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INSTITUTO UNIVERSITÁRIO DE LISBOA

# THE IMPACT OF COVID-19 ON THE AIRLINE INDUSTRY: TAP AIR PORTUGAL PEDAGOGICAL CASE STUDY

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Master's in Management

Supervisor: Bachelor Degree Nuno Alexandre Guerreiro Pedro, Invited Associate Professor, ISCTE- University Institute of Lisbon

September 2023



Department of Marketing, Operations and Management

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#### Resumo

Vivemos atualmente um período incerto, onde as empresas precisam de se adaptar se quiserem sobreviver. O setor aéreo demonstrou ser um setor desafiante, que exige contínua adaptação à mudança para uma resposta eficaz à crise. A pandemia causada pela COVID-19 retrata um exemplo disso, tendo tido um impacto devastador no setor aéreo, que continuará a ser evidente nos próximos anos.

Assim, este projeto visa examinar o impacto da COVID-19 na indústria aérea através de um caso de estudo pedagógico sobre o caso específico da TAP Air Portugal.

Através deste estudo, é possível analisar o exemplo deste ícone nacional e fornecer respostas às questões do caso, que focam a sua atenção principalmente na forma como a empresa respondeu e se adaptou à crise. Além disso, o mesmo explora temas-chave como a gestão de crises, gestão operacional, vantagem competitiva e fatores críticos de sucesso na indústria.

A metodologia utilizada para responder às questões do caso de estudo foi em grande parte qualitativa, com apenas alguma pesquisa quantitativa. Para além disso, foram utilizados tanto dados primários como secundários, sendo que a principal fonte de informação se baseia numa entrevista com o Diretor Sénior de Estratégia e Operações da TAP Air Portugal.

As principais conclusões do estudo mostram que, de entre as principais medidas implementadas pela TAP ao longo desta crise, foi essencial reavaliar a sua cultura organizacional, práticas de negócio e estratégia comercial, bem como examinar regularmente o seu ambiente de mercado e competências para ajustar a sua abordagem ao longo do tempo.

**Palavras-chave**: Crise; Gestão de Crises; Gestão Estratégica Operacional; Vantagem Competitiva; Indústria Aérea

#### JEL Classification System: M10; M19

#### Abstract

We are living in an uncertain period where businesses need to adapt if they want to survive.

The airline sector has demonstrated to be a challenging field that necessitates ongoing adaptation to change and an effective response to crisis. The pandemic caused by COVID-19 is an example for that, as it was devastating for the airline industry and the disruption experienced will continue to be evident in the next years.

Therefore, this project aims to examine the impact of COVID-19 on the airline industry through a pedagogical case study on the specific case of TAP Air Portugal.

Through this case study, it is possible to thoroughly analyse the case of this national icon and provide answers to the case questions that focus attention mainly on how the company responded and adapted to crisis. In addition, the case will explore key topics such as crisis management, strategic operational management, competitive advantage, and success factors in the industry.

The research employed to answer the case study questions was largely qualitative, with barely a little quantitative research. In addition, both primary and secondary data were employed. The primary source of information is based on an interview with the Senior Director of Operations Strategy and Performance of TAP Air Portugal.

The study's primary conclusions show that, among TAP's primary actions throughout this crisis, it was essential to re-evaluate its organisational culture, business practises, and commercial strategy while regularly assessing their market environment and competences to adjust their approach over time.

**Key words**: Crisis; Crisis Management; Strategic Operational Management; Competitive Advantage; Airline industry

JEL Classification System: M10; M19

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#### Introduction

Currently, the only constant in business is change. It is crucial that businesses prepare themselves to operate in a genuinely dynamic environment. Companies must understand the importance of a flexible strategy, the need to be ready for unanticipated circumstances, and how to recover from a global crisis in order to be successful in this environment of constant change. In addition, they must recognise that the strategic planning that was once intended to remain unaltered for several years is no longer viable.

The pandemic of COVID-19 has had repercussions on multiple industries, including the aviation industry, creating a new reality for everyone. Since the beginning of COVID-19 until the middle of 2022, when nearly all COVID-19 restrictions were lifted, the airline industry has been through a difficult time. TAP Air Portugal as well as numerous other international airlines suffered as a result of the pandemic and all the restrictions associated with it. The aviation industry experienced one of the worst economic crises in history, as airports and borders were closed, no airplanes were in the air, and everything came to pause. TAP Air Portugal is the largest airline in Portugal and has suffered the same consequences as every other major airline in the globe. Portugal plays a significant role in the relationship between Europe and the rest of the globe, thereby enhancing the significance of TAP Air Portugal. This case seeks to illustrate how the industry was impacted by COVID-19 and illustrate how TAP Air Portugal managed to overcome this crisis.

This topic was selected due to the fact that COVID-19 has affected all industries and business sectors. However, the airline industry has been one of the world's worst impacted industries. Regarding the choice of the company, TAP is a renowned national corporation with massive infrastructures that receives government funding and has become a hot topic for conversation. Moreover, the airline industry is one of the most competitive industries in the world, and if airlines do not plan and analyse their business, it is likely that they will lack a competitive and market-sustaining strategy.

This thesis, which is a pedagogical case study, will consist of four major sections: the case study, a chapter about TAP Air Portugal, a methodology chapter and the pedagogical note. In the first section, the problem will be presented and explained, a market analysis focused on the airline industry will be conducted, as well as a topic about the market overview. In the second section, the company studied will be presented, starting by its history and an overall view of the business. The third section is dedicated solely to the methodology chosen. Finally, in the fourth section, the pedagogical note will be presented, including the literature review, educational objectives, analysed data, case resolution proposal, and significant case conclusions.

#### 1. The case study

#### 1.1 The problem

The airline business is often regarded as one of the most competitive in the world since it facilitates globalization, commerce, investment, and tourism. However, there has been a significant change in the European airline business over the past few decades.

However, early in 2020 everything has changed. The global outbreak of the COVID-19 pandemic had profound and far-reaching effects on numerous sectors of the economy, with the airline industry being among the hardest-hit. Once a symbol of globalisation and connectivity, the airline industry has faced unprecedented difficulties as a result of the spread of the virus and the subsequent security measures imposed by governments around the world.

In an effort to contain the virus's spread, countries imposed travel restrictions, flight cancellations, and stringent quarantine measures. This precipitated a significant decline in domestic and international travel demand, effectively suspending a substantial portion of the global airline fleet. Passenger demand fell dramatically due to fears of infection and travel restrictions. As remote work and virtual meetings became the norm, business travel, which was a significant source of revenue for airlines, also declined. Consequently, resulting in a decline in revenue, airlines confronted significant financial difficulties. As income decreased, fixed costs such as aircraft leases, maintenance and salaries persisted, causing many carriers to incur financial losses. To alleviate financial pressure, airlines were forced to implement redundancies, lay-offs and wage reductions. This had a domino effect on the economy, affecting employment in industries such as tourism, hospitality, and aviation services.

The consequences on the airline industry were quite overwhelming, several airlines filed for bankruptcy or requested government bailouts to stay solvent as a result of the pandemic's impact on their finances. Some smaller airlines were compelled to close their doors permanently, while others engaged in mergers and acquisitions in order to survive. Additionally, the grounding of aircraft was a challenge for all airlines due to decreased demand, airlines were forced to halt a significant portion of their fleets. This caused problems with aircraft storage, maintenance, and financing.

Furthermore, in the case of airline industry the customer perspective had changed. It was necessary for airlines to adjust their route networks and commercial strategies due to changes in travel preferences caused by COVID-19 with more emphasis on domestic and regional travel, as international routes remained significantly restricted. To restore passenger confidence, airlines were required to implement stringent health and safety measures, such as

enhanced cleansing protocols, mandatory mask use, and social distancing guidelines. These measures added operational complexity and expense. Moreover, the crisis has accelerated the adoption of digital technologies within the airline industry. Intending to reduce physical interactions, the prevalence of contactless check-in, mobile boarding passes, and self-service terminals increased. Despite the easing of travel restrictions, many travellers remained reluctant to fly due to ongoing health concerns. This resulted in a protracted recovery period for the industry, with passenger numbers not returning to pre-pandemic levels for some time.

The COVID-19 pandemic had an extensive and lasting effect on the airline industry. From unprecedented declines in demand to financial stress and operational obstacles, airlines had to navigate a complex and uncertain environment. The recovery of the industry depended on the effective distribution of vaccines, international cooperation, and the gradual restoration of passenger confidence in travel.

In today's businesses, strategic and operational management play a crucial role in maintaining corporate performance and defining a competitive and sustainable strategy. A comprehensive strategic analysis and solid strategic thinking that can prevent and adapt to unanticipated circumstances, in this case COVID-19, by identifying its resources, capabilities, improvement areas, opportunities, and threats. Defining a new strategy for TAP or rethinking the previous one will be less difficult with this knowledge and with valuable information about the airline industry.

#### **1.2 Motivation**

I chose this topic for my master's thesis because I am particularly interested in subjects such as strategy, operational efficiency and the airline industry. In the specific case of TAP, one that has been so controversial in the last years, is a topic that has caused an intense debate, which is why I want to understand how the company managed to overcome the pandemic and what are the spill overs of COVID-19 in the airline industry. I intend to study what has changed during and after COVID and what will be the industry and TAP's future. Furthermore, as a business student I am also interested in analysing companies from a business and strategic perspective. Understanding how a large corporation performs when facing a global crisis, and how capable they are to adapt and prevent these unforeseen events.

#### 1.3 The airline industry overview

The airline business, and specifically the commercial air transport of people, makes a significant contribution to globalization by permitting and facilitating connections across the globe in a world where agility and quick change are constants. When compared to other businesses, the airline business has some of the greatest growth projections and is one of the most competitive. As time and distance are compressed, economic expansion, global trade, international investment, and tourism are made possible, according to some writers, fundamentally altering the way business is conducted and how people live. Few other sectors receive as much and as intense of attention as airlines do, not just from those who work in the industry but also from government policymakers, the media, and nearly anyone who has a story to tell about their time in the air.

The commercial launch of jet aircraft in the 1950s and the subsequent development of wide body "jumbo jets" in the 1970s were two of the most significant technical changes that the global airline industry had to adapt to throughout its history. At the same time, governments throughout the world imposed strict regulations on the aviation industry, hindering profitability and stifling competition by prioritizing technology progress and government policy. Only since the United States' economic deregulation of airlines in 1978 have matters of cost efficiency, operating profitability, and competitive conduct risen to the forefront of airline management concerns. Since the United States set the trend, the rest of the industrialized world has followed suit, resulting in changes to domestic air travel and, more crucially, the ongoing development of a fiercely competitive international airline business. Due to the economic significance of the airline business and its implications on aircraft manufacturers, the uncertainty of airline profitability and their reliance on positive economic circumstances are an issue for both industries. Prior to the 1980s, consistent earnings and government support were the norm for most international airlines. However, since airline deregulation, this issue has increased considerably<sup>1</sup>.

