

The Impact of COVID-19 on the Sustainability of The Tourism Industry

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Abstract: COVID-19 is a phenomenal pandemic that the world has been harshly and unpredictably stricken with and has affected the global economies devastatingly. One of the most affected industries is the tourism industry, where people are prohibited from travelling interstate and internationally as well as gathering publicly in the mass area to prevent further disease spreading. Every sector in the tourism industry has faced a tremendous decline in profit-making. Apart from economically, the COVID-19 has the ripple effects on the tourism socially and environmentally. Thus, this article aims to identify the impact of COVID-19 on the tourism industry in terms of economic, social, and environmental. Moreover, this article used the literature review methods, where several manuscripts from various journals focusing on COVID-19 and tourism industries were analyzed. The results show that the most worrying impact of the pandemic will be the declining of job opportunity and retrenchment of workers in the tourism industry as the industry relies on people travelling. Worst impact that can happen concurrently is the temporary or permanent shutdown of existing tourism operating premises such as hotels, shopping outlets and other related tourism transporters and activities. Through this study, the stakeholders can identify the problem and propose on solutions or strategies to overcome the unexpected problem to ensure the sustainability of the tourism industry in the future.

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1. Introduction

Travelling is definitely one of the activities that people love to do as a hobby, and to escape the hustle and bustle of urban's life. In addition, the act of travelling outside of the usual environment for more than 24 hours and not more than one consecutive year is the definition of tourism provided by the United Nations World Tourism Organization (UNWTO, 1991). There are four major types of tourism that can result to different travel time and expenditures such as international tourism, domestic tourism, long distance tourism and short distance tourism. Moreover, there are several niche tourism areas such as rural tourism, mass tourism, sports tourism, cultural tourism, religious tourism and many more. Therefore, from all these types of tourism, it can be said that various types of tourism can fulfil different types of interests. Since travel is an activity that can be done all the time and some people make it an annual or seasonal event for their family or friends, the number of people travelling has increased from year to year. According to (UNWTO, 2019), the number of people travelling in 2018 has achieved 1.4 billion international tourist arrival, increasing 5% from the previous year. This statistic has proven that the tourism industry will be safe as people continue to travel.

In every tourist destination, there will be a group of people staying there for years and finding their sources of living from that destination. Therefore, for a place to be transformed into a tourist destination, the local community should be consulted as it might affect their income or daily routine. In addition, local community opinion is important and needed, and community participants can significantly impact projects and programmes. Moreover, proper and systematic tourism planning can help the authority to extricate the negative assumptions on tourism (Litheko & Potgieter, 2016).

However, the tourism and hospitality industry can be considered as one of the fragile industries. This is because the industry's supply and demand will be affected by internal and external factors. For example, in 2003, the SARS epidemic struck the nations bordering the Pacific Ocean, which affects tourist arrival (Wilder-Smith, 2006). Currently, the worldwide tourism industry is facing the worst scenario, which is the COVID-19 pandemic. The pandemic is the nastiest, whereby it involves most countries in the world and travelling activities are being banned in certain countries. Figure 1 shows the number of published articles by numerous authors during 2019–2020 regarding the COVID-19 with aspects related to the environment, economy, and society. However, only a few articles that are related to this paper are being used.

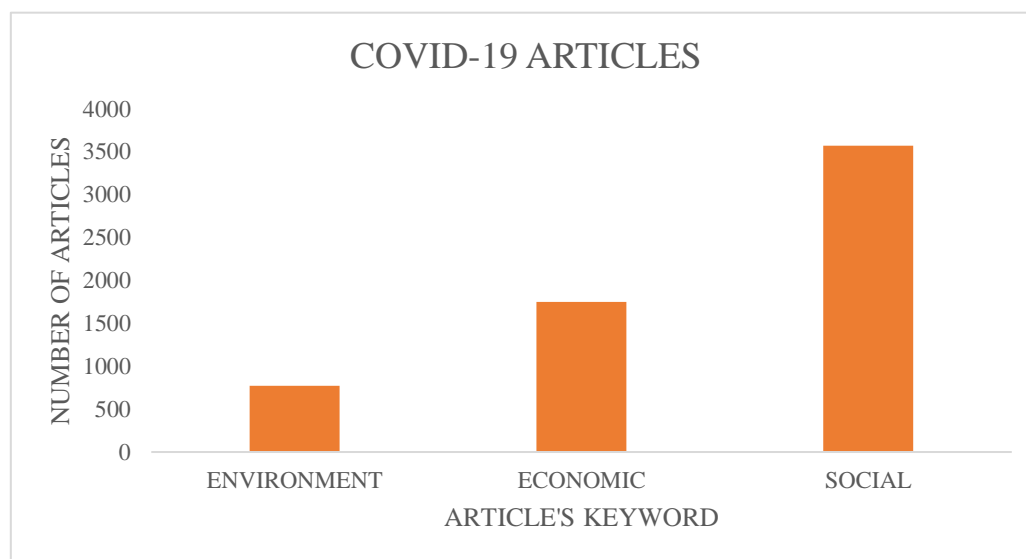


Figure 1. Number of articles related to COVID-19, tourism industry towards the environment, economic, and social

2. COVID-19 and Tourism Industry

The year 2020 has been a disaster for most people in the world after COVID-19 inhabit their place. This is because many people lost their source of living, the longest time of national lockdown and people staying home and some even lost their family members. According to Elengoe, 2020, the first Corona case was detected on the 12th December 2019 in Wuhan, China, but the virus's origin remains to be determined. Then, in just two weeks of spreading, The World Health Organization (WHO) has declared the coronavirus is a pandemic level of disease (Sheng, 2020). Moreover, the virus has been detected in more than 200 countries (Qiu, Park, Li, & Song, 2020), and within months, the number of cases has reached millions worldwide (Salim et al., 2020). This could be said as one of the disasters that ruined the year 2020.

