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RESEARCH ARTICLE

COVID-19 AND TOURISM

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Abstract

With the outbreak of the novel coronavirus (COVID-19), the whole world has been in a total shutdown. It came out as a challenge to just not some specific countries of continents, but to the entire planet. With no preparation for such type of pandemic and the time and effort required to come up with a fully functional and tested vaccine, the planet went down on its knees. Non pharmaceutical methods were the first aid for the outbreak. Unprecedented country wide lockdowns, stay at home decisions, closure of global as well as local travel, closure of public gatherings greatly disrupted the world economy. International travel bans were the first to be practiced which roughly affected 100% of the world population. With restrictions on public gatherings and movement of people, tourism came to a stand-still in March-April 2020. By this time, COVID-19 had reached most of the countries and the virus was spreading like wild fire.

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Introduction:-

A pneumonia, caused by an unknown pathogen, was detected in Wuhan, China and was reported to World Health Organisation (WHO) in late December 2019. People were advised to wear masks and the news of outbreak started circulating on social media platforms. In early January, more than 41 patients were confirmed to be infected with the virus[1]. Genomic sequence was identified by scientists and was named as 2019-nCOV. Warning was issued that the disease might spread from human to human[2]. Screening of the travel history of the infected patients started andtheir closely related people were monitored for symptoms. Even after such warnings, governments officials and political leaders largely disregarded it[3].

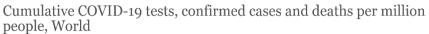
No travel bans were imposed in Wuhan yet. On January 23, China had already witnessed 17 deaths due to the virus. Wuhan was quarantined and no traffic was allowed in and out of the city. By late February, the cases in china steadied at 80000 and deaths at 2835. But by that time, the air transport had already carried the virus to all parts of the world. A large number of countries confirmed their first cases. India confirmed its first case on 30th January 2020 [4]. By March, more than 146 countries were infected by the virus. The cases started increasing exponentially. Countries started taking precautionary measures in form of total lockdowns and travel bans. India announced total lockdown on 24th March 2020 due to the increasing cases it was witnessing. By April 15 the number of confirmed cases touching 2 million mark with more than 123000 deaths from over 200 countries [5]. The real figures will remain unknown as most of the countries had limited testing capabilities.

This paper highlights the effects of COVID-19 on the tourism industries and its sub industries. We first discuss the COVID-19 pandemic in detail and its consequences and effects on the aviation industry. Then we discuss some of

the previous pandemics that took place and their effect on our society. Further we discuss the impact of the pandemic on various businesses. Then we discuss about COVID-19 and tourism and then the future of tourism.

The Pandemic

With no vaccine in hand and limited medical facilities, governments from around the globe started using conventional methods for the safeguard of their people. Home isolation, total lockdowns, social distancing, closure of schools, colleges, universities, non-essential businesses, delivery businesses, postponement or cancellation of public events and shows and banning on public gatherings were practiced with utmost strictness.





The confirmed counts shown here are lower than the total counts. The main reason for this is limited testing and challenges in the attribution of the cause of death.

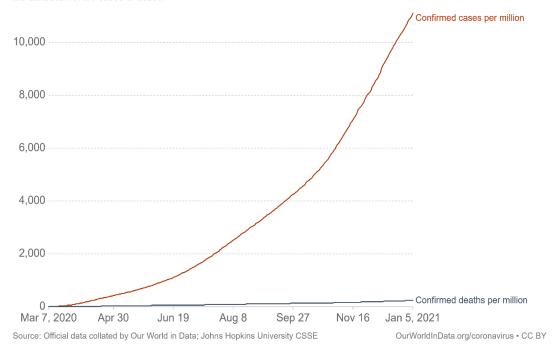


Figure 1:- Overall confirmed cases per million.

International, national and local travelling bans abruptly affected the economies throughout the world. Tourism witnessed its first stand still since the World War II. International air traffic saw a rapid decline due to the pandemic; boarders were closed, quarantine was being practiced for the passengers who already entered the countries. Travellers were stuck in foreign countries with no help from their governments. Cruise ships, on global tourism, became the worst-case scenario. Diamond Princess, and many others had confirmed COVID-19 infections by mid-March[6]. By the end of March, more than 10 ships were strangled in the sea since they were unable to find a port that would allow them to dock. Passengers were forced to stay on the ship with limited water and food supply, and observing cabin quarantine [7].

