COMPARISON OF SECURITY MEASURES AT INTERNATIONAL AIRPORTS DURING THE SPRING GLOBAL CRISIS COVID-19

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Abstract: *The article deals with security measures in international air transport. It describes global crisis communication during the escalation of the COVID-19 pandemic in air transport. It focuses on the access and communication of selected state institutions and several selected international airlines. The paper further compares the individual security measures applied at four international airports and their impact on passengers. The approach of selected countries to the issue of the world pandemic and the established security measures is also mentioned. The paper aims to basically compare the various approaches to the issue in terms of security on several specific examples.*

Key words: *airport, airlines, pandemic, covid-19, international measures*

1   Introduction

The first international COVID-19 crisis in spring 2020 caused significant international changes in all areas of life. Major and irreversible changes have affected all companies and industries around the world. The crisis has hit global and regional economies hard, especially tourism. [1] Sudden changes in international transport have thus provided a new perspective on passenger safety and the prevention of the spread of the coronavirus between continents and countries. [2] This article deals with a sudden change in air transport. The aim is to compare passenger protection and security measures on aircraft and at international airports in Tokyo, Helsinki, Munich, and Vienna in March 2020. It is necessary to consider the rapid unpredictable global changes, ignorance and opacity of the situation, the availability and relevant information and approaches of individual governments to the crisis. That's affected international travel and the possibility of the population returning to their home state. The virus, which appeared in Asia, was not expected to spread rapidly to other countries. International transport and people traveling across continents played a key role in this. At the end of 2019, a new type of virus will appear in China, which began to spread rapidly throughout Asia and later to other continents. In February 2020, the virus appeared in Japan. The virus outbreak occurred on the cruise ship Diamond Princess. The ship was detained by the Japanese government in the port of Yokohama and strict quarantine rules were imposed on the ship. All 1,045 crew members and 2,666 passengers were not allowed to leave the ship and go ashore. [3] The second outbreak was in Nagano, Japan. In mid-February 2020, Japan reported 218 infected on the luxury ship Diamond Princess and 247 infected on the mainland. At this time, the rapid spread of the virus around the world was not yet fully anticipated. At the end of February, Japan had already adopted national security measures in the form of a public institutions closure. Universities, high schools, museums, galleries were closed. Public social events were canceled, and bars and evening clubs were closed. People from China were forbidden to come. At that time, Australia also banned arrivals from Japan. The virus has already been reporting in the US [4] and Europe. Japanese companies and authorities have taken security measures. Used the disinfection, and was introduced work from home was allowed. Curtain has long been common in Japan. However, disinfection and curtains were already completely sold out at this time, and the tourists left the country. At the beginning of March, the virus also paralyzed Europe. Mainly Italy and Spain. Airports and travel in the Schengen area have been restricted. [5] Later, some Member States were closed, including the Czech Republic. [6] State governments were a force to address the transport of the population to their homeland. The member states of the European Union jointly issued aviation specials for residents and individuals. Nevertheless, the consulates recommended their return route. The article describes air transport from Tokyo to Vienna from the passenger's point of view. Especially passenger measures at airports and in the aircraft.

2 Global changes in air transport in March 2020

The events of March 2020 were unpredictable. The coronavirus spread very quickly around the world. States dealt with the situation differently. Some countries applied more or less harsh measures. [4] Some applied hard locks, and some countries did not apply any restrictions. It was very difficult to get information because there was no one experienced with this situation. The whole world suddenly found itself in a state that was not known until then. This has significantly affected tourism and commercial flights in air transport. The airlines waited for the situation to develop and reacted very carefully to the situation in the countries concerned. The information on the website referred passengers with booked flights to customer routes that were maximally congested. The airlines' websites only provided information on security measures at airports and links to information from consulates in the country. Therefore, only general information on the travel ban to individual countries was published. Information on canceled and rerouted flights to these destinations. [7] It was generally recommended that people deal with the situation individually and reboot the flights. Airlines have charged this service to their users for free. Even ticket sellers and intermediaries did not have accurate information and only provided recommendations. The following text focuses on these selected international airports:

- Narita International Airport, Tokyo, Japan

- Airport Helsinki-Vantaa, Helsinki, Finland

- Munich Franz Josef Strauss Airport, Munich, Germany

- Vienna International Airport, Vienna, Austria

All of these airports are international and used by 20-50 million passengers per year. At the end of March, however, all airports were almost empty. No one traveled unless necessary. These airports were selected because they presented one of the improvised routes from Tokyo, Japan, to the Czech Republic. [6] Findings, presented in this article, are based on my personal travel experience during the beginning of COVID-19 outbreak.

