

## The Effect of Covid-19 on the Airline Sector in Algeria

### تأثير فيروس كورونا (كوفيد-19) على قطاع النقل الجوي في الجزائر

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### Abstract

Covid-19 has negatively affected all sectors of the global economy, notably the airline sector due to travel restrictions and flight suspension worldwide. By examining documents and reports about the current situation of the sector around the world and in Algeria (the national company "Air Algérie"), this research seeks to understand the effects of the virus on the airline industry in Algeria. The results show that the company is facing huge challenges after the loss of 320million dollars during COVID, and suggests a re-evaluation of the company's human resource and marketing management systems to survive this financial crisis.

**Keywords:** Corona virus; Airline sector; air Algérie.

### ملخص

أثر فيروس Covid-19 سلباً على جميع قطاعات الاقتصاد العالمي، ولا سيما قطاع الطيران وذلك بسبب قيود السفر وتعليق الرحلات في جميع أنحاء العالم. يسعى هذا البحث إلى دراسة تأثير الفيروس على قطاع الطيران في الجزائر. من خلال فحص وثائق وتقارير حول الوضع الحالي للقطاع حول العالم وللشركة الوطنية "الخطوط الجوية الجزائرية". وأظهرت النتائج أن الشركة تواجه تحديات ضخمة خاصة بعد خسارة 320 مليون دولار خلال الجائحة، وتقتترح إعادة تقييم نظم إدارة الموارد البشرية وإدارة التسويق للشركة لتجاوز هذه الأزمة المالية.

**الكلمات المفتاحية:** فيروس كورونا؛ قطاع الطيران؛ الخطوط الجوية الجزائرية.

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## **Introduction**

The spread of covid 19 has made the global economy face its biggest challenges since the financial crisis of 2008. The first case (figure 01) of corona virus COVID -19 was found in the Wuhan city of China on December 2019. As the number of cases increasing, the WHO organization declared it as a pandemic (Saira Baloch et al.,2020), and declared that it can spread when an infected person speaks, sneezes, coughs, sings, or breathes in microscopic liquid particles through their mouth or nose, in poorly ventilated and/or crowded indoor settings. And when individuals touch their eyes, noses, or mouths after coming into contact with things or surfaces that have been contaminated with the virus (World Health organization, 2021). Currently, there are 630,442,541 cases globally affected by covid19. (At the time of writing). (World meters, 2022).

In order to prevent this disease from spreading and to protect citizens, governments all over the world have forced a” stay at home” or a “lockdown” policy, due to the fact that air travel has the potential to be a major factor in the spread of airborne infections like SARS and malaria (Xiaoqian Sun et al.,2021). In addition to obstructing the spread of COVID19, these lockdown measures and travel restrictions have had a severe impact on all sectors of the economy and led to a decrease in consumption, production, international trading, supply chain problems, tourism, restaurants, ...etc (Nuno Fernandes,2020), In particular “the airline” industry.

Airline companies worldwide faced the same problems: flight cancellations, airports only operated for emergencies, bankruptcy of some airlines and some of them worked with minimum staff. Overall, the effects are massive. In fact, statistics indicated that airlines lost \$168 billion in revenue in 2020(Bouwer et al.,2022). The International Civil Aviation Organization estimates a 60% decrease in the number of seats supplied by airlines worldwide in 2020 compared to 2019. (ICAO,2022). On April 2020, the World Tourism Organization (UNWTO) also reported that out of ,217 destinations worldwide, 45% have either blocked all or part of their borders to tourists, 30% of overseas flights have been completely or partially cancelled (World Tourism Organization,2020).

## **Research question**

The situation of the airline industry in Algeria is no different from airline companies around the world, the company suffered a total loss of 320 million dollars during this pandemic and the future of the company remains unclear.

The paper aims to analyse the impact of COVID-19 on Algerian Airline Company by focusing on passenger transport. Therefore, our research question: How did covid-19 affect the Algerian Airline Company?

## Methodology

The research methodology is based on the analysis of data from different reports from IATA, ICAO, and the ministry of transport in Algeria. Therefore, it is important to mention that reasons for not conducting quantitative analysis is due mainly to the lack of reliable statistics surrounding the subject.

The focus will be more on investigating existing findings and giving an overall of the current situation in Algeria.