By April, the virus had affected all the essential parts of the countries. The economies were collapsing [8]. Hospitals and medical institutions were the worst hit, since the number of patients was increasing exponentially, but the kits and instruments to protect the doctors and other staff were limited. The effect of the virus had a tremendous effect on the supply chain business. State borders were sealed, goods were stuck at the boarders, food items were not able to reach their desired destinations. All this resulted into noticeable hike in prices of the items available with the vendors. This was further followed by mass lay-offs and huge bankruptcies [9]. Huge MNC's and other major businesses started requesting the governments for financial aids.

The effects of the pandemic are unprecedented. Within a few months, global tourism declined to 1990 level. According to the World Tourism Organization (UNWTO) International tourism dropped by 74% in 2020 as

compared to the previous year. Which when roughly calculated equates to a decline of 1 billion international arrivals (Figure 2). The collapse represents an estimated loss of USD 1.3 trillion [10].

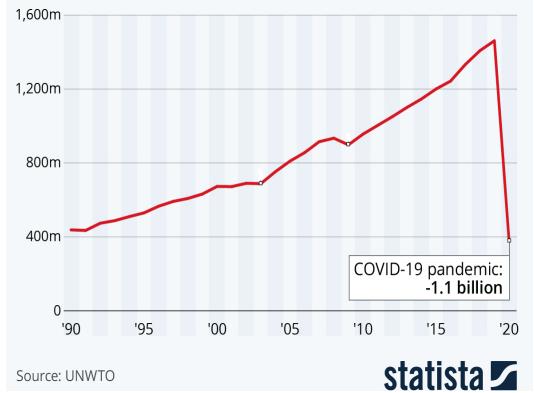


Figure 2:- International tourist arrivals worldwide since 1990.

International Tourism is not expected to get back to pre-pandemic levels anytime soon. As per the UNWTO Panel of Experts survey, 43% of the respondents feel that pre-pandemic levels will be reached by 2023, while 41% feel that it will happen by 2024 [11]. In a nut shell, it could take two to four years for international tourism to return to pre-pandemic (2019) levels (Figure 3).

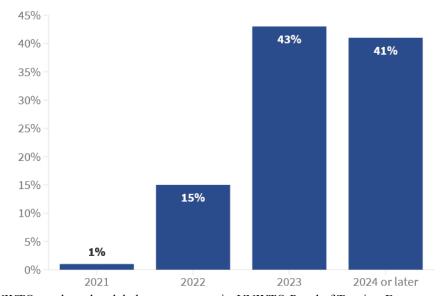


Figure 3:- UNWTO conducted a global survey among its UNWTO Panel of Tourism Experts on the impact of COVID-19 on tourism and the expected time of recovery.

Pandemics And Tourism

Tourism has been affected by a number of pandemics and crises in the past. The September 11 2001 terrorist attack is one of the biggest attacks of the recent past[12]. It had an immediate impact on the world economy[13]. The Severe Acute Respiratory Syndrome (SARS) outbreak in the year 2003 was the next pandemic which played a role in the decline of international tourism [14]. The pandemic resulted in the collapse of the Asian tourism. It was estimated that up to three million people lost their job and tourism fell by 70% [15]. Next was the global economic crisis which took place in 2008/2009 also known as the great recession [16]. Millions of individuals and institutions around the globe were affected by the crisis. Reckless lending led to a huge number of loans which resulted into loses which in turn led the financial institutes to fail [17]. Next was the Middle East Respiratory Syndrome (MERS) also known as the camel flu in the year 2015 [18]. The incubation period of the virus was 4-7 days and had a high mortality rate of 69% to 22% in different countries. The crises led to the reduction of more than 2.1 million visitors corresponding to US\$2.6 billion in tourism loss in South Korea itself [19].

None of the above crises were even close to the current crises we are facing. None of them lead to long term decline in the global economy and tourism. The statement can be proved from the graph present in the figure 4. SARS (-0.4) and Great recession had (-4.0) had the maximum effect international tourism. Tourism is an industry which has been able to recovery very easily from the previous crisis. However, COVID-19 had a far worse impact (Figure 2) on the tourism industry, recovering from which might take a year or two or even more [20].

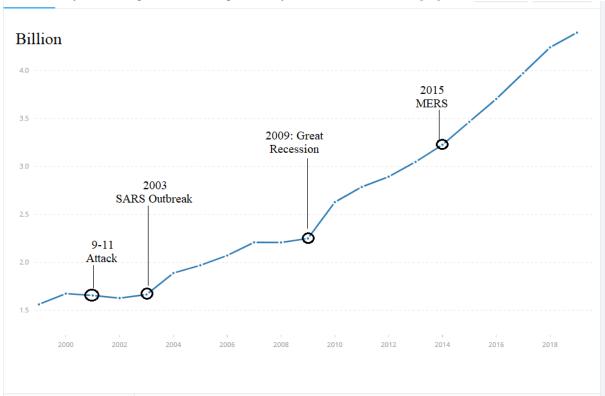


Figure 4:- Passengers carried by air transport. (Data by World Bank).

