

MPRA

Munich Personal RePEc Archive

‘Tourism: The Great Patient of Coronavirus COVID-2019’

Folinas, Sotiris and Metaxas, Theodore

University of Thessaly

16 March 2020

Online at <https://mpra.ub.uni-muenchen.de/99666/>
MPRA Paper No. 99666, posted 17 Apr 2020 10:54 UTC

‘Tourism: The Great Patient of Coronavirus COVID-2019’

Sotiris FOLINAS¹ and Theodore METAXAS²

¹ PhD Candidate, Dept. of Planning and Regional Development, School of Engineering,
University of Thessaly, Greece.

E-mail: sfolinas@uth.gr

² Associate Professor, Dept. of Economics, School of Economics and Business,
University of Thessaly

E-mail: metaxas@econ.uth.gr

Abstract

The purpose of this paper is to investigate the extent to which an epidemic such as 2019-nCoV can affect the global tourism industry and the recording of the first estimates of the damage to world tourism. Countries such as China, where the epidemic began, but also Italy, where new cases are constantly being reported, are no longer tourist destinations. Potential tourists tend to postpone or cancel their plans for a destination that is plagued by a pandemic, especially when its main features are scarce of effective antivirus drugs and vaccines, the rapid spread of the virus and the damage that can cause to health (Reisinger & Mavondo, 2005). In cases of pandemics, tourists cancel their travels avoiding suspect places and people (Nicholl, 2006). Such kinds of pandemics affect directly industries such as tourism and retail service sector (Lee & McKibbin, 2004). The economic consequences of this outbreak will be serious and they will cause damages not only to the tourist destinations with an important concentration of cases but also at a global level. A similar case is the outbreak of SARS in 2002 (Chou et al, 2003; Siu & Wong, 2003; Wen, 2003). Tourism is currently –March 2020- one of the most affected sectors and the World Tourism Organization has revised its 2020 forecast for international arrivals and receipts, though it emphasizes that such predictions are likely to be further revised (UNWTO, 2020). The United Nations specialized agency for tourism expects that international tourist arrivals will be down by 20% to 30% in 2020 when compared with 2019 figures. An expected fall of between 20-30% could translate into a decline in international tourism receipts (exports) of between US\$300-450 billion, almost one-third of the US\$ 1.5 trillion generated in 2019. Taking into account past market trends, this would mean that between five and seven years’ worth of growth will be lost to COVID-19 (UNWTO, 2020).

Keywords

Coronavirus COVID-2019, Tourism, Economic Impact.

Limitations

As the phenomenon being studied is ongoing, most of the references come from the mass media and not from scientific articles published in journals, because there are not yet a significant number of papers about the impact of coronavirus on global tourism.

Introduction

The rapid spread of novel coronavirus (2019-nCoV), since the first case occurred in December 2019 in Wuhan, Mainland China, led to a significant reduction in almost all global tourism (Estrada et al, 2020). Chinese health authorities have been closely monitoring a cluster of pneumonia cases in the

city of Wuhan, in Hubei province. It has been determined that the pathogen causing viral pneumonia among affected individuals is a new coronavirus (2019-nCoV). As since February 2020, a total of more than thirty thousand cases have been detected and confirmed in Mainland China (Chinazzi et al, 2020). Internationally, there are more than 200 additional cases detected and confirmed in 160 countries. The epidemic is reaching an alarming new milestone, driven by new cases outside China as governments further tighten restrictions. Already in the early March 2020 coronavirus surpassed 1,400,000 cases (Worldometers, 2020). Predicting and comprehending travelers' behavior is the main issue for tourism marketers, particularly when exists a certain obstacle for traveling like a pandemic (Lee et al, 2012).

The spread of the virus has particularly focused attention on the globalised nature of international tourism and how the sector may be affected by the spread of the virus. The growth of international tourism has been one of the enduring and most significant forces driving the world economy since the 1950s. From a mere 25 million international tourism arrivals in 1950, the numbers reached 450 million in 1990 and then quickly exploded to 1 billion arrivals by 2010. By 2018, the number of arrivals had increased to 1.4 billion and is estimated by the United Nations World Tourism Organization to account for \$1.4 trillion and 7% of the value of world goods and services (RTE, 2020).

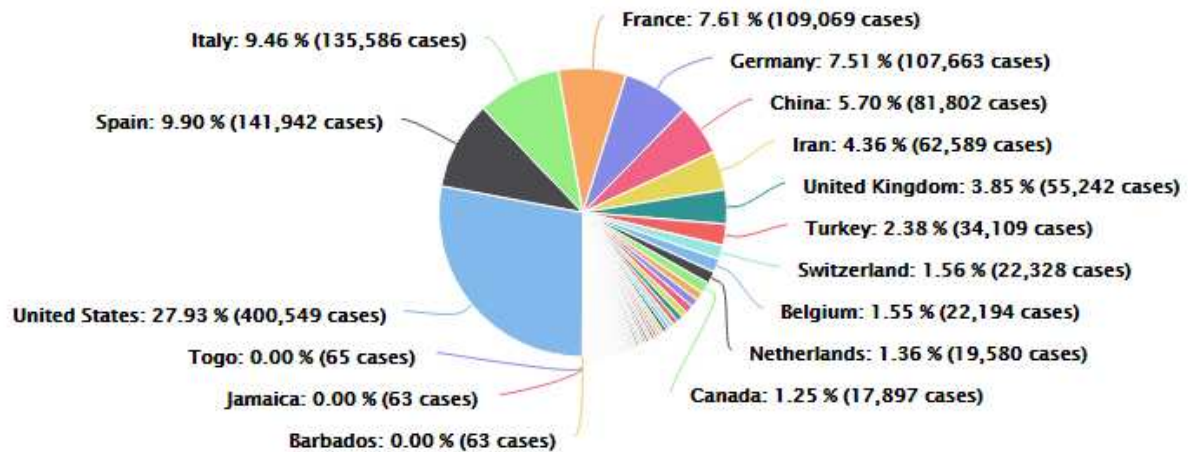
Picture 1: More than 160 countries with confirmed Coronavirus COVID-19 cases



