International **EU**ropean **J**ournal of **M**anagerial **R**esearch
Dergisi (EUJMR)
ISSN: 2602 – 4179 / Dönem / Cilt: 5 / Sayı: 9
Araştırma Makalesi

THE EFFECTS OF THE COVID-19 PANDEMIC ON THE AVIATION INDUSTRY AND STRATEGIES: OPINIONS OF TURKISH AVIATION ACADEMICS

Sabiha ANNAÇ GÖV[1]
Nilay ERBAY[2]

ABSTRACT

Covid-19 Pandemic has drastically affected the aviation industry all over the world. Numerous studies have been concerned with the possible effects of pandemics on the aviation industry by the researchers. Although it is tried to make inferences by making comparisons with previous crises, in this crisis, which has differences in terms of duration and effect, it is important to evaluate the current situation correctly in terms of guiding the aviation sector. The aim of this study is to reveal the ideas of aviation management academics about the effects of the pandemic crisis. In this study, an online survey consisting of open-ended questions was conducted with the academicians to evaluate the current situation of the sector, the strategies to follow, and the expectations of the passengers. The data has been obtained from 27 participants who teach in the field of Aviation in the various universities of Turkey. The content analysis has been employed to analyze the data through the Nvivo package program and the data has been collected under themes and codes. The results of the analysis basically indicate that profit loss, the decline in employee numbers, and economic downturn are the possible effects of the pandemic. It is among the strategies to be followed by making innovations in fleet planning and giving the necessary importance to cargo transportation. Besides these, the importance of being ready for the process that the crisis ends by protecting the current employment was emphasized. Passengers who are guaranteed to have taken the necessary health measures are expected to be sensitive to the increases in ticket prices.

Keywords: Covid-19 Pandemic, Aviation Industry, Air Transport Strategies, Qualitative Research, Content Analysis

JEL Codes: L91, L93, M1

[1] *Dr. Öğr. Üyesi, Gaziantep Üniversitesi, Havacılık Yönetimi Bölümü, sgov@gantep.edu.tr, (ORCID: 0000-0001-7601-559X)*
[2] *Yükseklinsan Öğrencisi, Gaziantep Üniversitesi, Havacılık Yönetimi Bölümü, erbaynilayerbay@gmail.com, (ORCID: 0000-0002-6312-0662)*

Geliş Tarihi/ Received: 31.10.2021
Kabul Tarihi/ Accepted: 09.12.2021

COVİD-19 SALGINININ HAVACILIK SEKTÖRÜNE ETKİLERİ VE STRATEJİLER: TÜRK HAVACILIK AKADEMİSYENLERİNİN GÖRÜŞLERİ

ÖZET

Covid-19 Salgını, tüm dünyada havacılık endüstrisini büyük ölçüde etkiledi. Araştırmacılar tarafından, havacılık endüstrisi üzerindeki pandeminin olası etkileri ile ilgili çok sayıda çalışma yapılmıştır. Geçmiş krizlerle karşılaştırmalar yapılarak çıkarımlar yapılmaya çalışılsa da süre ve etki açısından farklılıklar olan bu krizde havacılık sektörüne yön vermesi açısından mevcut durumu doğru değerlendirmek önem arz etmektedir. Bu çalışmanın amacı havacılık yönetimi akademisyenlerinin pandemi krizinin etkileri hakkında fikirlerini ortaya çıkarmaktır. Çalışmada, akademisyenler ile sektörün mevcut durumunu, izlenmesi gereken stratejileri ve yolcuların beklentilerini değerlendirmek için açık uçlu sorular içeren online anket yapılmıştır. Veriler, Türkiye'nin çeşitli üniversitelerinde havacılık alanında eğitim veren 27 akademisyenden elde edilmiştir. Verilerin analizi için, Nvivo paket programı kullanılarak içerik analizi uygulanmıştır. Veriler tema ve kodlar altında toplanmıştır. Analiz sonuçları temel olarak, kar kaybı, istihdamda azalma ve durgunluğun, pandeminin muhtemel etkileri olduğuna işaret etmektedir. Filo planlamalarında yeniliklere gidilerek, kargo taşımacılığına gereken önemin verilmesi, izlenmesi gereken stratejiler arasında yer almaktadır. Bunların yanında, mevcut istihdamın korunarak, krizin sona erdiği sürece hazır olmanın önemine değinilmiştir. Gerekli sağlık tedbirlerinin alındığının garantisi verilen yolcuların, bilet fiyatlarındaki artışlara karşı duyarlı olması beklenmektedir.