Since the 1978 deregulation of U.S. airlines, pressure on governments to minimize their participation in the economics of airline competition has expanded to most of the rest of the globe. Other nations view the US experience with airline deregulation as a success since the advantages to the great majority of air travellers have been clearly shown. As a result of deregulation, domestic air travel in the United States has grown at a substantially faster rate

Massachusetts institute of technology (MIT). 2013. Airline Industry Overview. Available at: https://web.mit.edu/airlines/analysis/analysis\_airline\_industry.html

than before deregulation. Several successful new entrant and low-fare carriers had a significant effect on both airline pricing policies and public expectations of low-cost air travel. And, despite concerns at the time of deregulation that competitive pricing pressures may result in lower maintenance standards, there is no statistical evidence that airline safety declined.

Additionally, the deregulation experience in the United States has some possibly more damaging effects. The need to cut costs, along with higher earnings instability, mergers, and bankruptcy of major airlines, resulted in periodic job losses, salary reductions, and diminished influence for airline labour organizations.

In the 21<sup>st</sup> century, the industry was affected by another economic decline, as business travel decreased significantly, and labour and fuel costs soared. The events of September 11 aggravated the airline industry's problems, resulting in an unexpected decline in consumers and substantially higher operating costs. The industry did not return to profitability until 2006. However, in December 2007 to June 2009 the Great Recession occurred. From 2001 to 2016, the number of main airlines decreased from twelve to five, as a result of five significant mergers following the Great Recession, mergers between America West Airlines, US Airways, and American Airlines; Delta Air Lines and Northwest Airlines; United Airlines and Continental Airlines; Southwest Airlines and AirTran Airways; and Alaska Air Group and Virgin America stand out. As a consequence of each merger, airlines updated their networks and consolidated their operations in more profitable locations. Consequently, the airlines ended operations at a few locations<sup>2</sup>. Between 2004 and 2008, another challenge needs to be considered due to its impact in airlines companies. The price of aviation fuel increased significantly, in 2009 crashed, and returned to historically high levels by 2011. Fuel price fluctuations complicate airline management. Between 2000 and 2008, the amount that airlines spent on fuel tripled due to rising prices, despite a decline in total consumption. In 2009, the proportion of total airline operating expenses attributable to fuel costs increased to 35-40 percent from 15 percent in  $2001^3$ .

In addition, some airlines identified a successful market segment as the aviation industry transformed. These airlines, known as low-cost carriers, were able to attract significant passenger traffic because their cost structures were fundamentally different and lower than

<sup>&</sup>lt;sup>2</sup> All Getaways. 2021. The History of Airline Industry. Available at: <u>https://www.allgetaways.com/flight-booking/history-airline-industry.html</u>

<sup>&</sup>lt;sup>3</sup> National Academies. 2023. How Has Air Service Changed Over Time? Available at: <u>https://crp.trb.org/acrpwebresource12/understanding-air-service-and-regional-economic-activity/how-has-air-service-changed-over-time/</u>

those of the legacy network carriers, allowing them to charge less for tickets while remaining profitable. Low-cost carriers tended to use secondary airports around larger urban areas to take advantage of reduced airport costs (and less congested conditions) while maintaining near large populations.

Lastly, the COVID-19 pandemic, which is the most recent crisis, has caused the highest decline in global aviation activity since World War II. The International Air Transport Association (IATA) projects a 66 percent decline in global aviation traffic in 2020 compared to 2019. The pandemic has had a greater negative impact on international traffic, with many countries implementing travel restrictions and closing borders. The pandemic has caused numerous difficulties for the industry. Airports and airlines have had to manage unexpected reductions in air passenger volumes and air services, along with the need in some instances to accommodate new air cargo demands. Government support has been inconsistent and delayed, the industry has had to adapt to new regulations and passenger processes relating to medical testing and other procedures, some of which are temporary until more permanent protocols and infrastructure are implemented.

### 1.4. Macroeconomic analysis

In 2023, the International Air Transport Association (IATA) forecasts a global profit of \$4.6 billion on revenues of \$779 billion. This modest forecast anticipates a narrow operating margin for airlines of just 0.4% and a per-passenger profit of just \$1.1, but if the industry achieves these figures, it will be the largest and quickest recovery in the history of aviation. The COVID-19 pandemic has reached the endemic stage in some regions of the globe. The global industry lost \$175 billion in 2020, \$104 billion in 2021 and \$6.9 billion in 2022. Given the devastating impact of the pandemic and the fact that, as of the end of 2021, the industry was not anticipated to return to profitability until the end of 2023 or even into 2024<sup>4</sup>.

As previously stated, the pandemic caused a financial disaster throughout the aviation value chain, particularly for airlines. Except for freight forwarders and cargo airlines, which benefited from an increase in demand for air cargo, every subsector reported enormous losses in 2020. Even previously dependable value creators, such as airports and manufacturers, were not immune to the economic impact of the pandemic. It was discovered that the degree of devastation varied based on the variable costs incurred by companies in a subsector and the

<sup>&</sup>lt;sup>4</sup> KPMG. 2023. Airlines: Riding the Recovery - Profit forecasts. Available at: <u>https://kpmg.com/ie/en/home/insights/2023/01/aviation-leaders-report-2023/airlines-riding-the-</u> <u>recovery.html</u>

revenue flows they have access to. Companies that relied more on flights for revenue still made profit from cargo flights were consequently less negatively impacted than companies that relied more on passenger flows. Additionally, companies with high fixed costs suffered more, without revenue and with high fixed costs it was quite difficult to keep operations running<sup>5</sup>.

Prior to the COVID-19 pandemic, the airline industry was not doing particularly well. From 2012 to 2019, despite a favourable environment of robust economic growth and low fuel prices, airlines lost an average of \$17 billion per year in economic profit. However, airlines' average losses prior to the pandemic were less than a tenth of the \$168 billion, which was incurred loss in 2020. Their revenues plummeted by 55 percent, regressing the subsector in nominal terms by approximately 16 years, to 2004. All regions contributed to the aggregate losses in 2020, including North America, which outperformed the rest of the world from 2012 to 2019 when its airlines recorded a total economic profit of \$44 billion.

Before the pandemic, the reasons for the persistent vulnerability of airlines are well documented. The industry is characterised by a high capital intensity, an unpredictable supply, and low obstacles to entry. In addition, the large number of carriers gives suppliers (Original Equipment Manufacturers and airports) greater negotiating leverage. On the customer side, passengers possess considerable purchasing power and are primarily price-driven, posing an added challenge in an era where they can readily compare the ticket prices of different carriers online. Despite airlines' best efforts to differentiate themselves, airline seats remain comparatively generic. In addition, national carriers may discover that the interests of their respective nations may prevail over their own business objectives. Moreover, due to their high fixed costs and predominantly variable revenues, airlines are especially susceptible to external disruptions beyond their control. The Gulf War, 9/11, volcano eruption in Iceland, and the 2008 global financial crisis all had a significant impact on the airline subsector, but not as much as the pandemic.

It is difficult to measure how devastating the COVID-19 pandemic will be for the airline industry. In 2020, industry revenues totalled \$328 billion, representing a 40 percent of the prior year's total. The sector will continue to decline, the traffic is not expected to return to 2019 levels until 2024. The pandemic's long-term effects on aviation are emerging. Hygiene and safety standards have changed, and digital technology will continue to transform the travel

<sup>&</sup>lt;sup>5</sup> McKinsey & Company. 2023. Taking stock of the pandemic's impact on global aviation. Available at: <u>https://www.mckinsey.com/industries/travel-logistics-and-infrastructure/our-insights/taking-stock-of-the-pandemics-impact-on-global-aviation#/</u>

experience. However, other effects are more profound. COVID-19 has irrevocably altered consumer behaviour and the airline industry, in contrast to the global financial crisis of 2008, which was solely economic and reduced spending power. Consequently, new trends have emerged during COVID-19, such as: IT and digital investment, for instance, airlines can respond to the faster recovery of domestic and short-term flights by investing in direct sales and owning the relationship with the consumer. Relationships with IT and distribution service providers could be reconsidered. Moreover, analytics play a significant role in the corporate business, utilising data in more intelligent ways to improve decision making, requiring some investment but generating significant benefits.

Several airlines reacted to the pandemic by restructuring their operations and procedures to increase performance, others were not able to do it. In some situations, this is associated with state-aid initiatives, which can reduce the incentive to take essential steps such as cost reduction, organisational and operational restructuring. They could voluntarily or legally increase their cash reserves, which would reduce the need for bailouts each time a crisis occurs. By increasing the variability of their cost base, they could also make their operations more agile and flexible, which would improve their capacity to reduce supply rapidly and cost-effectively in response to an unexpected drop in demand. Without proactive transformation and resilience, airlines face the risk of losing position in the market and consequently not being able to create value in the future<sup>6</sup>.

<sup>&</sup>lt;sup>6</sup> McKinsey & Company. 2021. Back to the future? Airline sector poised for change post-COVID-19. Available at: <u>https://www.mckinsey.com/industries/travel-logistics-and-infrastructure/our-insights/back-to-the-future-airline-sector-poised-for-change-post-covid-19</u>

#### 2.TAP

#### 2.1 TAP history overview

TAP is a Portuguese airline company that was founded in 1945 by Humberto Delgado. TAP started operations 18 months after its founding in March 1945, in September 1946 with the first commercial flight from Lisbon to Madrid. Furthermore, in the following years new routes started to be available, Paris and Seville in 1948 and London in 1949. TAP began the jet age in the 1960s, and during these years new routes appeared, such as flights to Madeira, Rio de Janeiro, Munich, Geneva, among others.

In 1967, TAP begins the first all-jet European airline. In 1969, regular flights to New York were introduced, and Lockheed TriStars, McDonnell Douglas, DC-10s and Airbus A300s were added to the fleet in the early 1970s, as well as Boeing 747s, purchased to replace the old 707s.

In 1970s the company went through a changing period, the location changed to Aeroporto de Lisboa, and new flights were introduced, New York, Montréal, Ponta Delgada and Terceira.

In 1974, a new technological system was introduced which was called TAPMATIC, since the company started using this new system everything has changed, the whole process to book a flight was more automated and faster, which is a huge step for a company that already had millions of passengers. 1974 ends with new records for the company: more than 1.5 million passengers, 68.210 hours flight hours and more than 9000 employees. In the next year (1975) TAP was nationalized, the company's name changed for TAP Air Portugal in 1979 and a new program was implemented in order to change the company and become more recognized internationally.