Source: Centers of Disease Control and Prevention (2020)

This phenomenal growth has been driven by various factors over the years, most particularly the growth of new technologies, new lifestyle trends associated with growing global prosperity and the advent of low cost airlines, which made international travel affordable for the masses. The explosion of tourism numbers over the last 30 years can also be attributed to the emergence of the middle classes in the newly affluent and highly populated countries of the world such as China, Brazil and India (RTE, 2020). The movement of such a massive number of people and the associated expenditure of such tourists (for leisure and business purposes) has a profound impact on national, regional and local economies across the world. Moreover, tourism activity often happens in places that industry finds unattractive as a location for investment. Spending by visitors on sporting and cultural events, shopping, accommodation, restaurants, visitor attractions and as business visitors at conferences, provides a massive stimulus to local economies and employment.

Figure 1: Countries coronavirus cases distribution



Source: Worldometers (2020)

The consequences of pandemics on tourism.

The worldwide caution that surrounds the 2019-nCoV outbreak stems from international apprehension of a previous global catastrophe such as the Spanish Influenza pandemic at the end of the second decade of 20th century or of an economic shock like the 2003 SARS (Severe Acute Respiratory Syndrome) coronavirus epidemic (Lee et al, 2012). In March 2009, unknown influenza appeared in Mexico and in April of the same year, under international health protocols the Mexican government reported this to the Pan-American Health Organization as an outbreak of a novel influenza type virus (Neumann et al, 2009). Subsequently, the United States CDC (Centers for Disease Control and Prevention) identified the virus as a new strain of Influenza A H1N1 (Jeeninga et al, 2009) now known as 2009 H1N1. In the next six months, the number of people infected by 2009 H1N1 rapidly increased globally, and the World Health Organization quickly increased the pandemic alert for 2009 H1N1 to the high phase six-level (Lee et al, 2012). Symptoms of 2009 H1N1, including sore throat, runny nose, cough, and high fever are similar to seasonal influenzas as are the inter-person infection paths. Scientific community worries about it being a critical virus that could mutate into a virulent deadly form, like the Influenza A H1N1 that swept Europe in the 1920s (Jeeninga et al, 2009). According to recent estimates (Kolata, 2001), the lethal strain of influenza, known as the ‘Spanish Flu’, killed up to 100 million people between 1918 and 1920.

As reported by St. Michael’s Hospital (Khan et al, 2009), a dangerous epidemic can spread very rapidly around the world by the air transportations sector, which moves more than two billion passengers each year, using a network of 35,000 commercial airline connections among commercial airports in close to 3500 cities. Since early February 2020, more than fifty airline companies suspended or limited flights to China and several countries including Italy, Australia, Russia, and the USA, and have also imposed government-issued travel restrictions (Chinazzi et al ,2020).

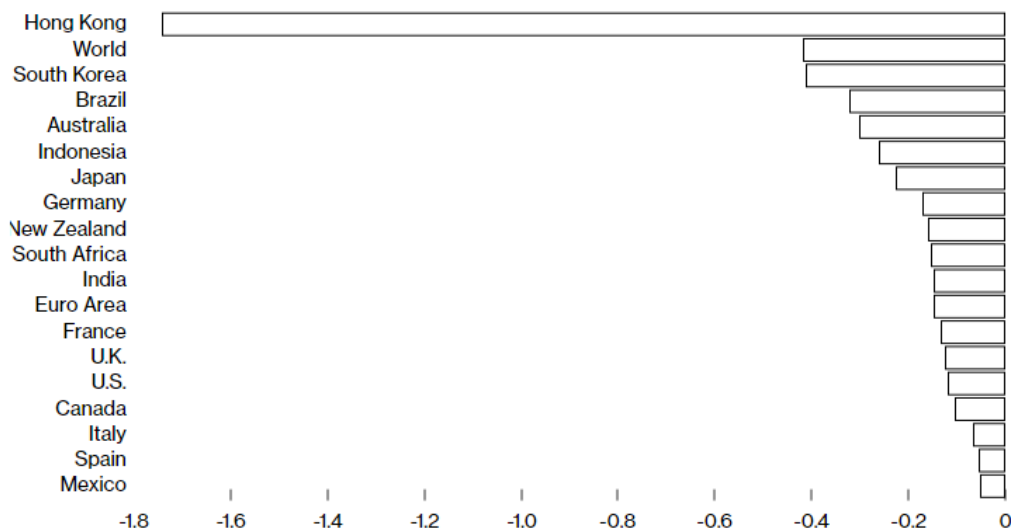
Impact of Coronavirus 2019 on China’s Tourism Industry.