Anahtar kelimeler: Covid-19 salgını, havacılık sektörü, havacılık stratejileri, nitel araştırma, içerik analizi

JEL Kodları: L91, L93, M1

INTRODUCTION

All over the world and especially in Europe, the Covid-19 pandemic caused an unexpected and dramatic decrease in passenger demand by restricting travel. As the borders were closed, European airlines had to take cost-saving measures to quickly respond to the economic downturn and protect themselves (Budd, Ison & Adrienne, 2020).

The pandemic has caused an unprecedented crisis for airlines around the world (Dunn, 2020a; Albers & Rundhagen, 2020). Governments around the world have implemented travel bans, lockouts and shutdowns to enforce social distancing measures in their efforts to prevent the faster spread of the disease and maintain the effectiveness of national health systems. The travel and hospitality industry in general and airlines in particular are in great trouble: more than 60 percent of the world's commercial aircraft grounded (Albers and Rundhagen, 2020). According to 2020 IATA (The International Air Transport Association) annual review report, airlines posted an industry net loss of 118.5 billion dollars. The number of flights in 2020 is 16.4 million, while 38.9 million flights numbers recorded in 2019 (IATA Annual Review report, 2020b).

Passengers played a critical role in the worldwide spread of the devastating SARS-CoV-2, causing a paralyzing epidemic, and the number of scheduled flights worldwide decreased by 47.5% as of August 2020 (Wilson and Chen, 2020; Khatip, Carvalho, Primavesi, To and Poirier, 2020). Flying during a pandemic increases the risks associated directly or indirectly with COVID-19 infection. The risk of infectious disease transmission is a real and significant concern on commercial flights (Mangili, Vindenes and Gendreau, 2015; Findlater and Bogoch, 2018; Liu, Liao, Qian, Yuan, Wang, Liu and Zhang, 2020; Khatib et al., 2020).

The COVID-19 pandemic is changing the landscape of European aviation. The government-induced cessation of cross-border travel in the spring of 2020 led all airlines to take massive austerity measures. With its resultant prolongation and widespread awareness that the return to pre-COVID operations will take months, if not years, European airlines persistently resorted to different responses, also resorted to innovation and exit strategies, and included governments as liquidity providers prominently (Albers and Rundhagen, 2020).

This study aims to evaluate the possible effects of the Covid-19 pandemic on the aviation industry from the perspectives of academicians in the field of aviation in Turkey. It is expected to guide airline operators in terms of their strategic planning for passengers, employee and aircraft.

1. LITERATURE REVIEW

One of the most controversial measures to reduce the risk of COVID-19 transmission during air travel relates to social distancing. (Vos, 2020; Haghani, Bliemer, Goerlandt, and Li, 2020; Milne, Delcea, & Cotfas, 2021). Airlines and airports need to take actions that reduce interaction between people traveling on airplanes and using airport facilities. IATA Medical Advisory Group recommends a minimum distance between passengers ranging from 1 to 2 meters. They recommend passing a limited number of passengers, starting with passengers with seats and window seats in the back of the plane, sequential boarding, limiting hand luggage, leaving empty seats in the area of the jump seats, leaving every second seat empty, or the like. (IATA, 2020c; Milne, Delcea, & Cotfas, 2021). The importance of social distance in air travel is highlighted in a recent report by the European Union Aviation Safety Agency (EASA) recommending that "airplane operators should maintain as much physical distance between passengers as possible". (EASA, 2020d; Milne, Delcea, & Cotfas, 2021).

Aviation experts and aviation executives agree that increasing passengers' confidence in their personal safety is a complex challenge that must be overcome before commercial aviation moves into a new era far different from what passengers are used to (Shepardson, Reese and Ellis, 2020; Lamb, Winter, Rice, Ruskin & Vaughn, 2020).

