



Research Article

An Analysis of the Impact of the Covid-19 Pandemic on Air Transport Services in Romania

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Abstract

In this paper, the authors have analysed the influence of the Covid-19 pandemic on air transport services in Romania and implicitly on the customers of these companies. The research is a quantitative study conducted on a sample of 408 respondents. The instrument used was the questionnaire, which included open, closed, dichotomous and multichotomies questions and was developed based on the "funnel" principle. The research findings showed that the fear of Covid-19 was not one of the main reasons behind the decision to cancel their trips; the main reason was the state of emergency in the countries they wanted to travel to.

Keywords: air transport, COVID-19, quantitative research, Romania

Introduction

COVID-19 has had a significant impact on the global economic development. With widespread quarantines, travel restrictions and social distancing measures are causing a sharp drop in consumer and business incomes. This situation has also been created by the global economic recession. In this context, governments have made efforts to reduce the spread of the COVID-19 virus.

greatly affected air transport services both in Romania and globally. A significant number of flights have been cancelled to prevent the spread of this highly contagious virus. The global damage is already visible, and some airlines have already gone bankrupt and there are forecasts that the number of bankrupt airlines will increase significantly in the coming months. (Bakar N. and Rosbi S., 2020; Li et. al, 2021)

The recent global coronavirus pandemic (COVID-19) that started in December 2019 has

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Air travel has revolutionised global transport, greatly reducing the time it takes to travel long distances. Journeys across oceans that might have taken weeks or even years can now be made in hours. Air travel is the latest mode of transport, and one of its special features is that it does not require a specific area for its operations. (Chang, 1997; Chang and Yeh, 2002)

Other features of air transport are:

- Uninterrupted travel;
- Speed (An essential characteristic of air transport. This is demonstrated by the

high speed of aircraft, which cannot be matched by any other means of transport);

- High cost (Air transport is the most expensive means of transport. There is huge investment in buying passenger planes and building airports);
- It requires special preparations especially for international travel (baggage control).

Like any transport service, air transport has certain advantages and disadvantages that can be seen in Table 1.

Table 1. Advantages and disadvantages of air transport

Advantages	Disadvantages
It provides a regular, convenient, efficient and fast service.	It is a very expensive mode of transport. The fares charged are out of reach of ordinary people.
Fast transport for perishable goods	Aircrafts are not suitable for transporting heavy weights.
It does not require huge investments for the construction and maintenance of transport routes like other services (e.g., road and rail transports)	Inclement weather can suddenly disrupt the airline operation.
It provides comfortable service for passengers and safety for their goods.	It requires high expenditure on airport construction and maintenance.
It can be used to move goods to areas inaccessible to other means of transport.	An aircraft cannot fly over another country without obtaining prior permission.

Source: Adapted after Duval (2013)

Analysis of the impact of the pandemic on air transport services in Romania

The aim of this research is to analyse the impact of the pandemic on air transport services and therefore on the customers of these service companies.

Research objectives

1. Identify the extent to which the COVID-19 pandemic affected respondents' travels.
2. Identify the anti-COVID-19 protection measures taken by airlines.
3. Determine the extent to which specific situations influenced respondents to cancel a flight.
4. Identify the number of respondents whose air travel choices were influenced by the COVID-19 pandemic.
5. Identify the profile of respondents.

Research Methodology

The quantitative research was conducted from February to May 2021 on a sample of 408 respondents. The instrument used was the questionnaire, developed based on the "funnel" principle. The funnel principle means that the questionnaire starts with more general questions, continues with more detailed questions on the topic under study and ends with questions identifying the interviewee in terms of age, education, occupation, income. (Catoiu et al., 2009).

The survey was administered online via the *isondaje.ro* website and consisted of 19 open, closed, dichotomous and multichotomous questions. The survey had a filter question that was used to validate the questionnaire. The link to take the survey was sent to groups of people interested in travel and on social media websites.

Data Analysis

In the present research, the objectives outlined above have been taken into account, therefore only questions related to them have been analysed.

To achieve the first objective, the question used was: *To what extent has the COVID-19 pandemic affected your air travel?* Over 59% of the respondents were affected to a great and very great extent by the COVID pandemic, with only 19% saying their travel was not affected. It can be seen that the majority of respondents were affected by the conditions imposed by the pandemic, these being business people or

people who had holidays planned during that period. Also affected were people who had scheduled various operations at clinics abroad and who had to postpone them.

To achieve objective #2, *Identify the importance of anti-COVID-19 protection measures taken by airlines*, respondents were asked to rate a series of measures that lead to improved air transport service quality according to the importance of compliance with the said measures currently as compared to the period before COVID. Stapel Scale was used for this assessment and the scores of these responses are shown in the table below:

Table 2. Anti-COVID-19 protection measures

Protection measures	Average score
Staff must be properly equipped	3.20
Observance of the rules of social distancing	2.10
Availability of disinfectants	1.50
Limitation of food and drink distribution	0.95
Overall score	1.94

Source: Authors' research

The above question addressed the quality of air transport in relation to compliance with certain anti COVID measures.