Tourism, in most cases, is directly dependent on the level and intensity on the crisis the country is going through. Health concerns, life and death concerns are the most important parameters when a person wishes to travel to a foreign country. If the social relationship between the home country and the visiting country are not good then the tourists are extra cautious and, in some cases, refuse to travel at all. In other cases, if some country is hit with some pandemic or drought or disease, governments advise their citizens to avoid such countries and travel only when it is mandatory or very important. A number of studies have confirmed that air travel can play a major role in accelerating and increasing the propagation and spread of Anthroponoses such as influenza, SARS and COVID-19 [21].

Tourisms have been affected by disease outbreaks a numerous number of times. The prime reasonsof these diseases making such impacts on the society, in the 21st century, are the rapid population growth, increase frequency and high volume of people travelling for work and/or leisure purposes, rapid urbanization, uneven population distribution and over-crowded places, industrialized and convenience foods, excessive quantity of processed food being used to name some. The developed transportation systems, cheap and fast aerial transport facilities and deeply connected roadways and railways also play a key role in transportation and spreading of pathogens and other disease-causing vectors [22][23]. Diseases like SARS, Ebola, hantavirus, Zika virus are spread due to the changes caused to biophysical environments, biodiversity and natural resources, which are caused by direct and/or indirect involvement of human beings [24].

Pandemics\Epidemics In Twentieth And Twenty First Century

In this section we will study a few of the epidemics and pandemics which occurred in the twentieth and twenty first century. Due to tremendous global changes, the rate at which these pandemics and epidemics occur has increased [25]. Some of the twentieth century disease are, Spanish flu, also known as influenza which was spreading in 1918-19. The Asian flu (H2N2) in the year 1957. And the Hong Kong flu in 1968. It has been just few years that the twentieth century has started and we have already witnessed more than 4 pandemics. SARS in 2002-03, Bird Flu (Swine Flu) in 2009, MERS in 2012 and Ebola in 2013-24. Currently we are in the middle of another pandemic, COVID-19.

The 1918 influenza pandemic was the most severe of its time. It was caused by H1N1 virus with genes of avian origin. It is estimated that about 500 million people or one-third of the population was infected with the virus. The total number of deaths was estimated to be 50 million throughout the world [26]. The Asian flu emerged in East Asia; the first case was reported in Singapore in February 1957. The estimated number of deaths was 1.1 million worldwide [27]. The next pandemic, the Hong Kong flu was caused by the influenza A (H3N2) virus. It was first detected on 13 July 1968 in British Hong Kong. Most deaths included people of age 65 and above. The total number of deaths was estimated to be between 1-4 million worldwide [28].

SARS in 2002 was defined as an epidemic by the World Health Organisation (WHO). More than 8000 people from 29 different countries were infected and at least 774 people died worldwide. WHO declared that SARS was contained on 5 July 2003. SARS had an effect on the tourism industry. The overall impact on the economics of Hong Kong was not as severe as it was expected, but the Tourism, travel and retail industry was affected significantly[29]. Visitation and the number of visitors decreased substantially which resulted in huge loss to the country. It was estimated that overall, the epidemic, costed US\$100 billion worldwide and US\$48 billion to china alone[30].

Swine Flualso known as Swine Flu was first detected in United States in 2009 and it spread very quickly across the world. The virus contained a unique combination of influenza genes not previously known in either humans or animals. According to an estimate by CDC, there were 1.4billion cases, and 284000 deaths[31]. In a study of the effects of the pandemic on tourism in Mexico, it was found that Mexico lost over a million international visitors in five months. This calculates to a loss of around US\$2.8 billion [32].

MERS stands for Middle East Respiratory Syndrome. It was first identified in Saudi Arabia in 2012. The virus had the ability to be transferred from animals to humans as well as human to humans. Across the globe, 27 countries reported cases. Total number of deaths reported were 881 i.e., 35% of cases reported[33]. MERS got special attention in the travel medicine because of large number of people had gone to Saudi Arabia for the annual Hajj pilgrimage[34].

