Π.Μ.Σ. «Master in Business Administration» (MBA)

Flying through Turbulence: A strategic Marketing Analysis of Covid-19's Impact on Greece's Leading Airlines

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Abstract

The airline market is constantly evolving, so the strategy must be adopted to the new dimensions of the sector, such as the changes in demand and the new organizational requirements. The pandemic of Covid-19 had caused so many changes in economy, in health and in consuming behavior and had affected so many different sectors. The closure of borders and the lock downs from the majority of countries caused a major crisis in aviation sector. This thesis aims to analyze the effect of the pandemic in Greek aviation and the response of the two biggest Greek airline carriers Aegean and Sky Express. First, it describes the environment of Greek aviation using a PESTEL analysis and the industry with a Porters Five Forces analysis. Then, it refers to the strategies followed by Sky Express and Aegean Airline and how they managed to overcome this crisis.

Keywords: COVID-19, Greece Aviation Sector, Business Strategy, Sky Express, Aegean Air

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Acronym

ACI Europe: Airports Council International Europe

EASA: European Aviation Safety Agency

EC: European Commission

ECB: European Central Bank

ELSTAT: Hellenic Statistical Authority

FSC: Full-Service Carriers

GDP: Gross Domestic Product

HCAA: Hellenic Civil Aviation Authority

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

INSETE: Institute of the Greek Tourism Confederation

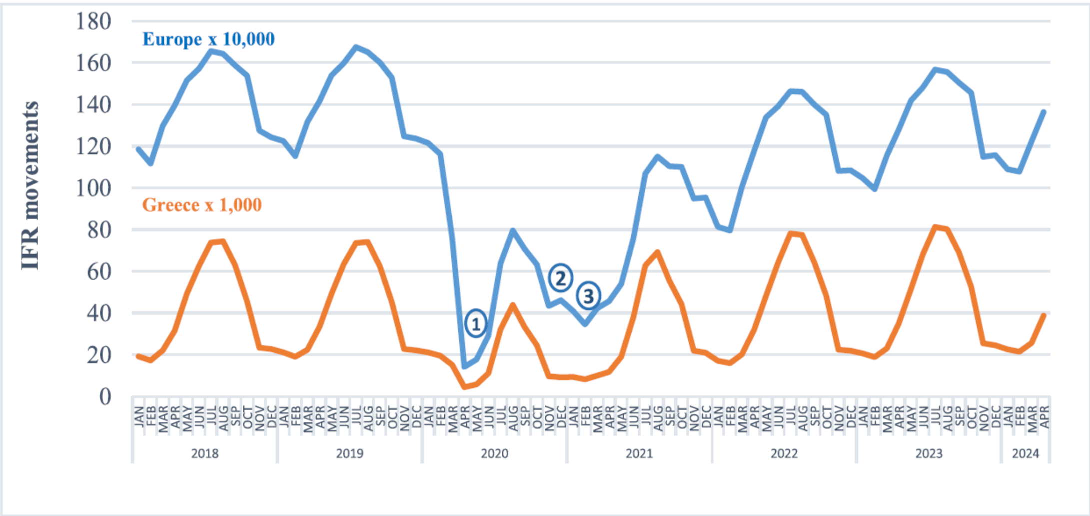
WHO: World Health Organization

Chapter 1: Introduction

The airline market had growth during the last decades. Especially, European airline market has transformed to a huge united market but it faced some problems which emerged due to economics, health and safety factors. The management should adjust their strategies in order to take advantage of new opportunities and to face emerging threats (Dwyer & Edwards, 2009). The pandemic situation of COVID-19 was a threat to health and to the global economy. The pandemic has caused a lot of bankruptcies of small and large businesses all over the world (Amankwah-Amoah, Khan, & Osabutey, 2021) and effects some industries more than others.

One characteristic of COVID-19 crisis is that it went on for an extended period and took place in long steps (Rothengatter et al., 2021). The first phase of COVID-19 begun in March and lasted till June 2020, the time when the first restrictions in flights and lockdowns were introduced (Sun et al., 2023a). During the summer of 2020 the fall of COVID-19 cases and the upcoming tourist season helped to relaxing the transportation limits and also to a small recovery of air travels (Paraschi et al., 2024). The next phases of pandemic burst from October to December 2020 the second phase and the third one from March to April 2021. Figure 1 shows the reduction during the COVID-19 pandemic and also shows that the aviation industry is characterized by intense seasonality and cyclicality. In the figure the numbers 1, 2 and 3 indicates the waves of the COVID-19. The difficulties brought by pandemic crisis caused many airlines companies to collapse (Paraschi et al., 2024).

Figure 1 IFR transportations in Europe in the three phases of the COVID-19 pandemic. Note: Numbers in cycles represent the 3 waves of COVID-19 pandemic Source: Paraschi et al. (2024)

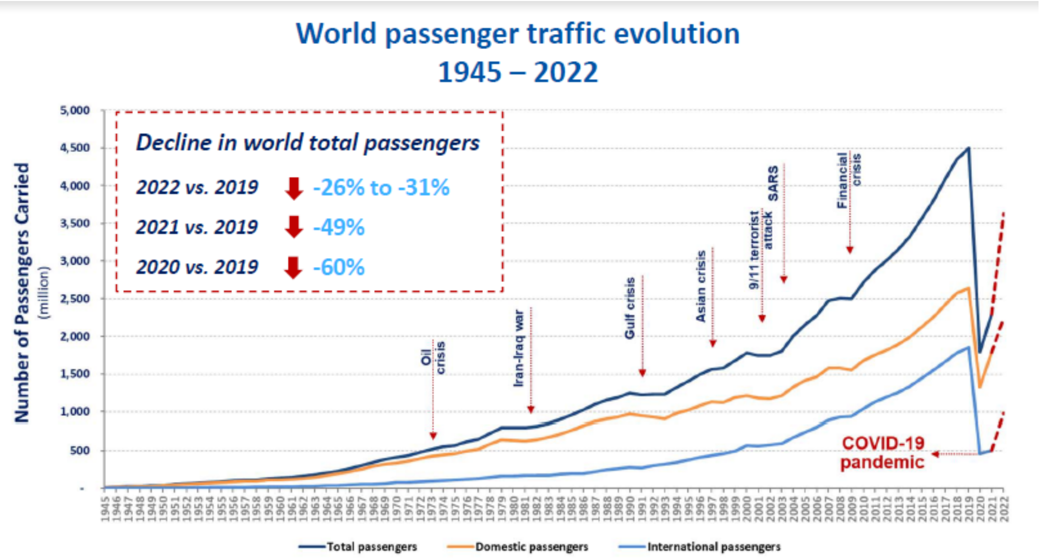


The COVID-19 pandemic has altered the industry landscape (Sheng, Amankwah-Amoah, Khan, & Wang, 2020) and reshaped consumer buying behavior (Mathurin et al., 2020) extensively. This situation demanded different strategic approach to improve organizational resilience and to survive the extreme crisis.

The globalization and the liberalization of the markets have led to the growth of the airline market. As Arrigo et al. claims, the airline industry has experienced changes due to endogenous factor – market dynamics and external factors such as Covid-19 pandemic (2023). The research has analyzed the strategies of airlines such as cutting back lines, holding on, innovating, exiting and the role of governments to protect and help the industry (Albers & Rundshagen, 2020).

The aviation industry is vulnerable in threats like natural disasters, diseases outbreaks, wars and energy - oil crisis. These threats affect the revenues of the global aviation sector because they lead in flight cancellations, travel bans and border closure among countries. Figure 2 shows that many threats influents the global aviation but none has the impact of COVID-19 and the spread of the disease is influenced by the number of passengers, their origin and their destination.

Figure 2 World passenger traffic evolution 1945 -2022, Source: ICAO Air Transport Reporting Form



The World Health Organization declared on 11th March 2020 that Covid – 19 was a pandemic outbreak. There were not an official medical treatment and the governments changed the travel restrictions and prohibited the cross countries transportations which affected seriously the aviator industry. In order to minimize the spread of the virus, the Centers for Disease Control and Prevention recommended the “6 feet away rule” and the aviation providers had to ensure it through their operations. The airports and the airline companies used the given technology to keep the places healthy and sanitized.

In order to face the threats caused by Covid – 19, the airline industry had to invest in new technologies and to create new operation norms and opportunities. Data analysis provides solutions to organizational problems and helps to interpret and present the data with useful and strategical way.

Greece is the most common tourism destination in all EU countries, the 12.6% - 33.4% of GDP comes from tourism and the one fifth of the nation workforce is employed in tourism (MFA, 2021). Additionally, in 2021, the 79% of the total arrived tourists came by air travel (INSETE, 2022), which means that the restrictions in air traffic influence tourism and Greece’s economy. Greece is a well – known summer destination especially for its islands and its coastal areas.

This research aims to analyze the management responses of Greek aviation to COVID-19. It is based in literature reviews and uses secondary sources for data like airline’s official websites, financial reports and national authorities’ publications (Hellenic Civil Aviation Authority, INSETE, ACI Europe, ICAO and other).

It must be referred that the group of Aegean and Olympic Air are a consolidation of two different carriers with separate Air Operator Certificate. The Group of Aegean and Olympic Air are the largest airline company. In 2019, they carried over 15 million passenger and their fleet had 65 aircrafts. They operate in Greece and Europe, by scheduled and charter flights. Aegean begun its operation in 1999 and in 2013 acquired Olympic Air. The other aviation business which analyzed in this research, is Sky Express. Sky Express founded in 2005 and is the second airline operator in Greece. Its operation includes mainly scheduled, charter and cargo flights, but also provide air taxi, sightseeing and emergency medical flights. Sky Express’s rhythm of growth was exceptional, from 70 thousand passenger in 2015 to 1,2 million in 2019.

The purpose of this study is to analyze the strategies followed by these two Greek Airline Companies to overcome the impact of Covid -19. This study analyzes in general the effects of Covid-19 in Greek Airline Sector and then focuses in the two Greek Airline companies: Sky

Express and Aegean Airlines S.A. It also examines how the airlines eventually overcome the crisis, secured their survival and contribute to Greek Economy.

Chapter 2 is referred to the theoretical approach and analyze the meaning of strategy, strategic management and the responses to COVID-19 crisis. Furthermore, it analyzes the general characteristics of the aviation sector.

In chapters 4 and 5 is carried out the analysis of the performance of the Greek Aviation businesses Sky Express and Aegean Airlines S.A.

Chapter 6 summarizes the results of this study and suggests future research directions. Moreover, the conclusions of this study can be used as a basis for responding to future crisis.

Chapter 2: Literature Review

2.1 Business strategy

According to Harvard Business School, “Business strategy is the initiatives, which a company adopts in order to create value for the stakeholder and the organization and to acquire competitive advantage”. This strategy is necessary for the success of a company because it determines and defines its position toward their competitors. According to Porter, the competitive strategy focuses on being different in order to create a unique mix of value (1996:64).

The application of business strategy begun after the Second World War. The managers in business corporations and consulting companies started to amply the military strategies for winning commercial conflicts.

A business strategy is crucial to focus on long term perspective. It should search for profitable activities and their future extension. Moreover, it has to invest in development and explore new opportunities for profit.

Business strategy is described by the strategy statement of an organization, which consists of the goals, the scope of organization activities and the competitive advantage (Johnson et all, 2017: 7-10). The goals of an organization are defined in the mission and the vision of the organization. The mission clarifies the operations of the organization while the vision consists an inspiration of the future and tries to motivate stakeholders and employees. The scope of organization refers to activities of the organization, externals and internals, to products and to services. The competitive advantage is crucial because it defines the activity which differentiate a company from its rivals (David & David, 2017: 36). Competitive advantage helps an organization to survive and ensure that customers recognize a greater value to their products or services than their rivals.