COVID-19 has also led to the closure of the international borders by some of the countries. Qiu et al., (2020) claimed that several governments have taken the precautionary measure by closing their international border to prevent the virus from spreading. In addition, the closing of the border by the countries has eventually led to travel restrictions, which will be burdensome for the countries, which rely heavily on the tourism industry. (Gössling, Scott, & Hall, 2020) stated that the outbreak of COVID-19 would have significant implications for international tourism, with related effects on many nations' economic development and prosperity. Moreover, the author also said that COVID-19 would affect the loss of human life and the social, economic and environment. The COVID-19 pandemic will also change the future of the tourism industry, whereby a lot of normal norms and activities will be no longer relevant after this crisis end.

According to the most recent issue of the UNWTO World Tourism Barometer, international tourist arrivals (overnight visitors) dropped by 72% between January and October 2020

compared to the same period of the previous years, hampered by slow virus containment, low traveller's confidence, and significant restrictions on travel still in place as a result of the COVID-19 pandemic. It is estimated that 900 million fewer international tourists arrived in the first ten months of the year than in the same period in the previous year, translating into a loss of US\$ 935 billion in export revenues from international tourism, more than ten times the loss experienced in 2009 because of the impact of the global economic crisis. Figure 2 illustrates the percentage drop for international tourist arrival by 2020 compared to 2019 (UNWTO, 2020).



Figure 2. The percentage drop for international tourist arrival by 2020 (UNWTO, 2020)

Therefore, it can be concluded that the tourism industry has a close relationship with the crisis that is currently happening in the whole world. This is because the tourism sector relies ultimately on the presence of a human in an area. Thus, the industry has been highly affected as many countries have taken the safety precautions and prevented tourists from entering their country.

3. Environmental Impact

Since COVID-19 has a huge impact on the tourism industry, this study has taken the initiative to further discussed on the COVID-19 impacts on the tourism industry in terms of the environment, economy, and society. First, the COVID-19 has driven most countries to positive environmental impact. It has helped the industry to reduce the amount of pollution

that occurred before as many know that tourism contributes to the air pollution in a country (Eusébio et al., 2020), and it also mentioned that countries such as China, Egypt and India have the worst air quality. This happens because of their intention and progress to become an urban country. However, the emergence of COVID-19 in early 2020 has started to reduce environmental pollution such as air pollution. According to (Kumari & Shukla, 2020), the government's closure of border and movement restrictions has significantly reduced the number of carbon emissions and toxic particles in the environment. As an example, China has witnessed a drastic reduction in emission of NO_x , CO_2 , and various hydrocarbons during the coronavirus lockdown (2020) as compared to the values last year (2019) (Kumari & Shukla, 2020). Figure 3 shows the volume of emissions produced before and after the COVID-19 took place.

