Refuge, one of the UK's domestic abuse charities, has reported an increment of call reports as an outbreak of a pandemic by 25% (25% increase in calls to national domestic abuse helpline since lockdown measures began - refuge charity - domestic violence help, [Internet]. [cited 2020 Apr 7]., 2020). Thus, there have been a vast social implication on family dynamics: domestic rampage and indoor gaming. The outbreak also disturbed the studies by making it all online, where not all have technical knowledge. It is difficult for students to deal with the present impacts of covid-19; thus, free meals are no longer provided to the students. They lack confidence and lack of exposures under 'stay-at-home' restrictions. Hence, the education system is affected by various policies for Covid-19 under Government rules. The government of China and Japan took measures with the People's Bank of China and People's Bank of Japan providing to maintain bank liquidity, that is, \$240bn and \$43bn, respectively. In response to countries, Europe has pledged a rescue package of € 1.7tn (Europe's economic rescue packages worth combined €1.7tn, World news | The Guardian [Internet]. [cited 2020 Mar 20]., 2020); in Germany the bank of Development provided € 500bn in loans, whereas UK chancellor Rishi Sunak provided £330bn for the development (Support for those affected by COVID-19, [Internet]. GOV.UK. [cited 2020 Mar 19]., 2020) ([Internet], Chancellor Unveils £350bn Lifeline for Economy, BBC News, 2020 Mar 17 [cited 2020 Mar 20]., 2020). Further support to save UK businesses, £20bn is provided. Interest rates have been reduced up to 0.5% in US responses to the outbreak of Covid-19. A Trump administration has managed a 'virus-aid package'- the CARES Act which was

about \$2 trillion (The anatomy of the \$2 trillion COVID-19 stimulus bill - visual capitalist,[Internet]. [cited 2020 Apr 7]., 2020). This bill covers \$1200 for every adult with low income that is less than \$75,000, \$500 for every child under 17, \$500bn to issue loan and loan guarantees for small business, \$25bn for food assistance, \$100bn for healthcare, \$14bn to farmers, \$17bn to national security and others (Who gets what from the \$2 trillion US virus aid package, USA News | Al Jazeera [Internet]. [cited 2020 Apr 6]., 2020). In March 2020, the US Federal Reserve (the Fed) announced the market aid of \$125bn in bonds.

2 COVID 19 IMPACTS

2.1 Industrial Impacts

In March 2020, focusing upon the raw material industries, i.e., primary sector, secondary sector deals in the manufacturing of final finished product and tertiary sector consisting of all service purveying industries (Nicola, et al., 2020). Here, the main three-sector are discussed:

2.1.1 Primary Sectors

- Agriculture

The covid-19 outbreak has tested the agriculture sector. The agricultural commodities prices dropped by 20% (Prices of agricultural commodities drop 20% post COVID-19 outbreak - rediff Realtime News, [Internet]. [cited 2020 Mar 20]., 2020) due to exigency for food items from hotels and restaurants. Countries around the globe implied measures in order to protect from spreading of the virus. This includes social distancing, wearing of masks and gloves, restriction for traveling from one country to other or states and restrictions on congregations by not letting anyone to visit the holy places. Further, markets got shut down, where trading had smashed the ability to exchange commodities. With this, the Chicago Mercantile Exchange ([Internet], CME Closing Trading Floors Indefinitely amid Coronavirus Concerns,Crain's Chicago Business, 2020 [cited 2020 Mar 23]., 2020) is a current precedent. The dropout of demand was the implication of the primary sector in the covid-19 outbreak and the 'panic buying' further created complications in shortage.

- Petroleum and Oil

Saudi Arabia retaliates with exceptional discounts to customers after getting triggered by Russia's refusal

to oil production (OPEC's pact with Russia falls apart, sending oil into tailspin. Reuters, [Internet], [cited 2020 Mar 23];, 2020). The production of oil increased by 25% compared to February-taking it to an unparallel level. Furthermore, 'Carbon Dividends' has been suggested by the Imperial College's Centre for Climate Finance for economic modelling. A CO2 tax of £50/tonne is stimulated in UK households to get customer spending while keeping prices at the same level as February 2020 (The economic impact of coronavirus: analysis from imperial experts | imperial news | imperial College London, [Internet]. Imperial News, [cited 2020 Apr 6],, 2020). Nevertheless, this depends on the turmoil between Saudi Arabia and Russia.