A corporation needs to analyze some factors in order to have a successful strategy. First, must analyze the macro environment factors, by using a PESTEL analysis (Political, Economic, Social, Technological, Environmental and Legal). This analysis is utilized in order to explore threats and opportunities in a world which has a dynamical change. Also, a corporation must analyze the industry in which the organization operates, such as competitors, customers and suppliers. Some frameworks used for this analysis are Porter's Five Forces or the Value Net. These frameworks describe an industry structure and profitability and help corporations to gain their market position. In the end, the organizations must analyze their strategic capabilities, their unique combination of their assets, skills and processes. A framework used to describe the strengths and the weaknesses of a company is Benchmarking. All these analyses could be summarized in a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats).

Porter's Generic Strategies contain three different core approaches to gain competitive advantage. These are:

a) Cost Leadership strategy which focus on lowering the cost,

b) Differentiation, which focus on producing unique and valued product from the customer and

c) Focus, which aims at a niche market and moreover at a low-cost product or a differentiated (David & David, 2017:8-13).

2.2 Strategic management

Strategic management consists of a process which provides information about the organizational performance. It offers a complete insight of the organization and helps employees to understand it better. This enhances the commitment of the human factor in goals of the organization, the participation in decision making and the empowerment of employees.

There is a range of options in strategic management such as penetration or market development, diversification and retrenchment. Choosing the right scenario results in growth and development otherwise in possible failure. Strategic management allow to make decision in advance rather than long delayed with efficiency.

By using strategic management an organization controls better its performance and future development. It helps to respond and take the right action to a situation which occurred. Additionally, it helps to take control in advance of a future situation or a problem. The organization engaged with strategic management tends to be successful, profitable and productive. By utilizing strategic planning, an organization succeeds high long-term performance compared to the market.

The strategic planning is an on-going process with several steps. First of all, the organization must define their mission and vision. Then must set their goals and values. The second step includes the analysis of internal and external environment. The PESTEL Analysis will describe the macroeconomic environment and the strategy is formulated by conducted a SWOT analysis to define the current market position. The next step is to describe the goals and the objectives of the strategy. Goals should be SMART (Specific, Measurable, Achievable, Relevant and Time – bound). After that, actions plans are developed and implemented. The strategy must be executed, monitored, reviewed and at least if and when is needed to be revised.

Many mistakes lead to weak strategic planning. It is crucial to involve employees in every phase of strategy planning. A fatal mistake on strategy planning is the lack of communication among the stakeholders, the lack of collaboration and support of change. Moreover, it is essential to set measures for the performance of the organization. It is important to use analytics, to research the market and analyze the competition.

The strategic management is vital in an organization despite its size, its structure or its activities. The strategic management must be constantly suitable and adjustable in the market conditions. A business with a well-prepared strategic plan can exploit opportunities to maximize its profits and avoid threats and losses.

2.3 Strategic responses to crisis COVID-19

Some industries such as air transportation and leisure activities (tourism) are more sensitive to external factor and crises. The pandemic of COVID-19 constitutes health, economic and social threating, and demanded direct and diverse crisis management. The airline companies reacted to this threat immediately, however not homogenously (Paraschi et al. 2024). Albers & Rundshagen (2020) described their strategic moves as four different responses:

- Retrenchment, which include cost reduction, products reduction – the fleet was grounded by travel restrictions, but when the air transportation restored, major airlines reestablished some of their routes. The airline companies announced job and salary cuts, reduced work cycles in the form of seasonal or part-time jobs (Fickling, 2021) in order to lower as much as possible, the employer's expenses (Kotoky et al., 2020). The airline reduced their fixed cost by retiring unprofitable large aircrafts, reducing the number of their aircrafts and postponed new aircraft deliveries (Albers & Rundshagen, 2020). Many airline companies focused in domestic routes avoiding international traffic due to travel restrictions (Suk & Kim, 2021).

- Persevering, means preserving the status of organization, its activities and protect from operation disruption, which can become a competitive advantage. (Wenzel et al., 2020). In order to maintain their status, many airlines received government aid as tax advantages, grants, repayable advances and state guarantee loans. In Greece, on 23 December 2020 a state grant of €120 million was given to Aegean Airlines S.A to be in line with EU state aid rules, for the losses caused by COVID-19 and travel restriction (Tracker of Subsidies and State Aid to mitigate COVID-19 Effects).
- Innovating, refers to renewal strategy, to reconfigure their provided services in order to safeguard their competitiveness and their resilience (Heinonen & Strandvik, 2021). The innovation accelerated by COVID-19 was inflight social distancing, using the newest technology in disinfection methods (UV light) and advanced high-efficient air filtration in the cabin system and touchless technologies at airports and biometrics (Rodrigues et al., 2021). Another innovation concerned marketing field, the "flight to nowhere" routes, where a flight takes off at the same destination as it lands (Suk & Kim, 2021).
- Exit refers to terminate the activities of an organization. It could happen because the business is unviable or as a strategic move as operational downscaling (Wenzel, et al. 2020). The Air Italy filled bankruptcy. Some airlines withdrawn from specific segments or markets; Lufthansa closed a subsidiary business (Albers & Rundshagen, 2020). Market exit could be an alternative strategy to save cash, because an middle-sized airliner will lost all of its cash in less than a year (about as much as 9 months) (Rodrigues et al., 2021) but exit may interpret as business failure (Albers & Rundshagen, 2020).

Wut et al. (2021) referred that in crisis management exists several dimensions as crisis prevention, crisis preparedness, crisis response and crisis revision. Crisis prevention means to avoid future crisis. Crisis preparedness includes actions to manage and prepare the crisis as corresponding teams and action plans. Crisis respond includes the measures of governments, communities and organizations to respond to a crisis. Last, crisis revision refers to the learning and the conclusion of a crisis (Wut et al., 2021).

In the pandemic of COVID-19 could not be used the tactic of crisis prevention, because none believe that such a pandemic will take place.

The study intends to explore the others aspects of crisis management, such as crisis preparedness, response and revision. First, at the beginning of COVID-19, the companies have shown their crisis preparedness, during the pandemic the crisis respond from the airline companies and in the end the crisis revision. Moreover, this study aims to conclude the organizational and operational impact of pandemic in the Greek Aviation sector.

Chapter 3: Macroeconomic conditions and aviation industry

This chapter analyzes the macroeconomic condition during the period of COVID-19, between 2019 and 2024. The COVID-19 crisis had an impact across all the layers in the macro – environment. Moreover, it analyzes the aviation industry competition with the framework of Porter's Five Forces. It refers to the aviation industry, especially in Europe and in Greece.

3.1 PESTEL analysis

The macro-environment consists of six layers: Political, Economic, Social, Technological, Ecological and Legal. Next will be referred to those relevant to aviation industry and the pandemic crisis of COVID-19.

3.1.1 Political

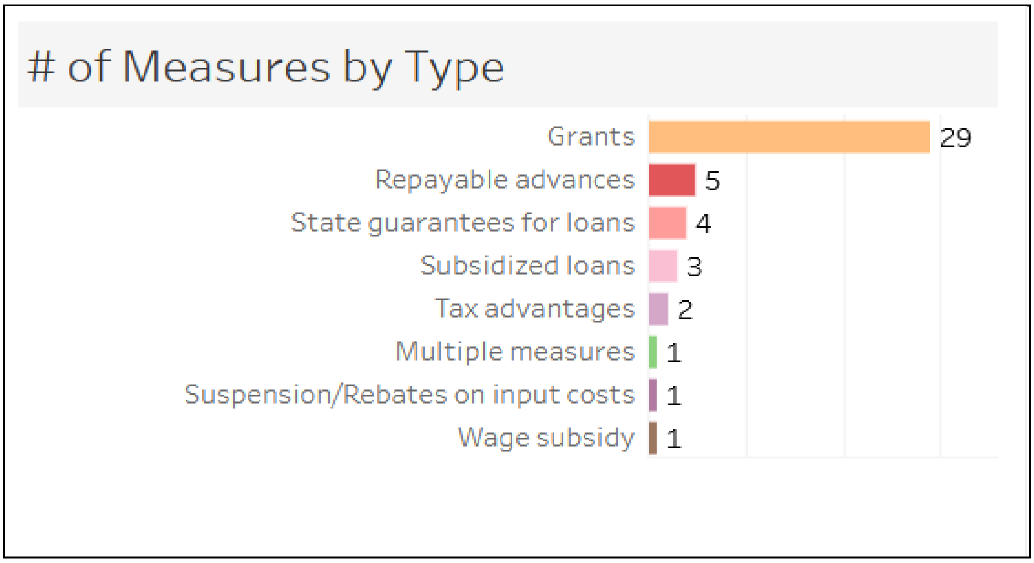
According to the Treaty on the Functioning of the European Union (TFEU) the objectives are to set up a single air transport market across Europe, to function properly and to extend it to certain non-EU countries as far as possible (Air transport: market rules, European Parliament, 2025).

Historical, air transport has been controlled and developed under national authorities, as monopolist national air companies and airports. The international air transport expanded due to special agreements with strict control to market access. The Single European Act in 1987 and in 1990, relaxed the rules of fares and capacities. The Regulation (EC) No 1008/2008 of the European Parliament and the Council, which has replaced the No 2407/1992, No 2408/1992 and 2409/1992, removed all the remaining commercial restriction for European airlines who operates within the EU. This regulation was extended to Iceland, Norway and Switzerland and countries in the Western Balkan with the ECAA. The European Common Aviation Area (ECAA) agreement is an agreement between the partners from South-Eastern Europe: Albania, Bosnia and Herzegovina, Kosovo, Montenegro, North Macedonia and Serbia. It aims to create a single aviation market with substantial economic benefits. It guarantees the same terms of safety and security across Europe. It entered into force on 1 December 2017 (Air transport: market rules, European Parliament, 2025).

The pandemic crisis of COVID-19 affected the aviation industry and the last needed the aid of state in order to maintain their business. The European Commission approved over €35 billion as state aid in many forms as grants, loans or recapitalization. The US airline got $70 billion aid in form of grants, compensations and loans.

Figure 3 shows the total measures of state aid for Greece. The Greek air sector received two grants. In 2020, Aegean Airline got € 120 million as compensation for the losses. On 26 July 2021, the Athens International Airport S.A. received €110 million as a direct grant and a compensation for the operational damages from 23 March 2020 to 30 June 2020.

Figure 3 Type and number of Measures by Country – Greece. Source: https://dataviz.worldbank.org/views/AID-COVID19/Overview?%3Aembed=y&%3AisGuestRedirectFromVizportal=y&%3Adisplay_count=n&%3AshowAppBanner=false&%3Aorigin=viz_share_link&%3AshowVizHome=n#2



3.1.2 Economic

In 2019, Greek economy continues to improve due to the financial impact of the tourism sector and the export of goods. During that year the GDP rose by 1.9%. Also, the minimize on the financing cost reflects the positive route of the economy. The growth of European economy was slowed and the GDP's growth in EU-27 reduced from 1.9% in 2018 to 1.4%. The monetary policy aimed to sustain the growth rate, which was threatened by Brexit and geopolitical tensions. The oil prices were characterized by high volatility due to the geopolitical tensions in Middle East.

The outbreak of COVID-19 at the end of 2019 and its rapid spread around the world and especially in Europe affected the economic activity as well. The first case of COVID-19 in Greece was detected in February and resulted in restrictive measures in order to protect the public health, such as forbid people unnecessary movement. These measures were partially lifted during summer period and reestablished in October.