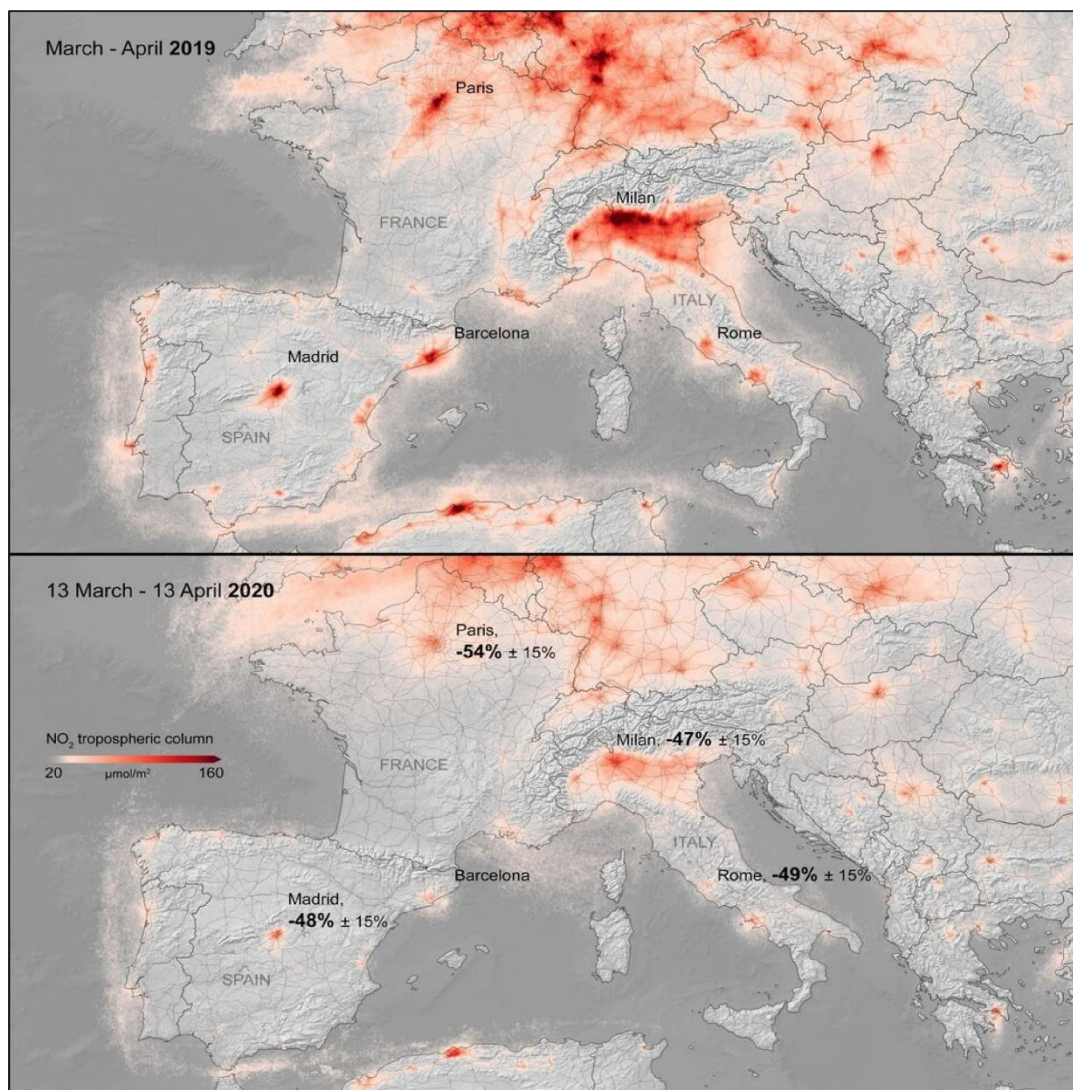


Figure 3. Comparison of the NO_2 concentration between March–April 2019 and 13th March–13th April 2020 in Europe (Mofijur et al., 2021).

Figure 3 illustrates the situation in four major cities in Europe: Paris, Milan, Rome, and Madrid. This figure shows the number of emission reductions in these four cities where it shows a significant decline in air pollution in those cities. In addition, it shows that the lockdown and travel restriction imposed in those countries has managed to reduce the air pollution and volume of emissions released.

Other than air pollution, the COVID-19 has also reduced the water pollution that happens in the coastal. According to Ormaza-González, Castro-Rodas, & Statham, (2021), the restriction for the industry to operate has led to a low amount of wastes discharged into the sea or river. This claim was also supported by Cherif, Vodopivec, Mejjad, Esteves, & Simonovič, (2020) that the COVID-19 has prevented the water in Boukhalef river Morocco to be polluted continuously. Figure 4 demonstrates the quality of water in Vembanad Lake, where it shows a positive result from the lockdown implementation by the country.

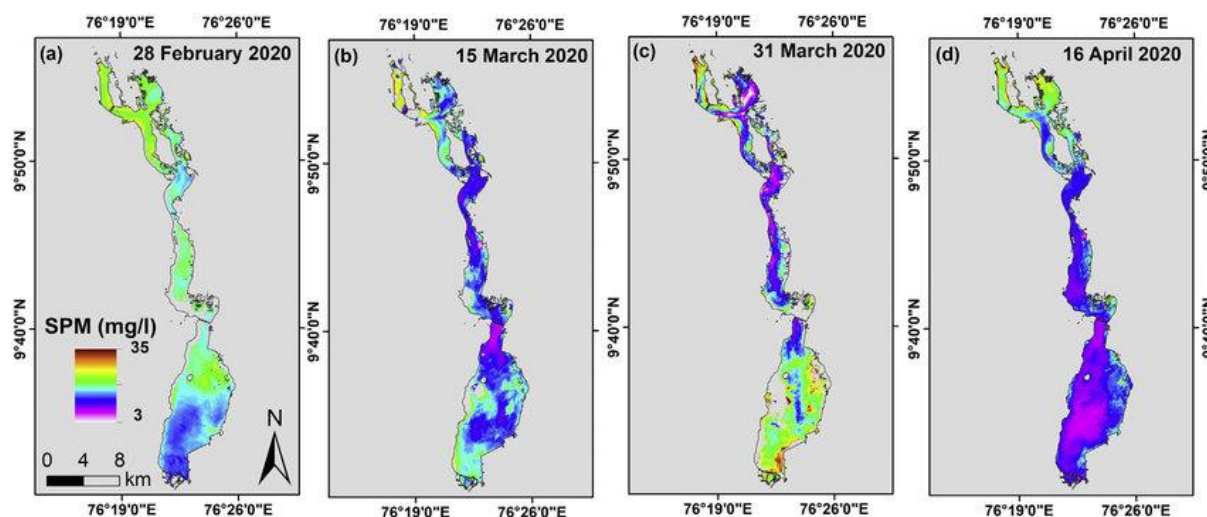


Figure 4. The quality of water in Vembanad Lake, India on 28th February 2020, 15th March 2020, 31st March 2020, and 16th April 2020 (Yunus, Masago, & Hijioka, 2020).

From Figure 4, the quality of water from 28th February 2020 is slightly polluted with the effluent. Then, after implementing lockdown and travel restrictions, most of the lake has achieved satisfactory water quality as most of the lake shaded in purple/violet represents low concentration of pollutions (mg/l) in the aquatic region. Therefore, this figure clearly shows the benefits of lockdown on the water quality in Vembanad Lake.

Thus, it shows that COVID-19 pandemic has helped humans improve environmental quality by limiting human's movement. Although COVID-19 pandemic is a disaster to most people, but it is also a blessing in disguise as it helps people improve their health conditions through clean air and water supply. In addition, the tourism industry can also benefit from this crisis as it gives an added aesthetic value of the natural resources, for example, within the grace

period of time the trees will have the time to regrow by the time visitors revisit after the lockdown has been lifted.