As China was the first country that has been hit by the coronavirus, it was also the first country that has faced the first economic downturns. Tourism is perhaps the main industry that would be negatively impacted (Ayittei et al, 2020). In Mainland China about 70,000 theatres closed down, the majority of airlines canceled or canceling flight to and from China, all tourism activities have been

disrupted and coronavirus's impact on the economy already extends beyond the Hubei region borders. Quite obvious is also an impact in the rattled stock market, as, during the SARS outbreak from 2002 to 2003 in China, the global economy was estimated that has lost roughly \$40 billion (NBC News, 2020). According to estimated modeling by Bloomberg economists, who had analyzed the expected losses to several countries, the global GDP is likely to decline by roughly 0.42% in the first quarter of the year due to the outbreak (Ayittei et al, 2020). The tourism industry currently accounts for 10% of global GDP (World Economic Forum, 2020).

In addition, China is the single largest outbound travel market in the world (Wang & Sheldon, 1996; Xiang et al, 2010), in terms of spending. Chinese tourists made 150 million outbound trips in 2018, spending a whopping \$277 billion in their travels abroad, according to the United Nations World Trade Organization. The number of Chinese tourists has skyrocketed in recent years. More than 180 million Chinese have passports, compared to about 147 million American passport holders. And when Chinese travel abroad, they spend big bucks (CNN, 2020) and if the outbreak lasts longer and is more severe than the 2003 SARS crisis, it could lead to 25 million fewer outbound trips by Chinese travelers this year. That could wipe out about \$73 billion in spending. China's tourism industry will be most affected due to the virus since tourism represents 11% of their GDP in recent years, growing in a steady rate of 7%. The World Tourism Organization and the World Health Organization through a joint statement have asked the tourism sector that their response to the outbreak of the Corona Virus be "measured, consistent and proportionate" to the threat posed for public health. Closing borders, prohibiting travel in general and more extreme government policies will not stop the spread of the Corona Virus, said the World Travel and Tourism Council (Travel Daily News, 2020).

Figure 2: Percentage point deviation in year-on-year growth from the first quarter 2020



Source: Bloomberg Economics (2020)

On the other hand, in China, there is now growing optimism that the epidemic will get under control by late April. Renowned pulmonologist Zhong Nanshan, head of the team of medical experts at the National Health Commission of China, has said that his country is confident of having the outbreak of Corona Virus under control at the end of April, as planned (Travel Daily News, 2020).

Coronavirus' outbreak impacts on Italy's tourism industry.

In Italy, almost 90% percent of hotel and travel agency bookings for March 2020 canceled in Rome and up to 80% in Sicily (Federazione Italiana del Turismo, 2020). As numerous coronavirus cases in other European countries are traced back to Italy, travel warnings for eleven more Italian towns that have been on lockdown have been issued.

Picture 2: The virus can turn in empty one of the most famous squares in the world. In normal conditions St. Mark's Square in Venice is a popular place to visit for many hundreds of tourists daily and throughout the year.

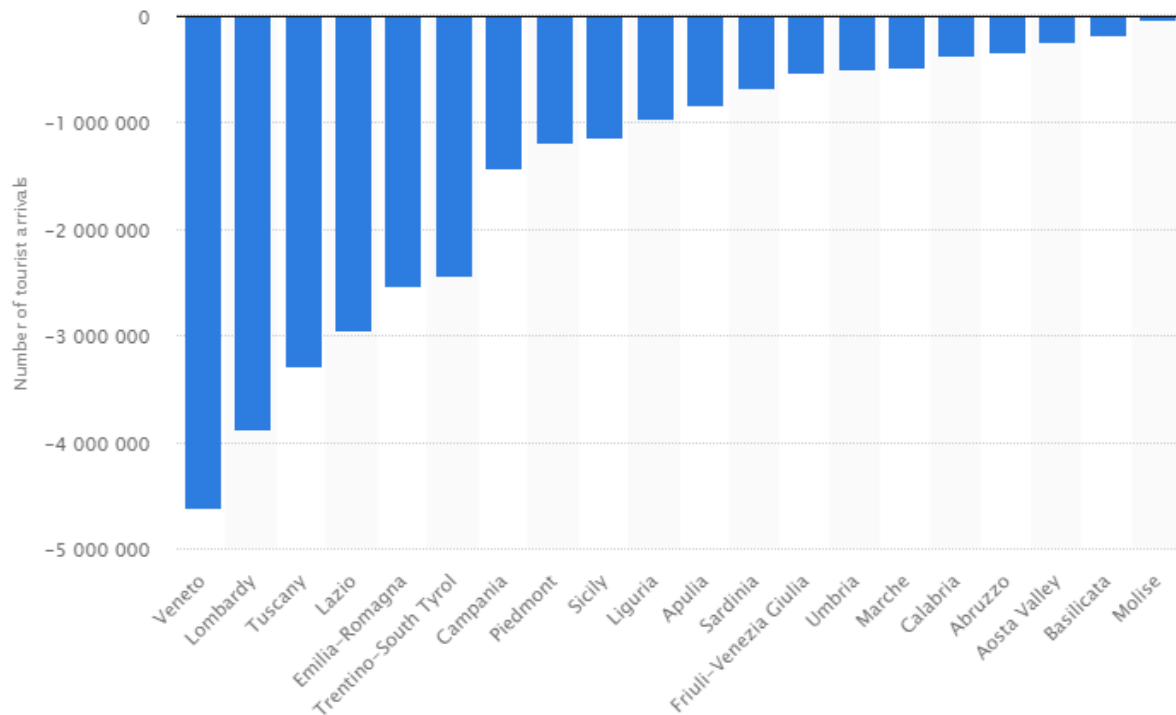


Source: Secco, F. (2020)