IATA conducted a survey in April 2020 concluded that 30% of respondents stated that they would wait six months or more before they considered commercial airline travel and an additional 10% would not travel before a year or more had passed. This survey reveals that the willingness to travel by air will be significantly decreased in the near future (IATA, 2020e; Shepardson et al., 2020).

The aviation industry could be affected by the disruptions caused by the COVID-19 pandemic for much longer than the duration of the emergency. Current trends in aviation demand and user preferences can be changed by risk aversion and self-imposed social distancing. The demand and supply of aviation services, as well as investment and innovation in the sector, could be further complicated by a possible economic slowdown. Several airlines, airports, and other aviation-related operators have lost a significant portion of their revenue since mid-March 2020, which has raised concerns about their financial stability and capacity to regain their services (Abate, Christidis and Purwanto, 2020).

Suau-Sanchez, Voltes-Dorta and Guguero-Escofet (2020) have interviewed managers of major network carriers, large low-cost carriers, a regional airline, an airline association, a pilot union, an aviation insurance broker, and an aircraft lessor. In this study, they have indicated that the demand will initially be heavily affected not only in the medium term but also in the long term due to weakened

demand associated with low disposable income levels, but will then be compounded by changes in behavior. The general view was that the impact of Covid-19 would be less intense for leisure travelers and we would see demand recover faster than business travelers.

As the Covid-19 threat unfolded, the industry's most pressing regulatory concern was slot regulation, and in the early days, airlines flew empty planes to make sure they were keeping slots for the next season. This short-term concern was quickly resolved with the suspension of slot rules that was taken by the EU from March 1 to October 24, 2020. The future development of air freight was the first major uncertainty. On the one hand, some thought Covid-19 would accelerate the further forwarding process for cargo that many airports were already undergoing as part of the growing importance of e-commerce (Suau-Sanchez et al., 2020).

Sobieralski (2020) has studied the effects of uncertainty shocks on airline employment in light of the current global epidemic. The dynamics of historical uncertainty shocks for the sector are analyzed using time series analysis. During periods of uncertainty shocks, the estimated job loss is approximately 7% of the airline workforce, with an upper bound of over 13%. Major airline employment is most affected, while low-cost and regional airline employment is least affected. Employees most impacted are those related to passenger transport and flight operations, while management employees are slightly better off during these uncertain times. It is also estimated that recovery from uncertainty shocks will take 4 to 6 years.

2. METHODOLOGY

In this study, open-ended questions were prepared as an online survey form by adapting to the aviation field from Turker's (2020) study, and academicians were sent via e-mail in order for them to evaluate the effects of Covid-19 on the aviation industry. 32 Academicians volunteered to participate in this study. After the necessary examinations were made, it was determined that 27 of them were usable as there were some missing answers. Content analysis was applied to the data obtained from 27 participants with a package program. First of all, themes and codes were determined and the data were analyzed in line with the determined codes and themes. The questions in the open-ended question online form sent to the participants are as follows;

1. What kind of effects will the coronavirus (Covid-19) pandemic have on the Turkish aviation industry?
2. What strategies do you think that airline operators should follow in the aviation industry after the Coronavirus (Covid-19) pandemic? Why?

3. What strategies should airlines operators follow to manage the Coronavirus (Covid-19) pandemic crisis? Why?

4. After the coronavirus (Covid-19) pandemic, evaluate the possible expectations of the passengers from the airline operators on a sectoral basis.

3. FINDINGS

Findings are as follows in the 4 subheads.