From the Islamic point of view, everything on this Earth is created by Allah SWT, and as the servant and the creatures that live on this earth, humans should take care of the Earth and everything inside it. This is because most of the valuable resources are available in the Earth for the human to use. However, the irresponsible person will manipulate the resources or, even worse, polluting them. In addition, corrupted people are the ones who will usually take the benefit from the free available renewable and non-renewable resources without taking care of the environment. This is also mentioned in the al-Quran from Surah ar-Rum verse 42, stated that *“Corruption has appeared throughout the land and sea by [reason of] what the hands of people have earned so He [i.e., Allah] may let them taste part of [the consequence of] what they have done that perhaps they will return [to righteousness]”*. This verse shows that people will commit harm on the Earth, whether on the land or the sea, to obtain wealth, but at the same time abandoned their duties to protect the environment. Therefore, it can be said that humans, as the leader in this world, have been given the responsibilities as the trustee of nature that should not betray and misuse the resources or bounties given for free to us by God. This is also mentioned in the al-Quran Surah al-A'Arif verse 31, saying, *“O Children of Adam! Beautify yourselves for every act of worship, and eat and drink [freely], but do not waste verily, He does not love the wasteful!”*.

4. Economic Impact

The working class and labourers face the biggest crisis in the decade as this pandemic has forced the employer to retrench most of their employees as stipulated by Dermawan (2020) that there were 5443 employees from various sectors, which have been laid off from their job. On the other hand, these issues not only happen in Malaysia, but the entire world. According to Béland, Brodeur, & Wright, (2020), COVID-19 has increased the unemployment rate in the United States of America and European countries. In line with that, the World Travel and Tourism Council has made a statement warning that 50 million jobs in the global tourism industry may be at risk. This shows that COVID-19 pandemic has brought more negative impact towards tourism in economy, socio-cultural, environment and psychology.

Moreover, since most of the international borders are being locked down and many travel restrictions have been imposed, the tourism industry has faced a tough time. According to Uğur & Akbıyık, (2020), the tourism industry has faced a sharp falling revenue, where the crisis has affected both sides, the supplier and demand. In other words, it is regretful that the supply side cannot provide any facilities for the tourist, on the other hand, the tourist cannot travel due to several restrictions. Apart from that, the airline industry has been the most affected sector in the tourism industry. In addition, according to the Organisation for Economic Co-operation and Development (OECD) (OECD, 2020), airline demand has significantly declined due to the travel restriction and has resulted in a decline of passenger's

revenue up to 90% only in April 2020. Below is the statistic of the differences between the number of flights in 2019 and 2020.

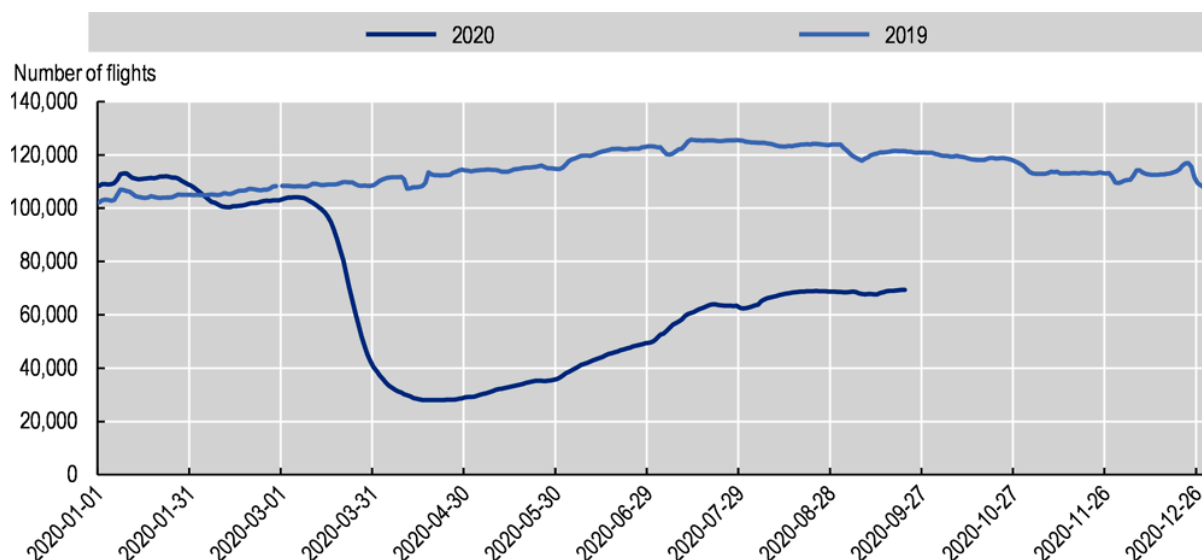


Figure 5. Number of world commercial flights, (OECD, 2020).

From Figure 5, the data shows a considerable difference on the number of flights between the year 2019 and 2020, whereby this number includes all the commercial passenger flights, cargo flights, charter flights and some business jet flight. Thus, this shows that the airline industry is amongst the hardship that resulted from the pandemic, and it will further face the worst scenario if the number of COVID-19 cases is not controlled.