The effect of the pandemic crisis reflected in GDP. In Eurozone, has decreased by 6.4% instead of 1.6% increase of the previous year. Some sectors, as tourism and transportation, have experienced a deep recession and the process of recovery was challenging.

In Greece the GDP was reduced by 9%, according to Hellenic Statistical Authority. The trade balance faced a fall in exports caused by the decreasing arrivals in summer as a result of the travel restrictions.

In 2021, the world economy begins to recover supported by monetary policies from centrals banks and governments. The pandemic COVID-19 was not totally under control and continued to affect the global economy. The recovery rate differentiates between the developed economies because of the differences in the epidemiological conditions, the progress of vaccinations and the structure of the economies. The uncertainty remained because of the fear of new variants of COVID-19, the rising prices of services and goods, the issues of the global supply chain and the geopolitical crisis. The world GDP growth was calculated at 5.5% in 2021 while it was -3.4% in 2020. In Eurozone, the GDP was 4.2% while it was reduced by 6.4% in 2020. In Greece, the sector of tourism raised the GDP at 8.3% from 9% losses in 2020. The retail and services sector showed a considerable recovery.

The oil price has raised from \$51.8/bbl on 31/12/2020 to \$77.78/bbl on 31/12/2021. The US Dollar has been strengthened by Euro. The rate EUR/USD changed from 1.1422 in 2020 to 1.1827 in 2021.

In 2022, the war in Ukraine caused economic challenges, influencing the prices of energy, food and raw materials. Moreover, China's lockdowns disrupted the supply chain. The Central banks of US and Europe raised the interest rate in order to maintain a low-level inflation. Especially, ECB raised the interest rate from -0.50% to 2.50% until the July 2022. The rate of growth of GDP was slowing down. The global growth of GDP descended from 6.2% in 2021 to 3.4% in 2022, while in Eurozone was 5.3% in 2021 to 3.5% in 2022.

This year is characterized by high volatility in oil prices and the exchange rate of Euro/Dollar. The average oil price raised from \$70.95/bbl in 2021 to \$99.04/bbl in 2022. The average exchange rate Euro/USD in 2022 was 1,0532 compared to 1,1827 in 2021, the dollar strengthened against Euro.

The Greek economy continued to grow due to investments, tourism and private consumption. Meanwhile, Fitch Rating upgraded Greece's rating from BB to BB+, only one notch below investment grade.

In 2023, global economy became more resilient and the global GDP raised by 3.1% because of the rapid growth of services. Some characteristics of this year were the raise of energy prices, the tight monetary policies and the disruptions in supply chain. The Ukraine war and the geopolitical turmoil in Middle East affected the entire planet in aspects such as food supply chain, energy etc. The prices of goods and the inflation continued to remain elevated despite the lower energy prices. Especially, global inflation fell to 6,8% in 2023 from 8,7% in 2022. Eurozone has achieved a growth rate of 0,5% in 2023. The interest rates continued to increase. ECB raised the interest rate by 450 basis points on September 2023, in order to minimize the inflation. Greece managed to record growth higher than the EU average and GDP grew by 2% in 2023, according to the data from European Commission.

The oil prices in 2023 were lower than in 2022. The average price was reduced from $99.04/bbl in 2022 to $82.17/bbl in 2023 and the price of jet fuel reduced by 21% in 2023.

The average currency exchange Euro/USD raised at 1,0814 in 2023 from 1,0532 in 2022, which means that the Euro strengthened.

In 2024, the global economy is characterized of high uncertainty due to the tense in the Middle East and Ukraine and to the ''silent'' economic competition between the two world economy leaders, U.S. & China. In contrast the economic conditions were more favorable because of the minimizing inflationary pressure and this results to interest rate reductions and to foster a conductive growth environment.

In the EU, the economic growth was only 0.9% supported mostly by consumption, private and public. The inflation was reduced to 2.7% in December 2024 and the unemployment rate was 5.9%. The ECB's interest rate was reduced to 3.00%.

The global oil supply increased marginally and the demand increased following the increase in the transportations. The oil price has experience significant fluctuations during the year because of the discrepancy of demand and supply and the jet fuel oil declined by 5.5% from the previous year.

The currency exchange rate Euro/USD at 31 December 2024 was 1.039 compared to 1.105 on 29 December 2023.

3.1.3 Social

The Covid -19 caused social distancing and had severed many relationships and bonds. Many social elements have affected the demand and the supply and especially the airline sector was influenced by travel behavior. The travel restrictions had reduced the supply because of the uncertainty of the COVID-19. Also, the pandemic of COVID-19 had a major effect in social life from social distancing and caused an anxiety to individuals, which effected the demand (De Vos, 2020).

Moreover, the airline companies focused in domestic market to avoid the spread of the disease and also to maintain some activity. According to Eurocontrol, the largest air traffic reduction happened on March 2020 and the drop was larger in international markets than in domestic.

3.1.4 Technological

The pandemic of COVID-19 created new working customs as working from home, meeting via video-conferences, etc. Technological solutions were necessary to enable businesses continuity. The use of technology reduced the need of business air travels. Additionally, the vaccination progress improved travel conditions and lifted travel restrictions and allowed further aviation activity. The airline sector took advantage of operational analytics to improve their operating cost. They retired unprofitable and large aircrafts and changed their marketing mix by adjusting the price and the product.

3.1.5 Environmental

The aviation has a negative impact to the environment because of the heat, the noise, and the pollution from gases. It affects the climate change and International Civil Aviation Organization (ICAO) in 2016 proposed Carbon Offsetting and Reduction Scheme for

International Aviation (CORSIA). At first CORSIA aims to monitor Carbon emissions levels in air voluntarily and afterward aims to eliminate by half the emissions by 2050.

3.1.6 Legal

Greece is a member of European Union and follows their policies, rules and legislation. Greece adopted all EU travel restrictions and measures to limit the spread of coronavirus. The air traffic reduced dramatically in Europe due to COVID-19. The Commission put forward legislation in order to help airlines maintain their businesses, by considering that the slot remained operated during the pandemic period (European Commission, Transportation during the pandemic). Additionally, the Commission proposed a common approach to respond to COVID-19. Proposed common criteria to apply in order to introduce travel restriction. The European Centre for Disease Prevention and Control, published the risk areas of COVID-19 transmission. They apply a common framework of measures for travelers from high-risk areas. They develop the coordination among states and the publication of information about restriction (European Commission, Travel during the coronavirus pandemic).

The European Commission had recommended gradual lift of the restrictions when the epidemiological situation permitted it. A tool to facilitate safe travel was the EU Digital Covid Certificate Regulation. In order to acquire it, a person must have been vaccinated, recovered recently from COVID-19 or had a negative test result. This certificate begun from1 July 2021 and it was used until mid-2023, supporting the free movement among Europe. The system of EU Digital COVID Certificate, became a global standard used beyond the EU. Its success helped to global recovery and to safe international travel. The WHO (World Health Organization) established a global system based to EU Digital COVID Certification for future health threats (European Commission, Travel during the coronavirus pandemic).

On 5 May 2023, the WHO declared the end of COVID- 19 pandemic. The Council recommendations and the regulation were no longer in force since 01 July 2023 (European Commission, Travel during the coronavirus pandemic).

3.2 Porter's Five Forces in Greek Aviation Sector

The framework of Porter's five forces analyzes the structure of an industry, the competition and the ability to generate profit. The five industry forces are competition, the treat of new entry, the supplier bargaining power, the customer bargaining power and the threat of substitute. The group of Aegean Air and Olympic Air and the Sky Express operate in Greece and Europe airline market mainly for travelling passengers.

3.2.1 Competitive rivalry

In the past, the airline sector developed under state protection and the market was monopolistic. Since 1986 with the Single European Act and regulation from EU the protected aviation sector turned into a competitive market gradually (European Parliament, Air transport market rules).

Full-Service Carriers (FSC) provide high standard services such as refreshments and catering for free, comfortable seats and their prices are higher than Low-Cost Carrier (LCC). They provide connecting flights all around the world, long-haul flights, business seats and business lounges. Well-known FSCs are Emirates, Singapore Airlines, British Airways and others. LCCs typically flight short routes and in secondary airports. Usually, the aircraft has high seat density and charges for services as on-board meals and drinks, checked luggage and seat selection. Well-known LCCs are Ryanair and EasyJet. Also, there exists a hybrid business model, which combine cost saving methodology and route structure FSC (Uphues, 2019).

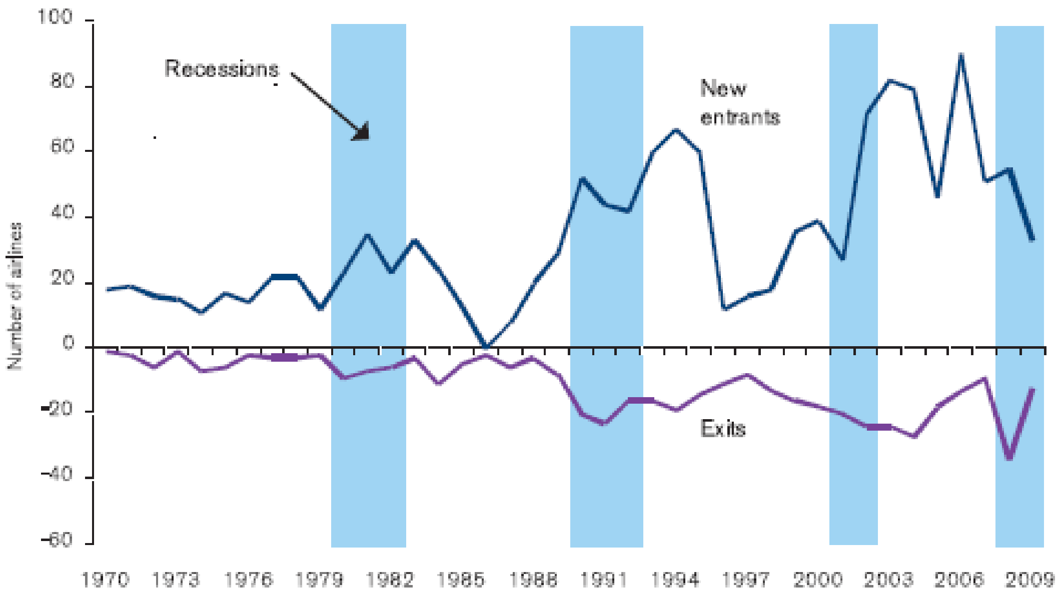
Both groups of Aegean Airline and Sky Express are private companies, which compete with other Full-Service Carriers (FSC). They operate in Greece and Europe and they compete with well-known and with low-cost global aviation companies.

3.2.2 Treat of new entry

There are some barriers to entry in the aviation industry. First of all is the necessary capital. In order to operate a new airline company there is a need for a substantial capital for fleet. Additionally, there exists high operating and fixed costs. Another common characteristic of aviation industry is the low customer loyalty. Customers prefer security and a new company must invest in intangible assets as technology and knowledge to security regulations. Moreover, the supply and distribution channel usually demand long-term contracts, which prevent new entrants. A new competitor must focus on a target market segment and to provide unique product, otherwise it will face the risk of lowering the prices by the existing companies to keep their market share (Johnson et al., 2017).

It is generally accepted that barriers to entry is significant for new entrants, but are very low for existing operators. Over 1300 new airline companies begun its operation from 1970 to 2009. A way to establish a new business, usual by an existing airline company, is to focus on new market with a different strategy.