4.1. Effects Of the Coronavirus (Covid-19) Pandemic Would Have on The Turkish Aviation Industry

Participants were first asked the question of what effects the coronavirus (Covid-19) pandemic would have on the Turkish aviation industry. Some of the participants' answers are as follows:

"I think that companies operating in the Turkish aviation sector will have financial difficulties. This difficulty will naturally cause a decrease in the number of employees or prevent the creation of new employment. The economic impact of the aviation sector will decrease. The number of personnel, tax payments, supply chain, and sub-industry sectors will also be adversely affected. Airport investments and fleet planning are other areas that will be adversely affected." (P1)

"There will be a slowdown in passenger traffic. Increase in cargo transportation. I expect the projections of the Aircraft Maintenance Units for the year 2040 or 2050 to be revised downwards for the maintenance staff and pilot needs. I expect the need for pilots to decrease, especially towards 2050. And The need for flight technicians will increase. The need for personnel in passenger ground services will decrease." (P13)

"As it is known, because aviation is a labor and capital-intensive sector, the pandemic epidemic has affected aviation the most. Looking at the past years, it is seen that the aviation industry was affected by all kinds of political and economic events quickly, but recovered late. For this reason, I think that the effects of the Covid-19 epidemic will continue for about 5 more years and that many businesses may go bankrupt during this time. Also, considering the economic conditions of aviation activities during the recovery process, I think it will go back 20 years and appeal to the luxury segment again." (P18)

"The aviation industry has never been so affected since World War II. According to IATA's 2020 annual report; While the number of flights worldwide will reach 9 million, it could not even reach 3 million during the pandemic period. This decrease resulted in a net economic loss of 118.5 million. While the worldwide decline was like this, passenger traffic in Turkey decreased by 60.9% and freight

traffic by 41.2%. Due to the process of moving to the new airport, the aviation companies entered into an economic bottleneck, and Atlas Global went bankrupt. With the pandemic, many businesses in the world have declared bankruptcy. If sufficient government support is not given, underpowered aviation businesses may declare bankruptcy due to the costs of moving to the new airport and pandemic restrictions." (P23)

When the answers are given were subjected to content analysis, 7 themes and 28 codes were detected. Analysis results are presented in Table 1. According to the answers given; it has been determined that loss of profits, recession, and bankruptcies may occur. Another important effect on the sector is that employment will decrease. There are answers that the passenger demand will decrease and this potential may shift to cargo traffic. Some participants preferred to describe the possible effects of the epidemic on the aviation industry as "positive" and "negative". These qualifications are gathered under the theme of "Direction of Impact".

Table 1. Themes and codes of data obtained from first question.

Theme	Code	F	%
Economic Effects	Financial Difficulties	2	7,41
	Reduction of Multiplier effects	1	3,70
	Recession	5	18,52
	Costing problem	1	3,70
	Loss of profit	6	22,22
	Bankruptcy	4	14,81
	Purchase or partnership	1	3,70
	Increase in travel expenses	1	3,70
	Increase in the ticket price	1	3,70
Employment	Decrease in the number of employees	8	29,63
	An obstacle to new employment	3	11,11
	Difficulties in finding a job in engineering	1	3,70
Supply Side	Increase in Cargo Traffic	4	14,81
	Depends on State aid	3	11,11
	Suspension of aircraft orders	3	11,11
	A decline in flight frequency	1	3,70
Demand Side	Increase in Leisure Travel	1	3,70
	Takes time to back to the old days	1	3,70
	A decline in passenger traffic	6	22,22
	Turn into Luxury consumption	1	3,70
Innovations	New onboard seating design	1	3,70
	Flying technician	1	3,70
	Flexibility and innovations in business models	1	3,70
	The use of hygiene measures as marketing	1	3,70

	New environmentally friendly aircraft design	3	11,11
Passenger	Increase in Perception of risk	1	3,70
	Positive Effects	4	14,81
Direction of Impact	Negative Effects	5	18,52

4.2. Strategies in The Aviation Industry After the Coronavirus (Covid-19) Pandemic

"What strategies do you think that airline operators should follow in the aviation industry after the Coronavirus (Covid-19) pandemic? Why?" was asked to the participants. Content analysis was made from the answers given by the participants to the question of which strategies to follow in the aviation industry after the Coronavirus (Covid-19) pandemic.

Some of the participants' answers are as follows.

"Vaccination requirement is absolutely required. Proof of vaccination must be presented. Hygiene regulations should continue at the airport, inside the terminal, and inside the aircraft. Disinfectant applications should be done very often. There is a need for applications that will further increase the confidence of passengers. Minimum human contact should be provided." (P1).