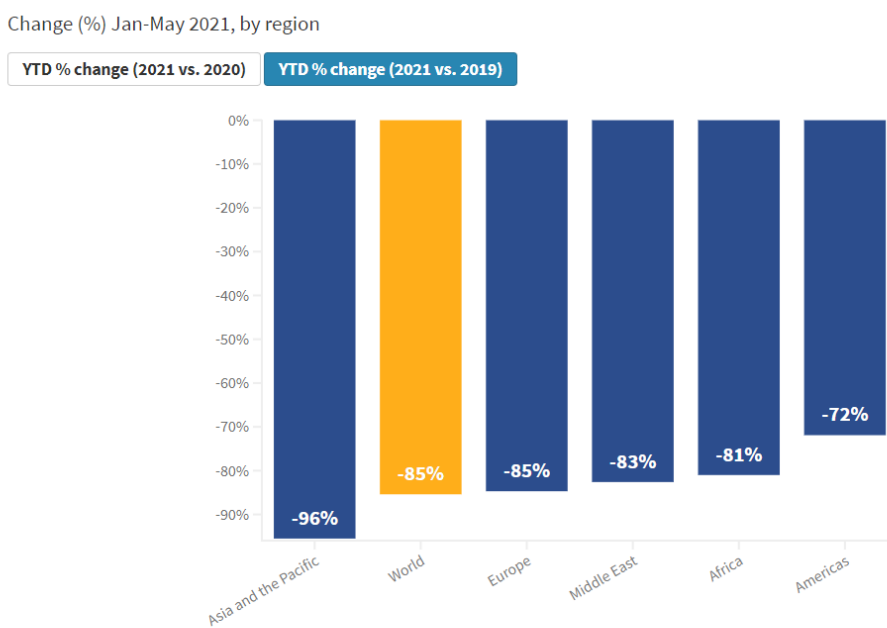
Furthermore, due to the restriction for the people to cross the international border, it will affect the country Gross Domestic Product (GDP), and the Malay Mail newspaper has stated that Malaysia has recorded a low GDP for the second quarter of 2020 (Zahiid, 2020). This is mainly because the government's decision for the national lockdown and no interstate travel has restricted people from travelling inbound. This shows that the tourism industry is one of the main contributors to the country GDP. However, this issue does not only happen in Malaysia, but it involves the whole world. According to (Mofijur et al., 2021), the global economy's world Gross Domestic Product (GDP) is estimated to decline sharply by 3%, which is worse than 2008. Figure 6 shows the latest growth projection of world economics produced by the (International Monetary Fund, 2020).

Latest World Economic Outlook Growth Projections

(real GDP, annual percent change)	PROJECTIONS		
	2019	2020	2021
World Output	2.9	-4.9	5.4
Advanced Economies	1.7	-8.0	4.8
United States	2.3	-8.0	4.5
Euro Area	1.3	-10.2	6.0
Germany	0.6	-7.8	5.4
France	1.5	-12.5	7.3
Italy	0.3	-12.8	6.3
Spain	2.0	-12.8	6.3
Japan	0.7	-5.8	2.4
United Kingdom	1.4	-10.2	6.3
Canada	1.7	-8.4	4.9
Other Advanced Economies	1.7	-4.8	4.2
Emerging Markets and Developing Economies	3.7	-3.0	5.9
Emerging and Developing Asia	5.5	-0.8	7.4
China	6.1	1.0	8.2
India	4.2	-4.5	6.0
ASEAN-5	4.9	-2.0	6.2
Emerging and Developing Europe	2.1	-5.8	4.3
Russia	1.3	-6.6	4.1
Latin America and the Caribbean	0.1	-9.4	3.7
Brazil	1.1	-9.1	3.6
Mexico	-0.3	-10.5	3.3
Middle East and Central Asia	1.0	-4.7	3.3
Saudi Arabia	0.3	-6.8	3.1
Sub-Saharan Africa	3.1	-3.2	3.4
Nigeria	2.2	-5.4	2.6
South Africa	0.2	-8.0	3.5
Low-Income Developing Countries	5.2	-1.0	5.2

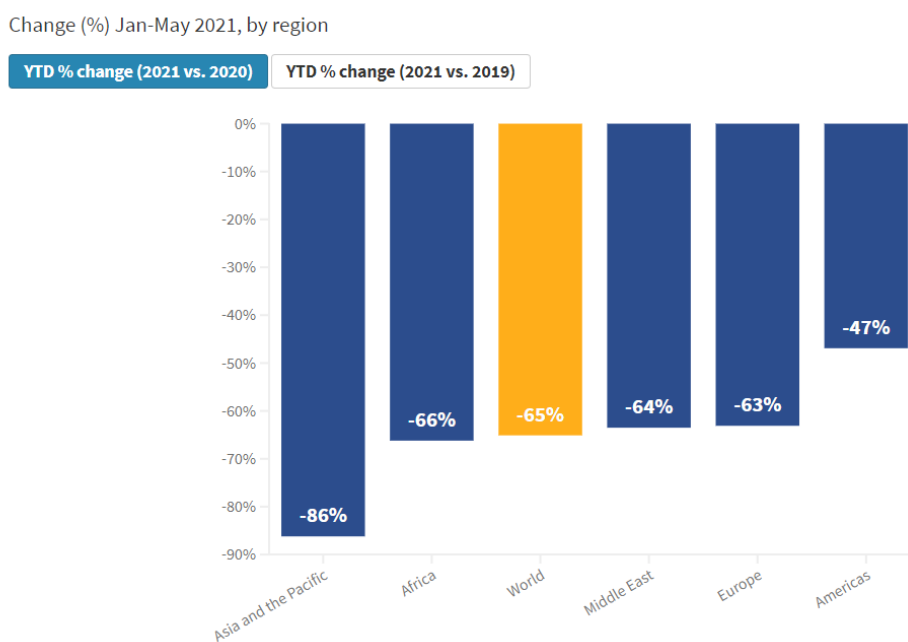
Figure 6. Latest World Economic Outlook Growth Projections, (International Monetary Fund, 2020).

Figure 6 demonstrates that most countries are facing a hard time during this pandemic. This can be seen by the GDP recorded by every country in 2020 compared to the previous year. However, the IMF forecast that the GDP will recover in the middle of 2021. Figures 7 and 8 demonstrate the percentage change for 2021 compared to previous years (UNWTO, 2021). Hence, Malaysia's government initiative in allocating PENJANA Tourism Financing at RM1 billion has been implemented to finance transformation initiatives by SMEs in the tourism sector to remain viable and competitive in the new normal (Zainul & Aziz, 2020). This strategy has helped the tourism industry in Malaysia to boost their operational activities and revenues once the lockdown has been lifted.



Source: World Tourism Organization (UNWTO).
Data as collected by UNWTO, July 2021. Published: 21/07/2021

Figure 7. The percentage change of 2021 vs 2019 (UNWTO, 2021).