Figure 4 Net entry of new airlines from 1970 to 2009. Source: IATA, Vision 50 - Report



3.2.3 Bargaining power of Supplier

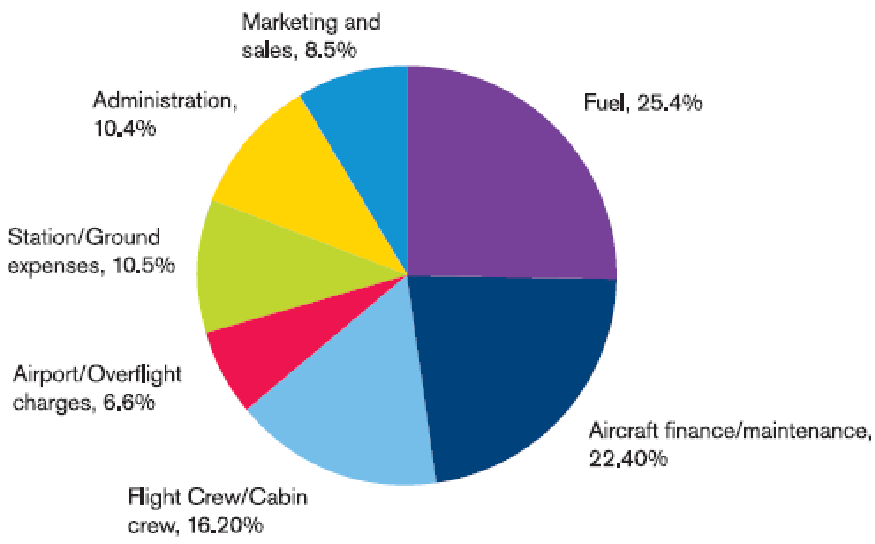
The suppliers of aviation industry are aircrafts producers, labor, fuel and airports. The aviation industry is characterized by high concentration in suppliers, because the majority of them are monopolies or oligopolies with concentrated power (IATA, 2011, "*Vision 2050 Report*, p.40-42).

As shown by Figure 5, the biggest of operating costs are the jet fuels and the price is volatile. The cost of the aircraft comes in second place and the labor cost in third. The manufacturers of aircrafts are high concentrated, basically are only two, Airbus and Boeing, and the engine suppliers are only three, Pratt & Whitney, General Electric and Rolls & Royce. The timeline from order to delivery of an aircraft is long and it contains a lot of bargains.

Human factor is very significant for the airline company, especially pilots and technical - engineering staff, who are skill staff. There are significant differences for employees with specialized skills like pilots. The power of a union often rises as companies mature and the nature of labor relations erodes industry structure. The bargain of the wages depends on the power of the union, which in Europe is at moderate power (IATA, 2011, "*Vision 2050 Report*, p.40-42).

The airports are usually local monopolies and there is not really competition from nearby airports. Many airports have become more aggressive in their fee structures in order to earn their cost of capital. The airports switching costs are high, especially for connection flights. The airports have limited capacity and serving traffic flow. The fees include the gate usage, the take off and the landing slots, while usually for maintenance and repair, many airline companies use outsourcing.

Figure 5 Operating Cost Structure of airlines in 2010. Source: IATA, 2011 - Doganis, 2010



3.2.4 Bargaining power of Customer

The bargaining power of customers is rising. In aviation sector the majority of the buyers are the ultimate consumers, but also buyers can be considered tourist travel agents or internet websites and platforms, governments and other businesses. The distribution channels include travel agents and websites. Travel agents represent large corporate clients, can affect the demand and are more price oriented because they should comply with corporate travel policies. The websites focus mainly on price comparison among different carriers and they have concentrated power from consumers. (IATA, 2011, "*Vision 2050 Report*, p.37-39).

The customers, if they have big bargaining power can affect the price and the quality of a product or a service. The customers-consumers of the airline sector are not concentrated and they have not big purchase power and their negotiation position is not strong. There are many airline companies which they can select but they cannot affect the product characteristics as quality and price. For some destinations there are not many providers to select among. The individual customers are concerned about the price, while businesses and governments are not. It is noteworthy that the customers or businesses which possess an aircraft hold a minimum market share (Johnson et al., 2017).

3.2.5 Threat of substitute

A substitute product or service has a difference, is an alternative option from a product or a service. It constitutes a threat because it can replace it and reduce the demand. In aviation industry the time factor is very important, because it's the fastest mean of transportation. Alternatives options are cars, buses, ships, trains and high-speed railways. Only high-speed railway can threat the airline industry conserving the speed and the time of travel. The airports usually are far away from city centers and in order for someone to travel, has to arrive early to check in. Moreover, sometimes departures can be delayed. In the most recent years, the high-speed railways are gaining more passengers and challenge the airline sector.

The pandemic of COVID-19 affected the way of communication. Many business travels were replaced by video conferences. This affected the demand by reducing it. Technological solutions used by many ways during COVID-19 era. The video conference is cheaper and less time consuming than a business trip, but its disadvantage is the lack of personal contact. Also, environmental issues affect the air travel, because the emissions of airplanes are much higher than other means of transportation.

3.3 Aviation industry

The airline sector is characterized by great growth, convergence of business models, strategic alliances, barriers to entry and financial difficulties. The air transport has increased connectivity around the world and has decreased the travelling time. Also, these characteristics favoring the disease transmission. Hence for, flight suspension was among the first measures of COVID-19. The sector of aviation was affected because of restrictions in travel and that led to poor financial performance. Based upon IATA data, the pandemic COVID-19 was the biggest external negative influence airlines ever faced and the year 2020 was the worst in aviation history.

International Civil Aviation Organization reported that airlines redacted by 50% the offered seats which means a loss of operating revenues of airlines. The world passenger traffic collapsed to an exceptional 60 % decline in 2020 (ICAO, 2021). The travel restrictions lead the airline companies to face economic disaster. IATA reported that the decade 2010-2019 was great for the airline industry and the year 2019 was the most profitable (net profit 35.5 billion

USD). According to ICAO the revenue loss was approximately 372 billion USD in 2020. The result of Covid–19 was the decrease of customer demand through cancellations and refunds due to travel restrictions. The operational costs rose due to new health rules and maintenance requirements. The resistance of the demand of domestic market held on more than the demand of international market (Sun et al., 2023a). In the other hand, the cargo transfers were not impacted as much as flights with passengers (Sun et al., 2023b). The ACTKs (Available Cargo Tonne/Kilometers) reduced only by 21.4% (IATA, 2010).

In 2020, the COVID-19 crisis has caused a major impact, which resulted to extreme economic and social disruptions. It endangered the airline corporation existence and led to $118 billion losses in 2020 from $26 billion gains in 2019. From the second quarter of the year, the airlines worldwide were forced to the ground except flights transporting medical and pharmaceutical supplies.

The European aviation during COVID-19 went back to 1995 levels and the number of flights reduced by 55%. The Europe aviation sector was mostly affected, the passenger traffic during 2020 recorded 70% reduction in compare to 2019, according to IATA. The reduce of operations caused €22.2 billion net losses for European airlines, €33.6 billion revenue losses for European airports and €4.8 billion revenue losses for European air navigation service providers (ANSP) – an organization which provides the service of managing the aircraft in flight or on the maneuvering area of airport in 2020 (Rodrigues et al., 2021).

In 2021, the net losses for airlines were €18,5 billion and €3.7 billion for ANSPs. (Eurocontrol, 2021 & Eurocontrol, 2022). According to Figure 6, the number of passengers was fewer than 2019 by 1.7 billion in 2020 and 1.5 billion in 2022. The European aviation markets recorded less losses during 2021 than 2020. In addition, 51% of the aircrafts in Europe were grounded and 191 thousand jobs in this field were lost. The COVID-19 crisis continued to threat the aviation industry. Although the better conditions, gradually lifting the travel restriction and the vaccination process, the aviation activity remained in low levels.

At the same period the number of passengers in various airports in Greece was reduced. As published by the Hellenic Civil Aviation Authority, the domestic passengers were 39% less than 2019 and international passengers 46% less than 2019. The situation during the summer recorded a fast recovery in traffic because of tourism. Due to the pandemic, the total capacity was reduced by 28% than 2019.

Figure 6 European Aviation 2020 & 2021 headlines. Sources: Eurocontrol (2021 & 2022)

EUROPEAN AVIATION: 2020 HEADLINE IMPACTS

1. Huge financial impact for all European stakeholders:
   - **€22.2 billion** net losses for **airlines.**
   - **€33.6 billion** revenue losses for **airports.**
   - **€4.8 billion** in-year revenue losses for **ANSPs.**
2. **1.7 billion** fewer passengers
3. Massive negative impacts on European flights:
   - **5.0 million** flights 2020 vs 11.1 million 2019 = annual loss of **6.1 million** flights
   - intra-European traffic **54% down**
   - Europe-Rest of the World traffic **59% down**
   - low-cost carrier flights **62% down**
   - scheduled carrier flights **59% down**
4. Markets down by **40%-73%**:
   - **1.3 million** flights less in the UK (**-61%**)
   - **1.2 million** flights less in Germany (**-56%**)
   - **1.0 million** flights less in Spain (**-61%**)
   - **0.9 million** flights less in France (**-54%**)
   - **0.8 million** flights less in Italy (**-60%**)
5. Leading aviation groups down by **53%-67%**:
   - Lufthansa Group **-67%** daily average flights (2020: **1,102** flights, 2019: 3,295)
   - Ryanair **-59%** flights (2020: **951**, 2019: 2,323)
   - Air France-KLM **-55%** flights (2020: **920**, 2019: 2,053)
   - IAG **-65%** flights (2020: **825**, 2019: 2,342)
   - Turkish Airlines flights **-53%** (2020: **626**, 2019: 1,331)
   - easyJet **-67%** flights (2020: **547**, 2019: 1,671)
6. **51%** of aircraft in Europe grounded at year-end (**4,118** of 8,048 airframes)
7. **191,000** announced direct job losses in Europe

EUROPEAN AVIATION: 2021 HEADLINE DATA

Huge financial impact for all European stakeholders:
- **€18.5 billion** net losses for **airlines**
- **€3.7 billion** in-year revenue losses for **ANSPs**

1.4-1.5 billion
fewer passengers than in 2019 (2020: 1.7 billion fewer)

106 million tonnes
fewer CO_2 emissions than in 2019

6.2 million flights 2021 vs. 11.1 million 2019 = annual loss of 4.9 million flights (2020: 5 million flights).

26,773 peak daily flights (27 Aug 2021), -28% compared to the 2019 peak of 37,228 (28 Jun 2019).
- Intra-European traffic **43%** down.
- Europe-Rest of the World **48%** down.
- Low-cost carrier flights **54%** down.
- Scheduled carrier flights **52%** down.

Markets still down, but with much more variation: 8%-62% lower vs. 2020's more uniformly bad 40-73%:
- **1.3 million** flights less in the UK (-62%)
- **1.0 million** flights less in Germany (-50%)
- **0.7 million** flights less in Spain (-44%)
- **0.7 million** flights less in France (-42%)
- **0.6 million** flights less in Italy (-47%).

Leading aviation groups down by **30%-64%**:
- Ryanair **-43%** flights (2021: **1,321** daily average flights, 2019: 2,323)
- Lufthansa Group **-61%** flights (2021: **1,263**, 2019: 3,295)
- Air France-KLM **-44%** flights (2021: **1,150**, 2019: 2,053)
- Turkish Airlines **-30%** flights (2021: **938**, 2019: 1,331)
- IAG **-57%** flights (2021: **987**, 2019: 2,342)
- easyJet **-64%** flights (2021: **607**, 2019: 1,671)

After two continuing years of restrains people had the need to travel and the aviation sector recovered a part of its losses, especially after May. In 2022, the pandemic restrictions were abated and global aviation industry recorded a raise in revenue passenger kilometers (RPKs) reached 68.5% of the pre pandemic levels according to IATA. The losses were narrowed at $6.9 billion in 2022 from $42 billion the previous year, while European airline sector recorded $3.1 billion losses. In Greece the recovery was faster than the rest of Europe. According to Eurocontrol data, Greece managed to exceed the pre - COVID-19 number of flights. In August 2022, the number of flights to and from Greece were 6% higher than August 2019.