2.1 Narita International Airport

One of the two international airports is located in the metropolitan area of Greater Tokyo in Chiba Prefecture. It is the main point of connection between Japan and America. The airport accounts for a large portion of international traffic to and from Japan. [8] Security measures were high before the pandemic, but there was no obligation to apply a face mask, which has been standard for Tokyo residents for decades. The reason was in the past the high concentration of smog in the first imperial city.

With the coronavirus pandemic, last year came a drastic change. Flights to some affected countries were banned from Japan. Some countries have banned arrival from Japan. In March 2020, the obligation to use a face mask was not already mandatory. However, it was no longer possible to buy it in Japan. The big problem was people who did not travel to their home country. Especially, to the countries of the European Union. There is no idea about the Schengen area in Japan. States were taken individually. There was also a problem with a stopover in another country. This raised fears that passengers wouldn't leave Japan at all. The staff will then check-in passengers only to the country that was the destination of the flight from Japan.

There were no safety precautions for coronavirus. There was a lack of hand disinfection at the airport and terminals. Shops and restaurants were open and there were no gaps between person. No one measured the temperature of the passengers. Tokyo was in normal working order, and it was the same at the airport. It was the same when boarding a Finnish company aircraft. Stewards on board the aircraft observed security measures in the form of respirators deployed throughout the flight. They also wore protective gloves at all times. Passengers had their place in the plane with large distances from each other. A self-service place with refreshments was also set up on the plane throughout the flight. The next chapter describes staff access and security measures at Finland's Vantaa International Airport in Helsinki.

2.2 Airport Helsinki-Vantaa

The staff onboard the Finnish plane was very helpful. Information was provided on the check-in process and subsequent departures from Helsinki, where there was not much time to change planes. After landing, all passengers had to go through a new check-in process, including their luggage from the cargo hold of the aircraft. It was the duty to wear a face mask. However, hand disinfection was unavailable anywhere and nobody tested

passenger's temperature. Passengers had to arrange a new ticket and boarding pass to travel to other countries. At the airport, only electronic vending machines were used for this purpose, and gaps between persons were required. All shops, restaurants, and snacks were closed. The same safety rules applied when boarding a flying to Munich.

2.3 Munich International Airport

At the beginning of the first coronavirus pandemic, Germany took minimal action against the spread of the disease. Face masks in public areas were not mandatory in Germany. Face masks on board an aircraft flying to Munich were used by flight stewards, but not during the entire flight. They did not have protective gloves on their hands. It was forbidden to dispense any other refreshments than bottled water and biscuits. The plane was full of passengers without spacing. Many German passengers did not respect the respiratory protection regulations. There were not coronavirus security measures after arrival at Munich Airport and during check-in. There were only a minimum of employees and passengers at the airport. One of Europe's largest airports was almost empty shown Figure 2.
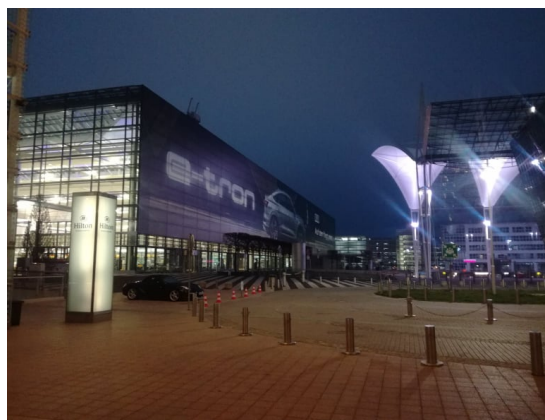

Fig.1: Munich International Airport in March 2020

Shops and restaurants have been closed at Munich Airport, with the exception of grocery and fast-food sales. Passengers could only bought drinks and pastries. All restaurant tables and chairs were inaccessible as shown Figure 3.

Fig.2: Restaurant in Munich International Airport in March 2020

The acquirement of boarding passes took place only electronically. Hand disinfection was only in the departure check-in area and was mandatory. The passenger temperature was not measured. The flight from Munich to Vienna was similar in safety measures to the previous flight with the German airline from Helsinki to Munich.

2.1 Vienna International Airport

Austria introduced tough security measures in the first corona pandemic. Especially in tourism. Many flights to Vienna have been canceled or rerouted. Checks were carried out on the border with Austria. Many control mechanisms have been adopted at Vienna Airport due to the virus spreading. Thorough checks were also applied to passengers to Vienna, even in the case of a stopover.

It was not possible to leave the airport immediately after landing at the airport. A form was provided for information on passengers and the reason for their trip to Vienna. Information on where they travel from, or where and how they travel further if they are not residents and citizens at Vienna or Austria, was also recorded. It was only possible to leave the plane after arrival and inspection by the Austrian police, as shown in Figure 3.