Source: World Tourism Organization (UNWTO).
Data as collected by UNWTO, July 2021. Published: 21/07/2021

Figure 8. The percentage change of 2021 vs 2020 (UNWTO, 2021).

From the Islamic perspective, we can take the current condition as a platform to help others, especially those affected during COVID-19 pandemic. It can be said that the tourism industry is the most affected sector as many travel restrictions are imposed. Therefore, helping the needy is one of the obligations by every human being, and it is also mentioned in the al-Quran surah al-Baqarah verse 271 saying that *“To give charity publicly is good, but to the poor privately is better for you, and will absolve you of your sins and Allah is All-aware of what you do”*. This shows that Islam encourages the servants to help those in need because it is the duty of the human being towards another human being. Moreover, there is a hadith narrated by Ibn Mas'ud saying *“I heard the Prophet SAW saying, “There is no envy except in two: a person whom Allah SWT has given wealth, and he spends it in the right way, and a person whom Allah SWT has given wisdom (i.e., religious knowledge), and he gives his decisions accordingly and teaches it to the others.”* This indicates that Allah SWT loves His servants spending wisely and helps those affected during the COVID-19 pandemic.

Overall, COVID-19 has a lot of negative impacts on tourism and hospitality in terms of economic. The impact has led to many hardships for the employer and employees to sustain their business and life. Last but not least, it is not possible to estimate the extent of the economic impact of the COVID-19 outbreak because the course and duration of the outbreak are still unknown, and both cannot be predicted (Uğur & Akbıyık, 2020).

5. Social Impact

COVID-19 has also brought some social impacts on the tourism industry. This industry is directly involved with human interaction, and the human factor is one of the factors to determine the success of the tourism industry in a country. According to Qiu et al., (2020), every crisis that happens can eventually affect the society and economy of the locals. Moreover, COVID-19 has also caused some positive and negative impacts on social aspect of the tourism industry. (Garau-Vadell, Gutierrez-Taño, & Diaz-Armas, 2018) has identified a variety of positive impacts such as an improvement of standards of living, cleaner communal areas, an increase in the community's interest in the preservation of resources, an improvement of public services or an increase in the leisure opportunities available to the community. The negative impacts that may occur in the tourism industry are loss of traditional values, congestion in the use of public infrastructures, an increase in crime, drug abuse, prostitution and decrease in resident hospitality.

Covid-19 has resulted to both positive and negative impacts on the global society. The country or destination provider should take this opportunity to revitalise their heritage, such as heritage and historical monuments such as The Great Wall of China and The Pyramid of Giza in Egypt. Other than that, a tourist destination will always be full of people, and according to Koenig, Postma, & Papp, (2018), cities equipped with good infrastructure facilities and already host a diverse and dynamic population suggest that they will better cope with increasing tourist numbers than other destinations. In addition, the crime rate in tourist

destinations has increased due to over crowdedness (Qiu et al., 2020). However, with COVID-19, the social impact on the tourism industry can be reduced, such as crime and social carrying capacity (i.e., the maximum visitor density in an area). According to (Qiu et al., 2020), any crisis or unwanted events could eventually reduce and eliminate the social impact on the destination. This can be seen, whereby COVID-19 has reduced the number of crimes in a destination and the overcrowding of tourists in an area.

On the other hand, since most countries have implemented the lockdown alternative to stop COVID-19, it creates a new problem: violence in the household. According to Viero, Barbara, Montisci, Kustermann, & Cattaneo, (2021), violence can happen among married couples, and the woman will usually be the victim. The author mentioned that this could happen due to several reasons, and one of them is the external factors that create pressure on one's life. Thus, this shows that if an employee has been retrenched from his job, it will lead to stress, which can endanger the spouse as the husband will commit violence and encourage aggressive behaviours towards woman (i.e., wife) and children.

The positive impact of the Covid-19 on the Malaysian society is the improvement of standard of living through various financial incentives offered to the Malaysians. To alleviate the difficulties faced by those who are not employed, lost their jobs or experiencing salary cut, the Malaysian government in response to the Covid-19 has unveiled the Economic Stimulus Package, PRIHATIN package, additional PRIHATIN package, National Economic Recovery Plan and Kita PRIHATIN Package. Apart from that, the withdrawal of EPF money from KWSP has been offered to the public with the EPF account and contribution to sustain a living throughout the pandemic time (i.e., i-Lestari, i-Bestari, i-Citra). Social assistance was also given to vulnerable groups such as disabled persons and single mothers.

Apart from that working from home (Flexible Work Arrangement Incentives) have tremendously change the living style of a family, whereby health and family has been prioritised before work. With further internet connectivity for education and productivity to support e-learning and productivity activities by providing free internet connectivity. Being away from each other for almost two years, have increased the bond between family members and relatives despite on virtual call or chats. Hence, virtual tour has increased tremendously so that people can still travel through their minds during the pandemic and once the lockdown is over, the people will appreciate nature and other people with full respects. Living in a city, having a stable family income, and living with parents were all found to be protective factors against anxiety, according to a research done by Cao *et al.*, (2020). Furthermore, the findings revealed that economic impacts, academic delays, and effects on daily life were all positively associated with anxiety symptoms in students (Alghamdi, 2021). Moreover, it was surprisingly shown that spending time in nature and with social connections (with social distancing) in this time of crisis could lead to support for tourism development and may have a positive impact on residents' health, wellbeing, and quality of life in general. It was

additionally proposed to explore pro-social and pro-environmental behaviour as critical missing links between place attachment and residents' support for tourism development, as it may enhance residents' quality of life (Ramkissoon, 2020). In summary, when people are attached to a place, they may engage in pro-social and pro-environmental behaviours to conserve it and aid its functional purpose (tourist benefits), so supporting tourism development. This, in turn, can help achieve other important sustainability and well-being goals while also improving people' quality of life.