According to IATA, in 2023 the global RPKs was increased by 36.9% compared to 2022 and reached 94,1% of 2019 level, showing a positive 36,9% enlargement compared to 2022. Especially in Europe the RPKs reached 95,2% of pre-pandemic level and the increase was 20,2% compared to 2022. Despite the economic difficulties, the increased interest rates, the inflation and the geopolitical tensions, the aviation industry continued to recover. The global Available Seat Kilometers (ASKs) reached 94.4% of 2019 levels and in Europe at 96.1%. According to Eurocontrol, the traffic passenger recovery had significant variations among European countries. The South-East European countries showed strong growth, the North-West European region faced challenges due to economic softness, while the Baltic and North-East European countries were affected by Ukrainian war.

The global aviation sector recorded profits for the first time after COVID-19 and they were higher by 6.9% of 2019 levels, according to IATA. Net profits reached $23,3 billion gains from $3.8 billion losses in 2022.

The traffic in all Greek airports during 2023 got over the 2019 levels. According to HCCA reached 71.9 million passengers compared to 64.2 million in 2019. The number of flights were 552.887, higher by 5.1% than the number of flights in 2019.

In 2024, the global airline sector remains strong. The air travel demand remains robust and exists solid travel dynamics. The field continuous to face problems such as delays in productive aircrafts or engines, which results the limiting of the sector growth.

Based on Eurocontrol data, the air travel sector in Europe for the year 2024 reached 96% of the pre-pandemic level. Especially, Southern European countries have surpassed the flight - levels activity in 2019, while Northwestern Europe countries were slightly below those levels.

According to IATA, the total global revenue was 6.2% higher than in 2023 and 15,1% than in 2019. The sector achieves high profitability, despite the pressure of the cost.

In 2024, according to the Civil Aviation Authority, 79,4 million passengers travelled at all Greek's airports compare to 72,6 million in 2023. Similarly, the flights arouse in 603.931 reflecting a 7,6% increase from 2023. Greece is an appealing travel destination and attract great interest which leads to greater growth than the overall European market. The Greece's available capacity increase by 28% compare to the pre - pandemic levels, and by the same time in the European market just reached the pre-pandemic levels. The lengthen in the tourist peak season in Greece and its position as a four-season destination, increased the travel demand besides the peak months.

Figure 7 Evolution of daily flights in the EUROCONTROL area (Source: EUROCONTROL)

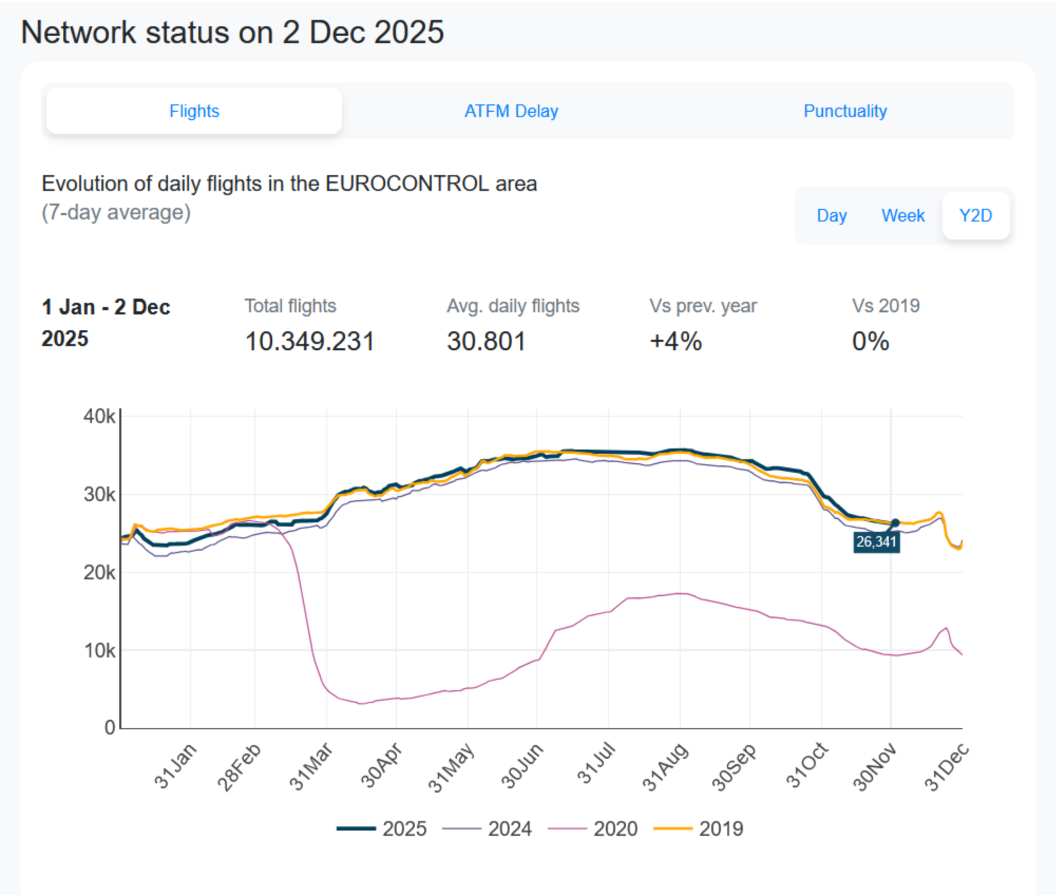


Figure 7 shows the evolution of number of flights during the year. It is noteworthy to mention the difference between years 2020 and the others. From it is clear the impact of COVID-19 in the aviation industry.

The Greek airline sector consists of 39 airports, 29 of them with the capacity of international air traffic, 6 in use of domestic traffic and 4 used as communal destinations (Kitsou et al., 2022). The busiest airport in Greece is Athens International Airport (ATH) which is connected with Piraeus Port, the largest port in Greece. In 2019, Athens International Airport served more than 25 million passengers, which consists 42% of the total volume of passengers which arrive in Greece at a yearly rate (Paraschi et al., 2022).

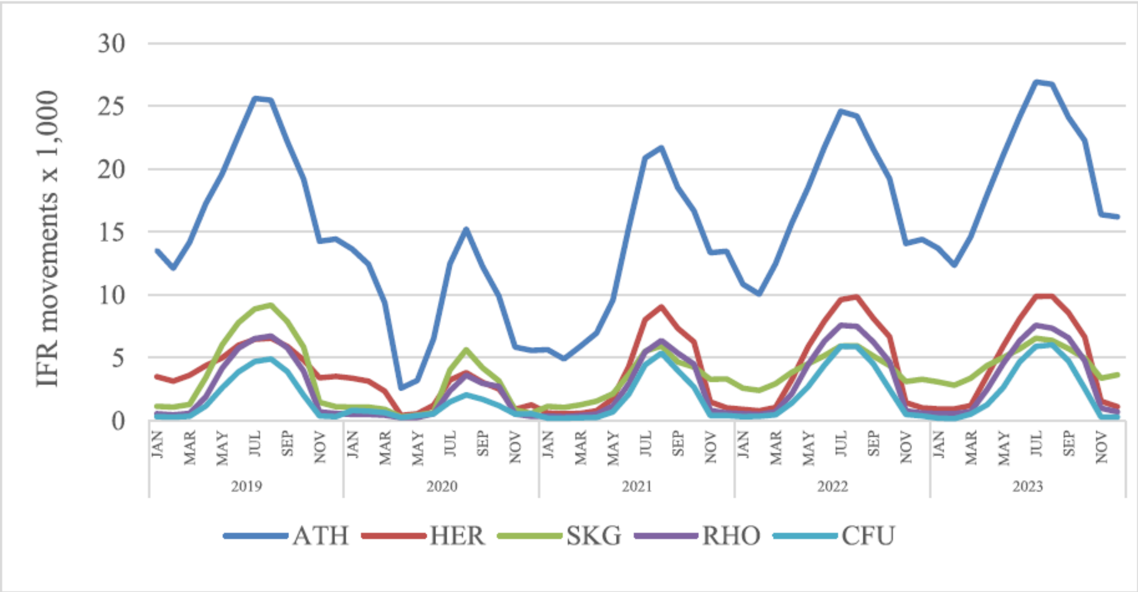
According to HCAA, they grand two different categories of Operating License:

- Category A, which is required by operators of aircraft with 20 or more seats and/or over 10 tonnes MTOM (maximum take-off mass) and on February 2026 existed 9 air carries.
- Category B, which is required by operators of aircraft with 19 or fewer seats and/or less than 10 tonnes MTOM and on Februoary 2026 existed 13 air carries. (HCAA, 2026).

Paraschi et al. refers that the Greek airline market, for the week of 13 to 19 Jul 2015, seat capacity in Greece distributed between foreign air- lines (75%) and Aegean airlines (25% including its subsidiary Olympic Air). According to CAPA Greece’s aviation capacity is recovering faster than any other European country and in the first week of July 2023 were at 114% of the same week of 2019. The recovery is leaded by the demand of leisure but also from the increase in the capacity share from the low- cost air carriers such as Ryanair, easyJet and others. Is referred that Aegean Airlines remains the largest operator in Greece, but for the year 2023 their capacity levels haven’t followed the Greek Aviation market although their capacity levels were above 2019 (CAPA, 2023a).

It is true that international air traffic to Greece is especially high during the summer from leisure travelers who are visiting mainly Greek islands, as shows in figure 8. It is characterized from highly seasonality, from June to September. According to Paraschi et al. Athen’s airport handles double the traffic than other airports. Moreover, air traffic had returned to pre – Covid levels faster in peripheral airports, such as Herakleion, Rhodes and Corfu. The Athens airport needed three years to surpass the levels of 2019, while Thessaloniki hadn’t reached yet the levels of 2019, due to the effect of the war in Ukraine, which affected the economy especially the one of northern Greece (2024).

Figure 8 IFR movement of the five largest airports of Greece (ATH = Athens, HER = Herakleion, SKG = Thessaloniki, RHO = Rhodes and CFU = Corfu) Source: Paraschi et. Al. (2024)



IFR movements x 1,000
30
25
20
15
10
5
0
JAN MAR MAY JUL SEP NOV
2019
2020
2021
2022
2023
ATH HER SKG RHO CFU

Chapter 4. Analysis of Sky Express

4.1 General Information for Sky Express

Sky Express started its operations in 2005 in Heraklion and since then the company has been growing. The operation of Sky Express concluded of scheduled flights, charters aircraft and seats on flight. Moreover, it provides aircraft maintenance services and training of the flight crew. In 2024, in Sky Express were working 821 employees while the previous year 688. It is the second largest airline in Greece.

The company has adopted a developing strategy and continuing to enlarge and strengthen its fleet, as is reviewed in figure 8, in order to expand its operational destinations to Greece and Europe. The year 2024 was characterized by steady growth globally and especially the most developed economies had improved their macroeconomic conditions, which favored investments and consumption. In Europe the consumption during 2024 was boosted. The prices of jet fuel reduced from the previous year by 9.6% in average and helped the growth. The global passenger demand raised from 2023 and especially in Europe and Greece the demand for air travel has increased. The growth of air travel in Greece was a result of the lengthening of the tourist season and the balancing of seasonality and has confirmed positive prospects for the future. Regarding all, the Sky Express adopted the growth strategy by developing its network of destinations and adding new aircrafts to their fleet. Table 9 presents the growth of the fleet from 2021 to 2024.