Ebolavirusfirst appeared in two simultaneous outbreaks, one in South Sudan and second in Democratic Republic of the Congo in 1976. The more current outbreak was in 2013-2014 in West Africa. This was the largest and the most complex Ebola outbreak then all the other Ebola outbreaks of the past, combined! Total confirmed cases were 28616 with 11310 deaths [35]. It has been acknowledged as creating wider suspicion and negative image for the South African tourist destinations, whilst, decreasing the number of local and international tourists and increasing the loss to the tourism sector [36]. The Ebola and MERS played a significant role in increasing awareness among people and higher authorities about the threat and complications of global pandemics and epidemics. When pandemics occur, tourism industry is the worst hit. People get scared in going to pandemic hit countries which in turn hands in huge losses to the countries[37]. One more thing to be noticed is that, tourism and travelling people are one of the biggest

contributors to spread the disease from one country to another. Table 1 represents the effect of various pandemics on the GDP of the world

Table 1:- I directifies and their effect on GDI.						
Pandemic/	Severity	Global	% change in GDP			
Epidemic		Deaths	World	Developed	Developing	India
		(million)		Countries	Countries	
Spanish Flu	Severe	142.2	-10.7	-10.7	-12.2	-11.3
Asian Flu	Moderate	14.2	-2.0	-2.0	-2.1	-3.0
Hong Kong	Mild	1.4	-0.7	-0.7	-0.6	NA
Flu						
SARS	Mild	< 0.01	-9.3			-0.04
Swine Flu	Moderate	0.2	-2			-1.12
MERS	Mild	< 0.01	-5.1			NA
Ehola	Moderate	0.1	-1 7			NA

Table 1:- Pandemics and their effect on GDP.

It is estimated that the global economic cost of a Spanish Flu type pandemic in todays scenario would be close to 12.6% of the total GDP [38]. On a global scale, influenza would end up with 720,000 death which would cost 0.6% of the global GDP taking in account the income loss and mortality [39]. Studies suggest that a pandemic like the Hong Kong Flu can decrease the global GDP by US\$2.4 trillion and Spanish flu type can pull back the GDP by US\$9 trillion[40].

COVID-19 And Its Impact

The Coronavirus pandemic reached almost every country within a few months. Due to its fast-spreading, local governments, were forced to implement total lockdowns in the countries. Now, the vaccine has arrived, but still people are wondering how recovery would look like in the near future.

Impact of COVID-19 on Stock Market

In response to the COVID-19 pandemic and the rapid decrease in flow of money and transactions, the banks have been forced to decrease the interest rates for the savings and current accounts deposits. They are now looking at making borrowing and loans cheaper in order to increase spending to boost the economy. Stock markets, in some countries, have seen the lowest points in the last 10 years or so. Some worldwide stocks like Dow Jones, FTSE, Italy MIB saw a decline of upto 40% during the time of the pandemic. The introduction of the vaccine has brought a hope to the people and but any further lockdowns and delays can lead to more and more volatility in the year 2021[41].

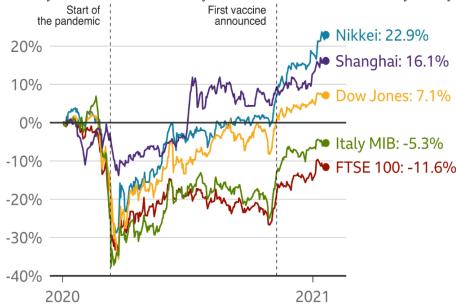


Figure 5:- Impact of COVID-19 on stock markets.

Impact of COVID-19 on Job Seekers

Many people on the face on the earth have lost their jobs or seen a cut in their incomes because of the pandemic. Unemployment has increased across the economies at an unprecedented rate. 8.9% of people were out of jobs, according to International Monetary Fund, by the end of year 2020. Jobs in the tourism and hospitality sectors had come to a stand-still. With the ease on lockdown and movement, these industries are slowly coming to life. The number of new opportunities has to come to the previous levels else the GDP might fall even further [42].

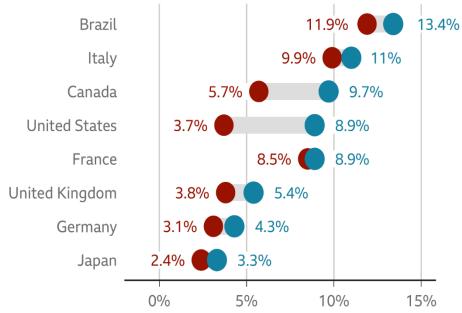


Figure 6:- Yearly employment rate change, 2019 and 2020 compared.