Based on the calculations made, the most important measure taken into account by respondents when assessing the quality of air transport during a pandemic is the proper equipping of staff with masks and gloves. In the second place, by a considerable margin, is the measure pertaining to the compliance with social separation rules by leaving seats free between passengers.

Last in respondent preferences, the least important measure they consider when assessing quality is limiting the distribution of food and drinks during the flight, with a score of only 0.95, which means they do not want to give up snacks on the plane. It can be seen that anti-COVID vaccination and anti-COVID testing were not taken into account, because during the period analysed the vaccines had just appeared on the market. Also, this aspect is checked before boarding the aircraft and is not related to the quality of service provided by certain airlines.

The question *Have you had a flight cancelled due to the anti-COVID measures given by the state of emergency?* led to the attainment of objective #3 as follows:

Of the 408 respondents, a significant 48% did not have to cancel a previously purchased flight, probably due to the fact that the state of emergency in Romania was not imposed during the holiday period. However, 35% cancelled their flight and asked for their money back from the airlines. 17% of the respondents rescheduled their flight for a later date.

Objective #4, i.e., *Identify the number of respondents whose air travel choices were influenced by the Covid-19 pandemic*, was achieved by answering the following three questions:

1. *How many times have you flown with an airline since the onset of the pandemic to date?*

From the onset of the pandemic in our country to the time of the survey data collection, 44% of the respondents had never travelled by air transport and 27% had travelled once. Some

29% of the respondents have travelled by air two or more times. This shows that although the COVID pandemic has changed our lives, Romanians are keen to travel.

2. For the second question, i.e. *How important*

were the following issues in your decision not to purchase a travel ticket in the period after the start of the pandemic? a semantic differentiation was used. Based on this, an average score was calculated for each aspect considered.

Table 3. Aspects taken into account

Aspects considered	Average score
Isolation on departure/exit	0.93
Fear of COVID 19 infection	0.63
Price of RT-PCR tests	0.16
The state of emergency in the countries where you intended to travel	1.05
Overall score	0.69

Source: Authors' research

As can be seen in the table above, the most common reason for respondents not to purchase an airline ticket during the pandemic period was the state of emergency in the countries where they wanted to travel. In the second place, with a score of 0.93, came the measure of isolation on departure/departure, which also had a major impact on respondents' decision-making, followed in third place by the fear of COVID-19. Respondents were not influenced by the price of RT-PCR tests, which shows that frequent air travellers usually have average to high incomes that allow them to have tests.

3. *Do you think that the experience of the COVID-19 pandemic will influence your choice of air transport in the future?*

Respondents' opinions were as follows: 41% of the respondents believe that the COVID-19 pandemic will not influence their future choices, 34% estimate that they will be influenced in the future when they want to purchase an airline ticket. A quarter of the respondents are uncertain about their future behaviour.

The final objective of the research was to *Identify the profile of respondents*. This objective was achieved through several questions. The summary of the answers was as follows:

69% of the respondents were female and 31% male, which shows that women like to travel more. 67% of the respondents are aged between 18-30 years old, showing the tendency of young people in Romania to travel. People aged 31-40 accounted for 12% of respondents. The remaining responses were from 41-50-year-olds at 13%, and the rest were people over 50.

As a conclusion derived from these responses, young people in Romania choose to use air travel more than other age groups. This does not mean that their incomes are higher, but that they buy cheaper air tickets during promotions or well in advance.

As for the respondents' place of residence, 81% of them come from urban areas and only 19% from rural areas. Based on these results, we can state that the opportunity to travel is higher among people from urban than rural areas. This is also due to the fact that airports are located close to big cities and it is more difficult for people from rural areas to get there.

In terms of income, most respondents (35%) have a net monthly income of more than 4,500 RON, 25% have an income in the range 3,501-4,500 RON, and 40% have a monthly income of 3,500 RON or less. The last question of the questionnaire to complete the profile of respondents shows that 65% of the respondents have graduated from academic and postgraduate studies, while 13% are post-secondary graduates and only 22% of the respondents have a high school education. Certainly, the highest incomes can be correlated with the area of residence and the educational attainment, therefore the highest incomes are for urban respondents with postgraduate studies.

Conclusions

In the transport market, air transport has become a major player and is now regarded as the most popular alternative.

The effects of the COVID-19 pandemic will continue to be felt onwards, with its impact on airlines and, more importantly, on the population. The survey results showed that more than half of the respondents were affected to a great and very great extent by the COVID-19 pandemic, and more than 40% of them had to cancel or reschedule their purchased flights. Also, of those who had to cancel or reschedule their flight, 58% were aged between 18-30, which shows that the effects of the pandemic were felt more by people in this age group.

Air travel consumer behaviour has been strongly influenced by the COVID-19 pandemic. However, the survey showed that fear of infection was not one of the main reasons behind the decision to postpone flights, but the main reason was rather the state of emergency in the countries where respondents wanted to travel, followed by isolation at home.

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