In the 1980s, the company went through a difficult period, due to all the events that happened such as the technological progress, oil crises, Portugal join the European Economic Community and the fall of the Berlin Wall. These circumstances led to an increase of costs and as result the airline lost \$2 billion. However, great things happen too, and in 1981 the first women to pilot an airplane was Teresa Carvalho. A huge step was made in 1985 when TAP reached two million passengers in just one year of operations. To end the decade TAP became the first Airline company to establish land-air calls via satellite.

The end of 20<sup>th</sup> century was marked by great technological innovations such as the cell phone and the internet. The Airbus era begun and as consequence good results were achieved. Flights from Porto to Barcelona and Basileia and three million passengers in one year. In the 1900s the Airbus A320, A340 and A319 are introduced into TAP fleet in 1993-1994, these Airbus are more versatile and economic. Furthermore, in 1996 TAP created a website and

begun their journey in the digital world, since then the company has been digitally innovative. In 1998 TAP had a partnership with EXPO'98 which was a huge event in Portugal, TAP had the Airplane decorated with EXPO'98 slogan. In the next year, the "Voos Azuis" were introduced, in these flights it was not allowed to smoke.

The 21st century has some new challenges for the company, the industry crise and digitalization. In 2004, Portugal was the host of Football Euro, TAP named one Airplane (A319) as "Eusébio" which is the name of one of the most well-known football players. In 2005 TAP changed its logo to celebrate a new record of 6.5 million passengers, this new logo aims to be more modern than the previous one. Also in this year, a program called Victoria was introduced to give some advantages to the regular passengers, the passenger will get better benefits when he accumulates more miles.

In 2008 TAP introduced a new technological feature, the check-in online for flights from Brazil, Maputo, São Tomé, Bissau, and Jonesburg and the ticketing is now 100% electronic. In the next year TAP decided to integrate six new Airbus that allowed to increase energy by 8% and environmental efficiency, being the first airline company to receive the UNESCO award "Planeta Terra". Yet in 2009, new services to the clients are available, the Premium Boarding exclusive for passengers TAP executive and who carry the Victoria Gold card, TAP Corporate or STAR Gold<sup>7</sup>.

In 2015 TAP celebrates its 70<sup>th</sup> anniversary and was privatized. The company was sold by the Portuguese Government to the Atlantic Gateway Consortium, a joint venture between David Neeleman, founder of JetBlue and Azul and co-founder of Westjet Airlines, and Portuguese entrepreneur Humberto Pedrosa, owner of Grupo Barraqueiro, purchased 61% of the capital<sup>8</sup>.

In last years, 2020 decade, many challenges appeared: COVID-19 and crises in airplane industry are the main events and continues to have a huge impact on TAP and all airlines companies. Due to COVID-19 the company stopped operating for months, representing a great amount of costs and no profit, which means that TAP needed financial support from the government in order to avoid a possibility of bankruptcy.

<sup>&</sup>lt;sup>7</sup> TAP AIR PORTUGAL. 2023. Sobre a TAP. Available at: <u>https://www.flytap.com/pt-pt/suporte/sobre-a-tap</u>

<sup>&</sup>lt;sup>8</sup> Seatmaestro. 2020. History of TAP Air Portugal. Available at: //www.seatmaestro.com/airlinesseating-maps/tap-air-portugal/history

#### 2.2 TAP business overview

#### **2.2.1 Organizational structure**

On the 31st December 2021, TAP owned 100% of the subsidiary TAP Logistics Solutions, S.A., incorporated on 30 December 2019 to operate in the cargo and mail sector. Accordingly, the financial statements of this company were included by the full consolidation method in the consolidated financial statements of TAP, S.A. as of 31 December 2020<sup>9</sup>.

As part of the continuing Restructuring Plan, a few actions relating to organizational restructuring and operational efficiency have been identified, including the reduction of the Group's workforce to ensure its financial and economic viability.

Following the restructuring process related to the Group's workers, which was included in the Restructuring Plan approved by the board of executives on the 2<sup>nd</sup> of December 2020, and the subsequent communications made by TAP Group's board of directors to the Group's workers, a process of enrolment for voluntary measures consisting of the mutually agreed termination of the labour contract, the worker's early retirement, worker's anticipated retirement, and reduced time on the job has been initiated.

With the application of voluntary measures available in June 2021, there was only a decrease of 124 employees. However, TAP's forecast was a reduction of 2000 employees in June 2021, which demonstrates that the measures implemented were efficient. These employees are split into the following occupational categories: 35 pilots, 28 cabin crew, 38 maintenance and engineering workers and 23 headquarters workers.

Consequently, of the 124 employees, 62 were subject to collective dismissal, broken down as follows: 20 pilots; 16 cabin crew; 14 maintenance and engineering workers; 12 headquarters workers. Therefore, as at the end of 2021, considering the best estimate of the Board of Directors regarding the conclusion of the ongoing negotiation processes and the payments already made in 2021, the Group revised the provision for expenses to support the restructuring, to be completed in 2022, by approximately  $\in$ 37.0 million, which refers to the estimate of processes to be completed and future payments already agreed upon.

<sup>&</sup>lt;sup>9</sup> TAP AIR PORTUGAL. 2023. Sobre a TAP. Available at: <u>https://www.flytap.com/pt-pt/suporte/sobre-a-tap</u>

#### 2.2.2 Business strategy

Since its founding in 1945, TAP has been a national icon. Since its inception, TAP's strategic focus has been to exceed client expectations. Adding greater value to the given services and products, the firm continuously attempts to provide customers with the greatest and most convenient travel options. "*TAP Air Portugal believes in interaction, in the power to connect and move people, bringing new possibilities for a better future*"<sup>10</sup>. TAP concentrates its operations on a full-service airline model, delivering a product or service that is distinct from that of other airlines. This helps TAP to establish brand awareness, customer value, and customer loyalty. TAP provides the Premium Customer Center as an example of a distinct service. In addition, the company offers a range of diverse products, with distinct requirements for each product type to meet the diverse demands of its passengers. TAP also provides excellent, cross-segment customer service that is highly personalized.

TAP has different strategies for each segment: Network and Fleet; Passenger Air Transport; Maintenance and Engineering; Cargo; Human Resources:

**Network and Fleet:** TAP has launched new long and short-haul routes, including Montreal, Cancun, Punta Cana, Maceió, Zagreb, Ibiza, Fuerteventura, Agadir, Oujda, Monastir, and Djerba. This is in addition to its commitment to its strategy of developing the Lisbon hub to connect Europe and Africa with Brazil and the United States.

**Passenger Air Transport:** Beginning in 2021, TAP continued its goal to raise the total profitability of its network, assuring sustainable expansion. However, the spread of a new form of the COVID-19 virus resulted in more border closures, compelling the company to reconsider its network. As a result, the Company operated just 11% of 2019 (Available Seat Kilometre) with flights to Portugal, Europe, Africa, and North America as of February. Despite this adverse environment, the company maintained a strategy focused on the Americas and Africa, using Lisbon's geographical position to link to a greater variety of destinations, providing a stronger control over the activity reduction.

Maintenance and Engineering: In 2021, the maintenance and engineering activities focused on restoring stored aircraft to service in support of the operating ramp up and fleet

<sup>&</sup>lt;sup>10</sup> Cited in TAP Air Portugal (2023). Identidade TAP. Available at: <u>https://recrutamento.tap.pt/go/Identidade-TAP/742202/</u>

phase-in and phase-out. Compared to pre-pandemic levels, sales from third parties were low, but with a reasonable margin.

**Cargo:** TAP Cargo has prioritized network flight optimization in 2021, helping to the recovery of passenger flights while continuing to invest in cargo-only flights, having quadrupled the number of operations to more than 30 destinations. TAP has modified two A332-200 aircraft to boost available capacity to meet the market's strong demand, as part of a strategy of continual investment in cargo owing to projected expansion.

**Human Resources:** Due to the residual effects of the pandemic, a few voluntary adherence labour measures were made available to all employees, including terminations by mutual agreement, early retirement, pre-retirement, part-time work, and unpaid leave, posing a formidable challenge for human resource management. In addition, TAP resorted to the traditional layoff regime for all workers beginning on 1 March 2021 for a period of 12 months, except for personnel eligible for unilateral measures who were removed from the process.

TAP Group Restructuring Plan was approved by the European Commission. However, the principle is based on the approved Restructuring Plan which, considering the respective base scenario, foresees the gradual growth of the activity, coupled with a strategy of fleet reduction, operational and investment costs. Furthermore, the company is getting shareholder financial support from the Portuguese Government that is included in the Restructuring Plan, with the purpose of securing the financial and economic sustainability of operations in the future.

#### 2.2.3 Performance indicators

The indicators that are normally used to measure the performance in the aviation industry are the indicators: Available Seat Kilometre (ASK) and the Revenue Passenger Kilometre (RPK). Through the following data it is possible to analyse these indicators and other important indicators that help to understand how the company has performed in the last years.

	2020	2021	2022	Change (2021/2022)
Operation				
Passengers (thousands)	4 6 2 7	5827	13 759	136,1%
Revenue Passenger Kilometers - RPK (millions)	11876	14917	36 782	146,6%
Available Seat Kilometers - ASK (millions)	18376	23 663	45 960	94,2%
Load Factor (%)	65	63	80	27,0%
Number of Departures	47 900	61 664	107 856	74,9%
Number of Aircraft	96	94	93	-1,1%
Number of Destinations (a)	88	88	90	2,3%

Table 1 - Operational performance 2020-2022

Source: TAP sustainability report 2022

Compared to the year 2020, the operating indicators for the year 2021 and 2022 indicate a substantial improvement; in particular, the number of passengers transported grew by 26% in 2021. Demand as measured by RPKs climbed by 25.6% in 2021. The capacity (measured in ASKs) increased by 28.8% in 2021 . In comparison, the load factor declined by 3% points annually to 63.0%, while in 2022 increased by 27%.

In 2022 it is possible to observe a huge increase in both indicators, RPK increased by 146% which is a positive result, ASK increased by 94% which means the capacity of the company almost doubled in 2022.