COVID-19 bringing recession

As the economy of a country grows, it means that the country is making more wealth and more and more new jobs are being generated. During the pandemic and lockdown, the GDP of all the countries have declined significantly. IMF estimated the global economy shrunk by 4.4% in 2020. It has been described as the worst decline since the Great Depression in 1930s. All the economies registered decline in the year 2020, except China. It registered a growth of 2.3% in 2020. IMF is predicting a global growth of 5.2% in 2021, which will be majorly driven by India's growth by 8.8%[43].

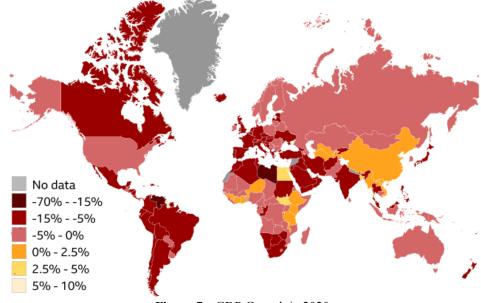


Figure 7:- GDP Growth in 2020.

COVID-19 impact on shopping

As the lockdowns and restriction on movements were implemented, the retail footfalls fell to the bottom. The shoppers as well as the shopkeepers stayed at home. Surges in the cases increased which further made problems worse. Shoppers are switching to online retail stores. People have mixed experiences on the online retails. Some feel comfortable doing so, some are hesitant. Research suggests that consumers are still feeling anxious about returning to the stores and are still scared on the pandemic. Another survey says that 67% customers are not willing to travel more than 5 kilometres for their shopping needs. This change in shopping behaviour has significantly boosted online retail, with a global revenue of \$3.9 trillion in 2020[44].

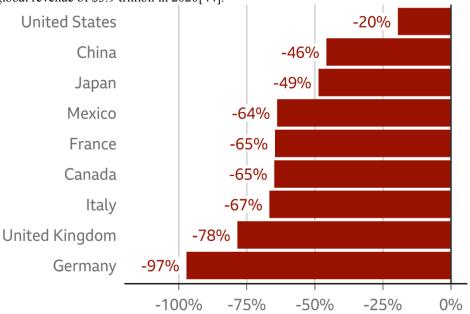
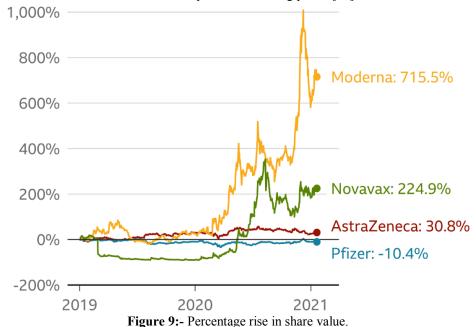


Figure 8:- Percentage footfall in January 2020 compared to January 2021.

COVID-19 impact on Pharmaceutical companies

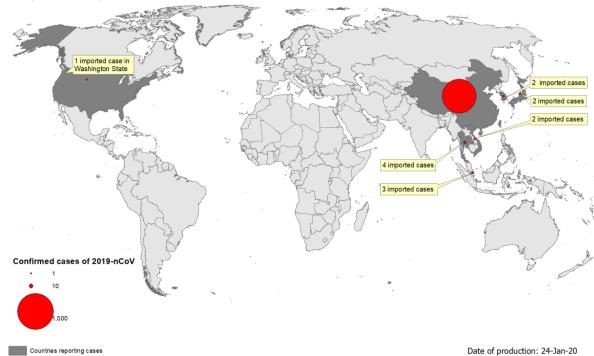
Pharmaceutical companies are the only industry which somehow benefited during these hard times. Distribution of medical supplies, kits, masks, shields helped them in gaining revenue and making money. The rise in the price of these stocks gives a clear indication that these companies are making profits[45].



COVID-19 And Tourism

There have been a number of epidemics/pandemics in the last few decades, but, none of them had implications as of COVID-19 on the global economy. It is not highly contagious like measles or deadly as Ebola. In rare cases, people start to spread the virus even before the symptoms arrive [46]. This is the main reason for the rapid spread of the virus throughout the world within a few months' time. With no medicine, limited testing equipment's and unavailability of tests, transmission of the virus increased very high [47].

Figures below reveals the rapid increase in and spread of confirmed COVID-19 cases from its epicentre "Mainland China" (ECDC 2020).