The impact is also hurting areas of Italy barely touched by the virus. Italy's tourism federation announced that damage to the tourism sector is estimated at 200 million for the first quarter of the year. School trips and conferences across the country were also called off. Lombardy, which includes Milan, accounts for over half of the cases while Veneto and Emilia-Romagna have 15% and 17%, respectively. All three regions have closed schools for at least a week. In Veneto and Lombardy, closures also have hit museums, theatres, cinemas, and most public offices, emptying cities like Milan, where many companies have permitted office workers to work remotely. Furthermore, the French community church in Rome, St Louis of the French, was closed its doors to the public as a precautionary measure after a priest came down with coronavirus. In a lot of Universities of Milan, professors record their lecture empty classrooms to stream online for the students (Mangiapane, 2020).

Italian authorities have closed schools and universities in Lombardy and northern regions in order to prevent the spread of the novel coronavirus. Milan's Giuseppe Meazza stadium has been closed. The Italian Serie A football match between AC Milan and Genoa CFC was postponed. On March, 8 the government of Italy took the extraordinary step of locking down much of the country's north, restricting movement for about a quarter of the Italian population in regions that serve as the country's economic engine (The New York Times, 2020). These measures turn stretches of Italy's wealthy north, including the economic and cultural capital of Milan and landmark tourist destinations such as Venice, into quarantined enclaves. The travel bans will prevent the free movement of roughly 16 million people.

Figure 3: Forecasted impact of coronavirus (COVID-19) on tourist arrivals in Italy in 2020, by region of destination



Source: Statista, (2020a)

Novel coronavirus’ impact on Australian tourism

Coronavirus outbreak continues to severely restrict visitor numbers in Australia. Places such as Gold Coast (Faulkner, 2002) or Cairns, which are among Australia’s most popular destinations suffer a visitors reduction up to 90% and an important reason for this, is the fact that these destinations supported by large numbers of tourists from China, Japan, and South Korea. Most of the hotels already are advertising rooms’ tariff at half the normal and furthermore heavy discounts are also on offer in major cities, though city markets are better insulated from the loss of an estimated 150,000 Chinese tourists who would otherwise be in Australia (Chow & Murphy, 2011; Jin et al, 2012). Australian destinations like Queensland and Cairns (Zhang & Peng, 2014) face a unique risk because these regions are strongly reliant on the usual stream visitors from Asia (McCoy et al, 2004) who are coming to see the tropical rainforests are the Great Barrier Reef. Because Cairns is remote, it cannot pivot as quickly or easily to attract more domestic travelers. It is estimated that the tourism industry in Cairns, will suffer losses of 100 million Australian dollars by the end of March 2020, and about a loss of about 1,800 local jobs (The Guardian, 2020). It should also be noted that there are hotels in bushfire-affected areas (March 2020) that have been losing money for four months in a row. According to the chief executive of Tourism Accommodation Australia, even though cities like Sydney are 10% down in terms of room occupancy in February 2020. An Australian economist McKibbin has warned that Australia’s national economy can be plunged into a recession by the Covid-19 outbreak (McKibbin & Fernando, 2020), especially in the case that coronavirus goes global with as much as 8% carved from growth over a year, according to his new modeling. Professor McKibbin had modeled also the effects of the 2002 SARS outbreak (Lee & McKibbin, 2004).

The spread of coronavirus and the potential effects on Las Vegas tourism industry

The US authorities dealt a great blow to world tourism, because before the alarm by the Corona Virus the Administration that presides over Donald Trump appealed to companies and public centers to avoid travel and large meetings. These measures will no doubt have a large impact on people's travel arrangements to one of the most popular leisure destinations in the US in Las Vegas, as authorities will now seek to limit people's face-to-face interactions, something that should have a positive knock-on effect on the ability of online casino and online betting sites worldwide to capitalize on their shortcomings in the coming weeks (Travel Daily News, 2020).

Even the healthy Las Vegas's gambling tourism-based economy (Eadington, 1999), that remains strong for more than half a century is possible to become sick with Coronavirus. As coronavirus tends to grip the whole planet, government services, authorities, and employers are recommending traveling less and this advice could be very problematic for the gambling tourism 'Mecca'. If coronavirus continues to spread across the globe for a few more months, it could cause significant effects on visitors, revenue from gaming, taxable sales, and in the hospitality sector's employment. Already in the second week of March 2020, health officials of Southern Nevada announced the first coronavirus case in the State, but airplanes continued to land at McCarran International Airport, where a record 51 million people arrived in 2019 (Reno Gazette Journal, 2020). Since February 2020, 'Southwest Airlines', the largest domestic airline in the U.S.A. (Ren, 2020) has seen a noticeable decline in bookings, and this decline continues daily.

Generally, in the U.S.A. the impact of coronavirus on travel industry is six or seven times greater than the 9/11 attacks, according to the president and CEO of the U.S. Travel Association, which encourages travel to and within the country and represents an industry that generates \$2.6 trillion in economic output and supports 15.8 million jobs in the U.S. (National Geographic, 2020).