2.1.2 Secondary Sectors

• Manufacturing Industry

The pandemic in the manufacturing industry has been a negative impact. There will a fall of turnover in the next two quarters, admitting 80% of respondents, with 98% admitting concern about pandemic issues on business (Plastics trade body publishes first study of coronavirus impact on UK manu-facturing, [Internet]. [cited 2020 Mar 20],, 2020). The foremost vital concerns on business due to disruption to supply chains are importation and staffing deficiencies. Further, the survey is laid by the British Plastics Federation (BPF), exploring the impacts of Covid-19. Many roles within the industries do not find viable such as 'work from home.' Companies from China, such as BASF (COVID-19 is coming for the chemical industry in 2020, BASF frets | IndustryWeek, [Internet]. [cited 2020 Mar 20],, 2020), have to delay their activity and further slow-down predicted growth. Countries such as the USA, UK are acquiring similar protection measures against Covid-19, transcending the borders. Industries such as Chemical Industry have reduced the production by 1.2% worldwide, the worst growth ever since 2008 (Knieps, 2020).

2.1.3 Other Sectors

• Education

Due to covid-19, many schools and colleges shut down- disturbing all levels of the education system. Different countries introduced different policies, thereby imposing a complete closure in Italy and German (Unterricht an bayerischen Schulen wird eingestellt, [Internet]. Bayerisches Staatsministerium für Unterricht und Kultus, [cited 2020 Mar 20],, 2020). Additionally, more than 100 countries have imposed a nationwide closure for schools, colleges

and corporate sectors ([Internet], Educational Disruption and Response, UNESCO, 2020 [cited 2020 Mar 20],, 2020). UNESCO estimated that millions of students or learners would suffer from the closure of the education system. These closures intend to halt from getting the virus transfer within an institution and preventing from getting transfer to other individuals. There are widespread socio-economic implications hereby, schools' staff are not able to accomplish the policies laid that is 'Free School Meals' for children. It impacted child care costs to low-income families; also, access to technology becomes a major drawback. In Dubai, petition have been signed by parents in order to decrease 30% of the independent school fees. ([Internet], Expats in Dubai Call for Cut in Their Children's School Fees, Ft.com,2020 [cited 8 April 2020],, 2020).

The long-term impact of schools, college's closure is yet to be experience. A study by Brookings Institution estimated that four-week closure would cost \$1.1bn and nationwide closure for 12 weeks would cost 1% of GDP. Further estimation from the UK suggested the cost of 3% GDP (Keogh-Brown, Wren-Lewis , Edmunds , Beutels, & Smith, 2020). Additionally, regarding the scientific conferences concerns have been raised by the authors, scientists and others, which have been called off or postponed. Virtual Conferences resulted as a solution to the problem, but it is not amenable or informal means of scientific communication. Simultaneously, we have separated three different forms of economic hardship such as workload change, income loss, and job loss and three types of mental health complaints: feelings of depression, loneliness, health anxiety (Impey, 2020).

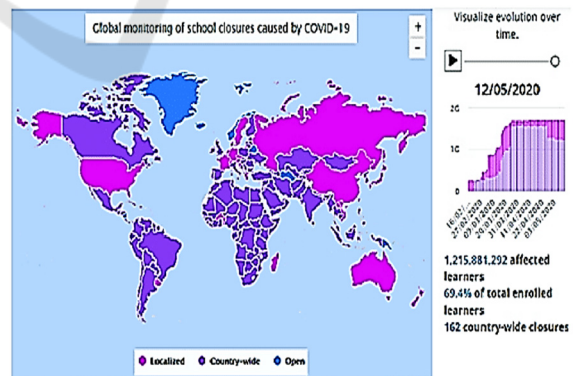


Figure 1: Worldwide implications of Coronavirus upon closures of schools for May. Figure generated by UNESCO.