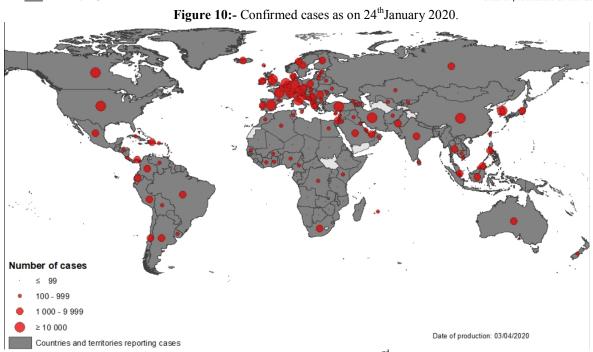


Figure 11:- Confirmed cases as on 03rd April 2020.

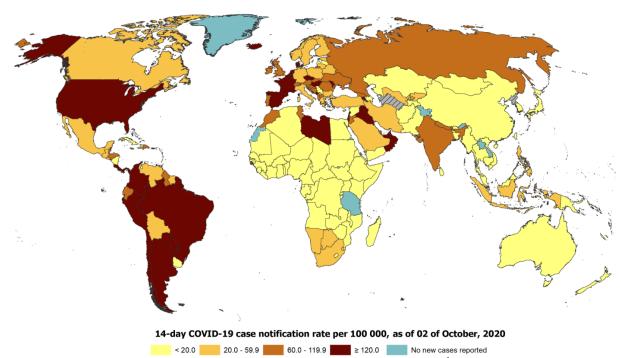


Figure 12:- Increase in confirmed cases in last 14 days, as on 2nd October 2020.

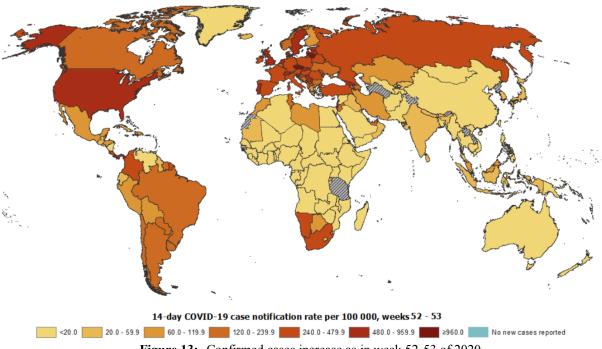


Figure 13:- Confirmed cases increase as in week 52-53 of 2020.

As the number of confirmed COVID-19 cases started to increase exponentially, travel restrictions were imposed in most countries by end of March. Figure 14 shows countries with sealed boarders, partially sealed, and no restrictions in foreign travel. It is clear that more than 90% of the world population were under strict travel restrictions. Countries were also following local travel restrictions and stay at home orders. Tourism and travel became a thing of the past at that time.

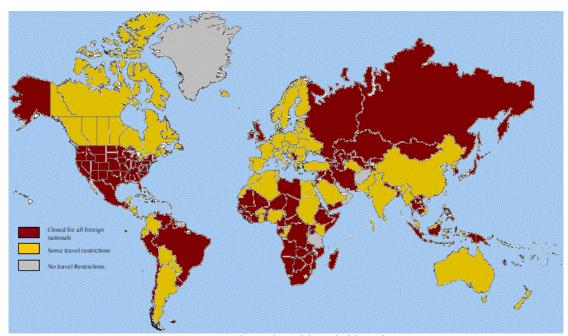


Figure 14:- Countries with sealed boarders.

Before the onset of the pandemic, the United Nations World Tourism Organisation (UNWTO) estimated a rise on 3-4% in international tourist arrival. The havoc caused by the pandemic changed the estimates and in early March the estimates were revised to 1-3% decline for the same [48]. After a few weeks, the estimates were further revised and the alarming figures of 20-30% decline were estimated [49]. With lockdowns and travel restrictions, the number of global flights decreased and a huge number of planes were grounded. The aviation industry witnessed huge declines in global traffic. Figure 15displays the comparison of total flights in year 2019 and 2020 tracked by Flightradar24.

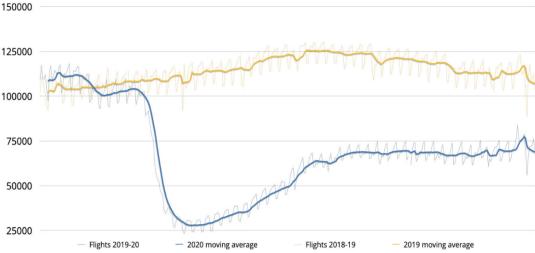


Figure 15:- Comparison of total flights in 2019 and 2020[50].