## Literature review

The viewpoint and contribution of this work are underscored by a review of the relevant literature currently available on the effects of covid-19 on the airline industry.

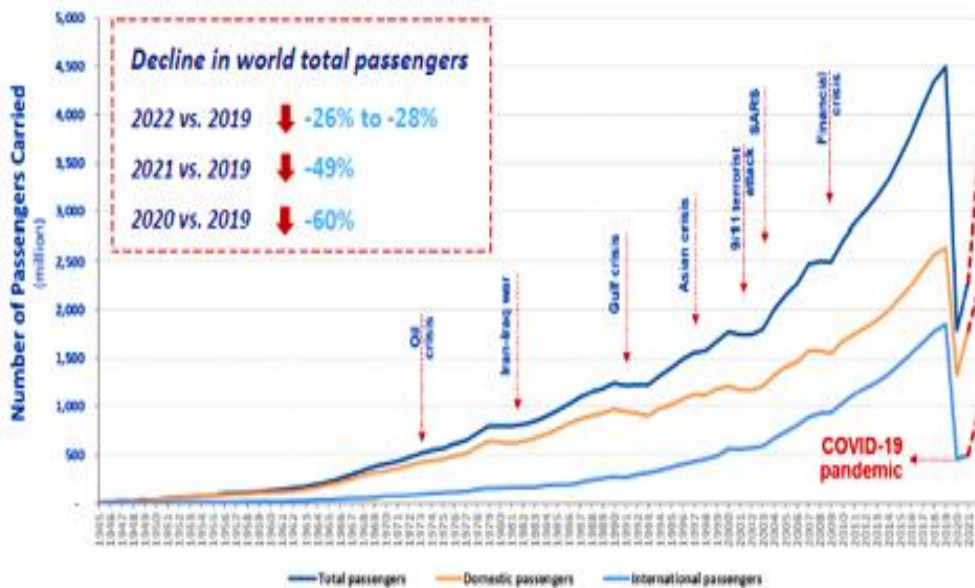
To comprehend how covid-19 spread, Hien Lau et al. (2020) looked into the correlation between domestic COVID-19 cases and passenger as well as between international COVID-19 cases and passenger volume in China. Their results revealed a significant linear correlation between domestic COVID-19 cases and passenger volume regarding areas of China ( $r^2 = 0.92, p = 0.19$ ) and a significant correlation between international COVID cases and passenger volume ( $r^2 = 0.98, p < 0.01$ ).

On the similarity between air transport and Covid virus diffusion, Chinazzi et al. (2020) developed a model to project the impact of travel limitations on the national and international spread of the epidemic in China on January 2020. In fact, their modelling study demonstrated that increased travel restrictions are ineffective unless combined with public health initiatives and behavioural modifications that can significantly lower disease spread.

The ICAO indicated that neither of the devastating effects of the 9-11 terrorist attacks in 2001 nor the Global Financial Crisis (GFC) in 2008, the oil crisis, along with all other economic disasters, had the same effect on the aviation sector as COVID-19.

In order to avoid bankruptcy, almost all airline companies got various types of financial support. As previously indicated, the airline industry incurred significant financial effects. According to the international air transport association, airlines would need at least 200 billion dollars in financial support to withstand this COVID storm.