Negative effects of Covid-19 on global tourist activities

The World Travel and Tourism Council have warned the COVID-19 pandemic could cut 50 million jobs worldwide in the travel and tourism industry, and Asia is expected to be the worst affected. When the outbreak will be over, it could take up to ten months for the industry to recover (World Economic Forum, 2020). This impact would depend on how long the epidemic lasts and could still be exacerbated by recent restrictive measures, such as those taken by the U.S. administration on travel to Europe (World Travels and Tourism Council, 2020). According to chief executive of WTTC, the coronavirus is a significant threat to the tourism industry that could shrink the travel sector by up to 25% in 2020 (BBC, 2020b)

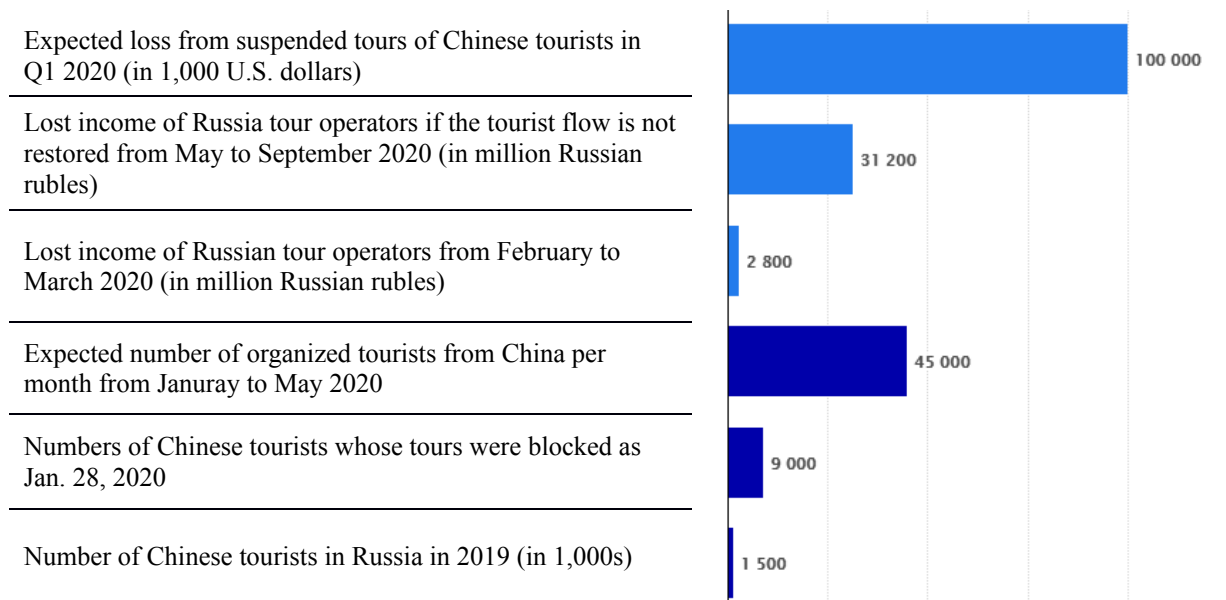
The news that the virus had spread to Italy and to other countries in Europe has caused considerable anxiety for tourists, potential tourists and the wider tourism industry. Research from the Global Business Travel Association (2020) shows widespread business meeting cancellations and postponements are taking place worldwide. The International Air Transport Association (IATA, 2020) has predicted that the coronavirus will reduce global airline revenue by \$29.3 billion in 2020, arising from a contraction in global air demand. While this is the first such contraction since the global financial crisis of 2008 to 2009, it needs to be recognized that virtually 95% of this projected loss will be for Asia/Pacific carriers.

As the coronavirus spreads almost all over the world with rapid numbers and an increasing number of cases and deaths, European countries' tourism economies - and not only - are plunging. Traditional tourist destinations with constant traffic are at risk of losing up to 90% of their flows. In Ireland there

are already trip cancellations, according to the chief executive of Tourism Authority. The first patients were confirmed as having coronavirus. They all have traveled from affected areas in Italy. Worries grow as cancellations increase and must be noticed that European visitors to the island of Ireland spend about two billion euros, and it is a serious part of national income (BBC News, 2020). Ireland's clash with Italy in the Six Nations rugby tournament called off. Main events such as Dublin's St Patrick's festival have been also canceled. Northern Ireland's tourism industry had been also seriously affected by the outbreak, as 66% of European visitors to Northern Ireland enter via the Republic of Ireland. In Greece, since the second week of March, the government ordered the closure of all shops except supermarkets, pharmacies, fuel stations and bakeries attempting to delay the spread of the virus. As a result, tourism faces a delay to season (Balkan In Sight, 2020). In Cyprus, airlines already show the effect and Virgin Atlantic reporting flying near-empty planes. According to the chief of the Cyprus Hotel Association announced that March was a near wipe-out and had been already written off and April also seems to be quite muted for reservations (Tornos, 2020). The Russian tourism industry also, was projected to lose about 100 million U.S. dollars due to the outbreak of coronavirus COVID-2019 in China in January 2020. According to the Association of Tour Operators of Russia (ATOR), approximately 45 thousand organized tourists from China were expected to travel to Russia in March 2020. Due to the infection spread, Russia closed its Far Eastern border with China, resulting in suspension of tours purchased by Chinese travelers (Statista, 2020).

In Egypt also, has been sensed a notable decline in tourists over since February 2020, after the outbreak of the coronavirus. After the announcement of the first infection of coronavirus in Egypt, and about 200 cases as of the mid March, many hotel reservations have been canceled and tourists can barely at tourists sites (Al-Monitor, 2020).