Accommodation sector is among the worst hit due to COVID-19. It led to the temporary closure of a number of hospitality businesses and a significant decline in demand as well [51]. Restaurants around the globe were advised to limit their operations. Hotels and resorts saw a sharp decline in occupancies and revenues. However, with the introduction of the vaccine, reopening has started and the restrictions are being eased. Dine-in restaurants are allowed to open, but at a reduced capacity, with strict social distancing guidelines. Local tourism has begun in a number of countries which is a good sign for the tourism sector. The impact of COVID-19 is represented in Figure 16. Tourist numbers have declined drastically by 50% or more. Visitors and tourists were inclined towards countries perceived as safer, such as, Sweden, New Zealand). But tourists were being asked to return home keeping in mind

the situation in other countries and their tourists. In early march, tourists started to cancel their prior bookings of hotels, camp sites, car rentals, activities, dine ins, sports viewing tickets movie tickets etc. By early March, business started suffering huge losses, which in turn resulted in laying off of employees and staffs.

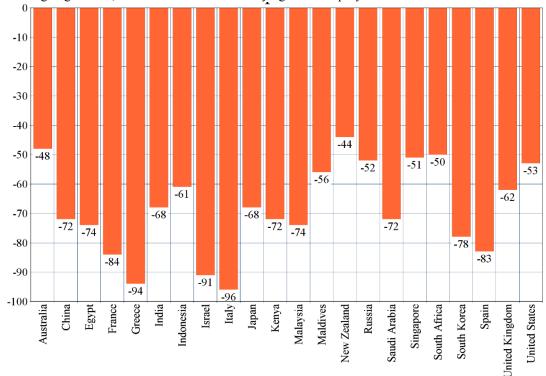


Figure 16:- Accommodation occupancy change percentage in 2020 when compared to 2019.

Current Impact

Various estimates were made when the pandemic was still setting in. Now, when the vaccine has been released, we are in a good situation to asses the damage. The actual decline of international arrivals in the year 2020 was 70-80% which would translate into losses to the tourism sector of US\$2050-2200 billion. In the following section, we take a look at the major tourism sectors such as aviation, accommodation, conferences and meetings, education, sports events, restaurants, cruises.

Aviation

In 2019, the IATA estimated that the year 2020 will bring about net profit of US\$29 billion. But with the onset of the pandemic, it was estimated again to decrease by 38% when compared to the year 2019, resulting a total revenue loss of around UD\$252 billion [52]. Airports, as the airlines, also faced financial crisis with about US\$76.6 billion loss in the year 2020. In India, IndiGo posted net loss of INR 2884 crore and INR1194 crore in Q1 and Q2 of the 2020. SpiceJet posted net loss of INR600 crore and INR112 crore in the same period. The government of India permitted some special international flights under the Vande Bharat Mission from May 2020. But the scheduled international flights were still suspended. In 2019 around 205 million passengers used air travel in India, as compared to just 50-60 million in 2020. Currently, the domestic Indian airlines are operating at 80% capacity as compared to pre-COVID-19 levels[53]. With the introduction of the vaccine, it is estimated that the aviation sector will be back to the pre-COVID-19 levels by march 2021.

Accommodation

The accommodation industry comprises for 10% of the global GDP. The pandemic led to layoff of more than 60% employees worldwide[54]. Hotels and restaurants will be changing to leaner and more efficient operations, with a balance between smart and skilled labour. Domestic hotels saw a weak Q4 in 2020. Due to the fear of the pandemic, large number of labour forces migrated from the big cities to smaller or their native places. It meant that a large number of the front-line staff at hotels and resorts moved back to their native areas. This puts the permanent

employees under a lot of pressure due to lean staff available. This may lead to a large number of people switching their industries and move to industries where the cash flow is quicker.

Conferences, Meetings and Events

One of the worst affected industries by the COVID-19 pandemic was the events industry. With the implementation of lockdowns and strict social distancing norms, a large number of national and international events such as prominent festivals, exhibitions, concerts, meetings, religious gatherings, large family gatherings (such as weddings) were postponed or even cancelled[55]. Conferences were no longer taking place at universities or colleges or physical gatherings rather they are now being conducted in online mode

Education

Schools, colleges, universities, libraries were shut down of immediate notice. Students around the globe were advised to stay at home and holidays were declared by local governments. As of January 2021, more than 825million learners were affected due to the closure of the educational institutes[56]. Closure not only affected the students but the teachers and their families and subsequently the economy of the world. Lately, digital services are being used to connect to the students for their study purposes, but sooner or later, students would want to go to schools, since it gives the students the exposure and experiences which are required at later stages of their lives.