Figure (01): World passenger traffic evolution 1945-2022



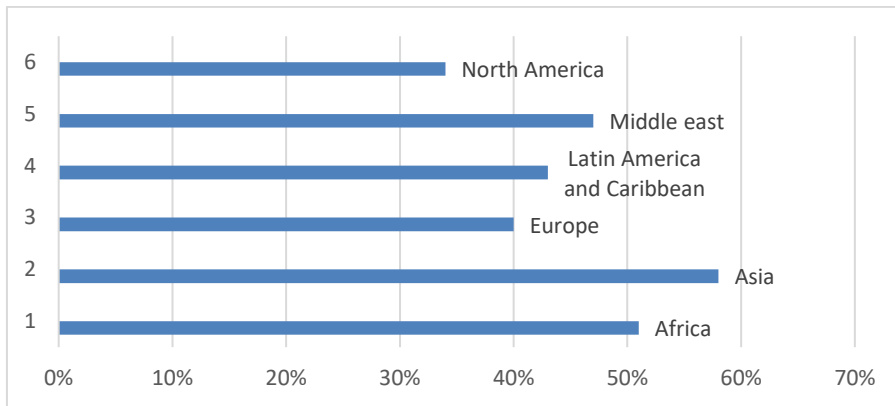
Source : ICAO 2022

Luis Martín-Domingo et al. (2022) analyzed 27 cases of state aid to European Union airlines. The study has found out that the majority of airlines lacked the financial resources to cope with the COVID-19 crisis; thus, their governments were compelled to provide them with financial support. For instance, the United States funded airlines through the Corona Virus Aid program. For the rest airlines the results indicated that, The EU state members that provide more aid are those who invest and consider airlines as important shareholders (countries with high income: Sweden, Germany, Finland). Whereas the companies who had questionable financial performance before COVID- 19 are more likely to receive this support.

Mostafa Sobhy Mahmoud (2021) investigated the effect of the virus on the economies of Egypt air, he conducted a qualitative study based on interviewing the managers of Egypt air. According to the author by April 2021, the company suffered a loss of 1.2 billion Egyptian pounds. The study focused mainly on the major restrictions for travelling from or to Egypt during the pandemic, as well as the measures taken to recover from the losses brought on by the Corona Virus. The study revealed that Egypt Air's revenue dropped by approximately 40%. However, the company established a crisis cell to address concerns about the corona virus affecting long-term travellers and the collapse of air travel. The author recommended more promotion to internal tourism and domestic flights like the package "spend winter in Egypt" offered by the company until the full recovery of the industry.

Employment is another important effect of covid-19 on air transport, according to the IATA **organisation** there was a 58% drop on employment in Asia, 51% in Africa 47% in the middle east and 40% in Europe. (IATA,2022).

**Figure (02): Employment supported post covid-end of 2021.**



**Source: Generated by authors; Data Source, OECD 2021**

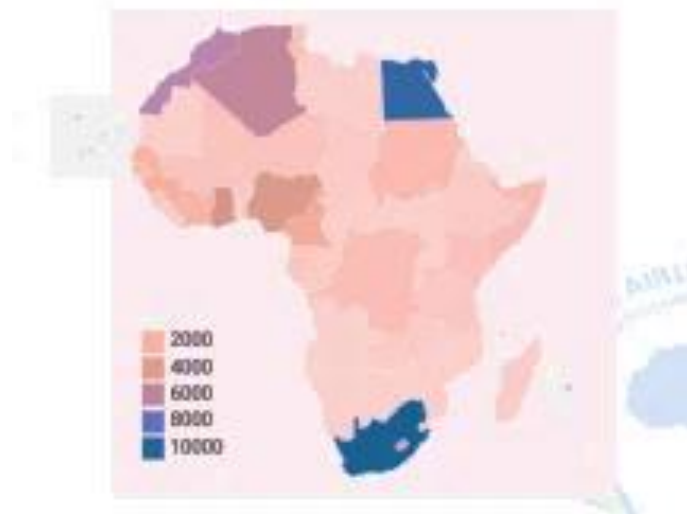
Nawzad Majeed Hamawandy (2021) reported that in 2020 British airways would cut 12.000 jobs. Similarly, a research conducted by Joseph B. Sobieralski (2020) using econometric modelling to estimate the impact of covid-19 or as he called it “uncertainty shocks” on the labour of “major”, “low-cost”, and” regional” airlines; his model suggested that during difficult times, like the one brought on by the current pandemic, employees at large airlines will be the most impacted compared to low-cost and regional airlines , His analysis also indicated that cutting staff is the airline companies' go-to crisis approach ( over 13% of the workforce), and the most affected employees are those with direct contact to passengers. The study also predicted that recovery would take 4-6 years. Which agrees with the work of S.V. **Gudmundsson et al. (2021)** predicted that from this year 2022, it would take up to six years for airline companies in Europe and Asia to recover from this financial crisis.

## **The impact of Corona Virus on passengers’ air transport in Algeria**

Algeria was severely affected by the Corona virus and was the third-most affected country in Africa with 270,757 cases and 6881 deaths until October 2022. (Who,2022).

According to Marius Gilbert et al., (2020) when African governments first implemented travel restrictions; Egypt, Algeria, and South Africa were the most at-risk countries of importing covid-19 from China. The AFRAA also stated that Algeria is one of the five impacted countries in Africa with more than 5000 cases on April 2020. (AFRAA Covid-19 Impact,2020).