"New aircraft orders should be postponed, expensive old planes should be removed from the fleet, the planes of companies that will be closed should be leased or purchased, intercompany consolidations should be made." (P4).

"I expect a big increase in leisure travel following the normalization of life. I think that online meetings will continue due to the time and cost savings brought about by their use, therefore, improvements should be made in terms of price and service for business travelers." (P5).

More attention should be given to the developing air cargo market, as THY and some private airlines do. It should be fast and flexible. Crisis can bring opportunity. If businesses have the opportunity to finance, they can take risks and invest in aircraft, which requires large capital." (P11).

"They should adopt a protective business approach in terms of reducing expenses and increasing revenues, which will contribute to a positive balance sheet in the short term. Because the re-activation of the pre-existing aviation business network will create an opportunity to generate income. However, an action plan should be developed against possible global crises in the medium and long term." (P12).

"Small companies may follow a wait and see approach" (P13).

"First of all, it was seen that the airlines with wide-body aircraft in this pandemic process suffered more and could not use these aircraft efficiently. For this reason, they should make a new bilateral country agreement for long flights (ER), remove wide-body aircraft from their fleets, and include smaller but longer-range aircraft (Example B737-900) in their fleets. In other words, they should use the Hub and Spoke system only for domestic flights and make short-haul flights with bilateral agreements on international flights. In addition, they should keep the number of fleets limited and avoid unnecessary investments. Airlines are required to make new contracts with flight crews and pay salaries according to flight miles." (P18).

Since the forecasts for the sector that participants agree on is in the minority, 37 separate codes have been identified under 9 themes. Analysis results are presented in Table 2. 5 participants agreed on orientation towards cargo transportation. 4 participants emphasized the needs and continuity of inflight hygiene measures. New partnerships were seen as an economic strategy by 5 participants. 3 participants indicated that new aircraft orders should be postponed.

Table 2. Themes and codes of data obtained from 2. Question.

Theme	Code	F	%
Passenger amenities	Vaccination Certificate	1	3,70
	Removing obstacles to touristic trips (visa, exit fee etc.)	1	3,70
	Improvement in the ticket price and service for the business traveler	1	3,70
	Gaining a travel habit	1	3,70
	Marketing of safe flight	1	3,70
	Gradual increase inflight capacity	1	3,70
	Denial of passengers with suspicion of illness	1	3,70
Employment	A decline in the amount of wages	2	7,41
	No lay off	1	3,70
State aids	Tax deduction or exemption	1	3,70
	Long term loan	1	3,70
	Partially state payment of wages	1	3,70
	Exit or not from market depends on aids	1	3,70
New Market	Globally training and certification	1	3,70
	Orientation towards Air Cargo	5	18,52
	Expansion of technical maintenance market	1	3,70
Health Precautions	Preparations for future virus crises	1	3,70
	Hygiene and distance measures in airport	1	3,70
	Inflight Hygiene and distance measures	4	14,81
	Aircraft design by distance	2	7,41
	Permanent measures	1	3,70

Economic Strategies	New Partnerships	5	18,52
	Low-profit margins	2	7,41
	Cost Reduction	2	7,41
	Low-cost transportation	1	3,70
	Economy of Scale	1	3,70
	Opportunist	2	7,41
	Preparations for next crisis	1	3,70
	Wait and see strategy for minor operators	1	3,70
Fleet Planning	Suspension of new aircraft orders	3	11,11
	Remove the highly costed- old aircrafts	1	3,70
	Leasing from airline operators about to close	1	3,70
	Determine aircraft types by new bilateral agreement	1	3,70
	Order of new aircrafts	1	3,70
Flight operation	Increase in frequency of flights	1	3,70
	Increase the demand for domestic flights	1	3,70
Innovation	Contactless service, digitalization	1	3,70

4.3. Strategies that airlines follow to manage the Coronavirus (Covid-19) pandemic crisis

"What strategies should airlines operators follow to manage the Coronavirus (Covid-19) pandemic crisis? Why?" question was asked. The following answers were given in response to this question.