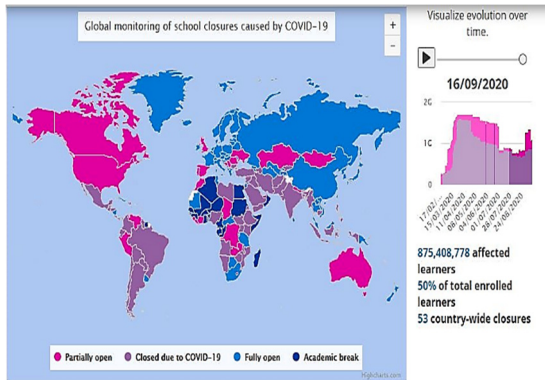


Figure 2: Worldwide implications of Coronavirus upon closures of schools for September. Figure generated by UNESCO.

In Figure 1 and 2 comprises of nationwide implications of Coronavirus upon school closures for two months, i.e., May and September, provided by UNESCO. In figure 1 over 1,215,881,292 are affected learners, 69.4% total enrolled and 162 country-wide closure. Figure 2 comprises 875,408,778 affected learners, total learners involved consist of 50% of the population, and 53 closures in different countries.

• Finance Industry

The Global economy, business, organisations, and financial markets have been inadvertently affected by Covid-19 due to uncoordinated government responses and lockdowns that have resulted in disarrangement in the supply chain from various countries. In China, shut-down resulted in the reduction of finished goods and items from factories, government policies, halting from travel such as quarantine and isolating ourselves resulted in decrement of demand and usage of items. China has started to recover faster, strengthening its trade brokering power against the US. Furthermore, a stock market index that estimates the stock performance of 500 large countries on the US stock exchange secured the Coronavirus Aid, Relief, and Economic Security (CARES) Act, with indexes rising by 7.3% (SPX | S&P 500 index, MarketWatch [Internet]. [cited 2020 Apr 7]., 2020), 7.73% (DJIA | Dow Jones industrial average, MarketWatch [Internet]. [cited 2020 Apr 7]., 2020), and 7.33% (COMP | NASDAQ composite index, MarketWatch [Internet]. [cited 2020 Apr 7]., 2020) respectively. Gold dropped by 0.65% against the dollar (XAU/USD (gold/USD dollar), [Internet]. [cited 2020 Apr 7]., 2020).

Table 1: Global Economic Projections of 2019, 2020, 2021.

	2019	2020	2021
World Output	2.9	-3.0	5.8
Advanced Economies	1.7	-6.1	4.5
United States	2.3	-5.9	4.7
Euro Area	1.2	-7.5	4.7
Germany	0.6	-7.0	5.2
France	1.3	-7.2	4.5
Italy	0.3	-9.1	4.8
Spain	2.0	-8.0	4.3
Japan	0.7	-5.2	3.0
United Kingdom	1.4	-6.5	4.0
Canada	1.6	-6.2	4.2
Other Advanced Economies	1.7	-4.6	4.5
Emerging Markets and Developing Economies	3.7	-1.0	6.6
Emerging and Developing Asia	5.5	1.0	8.5
China	6.1	1.2	9.2
India	4.2	1.9	7.4
ASEAN-5	4.8	-0.6	7.8
Emerging and Developing Europe	2.1	-5.2	4.2
Russia	1.3	-5.5	3.5
Latin America and the Caribbean	0.1	-5.2	3.4
Brazil	1.1	-5.3	2.9
Mexico	-0.1	-6.6	3.0
Middle East and Central Asia	1.2	-2.8	4.0
Saudi Arabia	0.3	-2.3	2.9
Sub-Saharan Africa	3.1	-1.6	4.1
Nigeria	2.2	-3.4	2.4
South Africa	0.2	-5.8	4.0
Low-Income Developing Countries	5.1	0.4	5.6

Table 1 describes the global economic projections from the Source: IMF, World Economic Outlook, and April 2020. It contains the data for 2019, 2020 and 2021.