**Figure (03): Infections Cases**



**Source: AFRAA Covid-19 Impact,2020, P6**

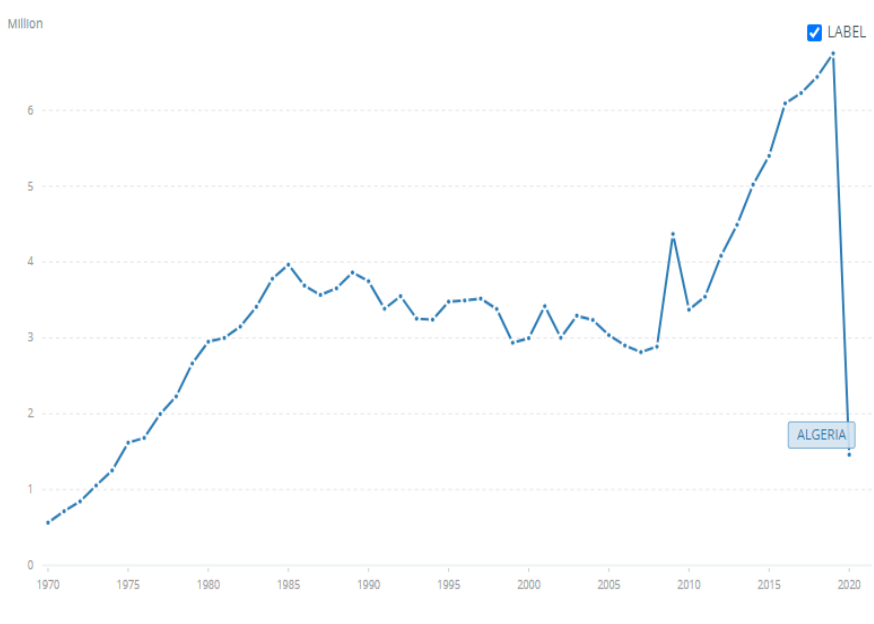
Given the fact that the first case of Covid in Algeria originated in Italy; the national airline operator first banned all flights from that country. Later, flights from France and Spain were also suspended. Then, by the second half of March 2020, the president ordered the suspension of all flights from and to Algeria, apart from those that were absolutely necessary. (Mohamed Lounis,2020).

As studies have shown, the airline industry was defectively damaged by the Corona Virus, and the impact can be seen on Air Algerie too. Othmane Touat et al., (2020) stated that the company losses are about 320 million dollars which caused the company's wages to be cut by up to 50% in order to retain its financial stability.

The world bank showed that the number of passengers dropped from 6.752.002 million passengers in 2019 to 1.460.077 in 2020 after Covid crisis.

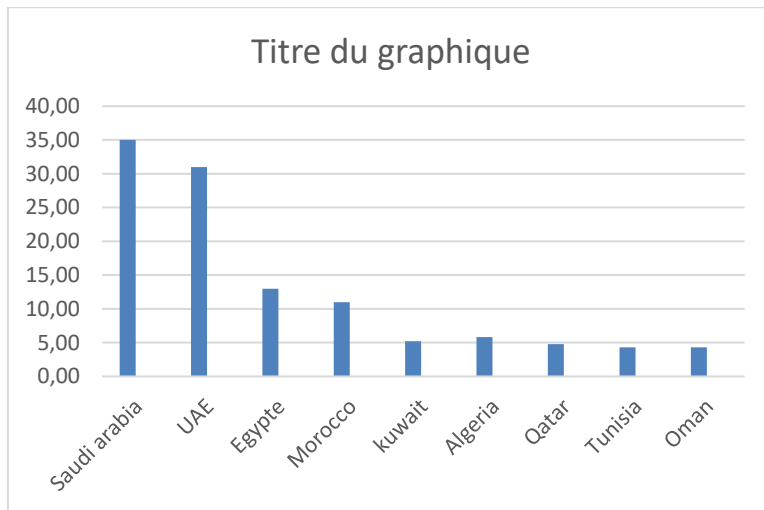
According to the Arab Monetary Fund (AMF), In 2020, there was a 5.8 million decline in the number of passengers, and stated that Five Arab countries, including Algeria, were affected hard by the Corona Virus (70% decline). (AMF,2020).