"The number of measures to protect personnel should be increased. Social rights should be emphasized rather than very high salaries. It is obvious that losing qualified personnel has a moral dimension as well as a material one. Decisions must be made to be financially strong. It is best to grow slowly, on a small scale. It may not be right to take too many planes. Proper planning must be done." (P1).

"New aircraft orders should be delayed, expensive old planes should be removed from the fleet, non-flying passenger planes should be used as cargo planes, and flights on routes with low demand should be reduced." (P4).

"Airlines are already trying to reduce costs. This includes reducing employee salaries here. But it is not right to expect such a sacrifice from employees for nothing, at least the employees should be given valuable paper such as a repayment plan or company stock. Giving valuable paper will also

motivate company employees in post-Covid. The main goal here should be to do minimum work at minimum cost, instead of doing max work at minimum cost." (P12).

"Division of services into sub-branches. Companies should come together and create areas of expertise in certain areas. The area of expertise must be internationally competent. Purpose of this; To create more effective companies by sharing the burden on companies. For example, one of the companies is competent in landing gear, another in tire and brake system, another in the engine. This is also true for ground handling services." (P13).

"As you know, people prefer aviation because it is safer and faster. During the epidemic period, the airline should take extra precautions and announce them to potential customers with commercials. It is known that businesses reduce their advertising activities in times of crisis; However, BEKO kept its business afloat with advertisements and campaigns during the 1990s crisis. Based on this example, airline companies should focus on advertisements and campaigns and reflect this result in their ticket prices." (P18).

"Airlines companies should increase their cargo capacity and turn to smaller planes instead of large planes. The number of classrooms should be reduced as much as possible, and strategies to increase capacity should be followed. There should be a global system about whether passengers have a coronavirus vaccine and whether they are tested, and it should be processed there. Projects to be carried out for this purpose should be supported by both private enterprises and the state." (P25).

33 different codes have been determined under 9 themes, as different answers have been received by 27 participants regarding the third question directed to. The themes and codes obtained from the answers to the third question are presented in Table 3. While 7 participants have proposed that employment should be protected, another 2 participants of the sample have asserted the need for dismissal of personnel for airlines operators to survive. Totally 10 participants have been analyzed to have touched on health precautions in their answers.

Table 3. Themes and codes of the data obtained from third question

Theme	Code	F	%
Financial	State aid	1	3,70
	Cost-saving	3	11,11
	Reasonable price	1	3,70
Innovation	Product Differentiation	1	3,70
	Globally Create a database for passengers' tests and vaccination	1	3,70

	Transforming passenger aircrafs into cargo	1	3,70
	Specialization on certain areas	1	3,70
Employee	Staff Empowerment	7	25,93
	Dismissal of Personnel	2	7,41
	Education	1	3,70
Fleet Planning	Slow- Growth	1	3,70
	Delaying new orders	1	3,70
	Take out old planes	1	3,70
	Small aircrafts instead of big ones	2	7,41
	Leasing aircrafts back	1	3,70
Health Measures	Implementation of Ministry of Health Measures	1	3,70
	Inflight Hygiene Measures	3	11,11
	Inflight Quarantine Measures in case of Covid-19	1	3,70
	Reassuring passengers about measures	2	7,41
	Pcr Test in airports	1	3,70
	Advertising and promotion about measures	1	3,70
	Increase controls	1	3,70
Aircraft	Keep in air as possible as	1	3,70
	Adequate Maintenance	1	3,70
Flight Operation	Reducing Frequency	1	3,70
	Opening new routes based on demand	2	7,41
	Charter flights	1	3,70
New Investment	New Partnerships	1	3,70
	Ambulance plane servise	1	3,70
	Orientation towards cargo	2	7,41
Passenger support	Flexibility (combined ticket sales)	1	3,70
	Reducing Class mix	1	3,70
	Load factor maximation	1	3,70

4.4. Evaluations of academicians regarding possible expectations of the passengers from the airline operators on a sectoral basis After the coronavirus (Covid-19) pandemic

"After the coronavirus (Covid-19) pandemic, evaluate the possible expectations of the passengers from the airline operators on a sectoral basis." According to this question, some participants' answers are following:

"Passengers will expect airline operators to pay more attention to service quality, hygiene and cleanliness. Constant information will be needed. It may be desirable to increase and strengthen the number of communication channels. Passengers should not be victimized in case of flight cancellation or change. In this case, refunds must be made." (P1).