#### Table 2 - TAP Financial Performance 2020-2021.

TAP, S.A. Consolidated			Change	
EUR million	FY21	FY20	Value	%
Operating Income	1,388.5	1,060.2	328.4	+31.0%
Passenger	1,067.2	848.4	218.8	+25.8%
Maintenance	54.2	67.9	-13.7	-20.1%
Cargo and mail	236.2	125.7	110.5	+88.0%
Other operating income	30.9	18.2	12.7	+69.4%
Operating Costs	2,877.2	2,024.9	852.3	+42.1%
Aircraft fuel	340.5	260.5	80.0	+30.7%
Traffic operating costs	372.2	350.8	21.4	+6.1%
Employee costs	373.4	419.7	-46.3	-11.0%
Aircraft maintenance costs	19.4	24.4	-5.0	-20.5%
Cost of materials consumed	30.2	40.3	-10.1	-25.1%
Commercial, communication and marketing costs	71.4	69.2	2.2	+3.2%
Impair. losses in inventories, receiv. and provisions	51.4	44.1	7.3	+16.7%
Other operating expenses	118.3	125.0	-6.7	-5.3%
Restructuring	-14.2	96.1	-110.3	-114.8%
Other non recurrent items	1,024.9	10.3	1,014.7	>+200%
Depreciation, amortisation and impairment losses	489.7	584.7	-95.0	-16.2%
EBIT (Operating Result)	-1,488.7	-964.8	-523.9	n.m.
EBIT margin	-107.2%	-91.0%	-16.2 p.p.	n.m.
Recurring EBIT 1)	-478.0	-858.4	380.4	n.m.
Recurring EBIT margin	-34.4%	-81.0%	+46.5 p.p.	n.m.
Interest and similar income	34.0	33.6	0.4	+1.2%
Interest and similar expenses	-293.6	-245.8	-47.8	+19.4%
Overhedge Gains / Losses	8.7	-165.3	174.0	+105.2%
Net currency exchange	-175.5	162.1	-337.6	<-200%
Earnings before taxes	-1,915.1	-1,180.2	-734.9	n.m.
Income tax	316.0	-50.1	366.1	>+200%
Net income/ (loss)	-1,599.1	-1,230.3	-368.9	n.m.
EBITDA <sup>2)</sup>	-999.0	-380.1	-618.9	n.m.
EBITDA margin	-71.9%	-35.9%	-36.1 p.p.	n.m.
Recurring EBITDA 3)	11.7	-273.7	285.5	n.m.
Recurring EBITDA margin	0.8%	-25.8%	+26.7 p.p.	n.m.

Economic-Financial Performance

1) Recurring EBIT = Operating Result + Restructuring + Other Non-recurring Items

2) EBITDA = Operating Result + Depreciation, amortisation and impairment losses

3) Recurring EBITDA = Operating Result + Depreciation, amortisation and impairment losses + Restructuring + Other non-recurring items

Source: TAP annual report 2021

The net loss in 2021 was  $\notin$ 1,599.1 million, which was the result of the currency losses that suffered from the Euro against the USD exchange rate. 2021 was likewise a year of revenue recovery, with overall operating income 31% higher than in 2020, reaching  $\notin$ 1,388.5 million, driven mostly by the passenger segments.

In 2021, recurring operating  $costs^{11}$  totalled  $\in 1,866.5$  million, representing a decrease of  $\in 52.1$  million (-2.7%) compared to the same period in 2020. This decrease reflects the company's restructuring measures, including depreciation, amortisation, and impairment losses, employee costs, aircraft maintenance costs, and cost of materials consumed. In accordance with the Restructuring Plan, the decrease in labour expenses already incorporates the loss of 1480 workers throughout the year and the salary cutbacks that began in March 2021. However, other costs increased due to the ramp-up in activity but all decrease in percentage.

<sup>&</sup>lt;sup>11</sup> Recurring operating costs = Operating costs – other non-recurrent items + Restructuring

The recurring EBIT increased by  $\notin 380.4$  million in 2021 to  $\notin -478.0$  million, while the recurring EBITDA amounted to  $\notin 11.7$  million (the 2nd half of 2021 had a positive recurring EBITDA of  $\notin 176.4$  million).

In the 4th quarter of 2021, because of the acceptance of the Restructuring Plan and the reorganization of TAP SGPS, TAP incurred a one-time cost of  $\notin$ 1,024.9 million. This caption consists of an impairment in receivables from TAP SGPS in the amount of  $\notin$ 884.7 million and a provision in the amount of  $\notin$ 140.3 million related to the estimated additional charges that TAP will need to support in conjunction with the reorganization, which includes the Brazil maintenance liquidation process. As a result, and after the impact of non-recurring expenditures, EBITDA decreased by  $\notin$ 618.9 million in the year to  $\notin$ -999.0 million, and the Operating Result (EBIT) decreased by  $\notin$ 523.9 million in the year to  $\notin$ -1,488.7 million in 2021.

#### 2.2.4 Market and competition analysis

TAP Air Portugal is considered the main aviation company in Portugal. The airline industry is very competitive, as the main competitors of TAP are Ryanair, EasyJet, Air France KLM and Iberia, due to the strong presence that these companies have in Portugal and due to their size.

**Ryanair**<sup>12</sup> - This low-cost airline was created in 1984, and due to the fast rise of low-cost airlines in the late 1990s, its growth was rapid. Based on an analysis of web statistics, Ryanair had the most passengers in 2019, with 152.4 million. Despite this decline, the firm continued to be the largest in 2020, with 52.01 million passengers. Based on 2019 statistics, the airline employs around 17,200 workers. In terms of revenue, it has declined by €1,636 million in 2021 compared to the previous year, which is consistent with the industry. The firm has also been attacked for the lack of working conditions for its employees, its excessive use of additional fees, its poor customer service, and its desire to manufacture controversy to obtain free media. Price is the primary reason why Ryanair must separate itself from the market's dominant companies. However, larger airlines such as Lufthansa and Air France have attempted to combat the expansion of low-cost carriers by offering their own discounts. The Guardian<sup>13</sup> reports that Ryanair has made it plain that they are here to stay and that their passenger numbers

<sup>&</sup>lt;sup>12</sup>Ryanair. 2023. Annual reports & 20F Statements. Available at: <u>https://investor.ryanair.com/results-centre/</u>

<sup>&</sup>lt;sup>13</sup>The Guardian. 2021. Ryanair plans to carry 225m passengers by 2026 in Covid rebound. Available at <u>https://www.theguardian.com/business/2021/sep/16/ryanair-passengers-covid-rebound-jobs</u>

are likely to climb by 25 million per year until 2026. This is considered the airline's recovery from the epidemic.

**EasyJet<sup>14</sup>** - EasyJet is a British international low-cost airline group that was founded in 1995 and is now headquartered at London Luton Airport. It runs flights in over 30 countries, both domestically and internationally. To assure the delivery of its services, it has partnerships throughout Europe. As with many other low-cost airlines, its rise is attributable to customers' desire to fly for less money. EasyJet has around 12,389 workers in 2021. According to the 2020 annual report of the corporation, the airline's revenue has decreased from \$6,380 million in 2019 to \$3,009 million in 2020. Despite the income loss, EasyJet has been able to capitalize in other areas, such as the reduction in pollution and fuel consumption that may be attributed to the new generation aircraft. This has allowed the airline to save around 15% on expenditures. EasyJet's primary objective is to make travel simple, pleasurable, and economical, regardless of the purpose of the trip.

**Lufthansa Group**<sup>15</sup> - Founded in 1953, Lufthansa is the largest German airline and, when combined with its subsidiaries, also the largest airline in Europe. Its subsidiaries are Austrian Airlines, Swiss International Air Lines, and Eurowings (including Germanwings). According to the 2021 annual report of the company, the group has 105,290 employees, and around 33,000 employees have been fired since the begging of the pandemic.

Their revenue has increased in 2021 comparing to 2020, from  $\notin$ 13,589 million to  $\notin$ 16,811million, yet it is not even half of the revenue achieved before COVID-19, which was  $\notin$ 36,424 million in 2019. During the fiscal year of 2021, additional significant actions were taken to minimize the operational fleet in accordance with standards. This will assist in adjusting the flight offer and fleet capacity to the reduced demand, which is projected to stay low for the foreseeable future due to the crisis. Specifically, this involves the retirement of bigger, less fuel-efficient four-engine aircraft. Concurrently, the group is capitalizing on market possibilities to acquire contemporary aircraft at competitive prices. Globally, the rate of fleet modernisation is accelerating.

<sup>&</sup>lt;sup>14</sup>easyJet plc. 2022. Reports and presentations. Available at: <u>https://corporate.easyjet.com/investors/reports-and-presentations/2022</u>

<sup>&</sup>lt;sup>15</sup>LUFTHANSA GROUP. 2022. Financial Reports. Available at: <u>https://investor-</u> relations.lufthansagroup.com/en/publications/financial-reports.html

**Air France KLM<sup>16</sup>** - In 2004, Air France and KLM, a Dutch company, merged to form this airline. One of the subsidiaries of Air France KLM is Transavia, an LCC. Additionally, Transavia has a subsidiary in France called Transavia France.

The whole airline industry was highly affected by COVID-19, including Air France KLM. However, the group took some measures to mitigate the effect of this pandemic, such as adapting capacity to the demand trends, structural changes and reducing costs mainly by reducing the salaries or the number of employees.

In the second half of 2021, passenger-kilometre traffic increased by 155% compared to the same period in 2020, due to a strong rebound in demand. For the whole year, capacity climbed by 30% compared to its level in 2020, while traffic increased by 28%. As a result, total revenues increased by 29% compared to last year and amounted to  $\notin$ 14,315 million. Despite large increases in capacity, the group was able to reduce external costs due to specific cost initiatives, including workforce reduction, almost 8,000 employee's reduction in 2021 comparing to 2020, and wage controls. Since the beginning of the year, external costs have reached  $\notin$ 8,829 million, which represents an increase of 11% compared to 2020 and comfortably below the growth in capacity.

**Iberia**<sup>17</sup> - On June 28, 1927, Iberia, Companhia Aérea de Transporte, was officially founded. Iberia experienced one of the most significant transformations in its history in recent years, becoming a profitable, modern, dynamic, and efficient airline. Iberia merged with British Airways under the holding company IAG Group and created Iberia Express in 2012. Iberia Express marked its tenth birthday. More than 44 million passengers have trusted the company since 2012. Since 2019, the airline has prioritized environmental responsibility and digital transformation to enhance customer satisfaction. Iberia Express has exceeded its capacity in 2019 in certain markets, including the Balearic and Canary Islands, after overcoming two difficult years for the aviation industry as a consequence of the global pandemic. The revenue has increased in 2021 comparing to 2020, from  $\notin$ 2,259 million to  $\notin$ 2,784 million, yet is not even half the revenue achieved before COVID-19, as in 2019 the airline's revenue was  $\notin$ 5,645 million.