Fig.3: Vienna International Airport in March 2020

The airport staff strictly followed the established rules. Passengers from individual flights were allowed to check-in so that they did not meet passengers from another flight. At each check-in stage, passengers were asked to disinfect their hands with provided means. Passengers were scanned with a thermal camera, and the temperature was also measured with a thermometer. Several other forms had to be filled in during the check-in process. Vienna Airport thus had the most control mechanisms and security measures due to the coronavirus. The following chapter provides a brief overview and summary of security measures at each of the listed international airports.

3   Summary of security measures at airports

The text above describes the process of safety measures from the passenger's point of view in this situation. All companies were forced to restrict their flights, and the airport was restricted and changed in operation. Table 1 lists the basic security measures that were generally taken in the first pandemic period.

Airport	SECURITY MEASURES				
	Disinfection	**Face mask**	**Distance**	**Thermal Camera**	**Body Thermometer**
Narita	✗	✗	✗	✗	✗
Vantaa	✗	✓	✓	✗	✗
Munich	✓	✗	✗	✗	✗
Vienna	✓	✓	✓	✓	✓

Tab.1: Compliance with primary security measures at airports in March 2020

The situation in commercial air traffic was variably from hour to hour and it was not easy to obtain information on airport traffic and flight availability.

4   Conclusion

The unexpected global change in the impact of the pandemic situation last year surprised the whole world. They were forced to respond to the problem by the governments and the airline providing commercial flights. It was necessary to quickly change the situation to adapt and respect security measures. It is surprising how difficult it was to obtain information about changes and developments in the situation. We live in the modern world of the internet, digital technology, and virtual communication it seems that these modern tools are not yet used effectively. Congested customer lines, outdated information on the website, canceled flights still up to date at merchants for large sums. The situation was also complicated by the closure of certain states and their transport infrastructure. Different security measures have been put in place to limit the spread of the virus and the safety of passengers, which significantly affected the possibility of returning to their home countries. In some cases, this was not possible at all. Some countries have introduced none or minimal security measures. Non-compliance by individuals also has a major impact on the pandemic situation. If one country in the European Union introduced strict security measures and another did not, it increased the possibility of the virus spreading very quickly. These are all experiences from last year's first pandemic situation. It is likely that new security measures at airports will become standard in the future. Passengers may have to meet strict conditions for international and intercontinental travel. A positive aspect of limited aviation last year was the positive impact of reducing global emissions on the environment.

Acknowledgment

References

[1]   Dube K., Nhamo G., Chikodzi D., (2021), COVID-19 pandemic and prospects for recovery of the global aviation industry, Journal of Air Transport Management, Vol. 92., No. 102022, ISSN: 0969-6997, DOI: https://doi.org/10.1186/s12889-021-10244-7

[2]   Fotheringham P., Anderson T., Shaw M., Jewitt j., Storey H., Hutchings O., Cartwright J., Gupta L., (2021), Control of COVID-19 in Australia throughquarantine: the role of special healthaccommodation (SHA) in New South Wales, Australia, BMC Public Health, Vol. 21., Issue 1-255, ISSN: 1471-2458, DOI: 10.1186/s12889-021-10244-7

[3]   Medley A. M., Marston B. J., Toda M., Kobayashi M., Weinberg M., Moriarty L. F., Jungerman M. R., Surpris A. C. A., Knust B., Acosta A. M., Shockey C. E., Daigle D., Schneider Z. D., Charles J., Ishizumi A., Stewart A., Vonnahme L. A., Brown C., White S., Cohen N. J., Centron mM., (2021), Use of US public health travel rectrictions during COVID-19 outbreak on diamond princess ship, Japan, Fabruary-April 2020, Emering Infectious Diseases, Vol. 27., Issue 3-71,-718 ISSN: 10806040, DOI: 10.3201/eid2703.203820

[4]   Reich M. R., (2020), Pandemic Governance in Japan ant he United States: The Control-Tower Metaphor, Health Systems and Reform, Vol. 6., Issue 1-e1829314, ISSN: 0969-6997, DOI: 10.1080/23288604,20201829314

[5]   Embasy of the Czech Republic in Tokyo, Official web site: https://www.mzv.cz/tokyo/cz/viza_a_konzularni_informace/aktualni_podminky_pro_cestovani_japonsko_2.html

[6]   Uva R. S., Ratajczyk M., (2020), COVID-19 pandemic and the measueres taken by the european union safety agency, Kluwer Law International, Air and Space Law, Vol. 45., Issue Speciallssue/95-106, ISSN: 09273379

[7]   Erotokritou C., Grigorieff C. I., (2020), EU regulation no 261/2004 on air passanger rights: The impact of the COVID-19 on flight cancellation and the concept of extraordinary circumstance, Kluwer Law International, Air and Space Law, Vol. 45., Issue Speciallssue/123-141, ISSN: 09273379

[8]   Narita International Airport, Tokyo, Japan, Official web site: https://www.narita-airport.jp/en