In 2024, Sky Express offered 6.5 million seats, which increased by 13% from 2023. Moreover, the number of the carried passenger increased by 15% from 2023 and amounted to 4.7 million passengers. The company focused to international flights and showed an increase of 29% of flights and of 30% of the available seats.

Sky Express follows an organic growth strategy. It is expanding its business through intern efforts. The company focus on satisfying its customers and offering better prices and the customers operate as the company’s promoters.

Table 1 Fleet of Sky Express, Source: Author representation based in data from Sky express economics reports

Type		**31/12/2024**	**31/12/2023**	**31/12/2022**	**31/12/2021**
Airbus A320neo	Leased	10	8	8	6
Airbus A321neo	Leased	2	2	-	-
Airbus A320ceo	Leased	1	1	1	-
ATR72-600	Leased	10	7	6	6
ATR72-500	Leased	-	1	2	2
ATR42-500	Leased	-	-	1	1
ATR42-500	Property	4	4	3	3
Total		**27**	**23**	**21**	**18**

The company has gained several awards and distinction, that prove the continuous growth and the high-quality operational performance.

4.2 Response to Covid-19

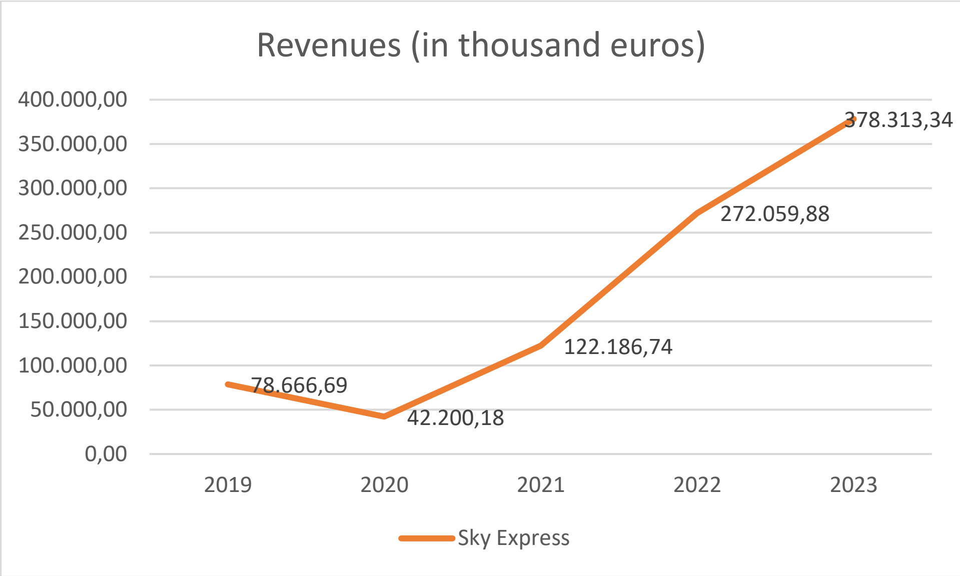
The company had signed short-term loans in order to deal with the emergency situation of COVID-19, to adequate cash and to strengthen its liquidity. In addition, adopted all the support measures, which were established by the Greek government, such as suspension of tax payments and of employee contracts during the lock down periods. The company has designed and executed a plan in order to maintain and protect its size. They changed their terms of credit, they offered competitive prices and implied better management. They intensified the use of the aircraft fleet and they returned the leased aircraft. This plan was used during the whole period of pandemic of COVID-19 and until the economic activity in Greece to return to satisfying levels.

Sky Express chose to respond to the COVID-19 crisis with a strategy of growth by investing more than 300 million euros in new aircrafts. The new aircraft distinguished because of their lower energy consumption and greater fuel efficiency, higher autonomy and flight range. The crisis caused the reduce of the prices of new aircrafts internationally. Moreover, the A320neo aircraft has highly efficient air filters which renew all the air every 2-3 minutes. The company was trying to be established as another national air carrier and with the acquisition of the new aircrafts extended its network with eleven new international destination from Athens and strengthened the secondary hub, Thessaloniki, by increasing the available seats and the frequency of the flights, and adding new destination such as Thessaloniki to Larnaka (Paraschi et al., 2024).

During the years of the pandemic crisis, Sky Express established strategic partnership and cooperation with other airline companies, such as Transavia France, Germany's Condor, EasyJet and Emirates. They entered into interline agreements with major airline companies, such as American Airlines, Air France, KLM, EL AL Airlines, Qatar Airways and Cyprus airways and singed interconnection agreements with Middle East Airlines (Sky Express, 2022). Additionally, Sky Express formed efficient partnership in the broader tourism sector, such as with Let's Ferry to combine air and sea travel at the same time or with HotelBrain, a leading tourism business group, in order to offer travel packages for 32 Greek destinations (Sky Express, 2020).

Sky Express strengthened its corporate social responsibility and demonstrated solidarity by offering free tickets to medical personnel working in Greece's Intensive Care Units, as stated in the company's announcement: ''As a token of our gratitude, we offer **free tickets to all ICU staff of Thessaloniki** for any destination of their choice, among our 34 destinations throughout Greece. The offer begins on 14.12.20 and will be valid for a whole year. It is our greatest pleasure and the very least we can do for those who fight to save human lives.'' (Sky Express, 2020).

Figure 9 Revenues of Sky Express Source: Author representation based in data from Sky express economics reports



Sky Express is the fastest growing airline company in Greece. Their growth strategy proved to be very effective. Sky Express has shown a rapid growth that is reflected in the company's revenues. As seen in figure 9, in 2019 had overcome the crisis with €122.2 million in 2021. Since 2020 they had recorded an enormous increase in revenues from 42.2 million euros in 2020 to 378,3 million euros in 2023. They have been awarded many times from the International Airport of Athens for it.

Figure 10 Employs of Sky Express, source: Author representation based in data from Sky express economics reports

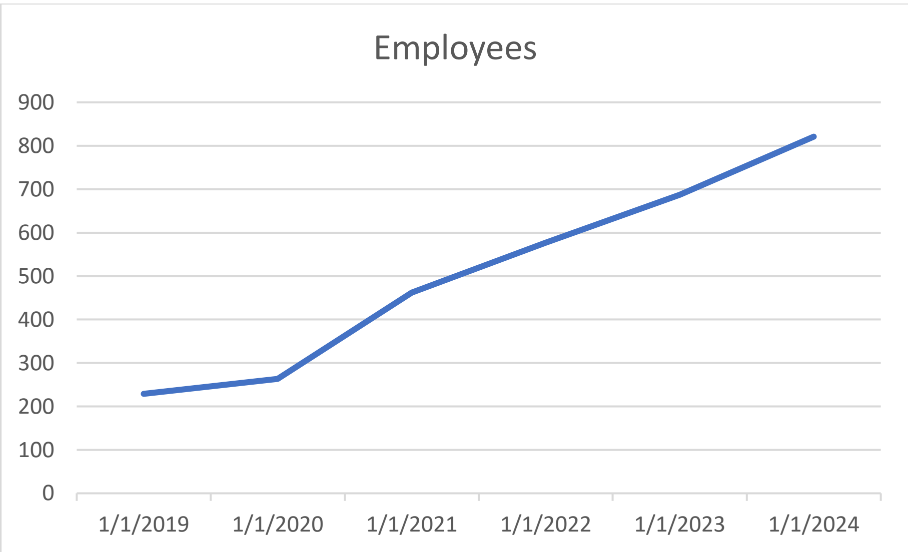


Figure 10, shows the increase in the number of employees in Sky Express. Sky express during the pandemic used part-time staff, in order to serve the low number of passengers during the summer season 2020. It is clear that the pandemic only slows down the rhythm of the growth of the airline company and the increase of their employees

4.3 SWOT Analysis

Table 2 SWOT Analysis for Sky Express Source: Author representation

Strengths	**Weaknesses**
✓ Fastest Growing Airline in the Eastern European Market in 2024 ✓ Highest Passenger Traffic in 2024 ✓ Multi – awarded ✓ Fleet of aircrafts – different type ✓ Liquidity and cash flow ✓ Destinations and routes ✓ Relationships with employees ✓ Member of the IOGR Group of companies (tourism and aviation)	- Highly competitive sector - Existence of subordinate products - Expensive
Opportunities	**Threats**
▪ Greece is an established summer destination. ▪ Marketing and promotion of the airline company. ▪ Operational optimization through Data and analyses	➢ Fuel prices volatility ➢ Substitution of demand ➢ Travel restrictions due to health factors such as pandemic of Covid-19

It is crucial for Sky Express to use its strength and take advantages from its opportunities, to use its opportunities to overcome its weaknesses, to use its strengths and to minimize its weaknesses.

Sky Express can expand to new destinations and offer combination packages with low cost. With the use of data analytics and optimization, the company can find ways to reduce its operational cost, be able to develop a membership program to acquire loyal customers and can raise the cross-selling rate by combining the travel with other services, as booking a room or a car, or sales on board. They can promote their small environmental footprint to acquire a positive public image. Moreover, the company's financial health can lead to further growth and an increase in attractiveness by offering better facilities in the aircraft, such as wi-fi on board, better meal and snack options.

It is true that the Greek airline sector had not been affected from Covid-19 as the airline sector of others European countries, as a result of the higher number of tourist arrivals in the country during the summer. The aftermath of COVID-19 crisis, for Sky Express seems like a great opportunity to expand businesses, routes and destinations.

Chapter 5. Analysis of Aegean

5.1 General Information for Aegean Airlines S.A.

The parent Company is Aegean Airlines S.A. and it is listed on the ASE (Athens Stock Exchange) from June 2007. The Company and the Group has an operation field the airlines transportations. They are focusing on passengers and cargo transportation by air with international and domestic flights, in short and medium haul destinations. Moreover, they offer aviation related services, such as aircraft technical support and ground handling services. The Company also participate in other companies, domestic or foreign, with similar activities related to the tourism sector.

The mission of the Group is to provide excellent services for every customer, in every step of the air travel they choose. For that, they have developed a vast network of international and domestic destinations. The company invests in training and continuously developing the human resources. It adopts a customer – centric approach and an authentic high-quality service culture. The sustainable growth of the company contributes to the tourism industry and to the country's economy and creates value for all the stakeholders.

The Group of AEGEAN Airlines has the below owned subsidiaries, as in table 3:

Table 3 Subsidiaries of Aegean Airline Source: Aegean Financial Statement 2020

Subsidiaries	
Olympic Air S.A.	100% ownership
Aegean Cyprus Limited	100% ownership
Hellenic Aviation Maintenance Center S.A.	100% ownership
Aegean Executive S.A.	100% ownership
ICT Investments SA	100% ownership
Aegean Services Single Member S.A.	100% ownership

Aegean Aviation begun its operation in 1992, as the first private air operator in Greece. Two years later it united with Vassilakis Group of Companies and invested in a newly owned Lear jet for chartered flights all over the world. In 1999 established Aegean Airlines and a new era begun in aviation. Flights performed by two new aircrafts JET AVRO RJ 100 manufactured by BAE Systems (British Aerospace) between Athens to

Heraklion and Thessaloniki at first and to Rhodes and Chania second. In October of the same year a third aircraft (AVRO RJ 100) added to the fleet and new destinations were added to the routes, Alexandroupolis and Corfu. At the end of 1999, Aegean Airlines acquired Air Greece and obtained new aircrafts and launched a new destination in Mytilene Island.