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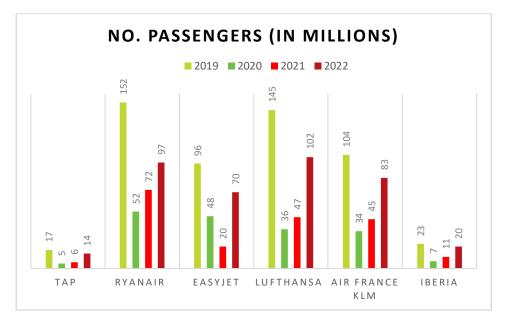
 <sup>&</sup>lt;sup>16</sup>AIR FRANCE KLM GROUP. 2022. Annual and semi-annual documents. Available at: <u>https://www.airfranceklm.com/en/finance/publications/annual-semi-annual-documents</u>.
 <sup>17</sup>IBERIA. 2023. Historical Timeline. Available <u>https://grupo.iberia.com/about\_us/historical\_timeline</u>\



Figure 1 - Comparison between TAP and its competitors (no. employees)

Source: Graph created based on companies' annual report





Source: Graph created based on companies' annual report



Figure 3 - Comparison between TAP and its competitors (revenue)

Source: Graph created based on companies' annual reports

After collecting data about TAP and its competitors, it is possible to conclude that all companies suffered a tough moment since the begging of COVID-19, since all of them had a huge decrease in terms of sales and revenue. Ryanair is the only company that has a higher revenue in 2020 than 2019 because the consolidated Balance Sheet of Ryanair Holdings plc and Subsidiaries ends on 31<sup>st</sup> March. In terms of percentage, TAP decreased its revenue by 68% in 2020 comparing to 2019, EasyJet by 53%, Lufthansa by 63%, Air France KLM by 60% and Iberia by 60%. Ryanair only felt a huge impact in financial statements in 2021 due to the reason explained above.

It is possible to see that all companies suffered a crisis due to COVID-19, as all of them decreased their revenue by approximately 60%. Moreover, TAP is the one that had the highest decrease which happened more likely because it is the company with fewer routes. In 2021, firms recovered slightly, as expected. However, there are still many COVID-19 restrictions, so the results are low comparing to 2019. Lastly, in 2022 most of the restrictions are no longer applied. Consequently, it is possible to observe a significant recovery in the airline industry. In 2022 the airline's revenue is very close to that of 2019, which is a positive indicator.

Furthermore, the number of employees is also an interesting indicator to be analysed. Comparing the number of employees after and before COVID-19, Ryanair is the only airline that has increased the number of employees, possibly due to its growth strategy that required greater investment in new employees. Except Ryanair, other companies have decreased the number of employees which is a consequence of costs reduction. Additionally, the number of passengers carried out is an indicator that reflects how COVID-19 has affected customer preferences, this indicator increased in 2021 and 2022, and the values in 2023 will be similar to pre-pandemic levels, which means costumers are now feeling more secure about travelling.

## 2.3 SWOT analysis

Table 3 - TAP Air Portugal SWOT analysis

STRENGTHS	WEAKNESSES
<ul> <li>Strong brand image</li> <li>Diversified product portfolio</li> <li>Safety and quality measures during COVID-19</li> <li>Loyalty programs (Miles&amp;Go)</li> <li>High quality of products/services</li> <li>Strong digital presence</li> <li>Geographic location</li> <li>Government support (financially)</li> <li>A321LR Aircraft</li> </ul>	<ul> <li>High prices compared to low-cost competitors</li> <li>Talent retention (specialized staff)</li> <li>Employee strikes</li> <li>High-cost structure</li> <li>Technological disadvantage compared to competitors</li> <li>Negative public opinion (controversy)</li> </ul>
OPPORTUNITIES	THREATS
<ul> <li>Improve quality of products and services</li> <li>Integrate a private airline group</li> <li>Construction of new Airport</li> <li>Enhance digital platforms / technology</li> <li>Broaden geographic reach</li> <li>Improve environmental awareness strategies (Sustainable fleet)</li> </ul>	<ul> <li>Low-cost competitors</li> <li>Geopolitical instability/market uncertainty</li> <li>COVID-19 Pandemic</li> <li>Difficulty in retaining talent</li> <li>Global recession</li> <li>Environment threats (remote work)</li> </ul>

Source: Author.

One way to analyse TAP Air Portugal internally and externally, is through a SWOT analysis, examining strengths and weaknesses, external opportunities and threats. In the table above, it is possible to analyse some of TAP's strengths and weaknesses, and explore some opportunities of possible focus, as well as potential threats to the company.

As previously mentioned, since its establishment, TAP has been a national icon, recognized for its diversified and high-quality product portfolio that is able to meet different passenger demands, its high security and safety levels which were essential during the pandemic, and a highly personalized customer service with exclusive services that boost customer loyalty, such as the Miles&Go program, the Airbus A321LR aircraft, as well as the geographic location which is extremely important factor that allows TAP get the edge on other airlines. All of this combined represents a strength for TAP, since it helps the company establish brand awareness, improve customer value and customer loyalty. Despite its strengths, it is possible to identify some weaknesses that should be tackled and improved in order to ensure success for TAP.

It is quite difficult to find specialized staff and retain talent, mainly IT and engineering professionals, since foreign airline companies offer more attractive salaries and work conditions that TAP is not yet able to provide. To retain talent, TAP needs to put focus on improving salaries and providing more flexible working conditions, such as remote work. Employee strikes are also a common weakness, which is why it is crucial to provide the resources to ensure employee well-being, to increase loyalty and productivity.

Nevertheless, there are some threats that TAP faces which can have a great impact in its business activity. As mentioned before, the airline industry is highly competitive and low-cost competitors represent a big threat for TAP, making it difficult to compete on prices. This is due to TAP's higher operational cost structure. To combat this and remain competitive, TAP must seek new opportunities. One opportunity is to put focus on the quality of its services as a way to differentiate themselves from these competitors. One other way would be to integrate a private airline group to obtain benefits to support the operational costs, in order to be able to compete with low-cost competitors.

Furthermore, we are living in an era of uncertainty, facing a global recession and with many countries experiencing geopolitical instability. COVID-19 had and continues to have a huge impact on the airline industry, and TAP is no exception. As explained before, the company was forced to cease operations during months, which represented a huge loss, creating the need for financial support from the government.

### 3. Case study questions

The main goal of a pedagogical case study is to test the theoretical and practical knowledge acquired. In this chapter the questions that will help solving this case study are presented:

**Question 1:** Before the pandemic, what were the main challenges faced by the company?

**Question 2:** What is the impact of COVID-19 in terms of external factors, such as political, economic, social, and environmental, on the business of airlines, specifically in TAP?

Question 3: How did TAP face and manage this crisis?

**Question 4:** What are the most important factors to be a successful company in the airline industry in the future?

Question 5: What are the main sources of competitive advantage for TAP Air Portugal?

**Question 6:** Where and how do you see TAP in long term, considering the crisis they have been through?

#### 4. Methodology

#### 4.1 Research purpose

Pedagogical case studies support students in applying obtained theoretical knowledge to the real-world scenarios outlined in the cases (Robert K Yin, 2014). This encourages the development of analysis and synthesis skills, as well as group collaboration and the exchange of ideas. However, one of the most important aspects of this procedure is the preparation of the case itself. Preparation is required to conduct a thorough and comprehensive analysis of the case, rather than simply drawing superficial conclusions.

According to the author, there are three primary objectives of research: exploratory, descriptive, and explanatory. As this thesis is a case study with a pedagogical focus, the descriptive research purpose was employed, as it seeks to examine a situation to answer the question "*How did it happen/What was done?*" and be capable of going further and drawing conclusions from the described data (Saunders et al., 2007).

The research problem for this case study was to ascertain how the pandemic impacted the airline industry focusing on TAP Air Portugal case. What obstacles it faced when COVID-19 spread, how the pandemic impacted the company, what measures and changes were implemented to minimise its impact, as well as the perspectives and challenges it will face in the future. In this particular case, the purpose is to answer the question *"What was the impact of COVID-19 on the airline industry specifically for the case of TAP Air Portugal?"*. In addition, with a descriptive objective, it was possible to collect plenty of information that led to significant conclusions.

#### 4.2 Research strategy

According to Yin (2003) each strategy may be used for exploratory, descriptive, and explanatory research. The most important is not the label affixed to a particular strategy, rather whether it will allow you to answer your specific research question(s) and accomplish your goals. The choice of research strategy will be influenced by the research question(s) and objectives, the extent of existing knowledge, the amount of time and other resources that are at one's disposal (Saunders et al., 2007).

In business and management research, the terms quantitative and qualitative are frequently used to differentiate data collection techniques and data analysis procedures. The focus on numeric or non-numerical data is one method to differentiate between the two. Quantitative is commonly used as a synonym for any data collection method (such as a questionnaire) or data analysis technique (such as graphs or statistics) that generates or uses numerical data. In contrast, qualitative is commonly used as a synonym for any data collection method (such as an interview) or data analysis procedure (such as categorising data) that generates or uses non-numerical data (Saunders et al., 2007).

For this research question, a small number of quantitative studies on financial data were conducted. However, qualitative research was more effective, since it was possible to obtain in-depth knowledge from the interview (Appendix A), to probe further into the question presented, and to ultimately develop a theory from the collected data.

### 4.3 Source of data in research

There are numerous information gathering techniques used in research, which all fall into two categories: primary and secondary data. The researcher collects primary data for the first time, whereas secondary data has already been collected or produced by others. Primary data are collected to resolve the issue at hand, whereas secondary data are collected for purposes unrelated to the issue (Saunders et al., 2007).

This case is going to be developed using both sources of data. Secondary data available from organisations websites, macroeconomics and social indicators, organisations report from 2019, 2020, 2021, 2022 and scientific articles was used. However, the main source of information to solve this case study is primary data, namely the interview with the Senior Director of Operations Strategy and Performance of TAP Air Portugal – Duarte Afonso. The literature review used in this study provided a theoretical support to build this case study and answer the case study questions.

#### 4.4 Data collection methods

The interview was chosen as the most effective method of data collection because it provides the opportunity to discuss the topic with a company employee, which promotes a better understanding of the situation under study. The type of interview selected was a structured interview, which seemed to be the best option as it allowed the gathering of more specific information, exploration of specific topics in a specific order, and a complete comprehension of the responses provided during the interview. As previously mentioned, the interview was conducted with TAP Air Portugal Senior Director of Operations Strategy and Performance, and its purpose was to collect qualitative data regarding the challenges the company faced when COVID-19 started, how the pandemic impacted the company, what strategy was used to minimise the impact of the pandemic, as well as the perspectives and

challenges it will face in the future. As the purpose of this study was to obtain a better understanding of how TAP was affected by this crisis, the information obtained through this interview was essential, since obtaining credible and reliable information to address the case study's questions would be very difficult without the interview. It is possible to consult the interview table to see the topics discussed (Appendix A).

### 4.5 Research quality

The rigour and quality of qualitative research are promoted by two primary strategies: securing the quality or "authenticity" of the data and the quality or "trustworthiness" of the analysis. The authenticity of the data refers to the data's quality and the collection methods. The trustworthiness of the analysis refers to the quality of the data analysis (Sargeant, 2012). To ensure the authenticity of the data, data triangulation (multiple data sources) was used to gain a deeper understanding of the issue under study, and an individual interview was conducted to obtain answers to the research questions.