Figure 4: Key figures on the impact of COVID-1) on Russian inbound tourism from China in 2020



Source: Statista (2020b)

In India, in accordance with industry chamber CII, this is the one of the worst crises ever to hit the Indian tourism industry impacting all its geographical segments - inbound, outbound and domestic, almost all tourism verticals - leisure, adventure, heritage, MICE, cruise, corporate and niche segments. The coronavirus pandemic could deal a crippling blow to the Indian travel and tourism industry,

especially with the government suspending all visas, with the economic impact being assessed to run into thousands of rupees. The whole tourism value chain across hotels, travel agents, tour operations, destinations, restaurants, family entertainment venues and air, land and sea transportation have been hit. In an impact assessment of the coronavirus pandemic, CII Tourism Committee said inbound foreign tourism of over USD 28 billion in value terms accounts for an average 60-65% between Octobers to March (The Economic Times, 2020).

Existing of tourism opportunities in drastic times

With few people traveling right now, Thailand's A-One Hotels Group is employing a new tactic to attract bookings by rolling out a self-quarantine package at its Bangkok and Pattaya hotels. These full-board packages are targeted at Thais or residents who wish to isolate themselves for 14 days. Meals are delivered to the rooms on trolleys, while dishes, cutlery and bed sheets used by guests in self-isolation will be separated for special handling. A special team will provide daily housekeeping services and help monitor the conditions of the guests under quarantine. Should any of these guests become unwell or develop any coronavirus symptoms during their stay at the hotel, they will immediately be sent to the several hospitals located in the vicinity of the hotel, according to the company's director. These packages are priced very competitively with rates slashed by 20% (Skift, 2020). This risky strategy is a first reaction to the challenge that faces the global hospitality industry (The Wall Street Journal, 2020). This policy seems to be followed by other hotels industry companies around the world; the Dorsett chain of hotels, for example, is selling two-week or 27-day quarantine packages at nine locations, according to the Wall Street Journal. Guests must have their temperatures checked twice daily to see if they're exhibiting symptoms of the virus, which include fever. They can order meals through online food delivery services or through the hotel's concierge.

Some of Hong Kong's high-end hotels also, are offering similar packages. The Park Lane Hong Kong has a 14-day package that runs for \$2,525 and includes three meals a day. In Singapore, some hotels are offering reduced rates to people who need to quarantine. The Fairmont Singapore has a two-week package with a daily rate of about half the hotel's usual rate (The Real Deal, 2020). At the same time, Asset World Corp has announced the temporary closure of five hotels in Bangkok from March 26 to April 15 to reduce the risk of spreading the Covid-19 disease virus. The five hotels being closed are: Bangkok Marriott Marquis Queen's Park Hotel, DoubleTree by Hilton Sukhumvit Bangkok Hotel, Le Meridien Bangkok Hotel, The Okura Prestige Hotel Bangkok and the Bangkok Marriott Hotel The Surawongse (Skift, 2020).

Conclusions

An epidemic can become the ultimate driver of national tourism industry to the collapse, as it affects all human activities, like social, religious, athletic, artistic and cultural. The Corona Virus has convulsed the world tourism industry, with large hotel chains and digital platforms such as booking being forced to cancel reservations in the Asian country. The tourism industry faces an unprecedented confluence of threats - made up of a global health alarm; the shortage of aircraft due to the crisis of the Boeing 737 Max; the social demonization of travel; exaggerated and even false media offensives; climate catastrophes; sector taxes; bankruptcies of operators and airlines; and the political instability and economic slowdown in the large markets - which hints at least a global contraction for the tourism business in the near future.

References

- Al-Monitor (2020) Coronavirus cripples Egypt's tourism industry, Retrieved from: <https://www.al-monitor.com/pulse/originals/2020/03/egypt-tourism-sector-impact-coronavirus-outbreak.html> [Access on April 5, 2020]
- Ayittei, F., Ayittei, M., Chiwero, N., Kamasah, J. & Dzuovor, C. (2020) Economic impacts of Wuhan 2019-nCoV ON China and the world, *Journal of Medical Virology*, 92: 473-75.
- Balkan In Sight (2020) Greece braces for new coronavirus-driven recession, Retrieved from: <https://balkaninsight.com/2020/03/18/greece-braces-for-new-coronavirus-driven-recession/> [Access on March 20, 2020]
- BBC News (2020) Coronavirus: 'Extremely serious' concerns on potential tourism impact, Retrieved from: <https://www.bbc.com/news/uk-northern-ireland-51695480> [Access on March 19, 2020]
- BBC News (2020b) Virus 'could cost millions of tourism jobs', Retrieved from: <https://www.bbc.com/news/business-51852505> [Access on March 27, 2020]
- Bloomberg (2020) Charting the Global Economic Impact of the Coronavirus, Retrieved from: <https://www.bloomberg.com/graphics/2020-global-economic-impact-of-wuhan-novel-coronavirus/> [Access on March 18, 2020]
- Centers of Disease Control and Prevention (2020) 'Coronavirus 2019 affected countries map', Retrieved from: <https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/world-map.html> [Access on March 24, 2020]
- Chinazzi, M., Davis, J., Ajelli, M., Gioannini, C., Litvinova, M., Merler, S., Pastore y Piontti, A., Rossi, L., Sun, K., Viboud, C., Xiong, X., Yu, H., Halloran, M.E., Longini Jr, M. & Vespignani, A. (2020) The effect of travel restrictions on the spread of the 2019 novel coronavirus (2019-nCoV) outbreak, The Preprint Server for Health Sciences, BMJ Yale, Retrieved from: <https://www.medrxiv.org/content/10.1101/2020.02.09.20021261v1> [Access on March 3, 2020]
- Chou, J., Kuo, N. & Peng, S. (2003) "The Potential Impacts on the Taiwanese Economy of the Outbreak of SARS" paper presented at Asian Economic Panel, Keio University, Tokyo, May.
- Chow, I. & Murphy, P. (2011) Predicting Intended and Actual Travel Behaviors: An Examination of Chinese Outbound Tourists to Australia, *Journal of Travel and Tourism Marketing*, 28 (3): 318-30.
- CNN (2020) The coronavirus has grounded Chinese tourists. The global travel industry may not recover for years, Retrieved from: <https://edition.cnn.com/2020/02/28/business/global-tourism-novel-coronavirus/index.html> [Access on March 29, 2020]
- Eadington, W. (1999) The Economics of Casino Gambling, *Journal of Economic Perspectives*, 13 (3): 173-92.
- Estrada, M., Park, D. & Lee, M. (2020) How A Massive Contagious Infectious Diseases Can Affect Tourism, International Trade, Air Transportation, and Electricity Consumption? The Case of 2019 Novel Coronavirus (2019-nCoV) in China (February 19, 2020). Available at SSRN Retrieved from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3540667 [Access on March 25, 2020]