Sports Events

With the outbreak, almost all the countries implemented lockdown and movement restrictions. In sports industry all the events of 2020 were either postponed or cancelled. The 2020 summer Olympics was rescheduled to 2021. Major sports leagues across Europe and NorthAmerica and other countries have all ended their seasons with the opening of others including the UEFA EURO 2020 postponed. After a few months of lockdown, sports event started taking place but behind closed doors and no spectators[57]. The players were asked to live in bio secure bubbles, for their and their fellow players and the staff safety. Before the start of any tournament or series, players have to observe 14 days strict quarantine. Regular COVID-19 check-ups are done for every player.

Restaurants

COVID-19 led to closure of all the restaurants, fast-food corners and eateries throughout the globe. People were not allowed to come outside their homes, so there was no one to eat food at these places. They have limited liquidity and small margin profits. Foot traffic to fast food corners decreased to 75% and restaurants to 85% since the lockdown was implemented[58]. With the launch of vaccine and promises made by the restaurant councils of safeguarding and protecting people from the virus, people are now coming out and starting to eat at these places. People are more comfortable ordering and getting the food items delivered to their homes instead of going and visiting the businesses.

Cruises

Cruises have been in the news more than often. Cruises were hit very badly in the current pandemic. Cruise ships are most likely vulnerable to outbreaks of infectious diseases because people from around the globe are present in closed environments, and crews get transferred from one ship to another in the middle of the ocean. A large number of cruises were afloat in the water when the pandemic broke out. People were falling ill on the ships and passengers had to quarantine themselves in their cabins[59]. Ports were not allowing them to disembark and people were not able to go to their homes/countries. Testing kits were not easy to be delivered to the cruises and this further deteriorated the condition.

Future Of Tourism

As and when the travel restrictions are removed, then tourism industry will need more time to come back to the normal levels. In order to bring tourism and other industries to normal levels, certain conditions need to be brought about.

- 1. Continued decrease of new cases or decrease in the graph of new cases without the decrease in the number of tests being conducted,
- 2. Hospitals and care centres should be able to take care of all the patients who need medical treatments without coming back to the panic mode when the number of patients was increasing exponentially but the care units and doctors and nurses was less.
- 3. Countries and states should be able to test all the people with COVID-19 symptoms and put in quarantine if required. There should be no shortage of testing kits and/or safety equipment's for the doctors and nurses.

4. Countries should be equipped enough to be able to actively monitor all the patients with confirmed COVID-19 infection and contact tracking should be conducted in a proper manner.

All the above-mentioned conditions are met in most of the countries now. We have moved into phase 2. In phase 2, governments can reopen schools, colleges, universities, and businesses but, social distancing still needs to be implemented on strict manner. Wearing of face masks and washing of hands should continue. Business that can run behind closed door should not come out in open. People over the age of 60, and with some medical conditions still need to be cautious and should continue to limit their contact with other people. Phase 3 will begin when we get no new cases for a month or so and everyone has been given the shot of the vaccine. Face masks, social distancing etc can be lifted. At this stage, tourism local, national and international will become open and available to all. Phase 4 will need the government to invest in research and other disease monitoring. Healthcare infrastructures need to be upgraded. International air travel and water transports need to under constant monitoring and new rapid response plans need to be implemented there. People and government need to prepare and get ready for the next pandemic.

Tourism sector should shift the focus to resiliency and sustainability. It should adopt a strategy for a responsible recovery including, public health, social inclusion, biodiversity, conservation, climate action, circular economy as well as governance and finance. Clean energy, green buildings and sustainable waste management should also reflect in tourism. We should learn from the current pandemic and not just forget it as we forgot, SARS, MARS and other pandemics.

Conclusion:-

The tourism and hospitality industry are slowly moving towards recovery. They are expected to make essential changes in their operations with the COVID-19 outbreak to ensure the safety of their staff and the customers. It will further increase the willingness of the customers to restart their tourisms and outings. Air travel should be limited to only those people who have had a shot of the COVID-19 vaccine, everyone should volunteer to get the shot of the vaccine, those who have not been given the vaccine should not be allowed to use the public transport, and they should be barred from entering public places like restaurants and cinema halls etc.

The pandemic has had a significant impact on the research department of the tourism and hospitality industry and many other industries. Researchers and scholars have got a great opportunity to focus their research towards the pandemic and come up with answers such as what are the customers' sentiments about patronizing a tourist destination or a restaurant or a hotel in the time of coronavirus? Are they even ready to return? If not, what will make them return? The challenge is now to collectively learn from this global tragedy to accelerate the transformation of sustainable tourism.

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