Cleaner communal areas have been the top influence of Covid-19, whereby people are more hygienic and taking care of their health as the strategy to prevent cross-infection, not only for self-gain, but the whole community. Thus, Covid-19 has improved the relationship between humans (i.e., friends, families and community) especially on charity and kindness towards others. The disparities of income, lack of food, loss of jobs, losing loved ones and poor living conditions have taught everyone on social responsibility.

From the unfortunate event that strikes every inch of this earth, many good things can be done especially involving the relationship between humans, especially to the family itself. Sustaining a good relationship between relatives is important, and it is emphasised in Islam. Moreover, in the al-Quran chapter 2 (Surah al-Baqarah), verse 180 saying that *"It is prescribed that when death approaches any of you—if they leave something of value—a will should be made in favour of parents and immediate family with fairness. 'This is' an obligation on those who are mindful 'of Allah SWT'."* In addition, there is a hadith narrated by Abu Mas'ud Al-Ansari narrated that the Messenger of Allah SWT said, *"A man spending on his family is charity. From these two primary sources of Islam, it can be said that Islam urges every human to be nice to other people and always prioritise family members."*

6. Recommendation and Conclusion

Since the breakout of COVID-19 in 2019, this pandemic has significantly influenced a wide range of industries and sectors. Aside from the tourism industry, other industries are also impacted by this epidemic. This study focuses on three major aspect of the Covid-19 impacts in the industry namely environmental, economic, and societal. The highly impact business is the tourist business because most governments worldwide impose entry limits to their jurisdictions. Simply imposing this restriction has a negative impact on other industries, particularly those involved in travel and tourism. Therefore, to curb the problem, the tourism stakeholders should play their role and help to sustain the industry. People still refuse to travel with the new norms such as social distancing and protected with masks during travel or dine in a restaurant. Due to that, much initiative should be taken to maintain the business operation and save the employees source of living.

First, the implementation of e-tourism could be one of the ideas to ensure the industry is kept alive even during this condition. E-tourism can be defined as "the field of e-Tourism as

encompassing the "analysis, design, implementation and application of IT/e-commerce solutions in the travel and tourism industry, as well as the analysis (of the impact) of the respective technical/economic processes and market structures" (Gretzel *et al.*, 2020; Neidhardt & Werthner, 2018). From the definition, it can be said that the tourism industry, which involves travelling activities, can be done virtually. This will attract the attention of the millennials whereby it will increase the attractiveness of the attraction. For example, the museum has opened virtual doors to their exhibition for the tourists, who are stuck in quarantine.

On the other hand, with the current condition where people are restricted to travel, it is the right time to implement sustainable tourism. With social distancing that the World Health Organization has suggested worldwide, it is likely that the social carrying capacity should be considered as one of the ways to tackle the problem of over-crowdedness. This means that travel and tourism activities can still be organised with minimal or optimal social carrying capacity. Apart from that, the proposed or existing activities should be carried out outdoors and in an open space, instead of a confined space. We can also preserve and restore the natural attraction sites through this practice so that future generations can enjoy the natural beauty and resources.

Therefore, much initiative can be taken to overcome the issues of COVID-19 towards the tourism industry. The route chosen by the stakeholders will determine the future of the tourism and hospitality industry.

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References

- Alghamdi, A. A. (2021). Impact of the COVID-19 pandemic on the social and educational aspects of Saudi university students' lives. *PLoS ONE*, *16*(4 April). <https://doi.org/10.1371/journal.pone.0250026>
- Béland, L. P., Brodeur, A., & Wright, T. (2020). The Short-Term Economic Consequences of Covid-19: Exposure to Disease, Remote Work and Government Response. *Ssrn*, (13159). <https://doi.org/10.2139/ssrn.3584922>
- Cao, W., Fang, Z., Hou, G., *et al.* (2020). The psychological impact of the COVID-19 epidemic on college students in China. *Psychiatry Research*, *287*(March), 112934. <https://doi.org/10.1016/j.psychres.2020.112934>
- Cherif, E. K., Vodopivec, M., Mejjad, *et al.* (2020). COVID-19 Pandemic Consequences on Coastal Water. *Water*, *18*.