In 2000, the company added two brand new aircrafts to the fleet and expanded to Santorini. Since then, the fleet consisted of 9 aircrafts in total, 6 AVRO RJ 100 and 3 ATR72 and routes arrived in 11 destinations with more than 80 daily flights. In the next year Aegean Airlines joined forces with Cronus Airlines, the flights expanded in 7 international destinations and launched Business Class service on international flights. In 2003, the innovation of e-ticket launched and it offered the opportunity to book and issue a ticket on the same time paperless.

In 2004, the company proceeded to fleet commonality and the fleet then contained only 19 Jet aircrafts, (13 Boeing 737 300/400 and 6 AVRO RJ100). Also, begun flights to Cuprys, Larnaka. In November 2005, Aegean arranged a strategic partnership with Lufthansa, offering to their customers code-share flights, convenient transfer and many other benefits. On December 2005, Aegean ordered from Airbus 8 aircrafts A320 and the first three were delivered on March 2007.

On January 2008, the order to Airbus increased from 25 to 27 aircrafts in total and the company received ISO 14001 certification for environmental protection. In 2009, two aircrafts were delivered named as “Cleisthenes” and “Pheidias”. Aegean Airlines launched the “Aegean – Supporting Children” program, which provided free transportation to 10,000 students from island regions of Greece to visit the new Acropolis Museum. On February 2010 Aegean Airlines and Olympic Air agreed to merge their activities. In June Aegean Became member of Star Alliance network, providing improved access to Greek Vacation Hotspot.

In 2013, the company received for third consecutive year and fourth in total the international SKYTRAX award as the best regional airline. Also, Aegean introduced two new ticket categories GoLight and Flex for economy class. The European Commission announced the approval of AEGEAN's buyout of Olympic Air and the buyout and transfer completed and Olympic Air became a subsidiary of Aegean Airlines.

In 2014, Aegean awarded at the Air Transport New Awards as "Regional Airline of the Year". They announced the program "Close to youth" to support 500 students to travel for free to and from their home and study location. The growth strategy goal for 2014 was to offer 13,000,000 seats on its flights to 87 international destinations in 32 countries and 33 domestic destinations. The company added 5 new Airbus aircraft and introduced 17 new international destinations. On May 2014, Aegean and Etihad Airways announced their partnership and AEGEAN's new direct flights to Abu Dhabi.

In 2015, new aircrafts were delivered and Aegean's international routes reached 160 from 28 countries in 12 Greek airports (scheduled and charter flights). In 2017, initiated the assessment procedures of the fleet. In 2018, Aegean signed with Pratt & Whitney to power up the Airbus A320neo Family Aircraft with GTF™ Engines and with Airbus for the delivery of 30 A320neo Family, with an option to purchase up to 12 additional aircrafts.

The year 2019 was the celebration of 20 years of flight operations and in order to expand its operations Aegean issued a 7-years Common Bond Loan for € 200 million with a 3.6% yield. During pandemic crisis they received 8 A320neo aircrafts, powered up by the advanced Pratt & Whitney GTF™ engines. At the end of 2023, Aegean performed flights in Europe and the Middle East, in a network of 165 domestic and international destinations. The fleet contained 76 aircraft in total, most of which belong to the Airbus family.

Aegean is a member of Star Alliance, which is the leading global alliance in Greece (30% seat share). In this alliance include many foreign airlines such as Ryanair, EasyJet, Air Berlin and other airlines. In the first week of July 2023

The world market is mainly short/medium haul focused and refers to seats to/from Europe (94 %), while the share of international seats taken by LCCs grew to 40 % in 2014 (CAPA, 2015). Newest data is showing that, Aegean is the biggest operator in Greece, with a seat share of about 16.5 %, while Sky Express has climbed to 5.2 %, but the 75% served by foreign airlines.

As it is showed in Picture 1, the Aegean Group focus in customers, in employes development, in innovation and in extroversion. They create value for the society and the Greek economy, by contributing to the GDP and because the support the tourism sector by connecting Greece with other countries. They provide high quality services to their customers and they aim to continuous improvement. They offer to their employees a safe and healthy environment to work and to develop their skills. They try to protect the natural environment by reducing every year their carbon footprint.

The basis of their business are their human and fiancial capital, the natural resources (jet oil), their assets (fleet of aircraft) and their network and the alliances and partnerhips, which they have established. They transport via air passengers and cargo with international and domestic flights, scheduled or not in short or medium haul range.

Picture 1 Business Model of Aegean Airline Group, Source: Aegean Airline Annual Financial Report 2021

The company has an efficient commercial policy in order to adapt in the volatility of the market conditions. It maintains competitive unit cost through investing in aircraft fleet, investing in advancement and leveraging of the loyalty program and moreover using technology to provide efficient solutions for passenger in order to improve their travel experiences. Some airlines changed their structure, change their destinations or their cargo and reduced their cost in order to surpass the losses.

The strategic priorities (2019), which have the Group set, have considered the highly seasonal and competitive sector of operation. The airline has adapted an efficient commercial policy which contains network planning, fare management and it adapts in challenging circumstances. It is crucial for the company to maintain a low distribution cost and affordable unit cost, pointing on both fixed and variable fleet cost with investing in new fleet (Airbus A320neo). They invest and develop the loyalty program and innovating services. They invest to their employees offering continuing education by establishing a training center and scholarship program. They establish strategic partnerships in order to promote the Greek Tourism and its quality characteristic. Also, they exploit opportunities to improve the provided services. The outbreak of COVID-19 changed these priorities into the protection of the health of customers and staff and to the strengthen of the company's market position.

Aegean occupy a market segment between LCCs and traditional legacy airlines and is the biggest airline group in Greece, not only by profitability but also by market share (CAPA, 2023). They seek Group's growth and they focus on quality services and continuing development. They invest in innovation to improve their services and improve the passenger experience. The sustainable growth offers multiple benefits for the stakeholders, the Greek economy and the tourism of Greece. They conduct their business in a respectful way toward every aspect, environment, employees, stakeholders, passengers and local communities.

5.2 Response to Covid-19

From the beginning of Covid-19 (February of 2020) the Group took measures instantly to reduce the consequences of the pandemic on every operational field. First of all, they implemented all the necessary measures in order to preserve the health of human factor - travelers and work force. They adopted a flexible and dynamic network management to respond to the volatility of the market. They negotiated with all their main suppliers and counterparties, in order to reduce the cost, and gain more flexibility and adaptability to the constantly changing market conditions. They utilized horizontal measures provided by Greek Government for supporting employees and companies. In the end they shielded its capital and cash.

Aegean airline, in order to prove its social responsibility, offered with Hellenic Petroleum, ten free of charge flights for the transport of medical and pharmaceutical materials in March 2020. The Hellenic Petroleum incurred the fuel costs, while Aegean offered the aircraft and the staff (Aegean, 2020a). Moreover, Aegean and the Greek Tourism Confederation (SETE) offered a 6-day full holiday package, flights and accommodation included, to the Civil Protection front liners (Aegean, 2020b).

In 2020, the reduce in passenger traffic was 65.5% compare to the previous pre-pandemic year and the main reduce was from international flights (Aegean, 2021). The group has adopted many measures which promoted by the Greek Government, in order to face the pandemic. Some of them were remoting working and work contract suspension arrangements. Also, they reduced by 10% the number of the aircrafts they utilize and by 21% the number of seasonal employees. They adopted the policy of 'only one hand baggage', in order to face security concerns and to minimize the congestion.

In 2021, the passenger load factor was at 67,4% - same as in 2020 and significantly lower than 2019. Furthermore, they recognized the need to restructure the fleet, but they negotiated with Airbus to delay the delivery of the new aircrafts, in order to protect their liquidity. (Aegean, 2022a). They used the "COVID-19 Enterprise Guarantee Fund" to have a five-year loan of €150 million guaranteed by 80% of State (Aegean, 2021).

In July 2021 Aegean has received state aid approved by EU as a compensation for the losses of 2020 occurred due to Covid-19. This amount recognized as warrant valuation in the income statement. Due to the long period and the severity of the crisis, the European Commission agreed with Greek State to a grant of €120 million as compensation, in December 2020. "*The Greek State received free rights - without consideration, with a notice price equal to the price that will be offered to investors for the new shares during the share capital increase. These rights can be exercised at any time during the period between 2 and 5 years after the disbursement of the support by the Greek State so that the Greek State can benefit from any future upward trend in the value of the Aegean's share" (Aegean, 2021).*

In 2022 there were a significant recovery to the whole sector, due to the demand of Greek tourism. The investment in new aircrafts is expected to reduce the impact of fuel cost and also to add new destination and services (Aegean, 2021). The increase in demand for travel to/from Greece, the increased revenue per seat, the upgrade of the fleet with new technologies and the partial fuel hedging helped to resist the high jet fuel cost and the appreciation of USD.

As it is presented in figure 11 Aegean Airline has accomplished an increase of 63 % in revenues from 2020 to 2021. The total revenue of the year 2021 was recorded that during the season from June to October, due to tourism (70% of revenues). The consolidated revenues in 2021 were €674,8 million from €415,1 the previous year. (Aegean, 2022c). In 2022, Aegean Group succeeded a full recovery of financial results and delivered a strong performance after the losses caused by pandemic. Their revenues were €1,34 billion, 2% higher than pre-pandemic 2019 and 98% higher than the previous year.

Figure 11 Revenues of Aegean Group, Source Author data retrieved from Aegean Airlines Annual Financial Reports

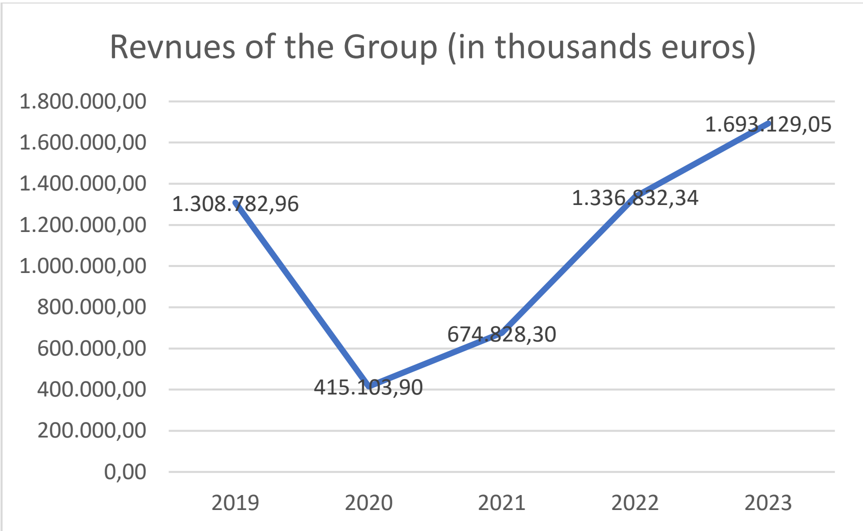
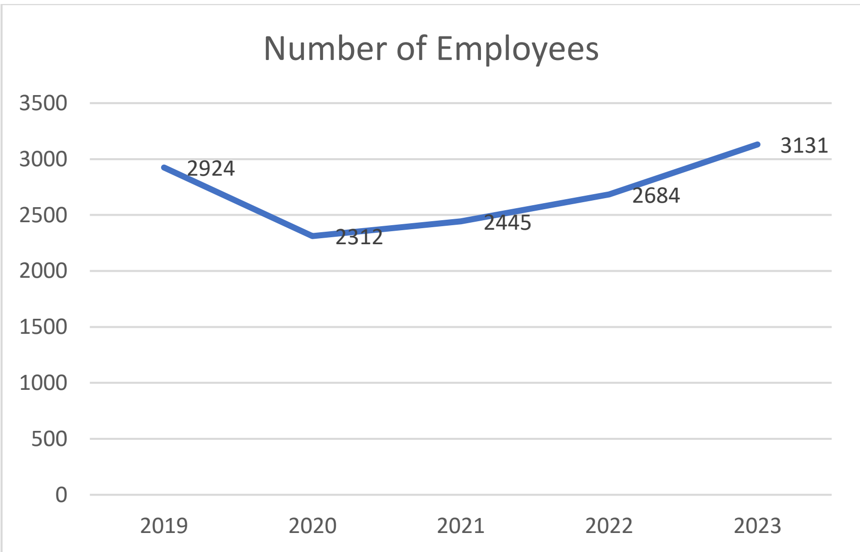


Figure 12 Number of Employees Source Author, data retrieved from Aegean Annual Report



According to the figure 12, Aegean has reduced the number of their employees during the pandemic era. When the flights are restricted by Greek Government, the employment contracts were suspended and the employees were entitled to a special State benefit and got a full social security coverage by the State, The 1st of July 2020 had started the SYN-ERGASIA measure, in which the state provided financial support in employees with reduced working hours. Also, they reduced the number of seasonal employees they occupied during the tourism period. Full recovery of the number of employees achieved in 2023.