Faulkner, B. (2002) Rejuvenating a Maturing Tourist Destination: The Case of the Gold Coast, *Current Issues in Tourism*, 5 (6): 472-513.

Federazione Italiana del Turismo (2020) Coronavirus: The amount of EUR 200 million for commission for March 2020. Retrieved from: <http://www.assoturismo.it/coronavirus-assoturismo-gia-bruciati-200-milioni-di-euro-di-prenotazioni-per-marzo-messina-lavorare-per-la-normalizzazione-o-salta-tutto.html> [Access on March 6, 2020]

Global Business Travel Association (2020) 'Coronavirus Poll Results, March 2020', Retrieved from: https://www.gbta.org/Portals/0/Documents/PR/Coronavirus_poll_results_030920.pdf [Access on March 24, 2020]

Jin, X., Wu, L., Becken, S. & Ding, P.Y. (2012) How do Worry, Self-efficacy, and Coping Interact? Examining Chinese tourists to Australia, *Journal of China Tourism Research*, 12 (3-4): 374-93.

IATA (2020) 'International Air Transport Association: Airlines Financial Monitor January - February 2020', Retrieved from: <https://www.iata.org/en/iata-repository/publications/economic-reports/airlines-financial-monitor---feb-2020/> [Access March 24, 2020]

Lee, C.K., Song, H.J., Bendle, L., Kim, M.J. & Han, H. (2012) The impact of non-pharmaceutical interventions for 2009 H1N1 influenza on travel intentions: A model of goal-directed behavior, *Tourism Management*, 33(1): 89-99.

Lee, J.W. & McKibbin, W. (2004) Globalization and Disease: The case of SARS, *Asian Economic Papers*, 3 (1): 113-31.

Khan, K., Arino, J., Calderon, F., Chan, A., Gardam, M., Heidebrecht, C., Hu, W., Janes, D.A., Macdonald, M., Sears, J., Raposo, P. & Wang, S. (2009) Technical report, Bio.Diaspora Project, St Michael's Hospital, Toronto, Canada, Retrieved from: http://www2.biodiaspora.com/low_res.pdf [Access on March 3, 2020]

Kolata, G. (2001) *Flu: The story of the great influenza pandemic of 1918 and the search for the virus that caused it*, New York: Touchstone.

McCoy, A., Norris, A., Saltzer, R. & Moscardo, G. (2004) Changing patterns of regional tourism: implications for tourism on the Great Barrier Reef, *Journal of Tourism Studies*, 15 (1): 34-50.

Mangiapane, G. (2020) Italian authorities have closed schools and universities in Lombardy and northern regions in order to prevent the spread of the novel coronavirus, Retrieved from: <https://www.aljazeera.com/indepth/inpictures/pictures-impact-coronavirus-italy-tourism-200303070614911.html> [Access on March 6, 2020]

March, A. (2020) Bushfire as disaster: Core principles, challenges and opportunities for planning, *Planning News*, 46 (1): 12-13.

McKibbin, W. & Fernando, R. (2020) The Global Macroeconomic Impacts of COVID-19: Seven Scenarios (March 2, 2020). CAMA Working Paper No. 19/2020. Retrieved from SSRN: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3547729 [Access on March 12, 2020]

National Geographic (2020) How hard will the coronavirus hit the travel industry?, Retrieved from: <https://www.nationalgeographic.com/travel/2020/04/how-coronavirus-is-impacting-the-travel-industry/> [Access on April 8, 2020]

NBC News (2020) SARS wiped \$40 billion off world markets; what will coronavirus do?, Retrieved from: <https://www.nbcnews.com/business/markets/sars-wiped-40-billion-world-markets-what-will-coronavirus-do-n1122151> [Access on March 18, 2020]

Neumann G., Noda, T. & Kawaoka, Y. (2009) Emergence and pandemic potential of swine-origin H1N1 influenza virus, *Nature*, 459 (7249): 931-9.