#### 5. Pedagogical note

#### **5.1** Case study target

The present study targets undergraduates and master students, in fields related to management, marketing, strategy, finance and related. Moreover, it also targets professionals who are working in the airline industry and for everyone that wants to understand how one of the most relevant industries in the world was affected by this global pandemic. In addition, this case is developed for professionals that want to understand more about strategy and organizational change, how a strategy can impact not only the company results but also the workers, which represent a company's best asset.

#### 5.2 Pedagogical objectives

The aim of this study is to present a case study for students and professionals that are interested in acquiring knowledge in concepts such as crisis management, how a company can overcome a pandemic crisis, prepare to face a constantly evolving world, and find out the company's future objectives. To find out a good strategy, it is important to study and analyse the external factors: COVID-19 changes, political changes, economic changes; internal factors also need to be studied, what the company needs to improve and adapt. This case offers a different point of view regarding TAP's strategic decisions that were used to survive during and after the pandemic crises that had a severe impact in company's results.

Before doing strategic decisions, the company considered the external and internal environment, political, economic, social, operational and financial resources, as well as labour conditions. Specifically, the purpose is to provide individuals who will work on the case study, a chance to understand how TAP reacted in crisis, what was the strategy to overcome the pandemic and if the current strategy executed by TAP Air Portugal is the most suitable long-term plan, as well as if the firm is capable of being competitive in the future in light of the changes that COVID-19 has brought to the airline sector.

Thus, this pedagogical case study has the following objectives:

- Understand how the company overcame the pandemic crisis.
- Identify the most important factors to be a successful airline in the future.
- Find out how the industry changed after COVID-19 and what are the new challenges.
- Analyse the impact of COVID-19 in airline business focusing on TAP.
- Explore the company's goals for the future.

#### 5.3 Literature review

#### 5.3.1 Market overview after COVID-19

The aviation industry has experienced consistent growth over the past few years, primarily due to the global increase in tourism and cargo demand. Consequently, the aviation industry has been a crucial contributor to social development and economic growth in numerous regions. The sector continues to play an important part in the tourism industry by expediting the transportation of travellers, cargo, and other essential products worldwide (Dube et al., 2021). Despite the sector's global importance in facilitating the movement of individuals and products (Fung et al., 2006; Tretheway & Markhvida, 2014), there is evidence that it is vulnerable to stresses such as economic downturns, natural disasters, political instability, and pandemics (Dube et al., 2021).

In the past there have been other crises that challenged the aviation industry, including the oil crisis in 1973, the Iran-Iraq War in the early 80s, the Gulf Crisis in the early 90s, the Asian Financial Crisis in 1997, the 9/11 terrorist attacks, and the financial crisis of 1998 and 1999 (IATA, 2020).

The COVID-19 epidemic was caused by the SARS CoV-2 virus. The epidemic happened in Wuhan, Hubei, China, in December of 2019. The virus continues to spread around the globe and is still present among us. This worldwide experiment highlights two interdependent aspects: epidemiology and economics. At the epidemiological level, the World Health Organization (WHO) designates the pandemic state (Kaplan et al., 2020) a global public health emergency. The economic crisis exists with the pandemic problem. Both developed and emerging nations are experiencing the global economic slowdown (Caunhye et al., 2012).

The effect of travel restrictions on airline operations and passenger demand necessitates unprecedented flexibility and decision making. Multiple functional areas, including long-term fleet planning, network planning and scheduling, crew, operations, and revenue management, are under pressure to make decisions more quickly and flexibly, particularly long-term fleet planning, network planning and scheduling, crew, operations, and revenue management (Garrow & Lurkin, 2021). The current situation of the passenger air transport industry is highly vulnerable to external factors (Gössling, 2020). Brown and Kline (2020) categorise exogenous disruptions as macroeconomic events, insecurity, and health and safety. It has been extensively studied how the sector recovers from these recessions created by these unexpected events. However, there is no consensus on whether economic disruptions have a temporary or permanent impact on the sector's development trends (Gudmundsson et al., 2021).

For the first time, a single nation and the European Union combine forces to combat the economic and health problems impacting all Member States (Hornbeck & Moretti, 2021). The European government implemented robust investment and support measures for the economy of European nations. To aid member states, the following economic policy response to the COVID-19 pandemic has been devised, which is related to three macro-actions: values, policies, and investments (O'Reilly et al., 2015).

Suau-Sanchez et al. (2020) consider possible future trends focusing on the long-term impact. They suggest that the crisis may have created enduring changes in the demand characteristics that will transform the sector. In addition, it is observed that socioeconomic and health disruptions are likely to become more frequent, increasing the risk for the entire value chain (Brown & Kline, 2020; Raynes & Tsui, 2019; Rose, 2021). Consequently, it is quite important to reflect on the future of airline industry.

#### 5.3.2 Crisis management

The definition of crisis management is a group of elements designed to combat crises and mitigate the actual damage caused by a crisis (Bundy et al., 2017). Using disaster preparedness literature as a guide, crisis management encompasses three stages: Precrisis prevention, crisis management and postcrisis outcomes. These stages are included into a standard three-phase method to crisis management, which consists of three phases. These are the following: the precrisis phase (prevention and preparedness), the crisis phase (reaction) and the post-crisis phase (recovery, learning and revision) (Bundy et al., 2017).

The author analyses international crises, comparative crisis research, and problems associated to crisis management at multinational corporations. Contextual crises aim to enlighten on country-specific procedures and represent considerably larger body of study (Coombs & Laufer, 2018). Research is needed on how corporations respond to crises that occur in several countries and how crisis management affects multinationals. For instance, an international crisis may include the home country and one or more host countries, or it may manifest in several host nations (Coombs, 2013).

As it is mentioned above, there are three phases to be considered: the pre-crisis phase, the crisis phase and the post-crisis phase.

**Pre-crisis phase:** Fainshmidt et al. (2017) conclude that company's risk might be reduced by avoiding markets characterized by high levels of consumer hostility. Particularly if the target market is affluent, these choices may be more practical. According to Klein et al. (1998), risk

is the fundamental component of crisis management. Most managers begin the crisis management process by identifying their risks and focusing their crisis planning on those risks. Because organizations are familiar with risk management as a distinct profession, it is reasonable for risk-related research to be conducted in a global setting.

**Crisis phase:** The crisis phase depicts the response to the crisis, which includes the multinational's and its stakeholders' responses. Ang (2001) discusses both consumer and business responses to a crisis. He discovered that crises have diverse effects on consumers throughout the world, and that moderating variables such as the nature of the crisis, socio-economic features, trade interdependence, market sophistication, and culture play a significant part in elucidating these differences.

**Post-crisis phase:** Based on the literature review, the post-crisis period is the topic with the largest study demand. This is hardly unexpected given that the post-crisis period is the least explored aspect of crisis management (Coombs & Laufer, 2018). The value of organizational learning following a disaster cannot be overstated. Are employees in particular nations more or less susceptible to crisis-based learning and organizational change? After a crisis, what cultural variables enable organizational change? Application of post-crisis evaluations is a crucial component of learning since the procedure has been shown to improve organizational learning (BAIRD, 2000).

There is a vast amount of literature that explains crises from several perspectives. Crisis management literature is available from a variety of perspectives and industries, such as responses to crises in the hospitality (Seo et al., 2018; Paraskevas, 2006), tourism (de Sausmarez, 2007) and education (Wang & Hutchins, 2010).

According to Zackery et al. (2022) methods that may be used during a crisis have been examined from the perspective of coopetition, when rival corporations create strategic partnerships to minimize crises. Zackery et al. (2022) highlight the heterogeneity of "coopetition" (cooperation competition) tactics that corporations might employ during a global crisis. Sharma et al. (2020) considered techniques for mitigating global pandemics such as COVID-19.

Coombs & Holladay (2002) identify three types of crises: i) where the organization is a victim (natural disasters, workplace violence, slander, etc.); ii) where the crisis is accidental or deemed unintentional (externally caused); and iii) where the organization can be linked to the cause (internally caused) (misrepresentation, poor decision, negligence, etc.). The indicators of

the crisis assist the management in determining how much responsibility stakeholders may attach to the organization for the situation. Strategic responses to crises should be proportional to the extent of the organization's damage if no action is taken and the way in which stakeholders identify the crisis to the organization (Thakur & Hale, 2022).

Internal factors include workplace violence, sabotage, bad employee relations (union breakdowns), food poisoning or contamination, poor risk management and financial decisionmaking, hostile takeovers, and unethical leadership (Marsen, 2020). Natural catastrophes, sickness, unanticipated technology interactions, product failures, and economic recessions are examples of crises triggered by external factors (Coombs & Holladay, 1996).

To prevent future economic crises, businesses frequently diversify into other markets in order to compensate for any poor results in any one market (Bamiatzi & Kirchmaier, 2014).

By minimizing or denying that a crisis exists, organizations that adopt a defensive approach will underestimate (or under-respond to) the operational harm that a crisis may do (Park, 2017). In such a circumstance, the organization will employ a policy of protection and status quo. This is a managerial decision-making error that may result in the employment of suboptimal responses (Claeys & Coombs, 2021). As a result, a corporation in a defensive strategic mode will fail to devote necessary resources during externally produced crises (such as COVID-19 and financial recessions), which may result in missed opportunities or adjustments to regular business operations (Thakur & Hale, 2022).

It is proposed that managers should be proactive in anticipating and preparing for crisis circumstances. Learning from crisis experiences is one of the most important success aspects, particularly for companies' future strategies, in order to effectively deal with adversity (Vinichenko et al., 2019).

The purpose of the research was to determine how COVID-19 affects airlines' day-to-day operations and how airlines have responded to these challenging conditions. Consequently, the researchers identified the key method for surviving pandemics and the speed with which the plan should be implemented. It is determined that when disruptions occur, the approach must be addressed to maximize its effectiveness. This procedure needed the implementation of three phases. First, identify the issue. Second, to implement a plan. Thirdly, the plan must be executed. Additionally, airlines are now required to constantly evaluate their digital capabilities. Therefore, firms are encouraged to invest in the appropriate technologies. The responsibilities of airline managers include ensuring that their teams fully use the available resources. Consequently, airlines will be in a position to recover quickly and drive expansion following COVID-19 (Waramontri et al., 2022).

#### 5.3.3 Strategic operational management

The department of strategy and organization emphasizes on two interrelated topics. One is strategy, which encompasses all research pertaining to how businesses compete in the market. More specific topics include operations strategy, competitive advantage, market positioning, entry barriers, and other topics that directly relate to how firms compete with operations. The second topic is organization, which refers to the internal organization of the company in this context. This field of study focuses on the traditional topics of organization design, organizational differentiation and integration, the organization and management of geographically dispersed operations, and general organizing principles such as coordination and control (Anand & Gray, 2017). Despite the fact that strategy and organization can be distinguished from one another, both are closely related in operations management (Guide & Ketokivi, 2015). Indeed, operations strategy could be defined as the interaction between the firm's strategic direction and the organization of its resources for developing, producing, and delivering products and services (Anand & Gray, 2017).