- Dermawan, A. (2020). CM hopes to break chain of infection in remand prison with EMCO. *New Straits Times*. Retrieved from <https://www.nst.com.my/news/nation/2020/10/632001/cm-hopes-break-chain-infection-remand-prison-emco>
- Elengoe, A. (2020). COVID-19 Outbreak in Malaysia. *Osong Public Health and Research Perspectives*, 11(3). <https://doi.org/https://doi.org/10.24171/j.phrp.2020.11.3.08>
- Eusébio, C., Carneiro, M. J., Madaleno, M., et al. (2020). The impact of air quality on tourism: a systematic literature review. *Journal of Tourism Futures*, 7(1), 111–130. <https://doi.org/10.1108/JTF-06-2019-0049>
- Garau-Vadell, J. B., Gutierrez-Taño, D., & Diaz-Armas, R. (2018). Economic crisis and residents' perception of the impacts of tourism in mass tourism destinations. *Journal of Destination Marketing and Management*, 7, 68–75. <https://doi.org/10.1016/j.jdmm.2016.08.008>
- Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: a rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 0(0), 1–20. <https://doi.org/10.1080/09669582.2020.1758708>
- Gretzel, U., Fuchs, M., Baggio, R., et al. (2020). e-Tourism beyond COVID-19: a call for transformative research. *Information Technology and Tourism*, 22(2), 187–203. <https://doi.org/10.1007/s40558-020-00181-3>
- International Monetary Fund. (2020). World Economic Outlook. Retrieved from WEO website: <https://www.imf.org/en/Publications/WEO/Issues/2020/06/24/WEOUpdateJune2020>
- Koens, K., Postma, A., & Papp, B. (2018). Is overtourism overused? Understanding the impact of tourism in a city context. *Sustainability (Switzerland)*, 10(12), 1–15. <https://doi.org/10.3390/su10124384>
- Kumari, T., & Shukla, V. (2020). Impact of COVID-19 on Environment and Society. *International Journal of Biological Innovations*, 7352–7363.
- Litheko, A., & Potgieter, M. (2016). Residents' awareness and support of tourism in Mahikeng, South Africa. *African Journal of Hospitality, Tourism and Leisure*, (Volume 2).
- Mofijur, M., Fattah, I. M. R., Alam, M. A., et al. (2021). Impact of COVID-19 on the social, economic, environmental and energy domains: Lessons learnt from a global pandemic. *Sustainable Production and Consumption*, 26(September 2020), 343–359. <https://doi.org/10.1016/j.spc.2020.10.016>
- Neidhardt, J., & Werthner, H. (2018). IT and tourism: still a hot topic, but do not forget IT. *Information Technology and Tourism*, 20(1–4), 1–7. <https://doi.org/10.1007/s40558-018-0115-x>
- OECD. (2020). Tourism Policy Responses to the coronavirus (COVID-19). *Oecd*, (June), 1–50. Retrieved from [https://read.oecd-ilibrary.org/view/?ref=124_124984-7uf8nm95se&Title=Covid-19: Tourism Policy Responses](https://read.oecd-ilibrary.org/view/?ref=124_124984-7uf8nm95se&Title=Covid-19:TourismPolicyResponses)
- Ormaza-González, F. I., Castro-Rodas, D., & Statham, P. J. (2021). COVID-19 Impacts on Beaches and Coastal Water Pollution at Selected Sites in Ecuador, and Management Proposals Post-pandemic. *Frontiers in Marine Science*, 8(July). <https://doi.org/10.3389/fmars.2021.669374>

- Qiu, R. T. R., Park, J., Li, S. N., *et al.* (2020). Social costs of tourism during the COVID-19 pandemic. *Annals of Tourism Research*, 84(July), 102994. <https://doi.org/10.1016/j.annals.2020.102994>
- Ramkissoon, H. (2020). Perceived social impacts of tourism and quality-of-life: A new conceptual model. *Journal of Sustainable Tourism*, 0(0), 1–17. <https://doi.org/10.1080/09669582.2020.1858091>
- Salim, N., Chan, W. H., Mansor, S., *et al.* (2020). COVID-19 epidemic in Malaysia: Impact of lockdown on infection dynamics. *MedRxiv*, (April). <https://doi.org/10.1101/2020.04.08.20057463>
- Sheng, W. H. (2020). Coronavirus disease 2019 (covid-19). *Journal of Internal Medicine of Taiwan*, 31(2), 61–66. [https://doi.org/10.6314/JIMT.202004_31\(2\).01](https://doi.org/10.6314/JIMT.202004_31(2).01)
- Uğur, N. G., & Akbıyık, A. (2020). Impacts of COVID-19 on global tourism industry: A cross-regional comparison. *Tourism Management Perspectives*, 36(April), 100744. <https://doi.org/10.1016/j.tmp.2020.100744>
- UNWTO. (1991). Implementation Of The General Programme Of Work Of The" Organization For The Period. *World Tourism Organization*, 189–197. <https://doi.org/10.1163/ej.9789004180048.i-962.150>
- UNWTO. (2019). International Tourism Highlights International tourism continues to outpace the global economy. In *UNWTO* (pp. 1–24).
- UNWTO. (2020). Impact assessment of the COVID-19 outbreak on international tourism. *UGC Care Group I Listed Journal*, 10(6), 148–159. Retrieved from http://www.junikhyat.com/no_1_jun_20/18.pdf?i=1
- UNWTO. (2021). 2020: Worst year in tourism history with 1 billion fewer international arrivals. Retrieved from UNWTO website: <https://www.unwto.org/news/2020-worst-year-in-tourism-history-with-1-billion-fewer-international-arrivals>
- Viero, A., Barbara, G., Montisci, M., *et al.* (2021). Violence against women in the Covid-19 pandemic: A review of the literature and a call for shared strategies to tackle health and social emergencies. *Forensic Science International*, 319, 110650. <https://doi.org/10.1016/j.forsciint.2020.110650>
- Wilder-Smith, A. (2006). The severe acute respiratory syndrome: Impact on travel and tourism. *Travel Medicine and Infectious Disease*, 4(2), 53–60. <https://doi.org/10.1016/j.tmaid.2005.04.004>
- Yunus, A. P., Masago, Y., & Hijioka, Y. (2020). COVID-19 and surface water quality: Improved lake water quality during the lockdown. *Science of the Total Environment*, 731, 139012. <https://doi.org/10.1016/j.scitotenv.2020.139012>
- Zahiid, S. J. (2020). Hit by COVID-19 curbs, Malaysia posts record low GDP of -17.1pc in second quarter of 2020. *Malaymail*. Retrieved from <https://www.malaymail.com/news/money/2020/08/14/hit-by-COVID-19-curbs-malaysia-posts-record-low-gdp-of-17.1pc-in-second-qua/1893845>
- Zainul, E., & Aziz, A. (2020). *Penjana looks to reinvigorate tourism sector with RM1b financing support and RM1.8b tax breaks*. Retrieved from The Edge Markets website: <https://www.theedgemarkets.com/article/penjana-looks-reinvigorate-tourism-sector-rm1b-financing->

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