Nicholl, A. (2006) Personal (non-pharmaceutical) protective measures for reducing transmission of influenza: ECDC interim recommendations. Retrieved from: <https://www.ncbi.nlm.nih.gov/pubmed/17213533> [Access on March 8, 2020]

Reisinger, Y. & Mavondo, F. (2005) Travel anxiety and intentions to travel internationally: implications of travel risk perception, *Journal of Travel Research*, 43 (3): 212-25.

Ren, J. (2020) Fare impacts of Southwest Airlines: A comparison of nonstop and connecting flights, *Journal of Air Transport Management*, 84: 101-6.

Reno Gazette Journal, (2020) How the coronavirus could impact the Las Vegas tourism economy, Published online by Ed Komenda March 6, 2020, Retrieved from: <https://eu.rgj.com/story/news/2020/03/06/coronavirus-las-vegas-travel-economy-tourism/4975781002/> [Access March 12, 2020]

RTE (2020) How the coronavirus may hit the tourism industry, Retrieved from: <https://www.rte.ie/brainstorm/2020/0303/1119857-coronavirus-tourism-ireland/> [Access on March 24, 2020]

Siu, A. & Wong, R. (2003) “Ravaged by SARS: The case of Hong Kong SAR”, paper presented at Asian Economic Panel, Keio University, Tokyo, May

Skift (2020) Coronavirus and the travel industry, Retrieved from: <https://skift.com/coronavirus-and-travel/> [Access on March 24, 2020]

Statista (2020a) Forecasted impact of coronavirus (COVID-19) on tourist arrivals in Italy in 2020, by region of destination, Retrieved from: <https://www.statista.com/statistics/1101025/impact-of-coronavirus-covid-19-on-tourist-arrivals-in-italy-by-region/> [Access on April 5, 2020]

Statista (2020b) Key figures on the impact of coronavirus (COVID-19) on Russian inbound tourism from China in 2020, Retrieved from: <https://www.statista.com/statistics/1092398/russia-tourism-sector-losses-from-novel-coronavirus-2019ncov/> [Access on March 24, 2020]

The Economic Times (2020) Impact of coronavirus on Indian tourism could run into thousands of crores of rupees, Retrieved from: <https://economictimes.indiatimes.com/industry/services/travel/impact-of-coronavirus-on-indian-tourism-could-run-into-thousands-of-crores-of-rupees/articleshow/74592482.cms?from=mdr> [Access on April 5, 2020]

The Guardian (2020) Australian hotels face ruin if coronavirus impact on tourism worsens, industry chiefs say, Retrieved from: <https://www.theguardian.com/australia-news/2020/mar/04/australian-hotels-face-ruin-if-coronavirus-impact-on-tourism-worsens-industry-chiefs-say> [Access on March 12, 2020]

The New York Times (2020) Italy Locks down much of the country's north over the coronavirus, Retrieved from: <https://www.nytimes.com/2020/03/07/world/europe/coronavirus-italy.html> [Access on March 15, 2020]

The Real Deal (2020) Coming to a hotel near you: The \$2,500 coronavirus quarantine package, Retrieved from: <https://therealdeal.com/2020/03/19/coming-to-a-hotel-near-you-the-2500-coronavirus-quarantine-package/> [Access on March 23, 2020]

The Wall Street Journal (2020) Do Not Disturb: Hotels Hammered by Coronavirus Offer 14-Day Quarantine Packages, Retrieved from: <https://www.wsj.com/articles/hit-by-coronavirus-slowdown-hotels-try-catering-to-the-quarantined-11584624502> [Access on March 22, 2020]

Tornos News (2020) Cyprus tourism hopes warmer weather would end the coronavirus crisis, Retrieved from: <https://www.tornosnews.gr/en/tourism-businesses/markets/39309-cyprus-tourism-hopes-warmer-weather-would-end-the-coronavirus-crisis.html> [Access on March 29, 2020]

Travel Daily News (2020) Corona virus affecting the tourism industry worldwide, Retrieved from: <https://www.traveldailynews.com/post/corona-virus-affecting-the-tourism-industry-worldwide> [Access on April 5, 2020]

UNWTO (2020) Tourism and Covid-19, Retrieved from: <https://www.unwto.org/tourism-covid-19-coronavirus> [Access on March 29, 2020]

Wang, Y. & Sheldon, P. (1996) The Sleeping Dragon Awakes: The Outbound Chinese Travel Market, *Journal of Travel & Tourism Marketing*, 4 (4): 41-54.

Wen, H. (2003) "China in the Eye of the Storm", paper presented at Asian Economic Panel, Keio University, Tokyo, May.

World Economic Forum (2020) This is how coronavirus could affect the travel and tourism industry, Retrieved from: <https://www.weforum.org/agenda/2020/03/world-travel-coronavirus-covid19-jobs-pandemic-tourism-aviation/> [Access on March 20, 2020]

World Travels and Tourism Council (2020) Impact of pandemic on travel and tourism, Retrieved from: <https://www.wttc.org/priorities/crisis-preparedness/pandemics/> [Access on March 14, 2020]

Worldometers (2020) Coronavirus Worldwide Graphs, Retrieved from: <https://www.worldometers.info/coronavirus/worldwide-graphs/> [Access on April 8, 2020]

Xiang, L., Rich, H., Uysal, M., Burnett, T. & Zhan, X. (2010) Estimating the size of the Chinese outbound travel market: A demand-side approach, *Tourism Management*, 31 (2): 250-9.

Zhang, Y. & Peng, Y. (2014) Understanding travel motivations of Chinese tourists visiting Cairns, Australia, *Journal of Hospitality and Tourism Management*, 21: 44-53.