Aegean airline in order to increase its cargo transport capacity converted two aircrafts (A320 and A321) to transfer medicine, equipment and other medical material.

5.3 SWOT analysis

The group of Aegean airlines are the largest airline in Greece. They have created a valuable alliances and partnerships to boost their businesses. Their network contains 165 domestic and international destination and they optimize their routes. They continuously investing in their fleet to maintain their main competitive advantage – one of the youngest fleets in Europe. Aegean has been announced for 12 times in the last 13 years as the Best Regional Airline in Europe. The employees are crucial factor for the quality of their services. The loyalty program except from providing data, is helping to maintain the existing customers.

Aegean offer combination packages to their customers. It is a well established company and it is trying to penetrate in the market but to maintain or in crease its market share.

Table 4 SWOT Analysis for Aegean Airline Source: Author representation

<u>Strengths</u> ✓ Member of Star Alliance -Strong Alliances ✓ Financial Capital (Cash, Cash Equivalent, Total Equity and Debt) ✓ Aircrafts ✓ Largest Greek airline company – established company ✓ Network – Route Optimization ✓ Human Capital – high employee's performance ✓ Quality product and passenger care ✓ Loyalty program	**<u>Weaknesses</u>** - Highly competitive and seasonal sector - Existence of subordinate products - Expensive - Flights delays
<u>Opportunities</u> ▪ Greece is an established summer destination. ▪ Expanding the network in new destination ▪ Marketing and promotion of the airline company. ▪ Data optimisation and analytics	**<u>Threats</u>** ➢ Fuel prices volatility ➢ Substitution of demand ➢ Travel restrictions due to health factors such as pandemic of Covid-19 ➢ Security Threats in Cyberbases and software system

Chapter 6.

Future Research Direction

The aviation industry faced major challenges caused by Covid – 19 and had to use data analytics to overcome crisis with forecasting the future demand and formulating the best strategic plan.

The future research should analyze and identify the changes that happened in customer behavior and market conditions. It would be useful to predict the future demand in order for the companies to plan their operation according to them.

Though research is going on in these areas and some aspects of these data analytics are implemented by few airlines, measures have to be taken for its widespread application and success of the airline industry.

Conclusion

The aviation sector was not prepared to face a pandemic disease and the impact had affected the global air traffic and the revenues from the operation. The revenues of the airline companies were affected dramatically during the pandemic period and some airlines even closed their businesses. In Greece, Aegean and Sky Express are the main customer transferring Greek companies.

Greek aviation routes are short or medium routes, mainly for leisure. Lately, there is a strong increase in the capacity share from low-cost airlines, such as Ryanair (10.3 %) and EasyJet (9.2 %), which are ranked as the second and third largest airlines in Greece by seats. The others low-cost airlines such as Jet2.com, Wizz Air, Eurowings and Volotea are ranked in the top ten of airlines in Greece by seats (CAPA, 2023).

The constraining measures and the borders lockdown grounded the aircrafts. During summer of 2020 the partial lifting of the measures helped the airline sector to restore some their revenues. The second wave of the pandemic (from October until December of 2020) leaded to new restrictive measures and grounded again the fleets. The first six months of 2021 started with low numbers of flights from / to Greek airports and low passenger traffic. However, from June there was an increase in passenger volume, until the new form of virus (Omicron variant) in November. Greece was characterized as a safe destination, and the seat capacity of the second semester of 2021 reached 92% of the pre-pandemic period and the passenger traffic reached 76%. Greece recorded a faster recovery pace than other European Airports, which extend and passenger volume endured at 73% and 56% respectively (Aegean, 2022). The regional Greek airports had shown the biggest recovery during summer and they had greater recovery rate than Athens and Thessaloniki airports. This happened because of the tourism and the travel demand raised because of the vaccination rate, the smaller infection numbers and the relaxation of travel measures.

The measures for the COVID-19 were very strict especially for airline companies. The support from the government was sufficient, but could be provided more measures such extensions in tax payments or long terms capital loans. The Greek Government offered a package of measures amounting to 115 million euros to the Greek airlines because they are linked directly with the tourism sector. The horizontal measures included cuts in VAT tax (13% -24%). Greek air transport sector employs about 11,000 people and contributes to the tourism revenues and during the entire period of pandemic crisis the government covered the social security contribution for the non-working employees (Reuters, 2020).

Generally, we must refer that the measures which was taken for the COVID-19 were very effective. Aegean Airlines financial results recovered full in 2022. T, while Sky Express has shown a faster recovery as it is showed in table 5. The two airlines have different strategic because they are in different live cycle. Sky Express, which is relatively new airline company is the growth phase. They aim to expand their businesses, their customers base, their marketing shares and presents and to secure their place. Aegean Airline Group is the biggest air-carrier in Greece and they seek to protect and maintain their market share and to improve the quality of their services and use customer satisfaction as their advertisement. Aegean's growth rate is slower than Sky Express, but also their revenues are several times larger than Sky Express.

Table 5 Revenues of Aegean Group and Sky Express, source: Author

Revenues (in thousands €)		
	Aegean Airline	Sky Express
2019	1.308.782,96	78.666,69
2020	415.103,90	42.200,18
2021	674.828,30	122.186,74
2022	1.336.832,34	272.059,88
2023	1.693.129,05	378.313,34

The Greek aviation sector has started the first two months of 2020 with great aspects but the pandemic of Covid-19, had changed the business activity in airline sector with the closure of borders and the impose of travel restriction. Revenues, either from ticket sale, or sales of goods or other services, decreased from 2019. Each airline company adopted measures to overcome the health crisis. Some receive State funding and Guarantee Funds from the State, as Aegean Airline granted €120 million in 2020.

HCAA, as the national aviation authority, has to follow the Government lines and to follow the general rules, which are published by the transnational organizations. Moreover, Aegean and Sky Express served routes under the State - Public Service Obligations (PSO) - provided financial measure such as deferred payments for VAT and social security contributions. During the pandemic period the HCAA eased the PSO requirements, by reducing their frequency, helping Aegean Airline and Sky Express.

In table 6, it is summarized the impact of the health crisis and the different strategies that the two airlines had adopted to face this crisis. As it is showed, the impact of the pandemic is similar for both airlines, causing reduces in revenues, in businesses, flight cancellations and increase in cost. Both airlines adopted the remote working of their staff and they stopped recruiting new staff during the pandemic period. However, Sky Express used part-time staff. As concern the operational practices, the only difference concerns the freeze of investments by Aegean. The had negotiated with Airbus to delayed the aircraft delivery. Aegean had accepted from State a funding of €120 million but Ryanair has taken several cases to court including Aegean (Sun et al., 2022). Sky Express used more growth practices to overcome the crisis, by adding new destinations, routes, aircrafts and strategic partnerships. Aegean Group used more innovating practices as Wi-fi on board and used passenger aircrafts as cargo. Both of them followed the right commercial tactics to insure their continuous of their business.

Table 6 Overview of impact and strategies of airline companies, Source modified by Author from Paraschi et al. (2022)

	Aegean Group	Sky Express
Pandemic Impact		
Decrease in revenues	*	*
Increase in cost	*	*
Reduce in load factors	*	*
Temporal operationa suspension	*	*
Cancellation in certain regions due to health restriction	*	*
Reduce in flights frequency	*	*
Change of passenger mix (e.g. work / leisure)	*	*
A. Retrenchment strategies		
A1. Human Management		
Non - recruiting new staff	*	*
Remote working	*	*
Part-time Staff		*
A2. Operatoinal Practises		
Change in domestical / international flight ratio	*	*
Freeze the investments	*	
Rent reduction	*	*
Renegotiating contract with suppliers	*	*
Reduce the offered services	*	*
Only one hand bang on board	*	*
B. Preserving Strategies		
Government practices		
Soft loan	*	
State funding	*	
SYN-EERGASIA	*	*
Suspensions of employment contracts	*	*
Credit voucher instead of passenger compensation	*	*
ease the requirments in PSO	*	*
Deferred payment of social security contributions	*	*
Deferred payment of VAT	*	*
C. Innovating practices		
C1. Growth		
Increase of the fleet		*
New Destinations		*
New strategic partnerships		*
C2. Innovation Practices		
Use passenger aircraft as cargo	(temporarily)	
Wi-Fi on board	*	
HEPA filtration Systems	*	*
CSR-related innovation	*	*
C3. Commercial practices		
Targeted offers	*	*
Flexibility in bookings	*	*

The measures, which were taken by the airlines, considered as effective as possible, because the crisis have been overcome in a shorter period than other European airline Companies. Another significant factor was the oil-fuel crisis in 2022, due to Russian – Ukrainian War. The increased interest of travelling to / from Greece had a great impact on revenues of the airline companies.

The airlines worked together with the governments and other organization in order to provide sanitized and healthy travel experiences. They reduced any unnecessary cost but the aviation sector was not prepared for a health crisis. This study investigated how the two major Greek airlines, Aegean group and Sky Express responded to Covid-19. The PEST analysis tried to analyze the impact of the crisis. The Governments received measures to help their airlines companies, as economic support because their businesses affect the GDP.

The airline companies could use the data analytics to boost their financial and to ensure their viability. Data technologies provided useful information's for quick recovery and resilient plans. It is possible in the future a new health crisis to occur, so the airlines must develop strategies and plans to be ready to face and control a new threat, to have flexibility and adaptability to the market changes quickly and to transform their organizations. Also, airlines need to schedule their capacity where exist high demand, as in cargo services or charter flights. They need to continuously evaluate their business model, in order to have operational flexibility and acquire new customers. Through strategic partnerships an airline could create a significant network, a safety net and acquire connection to help their economics or their growth during a crisis. High liquidity and cash management could shield the airlines from crisis which lead to reduced revenues. Furthermore, cost management, as cutting wages or reducing costs of fuels, is vital and necessary when the crisis happens. Corporate Social Responsibility (CSR) could elevate the social image of a company, enhance employee's loyalty and commitment and increase passenger's loyalty and trust. Innovations, such as technological advances, fleet upgrade (HEPA filtration system) and touchless technologies, could help airline to overcome obstacles and keep the business operational. Because of the increasing dependence in digital solutions the airlines must strengthen their cyber-security to protect customer personal data and information's.

The crisis of Covid- 19 was beyond the control of each airline. It needed state authorities and international parties to take measures to rebuilt passenger's confidence for travelling. It had happened for the first time and no one could forecast the duration and the impact of the pandemic crisis.

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