- Healthcare Industry and Chemical or Pharmaceutical Industry

The coronavirus-19 caused many problems for health-care industries worldwide. The expensive health-care costs, low number of ICU beds, doctors for viral testing, N95 masks, gloves, production of sanitizers, hence exposed the weaknesses in the delivery of patients. Workers and staff working in hospitals are getting infected by the virus, resulting in an increment of patients and staff members' decrement. This leads to massive investment in disease prevention infrastructure. In the US, active elements of pharmaceutical are largely brought from India (18%), EU (26%) and China account for 13%. Due to lockdowns and factories' closure, the pharmaceutical ingredient station in supply lead to revenue loss (COVID-19 USA: coronavirus outbreak measures and effect on the US, [Internet]., 2020).

Hereby, opportunities for companies involved themselves in the production of vaccines and drugs. Further, companies such as Johnson & Johnson, Novavax, NanoViricides, VirBiotechnology have announced collaborative plans to invent the vaccine of coronavirus-19. Phase-1 clinical trials have been going under the age of 18-55 years ([Internet], NIH Clinical Trial of Investigational Vaccine for COVID-19 Begins, National Institutes of Health (NIH), 2020 [cited 2020 Mar 20]., 2020).

- Tourism, Hospitality and Aviation

The most hard-hit industries, the hospitality and travel have faced many challenges due to covid-19. In the United States, generation of revenue per room fell up to 11.6% on March 7, 2020. China's occupancy rate fell up to 89% by the end of January 2020 (Airbnb, Hotels seek US government aid as demand flattens, [Internet]. [cited 2020Mar 20]., 2020). In other countries such as Italy, including Rome, the occupancy rate fell to 6%, whereas London remains the most stable country with 47% (H. Net, Coronavirus hits German hotel industry hard: more than every-3-guests stay away, [Internet]. Hospitality Net, [cited 2020 Mar 20]., 2020) of the occupancy rate. Overall, covid-19 land to the distortion of the hotel market in Europe, China and other countries. Simultaneously, tourism also experienced an outbreak of covid-19, where both supply and demand were impacted. Worldwide travel and tourism companies are at risk hence warned 50 million jobs. Internationally, a study of Vietnam, its tourist sector suffered a \$5bn loss due to pandemic. Like the US, Canada, many countries adopted the policies of border closure and

suspension of visa services. Travel suspension has been found in countries of Africa and Asia.

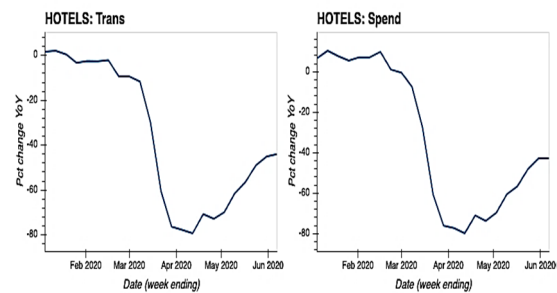


Figure 3: The state of the US Hotel Industry during Covid-19.

In the figure 3 given above, it consists of the statistical graphical representation of the hotel industry in the state the US, where in February 2020 it was a high and from beginning of April there is a huge fall in the graph. Here, trans and spend represent the transaction and spending in Hotels

- Food Sector

The panic-buying and stockpiling of food were the major results of the pandemic. This has led to increasing attention towards the storage of basic food items such as pasta, milk, bread, wheat, rice and all vegetables (MPs in plea to government over UK's Covid-19 stockpiling, World news | The Guardian [Internet]. [cited 2020 Mar 23]., 2020). Due to panic-buying, there was an increment in demand of food, worth £1bn. Such a high demand for food affected online food delivery. Hence, excessive delivery of food resulted in late deliveries or not delivering. Furthermore, food storage banks were also suffering from panic-buying. The Population who cannot afford stockpile found no food. In response to the following, the government followed various policies to distribute free meals to the poor and distributed parcels to the people or take them home. The British Retail Consortium (BRC) and US Food and Drug Administration (FDA) ([Internet], Commissioner O of the. Coronavirus Disease 2019 (COVID-19) Frequently Asked Questions, FDA, 2020 Mar 22 [cited 2020 Mar 23]., 2020), (Jack, 2020) reassured the public where stores made a drastic change, providing new jobs about 30,000 in order to meet the high-pressure of restocking shelves. Therefore, a UK-food chain, Leon, was forced to revolve its business plans; more than 65 of its restaurants were made up into shops to deliver bread and meat.