"Leisure travelers will expect high-frequency, affordable flights to many destinations. Business travelers will also expect more affordable prices and services that will make air travel attractive." (P5).

"Informing the effects of the Epidemic in ticketing processes such as notifying individuals under the age of 18 that they cannot travel alone while ticketing. Continuation of hygiene rules at every stage for the passenger." (P6).

"Clean, well ventilated, tidy and uncongested airport venues. Cleaning and disinfection applications should be applied partially after the corona. Reasonable ticket prices that are not opportunistic." (P11).

"The basic expectations of the passengers are to be able to fly on the routes they want (not reducing routes), to be able to make affordable trips (not to increase ticket prices), to continue air travel comfort (flawless operation of airport activities, a continuation of food and beverage offerings on the flight, etc.)." (P12).

"I think that people's travel habits will change after Covid. Business trips will decrease, but tourism trips will continue. As a passenger, I expect the measures to be permanent as the fear of contagious disease will increase even after covid." (P19).

"Passengers always expect safety and security. In this context, they expect planes and airports to be more sterile, but more than anything else, many passengers still consider the fare. Airlines should not put the passengers in a difficult situation in order to save themselves from the crisis. There has also been a decrease in flight frequencies. Passengers expect these frequencies to increase in a short time." (P24).

According to the results of content analysis, 6 themes and 20 codes were created from the responses of 27 participants, who evaluated the possible expectations of passengers from airline operators on a sectoral basis after the coronavirus (Covid-19) pandemic. The themes and codes are presented in Table 4. 11 of whole participants have pointed out that the ticket prices should not be increased in order to overcome the loss of profit faced during the pandemic. Taking health measures such as continuing and increasing hygiene measures, providing masks and gloves, the distance at airports, permanent measures and the use of low capacity (50% or less) in an aircraft have been remarked as passenger expectations by 13 participants. 4 participants stated that the frequency of flights would be expected to be increased.

Table 4. Themes and Codes of the data obtained from 4. Question

Theme	Code	F	%
Ticket	Reasonable ticket price	11	40,74
	Price refunds	1	3,70
Service	Food & beverages	2	7,41
	Entertainment	1	3,70
	Comfort	1	3,70
	Easy ticketing	1	3,70
	Reducing boarding time	1	3,70
Communication	Disclosure of Health measures	1	3,70
	Flight notification	1	3,70
Health Precautions	Hygiene and cleaning precautions	6	22,22
	Increasing measures	2	7,41
	Providing Mask/Hygiene materials	1	3,70
	Distance at airport	1	3,70
	Permanent measures	2	7,41
	Low-capacity usage (%50 or less)	1	3,70
Aircraft Design	Green new design	1	3,70
	Comfortable and quite	1	3,70
Flight operation	New route	1	3,70
	Frequency- increase	4	14,81
	Non-stop flight	1	3,70

5. CONCLUSION

In this paper, the effects of Covid-19 effects on the aviation industry was aimed to be evaluated by Academicians who teach in the field of Aviation. The findings of the research show that the aviation industry would be able to find a way to overcome this process by enduring some negatives and making accurate plans.

The first step of this process is to succeed to survive by financially-effective management. State aid, new partnerships, and cost-saving are among the strategies of economic. Passenger aircraft may be transformed into Cargo aircraft to get a share from this increasing market recently. Then, the suspension of new aircraft orders, disposing of old and leasing aircraft are among the strategies of fleet planning. Increased and permanent health precautions that assure safe flight may prevent the decline in passenger demand. New environmentally-friendly aircraft and also new inflight designs may convince the passenger to be able to fly comfortably and safely whenever and wherever to want to go. One of the most striking expectations is affordable ticket prices for passengers.

Staff empowerment is expected to be beneficial to the airline operators that succeed to survive at the end of the crisis. The aviation industry will need the currently-experienced workforce after Covid-19.

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Acknowledgement

We thank all the academicians for their contributions who participate in this research by sharing their valuable opinions.