**Figure (04): Passenger numbers in Algeria from 1970 to 2020**



**Source: World Bank Data, 2020.**

**Figure (05): The Decline in the number of Passengers in Algeria and some Arabe countries 2020**



**Source: AMF, P6.**

The ministry of transport declared that in 2020 the company carried out 145 sanitary evacuation flights 822 flights to repatriate citizens stranded abroad. The number of passengers was as follows:

**Table (1): Number of passengers evacuating by air Algeria in 2020**

Sanitary evacuation flights	Patients	203
	accompanist	109
Passenger evacuation flights To Algeria	Air algérie	30.000
	Other companies	2556
Passenger evacuation flights Abroad	Other companies	113427

**Source: report of the transport sector 2020, Ministry of transport, P42.**

The virus significantly affected jobs in the industry. In fact, the 2020 report of AMF pointed out a huge decline in airline jobs during the pandemic by 287.000 jobs in the UAE and Saudi Arabia, 279.000 in Egypt and by 169.000 jobs in Algeria.

The AMF also predicted that there will be a revenue loss in the Arab aviation industry up to 23 billion dollars; for Saudi Arabia the loss is up to 7.2 billion, 6.8 billion for the UAE and 0.8 billion dollars for Algeria (AMF, 2020)

It's important to note that, despite having a monopoly on the Algerian air transportation industry, the national airline was already having financial difficulties before Covid. The employment system in Air Algérie is random, the company shows excess in staff which is costly to the business. (Othmane Touat, Amel Tebani, 2020).

## **Discussion**

The latest information about the airline industry performance shows a recovery in the business, the ICAO update of September 2022 as shown in figure 6 indicates an improvement in world passenger traffic by -28% compared to -60% in 2020, and declared a Moderate recovery in domestic travel while international travel remained stagnant. (ICAO, 2022, P4).

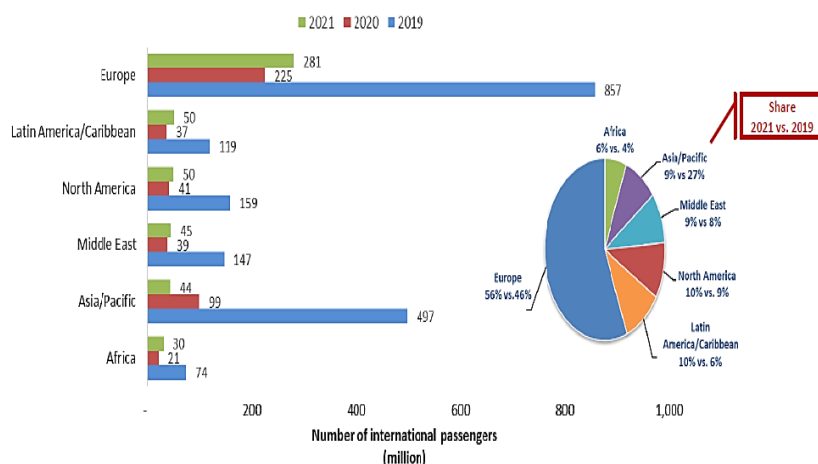
The IATA announced a 449.2% rise in August 2022 traffic, and by 78.8% in Europe, traffic rose by 144.9% in Middle Eastern airlines, and African airlines experienced a 69.5% a rise in passenger traffic versus years before. The statistics shows that Europe accounted for over half of the world international traffic



in 2021. Additionally, the industry reported losses of \$9.7 billion, a significant reduction from the \$137.7 billion in 2020 and the \$42.1 billion in 2021.

The organisation declared also that the challenge for 2022 is to keep costs under control. And stated that Passenger revenues are expected to account for \$498 billion of industry revenues, more than double the \$239 billion generated in 2021. (IATA,2022).

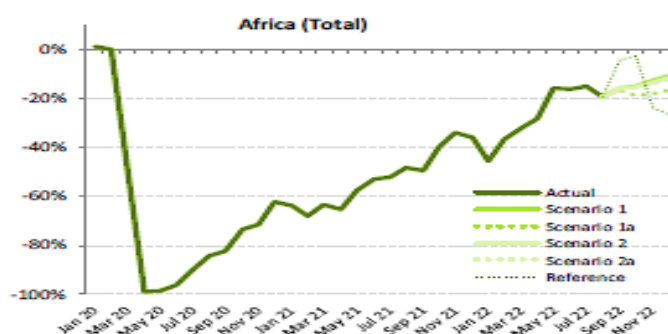
**Figure (06): Number of International Passengers by region (2019-2020-2021)**



Source: ICAO,2022, P14.