- Covid-19 and Environment Impact

Covid-19 also impacted Environment issues, i.e., medical waste. In February 2020 Wuhan produced 200 tons of medical waste, four times the city's

waste facility (Bashir, MA, & Shahzad, 2020). Thus, several coronavirus cases are directly related to clinical or medical waste deposited in the city. There is a need to take the necessary steps to make the city clean and free from other diseases (PT & CTS, 2020). To emerge ourselves stronger than ever, we need to ensure or take responsibility and follow health guidelines. People who are in direct contact with medical waste, such as cleaners, collectors, and medical staff, should take precautions and follow all government health guidelines; otherwise, those people can spread the virus quickly in public places. Face masks are one of the major medical waste, which are jettison after using it ones. Contributing to medical waste, bottles of sanitizer are increasing environmental pollution, especially in areas near to coastal. For example, Hong Kong faced Covid-19 in January 2020, and coastal areas are most affected by medical waste. Further commented that now a new wave of waste is getting deposited at the coast. Figure 4, shows how a person gets infected and further becomes a carriage o virus and infects other people. Doctors and medical staff lay their methods and theory to build the vaccine of coronavirus. Further, we found a huge lump of medical waste such as face masks, gloves in coastal areas infecting cleaners, garbage collectors and making difficulty in breathing for animals living in the sea.

- Covid-19 self-isolation, quarantine, various policies and implications of air quality



Figure 4: Illustration of Medical Waste and how infection spreads.

Globally, more than millions of cases have been committed with coronavirus; as an outcome, the government of different countries introduced lockdown to ensure citizens' safety. Countries like China, UK and USA advocated self-isolation, social distancing and the compulsory wearing of masks were the new norms to ensure safety from the virus. In July 2020, Italy introduced travel restrictions on more than 13 countries and urged its citizen to avoid

international travel (K., M., & SGM, 2020). It also introduced 14-day quarantine to avoid been a carriage of the virus from one country to another. All these are helping the government to halt the exposure of coronavirus. The closure of shops, businesses, transportation, organisations, institutions and industries led to a significant drop in Green House Gas (GHG) emission. As compared in 2019, air pollution dropped by 50% in New York; coal consumption becomes less in China by 40%, 30% reduction in and 25% reduction in GHG emission. The Air Quality Index is enhanced by 11.4% in major cities of China. Further decarbonization is also sustained to ensuring a clean environment around the world.

Table 2: Before and after Covid 19 air quality environment.

Before Covid-19 Air Quality	After Covid-19 Air Quality

In table 2 it shows the result of air quality before and after the Covid-19. It clearly shows the difference in the air quality index before and after the pandemic.

3 DISCUSSION

The Covid-19 pandemic caused immense socio-economic turmoil in spring 2020, the result of this consists of necessary lockdowns and self-isolation. It not only impacted the health of the person but also

affected suspension in business activities. This study reveals the consequences of the government policies in different sectors include primary, secondary and others. Considering the good things, air quality which the government are trying to achieve from many years by following different methods, could not be achieved but during Covid-19 air quality become far better than before. After the pandemic, we people will emerge out with stronger abilities. Different techniques have been laid by the government to protect from virus. Doctors, researchers are involved in finding the solutions hereby, designing vaccines. Pfizer-BioNTech from US and Oxford Group has passed the Phase-3 Covid-19 trial hence distribution has started among people in the world.

4 CONCLUSION

An infectious virus, coronavirus which consist in millions of cases and deaths around the world. At the positive side, we found better air quality and clean sky. Somehow, we found negative impacts with positive impacts. We found noxious impacts human and economic pain, where industries were completely shut down, leading to a slowdown in goods production. With the fear of new recession and financial collapse, there is a need for strong direction and guidance in healthcare, business, government, and society to fight against any such virus in future. Long term strategies and planning is needed to overcome the situation of the pandemic. A broad structure of socio-economic, including primary, secondary, other sectors and an ecosystem that encourages entrepreneurship in business models is required to overcome the implications of Covid-19.

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