Operations management refers to the activities, decisions, and responsibilities associated with managing the resources allocated to the production and distribution of goods and services. Operations management can substantially contribute to the success of an organisation by utilising available resources to produce customer satisfying products and services (R. Kumar, 2022).

The main focus of operations management are: customer services, the primary objective is to satisfy the customer's requirements; it must offer a specific product or service that satisfies the customer in terms of price and timeliness. Additionally, utilisation of resources means getting the most beneficial effect from available assets. It is important for an organisation to utilise its resources effectively in order to optimise its operations and processes. The concept of operations management directly influences strategic decisions. Managers are required to make numerous decisions that impact the work and lives of others. It is essential to comprehend the connection between strategic and operational decisions. Strategic decisions are made based on long-term objectives and orientation. These potential decisions are uncertain. Strategic decisions involve product, process, and planning decisions. While operational decisions, are typically structured, their impact is immediate, in contrast to strategic decisions, are typically short-term and low-cost. A single poor operational decision will have minimal consequences, but a series of poor operational decisions can have a negative impact (R. Kumar, 2022).

Firms must be strategically flexible in order to adapt to unforeseen situations and swiftly changing environments, they must also optimize their business processes to achieve operational efficiency (Eisenhardt et al., 2010). Strategic flexibility enables the adaptive use of resources and the reconfiguration of processes (Carnahan et al., 2010; Ma et al., 2005), and consequently, the capacity to respond rapidly to dynamically shifting environments (Schreyögg & Sydow, 2010). It was stated that classify strategic flexibility as a crucial dynamic capability that enables effective organizations to continuously create and recombine resources in novel ways (Eisenhardt et al., 2010; Helfat & Peteraf, 2009).

#### 5.3.4 Industry key success factors

The pandemic of COVID-19 increased the possibility of financial distress, bankruptcy, or both in the aviation industry. Whether or not airlines can endure during and after the pandemic is highly dependent on their decisions and actions, which will increase their resilience and facilitate their success. In times of crisis such as COVID-19, the decisions made by airlines are crucial for attaining long-term success. Therefore, it is essential for airlines to comprehend which factors have the greatest impact on their actions and decisions (Kiraci et al., 2023).

As the industry started operating again in some regions, it did so against a backdrop of rising debt. The recovery process must be managed sustainably to promote the development of industry resilience. Given that the aviation industry was reopening in the middle of a crisis, various stakeholders made a concerted effort to implement customer and employee safety measures. Efforts were also made to implement a different business model that accounts for a volatile operating environment. This strategy had to be adopted by both airlines and terminals, with consideration for sustainability concerns, the importance of ensuring customer safety will encourage people to travel again, despite the fact that the pandemic has caused a decline in travel enthusiasm (Dube et al., 2021).

During the period of continuous operation, airlines focused on operational factors, such as suspending air services, reducing capacity, stopping direct flights, reducing flights and flight frequency, because it had become difficult to continue operations with the previous procedures. In addition, operational processes were modified at the last minute due to outbreak developments. The importance of financial and information-sharing factors has increased. Therefore, operational process changes, such as reducing capacity, have had a financial impact on airlines. During the COVID-19 pandemic, communicating information precisely and in the correct moment demonstrated to effective for crisis management (Kiraci et al., 2023).

According to the study, to achieve operational efficiency, it is necessary to analyse the procedures and optimize them. The check-in procedure should be efficient and simple. This can be accomplished by employing technology that accelerates the process. In order to accomplish the same or other human-enhanced systems, robots and automation can be utilised. This demands fast, effective, and reliable technology. At the same time, in these COVID-19 days when airline transportation has been disrupted, customer satisfaction is crucial for airline companies, both to maintain their current market share and to increase it in the future. To convince their customers to fly in the COVID-19 environment, airline executives must prioritise customer relations and create a product that their customers desire. This is essential for airlines to maintain an ongoing supply of financial resources. Moreover, it is crucial to use operational resources effectively. Airlines must be able to find a balance between customer satisfaction and profitability. To accomplish this, low-profitability flight points must be eliminated, and flight frequency must be regulated with passenger circulation in mind. In addition, it would be prudent to construct connecting flights instead of direct flights for certain destinations (Dube et al., 2021).

#### 5.3.5 Competitive advantage

In the current market environment, where competition is fierce and the world has become a single market due to technological advancements and social media, consumer interactions have increased. Therefore, it is essential for businesses to maintain consumer engagement. Customers are the most important resource for a company's profit growth, which is one of its main goals. Customers cannot be satisfied solely by buying the correct product or service, as the majority of products and services are similar, and competition is fierce (V. Kumar & Pansari, 2016).

According to Porter, the success of a generic strategy in delivering a competitive advantage is based on the firm's value chain successfully supporting its generic strategy by adding more value to its products and services than its competitors. The value chain is comprised of all activities that contribute to the ultimate product value of an organisation (Stonehouse & Snowdon, 2007).

Competitive marketplaces have always prompted businesses to pursue competitive advantage through a variety of techniques. Some highly leveraged firms approach opportunities with an offensive strategy. These firms actively pursue industry changes by introducing new technologies and products, entering new markets, and even acquiring competitors. Other firms respond to rival acts with defensive methods such as increased advertising expenditures, price matching or price reductions, the provision of value-added alternatives, and the formation of exclusive vendor agreements (Thakur & Hale, 2022).

Organizations can gain a competitive advantage in global markets and industries by making better decisions than their rivals regarding the global configuration of value-adding activities and by coordinating these activities more effectively. Strategic management is needed, based on the premise that competitive advantage depends on the behaviour of the organization rather than its competitive environment. From this perspective, the focus for firms must be on developing knowledge-based core competences through learning and then leveraging those competences in various markets. Strategy was no longer generic but essentially unique to the organization (Stonehouse & Snowdon, 2007).

According to the author, it is essential to identify successful business models as those that take into account all the firm's stakeholders, the impact of the company's operations on society and the environment, and which strategic approach that permits solid value creation and subsequent competitive advantage. Due to the importance of inputs and resources in the production and delivery of products and services, it is essential to consider all stakeholders who may be affected by the company's operations. In addition, the environmental impact of business operations must be considered, along with appropriate waste management, in order to guarantee the availability of resources in the future. Innovations can significantly improve business performance and efficiency, thereby contributing to the development of a solid, sustainable business model (Mattera et al., 2022).

Consequently, developing a long-term business strategy that guarantees the company is lucrative while also being sustainable over time has become a challenge. This equilibrium must consider economic profit, as well as the effects on the environment, society, and the general population. According to the author, considering external social and environmental components of one's own operations may be the key to developing long-term effective plans (Elkington, 2017).

# 5.4 Animation plan

Session	Tasks	Activity	Time
Preparation	• Individual study.	• It is recommended to conduct investigation and gather additional information regarding the organisation and case subject.	30 min.
Session 1	<ul> <li>An introduction to the problem and an overview of the case study.</li> <li>An introduction to the Airline industry and macroeconomic context.</li> <li>TAP Business overview.</li> </ul>	<ul> <li>Macroeconomic contextualization and problem identification.</li> <li>Analysis of the Airline industry.</li> <li>A description of TAP business organizational structure and strategy.</li> </ul>	60 min.
Session 2	<ul> <li>The students should be working in groups to solve the case study questions.</li> <li>Resolutions of questions 1 and 2.</li> </ul>	<ul> <li>Identify the main challenges before COVID-19.</li> <li>Analyse how TAP was affected by COVID-19 and what were the repercussions.</li> </ul>	60 min.
Session 3	• Resolutions of questions 3 and 4.	<ul> <li>Understand how TAP managed to face this pandemic crisis and what measures were necessary to implement.</li> <li>Analyse what are the most important factors to be successful in airline business in the next years.</li> </ul>	60 min.
Session 4	• Resolution of questions 5 and 6.	<ul> <li>Identify the main source(s) of competitive advantage of TAP.</li> <li>Identify the challenges that the company needs to overcome after COVID-19.</li> <li>Company's goals for the future.</li> </ul>	60 min.
Session 5	<ul><li>Group presentation.</li><li>Teacher resolution.</li></ul>	<ul> <li>Presentation of the case study.</li> <li>Discussion of the answers.</li> <li>Slides presented by the Professor.</li> </ul>	90 min.

#### 5.5 Faculty case study lecture for students

This case can be used to support theory and practical teachings; it is expected that it will be used to review and teach the concepts presented in the work, illustrating and supporting the theory with a practical example. In any application of the case, the professor must encourage student participation in the discussions. The following topics are the focus of the case study:

- Challenges in airline industry, focusing on TAP, before, during and after COVID-19.
- Impact of COVID-19 on the airline business, specifically in TAP.
- Procedures and measures implemented to overcome this pandemic crisis.
- The most important factors to be a successful company in the airline industry in the future.
- Identify future obstacles and challenges in the airline industry and TAP future objectives.

#### 5.6 Case study resolution proposition

Question 1 – Before the pandemic, what were the main challenges faced by the company?

According to the interview, TAP was in growth, in a phase of fleet renewal/expansion, in order to obtain greater capacity. With the new aircraft, passengers can make longer trips with less fuel-consuming airplanes, making it possible to create commercial strategies and fly to new destinations. The following challenges are the most relevant according to TAP Senior Director of Operations Strategy and Performance.

1. Uncertainties in aircraft deliveries

Failure to schedule and deliver aircraft, aircraft defects and inspection by the ANAC regulatory entity to verify compliance with regulated standards. As a solution, TAP gave a delay margin of 2 to 3 months in case there was any delay. However, this margin was sometimes exceeded. Some flights had to be cancelled due to delay in the delivery of aircraft in 2018/2019.

2. Limited airport space for TAP growth

TAP's commercial strategy required the company to grow and be able to have more capacity, the company was already having delays and losses of connections due to the number of aircraft they had to operate for all destinations. To solve this challenge, TAP needed to have more aircraft to be more efficient and to offer a better service for its customers. The punctuality

improvement programme has also been implemented since 2019, to improve operational efficiency.

#### 3. Low-cost market growth (i.e., EasyJet e Ryanair)

Impossible to compete in price. Since the airplanes and operational structure costs are lower than TAP's, these low-costs are able to lower ticket prices and have a good margin, which TAP cannot do as it has a higher cost. Moreover, it is not an airline large enough to benefit from the economies of scale in fleet, fuel and service hiring that an airline with 400 or 500 airplanes would have. Therefore, several airlines with the size of TAP are allocated to a group to get these benefits.