In 2020, African airlines cumulatively lost \$10.21billion in revenues due to the impacts of the pandemic and more slowly than in other regions, passenger numbers to, from, and within Africa will increase, reaching 76% of 2019 levels in 2022 and approaching pre-crisis levels only in 2025, and it is the lowest among regions. And very close to pre-pandemic levels. (IATA,2022).

**Figure (07): African airline recovery**



Source: ICAO,2022, P53.

In Algeria, there is a huge lack in Air Algérie statistics for the post-Covid situation, the only trustworthy statistics are those of “Algeria Press service”. The APS claimed that the current rate of flights was around 68%, and it planned to expand it to reach 78% more than the levels attained in 2019.

In 2021 domestic traffic represented 79% of the total compared to 21% for international flights.

The company's financial status has drastically declined due to the loss of revenue caused by COVID-19. In addition to the extra stuff that the company's managers must review their resources management system, mainly their human resources. (APS,2022).

### **Conclusion**

based on the examination of the study topic we must restate the research question before concluding. The research question was about “How did covid-19 affect the Algerian airline company?”. Depending on our analysis the impact of this pandemic is huge. The airline industry was one of the most affected businesses worldwide.

According to the IATA's Director General (2022), the airline industry cuts losses up to 9.7 billion dollars. And A global GDP growth rate of 3.4% this year in 2022, passengers' number will increase to 83% of pre-pandemic levels.

Revenues are rising as COVID-19 travel restrictions loosen and more individuals fly again. Industry revenue from passengers is expected to reach \$498 billion, more than twice as much as the \$239 billion in 2021.

As the industry returns to more normal levels of production the high fuel costs and labour expenses are the challenge for 2022:

- fuel is the industry's biggest cost item (24% of total costs, up from 19% in 2021). Based on forecasts. Compared to the 359 billion liters used by airlines in 2019, 321 billion liters are predicted to be consumed by the end of 2022.
- In addition to the Ukrainian war which slowing down the travel recovery.

Overall, the economic recovery from the pandemic is promising and current demand for travelling is strong as governments around the world are not willing to accept any costs of further COVID-19 border closures.

In order for the Algerian airline business to survive this financial crisis, the company's biggest priority is to re-evaluate its human resource management and try to attract new users and tourists. As the statistics of the current situation are insufficient there is a need to analyse the research question with further quantitative research.

## References

1. African Airlines Association (AFRAA), (2020,02,June), covid-19 impact assessment, retrieved 5/10/2022 from <https://afraa.org/wp-content/uploads/2020/06/CoVID-19-Impact-assessment.pdf>
2. Algeria Press Service, (2022, septembre,28) Air Algérie : le nombre de vols atteindra 78% des niveaux d'avant Covid-19, retrieved 17 /10/2022 from <https://www.aps.dz/economie/145357-air-algerie-le-nombre-de-vols-atteindra-78-des-niveaux-d-avant-covid-19>
3. International Air Transport Association (IATA), (2022,01, march), Air Passenger Numbers to Recover in 2024, retrieved 17 /10/2022 from <https://www.iata.org/en/pressroom/2022-releases/2022-03-01-01/>
4. Baloch, S., Baloch, M. A., Zheng, T., & Pei, X. (2020). The coronavirus disease 2019 (COVID-19) pandemic. *The Tohoku journal of experimental medicine*, 250(4), 271-278.
5. Ministère de transport, . (2020). Bilan du secteur des transports 2020., <https://www.mt.gov.dz/mt/Bilan%20du%20secteur%20des%20transports%202020.pdf>
6. Fernandes, N. (2020). Economic effects of coronavirus outbreak (COVID-19) on the world economy. <http://dSPACE.khazar.org/jspui/bitstream/20.500.12323/4496/1/Economic%20Effect%20of%20Coronavirus%20Outbreak.pdf>
7. Gilbert, M., Pullano, G., Pinotti, F., Poletto, C., Boëlle, P. Y., ... & Colizza, V. (2020). Preparedness and vulnerability of African countries against importations of COVID-19: a modelling study. *The Lancet*, 395(10227), 871-877.
8. Hamawandy, , N. M., Ali, , R., Bewani, , H. A. W. A., bdulmajeed Jamil, , D., Rahman, , S. K., & Othman, , B. J. (2021). The financial Impacts of (COVID-19) on financial reporting quality Airlines Companies: British Airlines. *Journal of Contemporary Issues in Business and Government* , 27(2), 5264–5271.
9. Hong, S. J., Savoie, M., Joiner, S., & Kincaid, T. (2022). Analysis of airline employees' perceptions of corporate preparedness for COVID-19 disruptions to airline operations. *Transport Policy*, 119, 45-55.
10. IATA, (2021, January,28), The impact of COVID-19 on aviation, retrieved 12 /10/ 2022 from <https://airlines.iata.org/news/the-impact-of-covid-19-on-aviation>
11. ICAO, (2022, September,22), effects of novel corona virus (covid-19) on civil aviation, [https://www.icao.int/sustainability/Documents/COVID-19/ICAO\\_Coronavirus\\_Econ\\_Impact.pdf](https://www.icao.int/sustainability/Documents/COVID-19/ICAO_Coronavirus_Econ_Impact.pdf)
12. Lau, H., Khosrawipour, V., Kocbach, P., Mikolajczyk, A., Schubert, J., Bania, J., & Khosrawipour, T. (2020). The positive impact of lockdown in Wuhan on containing the COVID-19 outbreak in China. *Journal of travel medicine*, 27(3).
13. Liu, D., Clemente, L., Poirier, C., Ding, X., Chinazzi, M., Davis, J. T., ... & Santillana, M. (2020). A machine learning methodology for real-time forecasting of the 2019-2020 COVID-19 outbreak using Internet searches, news alerts, and estimates from mechanistic models. *arXiv preprint arXiv:2004.04019*.
14. Martín-Domingo, L., & Martín, J. C. (2022). The Effect of COVID-Related EU State Aid on the Level Playing Field for Airlines. *Sustainability*, 14(4), 2368.
15. The Arab Monetary Fund (AMF), (2020,May), <https://www.amf.org.ae/sites/default/files/publications/2021-12/issue-13-repercussions-emerging-corona-virus-aviation-sector.pdf>

16. Travel Recovery Rebuilding Airline Profitability, IATA, (2022,June,20), retrieved 17/10/2022 from <https://www.iata.org/en/pressroom/2022-releases/2022-06-20-02/#:~:text=Flights%20operated%20in%202022%20are,%24239%20billion%20generated%20in%202021>
17. Touat, O., &Tebani, A. (2020). The Corona virus crisis and its implications on the Air transport sector in Algeria a comparative study with some Arab countries. *Les cahiers du CREAD*, 36(3), 475-499.
18. Sobieralski, J. B. (2020). COVID-19 and airline employment: Insights from historical uncertainty shocks to the industry. *Transportation Research Interdisciplinary Perspectives*, 5, 100123.
19. Sun, X., Wandelt, S., Zheng, C., & Zhang, A. (2021). COVID-19 pandemic and air transportation: Successfully navigating the paper hurricane. *Journal of Air Transport Management*, 94, 102062.
20. World Bank, retrieved 13 /10/2022 from <https://data.worldbank.org/indicator/IS.AIR.PSGR?locations=DZ>
21. World Health Organization, (2021, December,23), Coronavirus disease (COVID-19): How is it transmitted? Retrieved 1/10/2022 from <https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-covid-19-how-is-it-transmitted>
22. Worldmester, (2022, October,18) Corona virus cases, retrieved 18 /10/2022 from <https://www.worldometers.info/coronavirus/>
23. World Tourisme Orgnisation,(2022,September,25) International Tourism And Covid-19, retrieved 10 /10/ 2022 from <https://www.unwto.org/tourism-data/international-tourism-and-covid-19>
24. صبحي محمود مصطفى. (2021). "أثر فيروس كورونا المستجد كوفيد-19 على النقل الجوي: دراسة حالة شركة مصر للطيران". مجلة اتحاد الجامعات العربية للسياحة والضيافة"، المجلد 20، (2)، (287 – 323).