To solve this challenge, TAP aims to improve and manage to offer what low costs cannot offer to the local market, through the quality of its service. It is extremely important to manage to pull the revenue from local traffic to support operation, the mid-range destinations "feed" the long-distance flight. This adaptative strategy can be an important tool to increase the revenue. It would also be quite beneficial for TAP to integrate a private group in order to obtain the above-mentioned benefits.

Question 2 – What is the impact of COVID-19 in terms of external factors, such as political, economic, social, and environmental, on the business of airlines, specifically in TAP?

The COVID-19 pandemic reached Portugal in March 2020; the end of the pandemic was only declared in 2023. However, the focus of this issue will be in the first two years of COVID-19 in Portugal, since during this period, the aviation industry was highly impacted. To answer this question, according to the interview, we should divide COVID-19 into 4-time phases, showing how each phase impacted the industry, focusing on TAP.

• 1st phase - March 2020 to June 2020:

Firstly, the economic and financial situation was quite worrying, revenue entry stopped completely. However, there was a good treasury position that allowed to hold the situation for a few months. Without revenue and high costs, it was necessary to minimize costs to the maximum (layoffs, negotiation with creditors, suppliers, close facilities, etc.). Secondly, the operational challenge: Where to put the aircrafts, since not all TAP aircrafts fit in the airport, where to put them in one week? How to bring people home, crew members, workers who were on flights and were trapped outside Portugal due to the sudden closure of borders. It was necessary to ensure that no one was left behind on return flights. Airplanes were parked in

Lisbon, Porto, Faro, Beja, Funchal. If that was not enough, there was a contingency plan for the use of air bases of the air force.

Numerous requests for help were received from people who have been detained outside Portugal. It was necessary to fly to unknown routes, a preparation process that would normally take a year to open a new route, required that in less than one week the company had to go pick up trapped passengers to several new destinations.

The EU has set up a passenger rescue network. Cooperation between the airlines, to facilitate the rescue of all passengers worldwide. A flight was carried out to rescue national passengers to their country, together with other passengers of other nationalities. However, some challenges had to be considered: managing to enable the pilots to rest in safe conditions in various long-distance flight situations (i.e., Peru) where pilots needed to rest between the flights. However, they could not leave the air base. In example, a flight to Luanda that had to return to Lisbon on the same day, which required that several pilots were responsible for the same flight in order to make rotating turn.

• 2nd phase - June 2020 to March 2021:

In this phase, only passengers with essential trips were allowed to travel. At this stage everyone had to have a negative PCR test including passengers and crew, depending on the time window allowed in the specific country. The activity of the company was still very small, only 20% of the normal capacity at the end of 2020. Flights according to measures implemented in the world and the pandemic condition of certain countries. A bureaucratic process was established to control shipping so that passengers were not prohibited from entering the country where they were travelling to. The operation had to be very flexible according to the changes that occurred repeatedly, as there was a lot of uncertainty.

A various number of challenges surged in this phase, being capable to buy masks and alcohol gel and all the necessary material. Additionally, TAP had to operate 18 cargo flights to China. Because the company had never operated in China, it was quite complicated to communicate, the crew slept on the planes, because it was not safe to leave the airport. Operations and procedures were created so that it was possible to spend 48 hours inside the plane. The procedure was done as follows: after arriving at the destination, the aircraft was opened in the basement with the medical equipment, the material was transferred to the TAP aircraft, inside the cabin these aircraft were adapted to be cargo planes and transport the entire material to Portugal. This whole operation was carried out at a time of uncertainty and

instability, while the media reports about several airlines going bankrupt. This leads to an emotional challenge within the company, as employees felt insecure and worried.

Lastly, one more financial and operational challenge had emerged: the refunds to the passengers. It was challenging to provide a solution to every passenger, since during that period a huge number of refunds was requested.

• 3rd phase - March 2021 to March 2022:

Significant improvement in the activity of the company, about 70% of the normal operation. It was possible to see a slowing down of restrictions and the emergence of vaccines. However, the new omicron variant appeared, which eventually normalized after a short time due to low mortality rate. At this stage, tourism and leisure travel can already be made in some countries, while in others only essential travel, depending on the pandemic situation and the regulated standards of each country.

• 4th phase - After March 2022:

The fall of the tests, restrictions and most of all procedures related to the COVID-19 pandemic. From this point forward, the company can operate at full capacity, at 100%, in the same way as before COVID. However, it should be noted that despite this improvement and the fact that TAP is already able to generate revenue, the years 2020 and 2021 were devastating, which forced the organization to take action. In November 2022, the company carried out wage cuts that are in force to this day, negotiated discounts with several suppliers, in order to manage to survive until receiving a bailout from the Portuguese government.

Question 3 – How did TAP face and manage this pandemic crisis?

According to TAP Senior Director of Operations Strategy and Performance, one of the most important measures was to ensure that the renewal plan was delayed as long as possible, because in 2020 and 2021 there would be no demand and it would raise costs.

It was essential to rethink TAP's route strategy and do a market test. The company started to carry out flights to Cancun, for example. There were other destinations that would not be possible to fly to and other geographical markets that could be explored. Thus, there were additional aircraft that could be used to explore these locations.

Conversion of aircraft to cargo exclusively was something that TAP had never done, even transportation of automotive materials for example to Brazil, Peru, Argentina. Transport of pharmaceutical products, including vaccines (Brazilian vaccine). Therefore, it adopted a commercial approach, where air cargo was the only source of revenue due to the high demand for the commodity.

Adaptation to remote work, in a company where all employees worked at the office. Except the administration, all employees were working on desktops, which made the sudden transaction for remote working difficult. Flexibility in the operational process was necessary to prevent the company from COVID-19 outbreaks, as several people were afraid of flying, which has led to several layoffs. Although the transition was complicated, still today a percentage of remote work remains in the company, which has helped to keep some employees.

Lastly, due to the financial condition, it was crucial to minimize the costs to the maximum, older aircraft were quickly deployed to free the company from maintenance costs. On the other hand, some aircraft's maintenance was anticipated so that when it became possible, they were ready to be used immediately. It required a great selection and criterion on this topic so that the company was as efficient as possible. However, the company had another problem related to COVID-19 safety measures: acquiring alcohol gel and masks in large volume, since it was necessary to pay in advance in order not to lose the material.

**Question 4** – What are the most important factors to be a successful company in the airline industry in the future?

TAP Senior Director of Operations Strategy and Performance mentioned some characteristics that are quite relevant and useful to the company in order. These are the following characteristics that every airline organization should have, highly influenced by COVID-19 Pandemic:

1. Ability to adapt to change, to implement new practices, shape processes:

The COVID-19 pandemic caused damage on economies, supply chains, and consumer behaviour on an unprecedented scale, resulting in severe repercussions for businesses in numerous industries. The pandemic exemplified the unpredictability of external factors that can have an effect on a business, companies with the ability to adjust their strategies and operations had a greater chance of surviving the initial blow and navigating the subsequent uncertainties. Organisations that responded to the pandemic with empathy and flexibility tended to have higher employee morale and engagement. In uncertain times, this was essential for maintaining a productive workforce. Businesses that were able to adapt their strategies, operations, and even entire business models had a greater chance of surviving, thriving, and identifying new growth opportunities. As the business environment continues to evolve, adaptability will continue to be a crucial characteristic for companies seeking long-term success.

#### 2. Retaining talent:

According to the interview, the demand for specialized staff is increasing and it has been difficult to find them, mainly when it comes to aircraft mechanics and IT professionals. Furthermore, it is difficult to retain talent because there is already a market where foreign companies hire Portuguese professionals giving the possibility to work 100% remotely. TAP cannot compete in terms of salaries with foreign companies due to the difference in terms of wages that are paid in Portugal comparing to other European countries. It is important to improve the salaries and give flexibility to work remotely if the company aims to retain talent in the future. Organisations that are capable of retaining talent and secure the most qualified employees are one step ahead of the competition.

#### 3. Internal stability:

Companies that manage to survive crises do so by providing security and stability to employees. In this way, workers feel secure and are more motivated. These companies can recover performance levels faster and avoid internal conflicts (for i.e., strikes). According to TAP Senior Director of Operations Strategy and Performance, prioritising the physical and mental health of their employees, promoting an environment conducive to remote work, worklife balance, and taking care of emotional health is crucial. Providing resources such as counselling services, flexible work arrangements, and wellness initiatives demonstrates an organization's commitment to the well-being of its employees, thereby increasing their loyalty and productivity.

#### 4. Fleet renewal:

In the interview, it was stated that companies that managed to renew the fleet before COVID are currently in advantage, even though during COVID this may be a disadvantage due to the costs of having more aircraft standing. After the pandemic, these companies find themselves with a greater availability of the latest fleet immediately and with the best aircraft, which allows them to operate their plans better. For instance, compared to Ryanair, TAP has an advantage. Airlines that are now waiting for aircraft find themselves in a complicated situation due to the delay. Consequently, they may have to resort to rented airplanes (some airlines with about 20% to receive). The fact that TAP has renewed the entire fleet also

influences privatisation since it means a higher number of assets totally paid, which gives security to a company that wants to be a TAP shareholder.

Last but not least, when renewing its fleet, TAP Air Portugal took into consideration an important factor, sustainability. The new aircraft are equipped with a Rolls-Royce engine, making them significantly more sustainable by reducing their CO2 emissions.

Question 5 – What are the main sources of competitive advantage for TAP Air Portugal?

According to TAP Senior Director of Operations Strategy and Performance, one of the greatest sources of competitive advantage is geographic location, usually one of the safest in the world. Being at the tip of Europe is advantageous, specifically for the U.S. market and South America, that expanded the most after the COVID outbreak. Having smaller aircraft (A321LR) with additional fuel sources reduces TAP's costs, and the competition does not possess these aircraft, which is why it is able to reach longer destinations that its competitors cannot. Due to the limited number of competitors who can fly to these destinations, which are mainly the northeast of Brazil: BEL (Belém), FOR (Fortaleza), NAT (Natal), REC (Recife), TAP has the ability to increase ticket prices and consequently increase its profit margin. Until the A321XLR becomes available, the competition is at a disadvantage because it cannot reach the same destinations with their current aircraft, this is a market dominated by TAP.

However, the introduction of the A321XLR aircraft will cause an important change in the competitive landscape. TAP does not need to make an upgrade for this aircraft, as it can fly the A321LR to the same destinations as other European countries that will need to use the A321XLR. Currently, TAP Senior Director of Operations Strategy and Performance gave the example of Iberia that must use an A330, which requires more staff and weighs nearly twice as much as an A321LR, resulting in a much higher cost. Even when carrying twice as many passengers, TAP is always able to operate two smaller flights per day and provide customers with more options, in contrast to other airlines that can only operate one extra-large flight per day, at a set hour, and with less flexibility for customers.

When other airlines have access to the A321XLR aircraft developed by Airbus, they will be on par with TAP, subsequently TAP will no longer have a product that is distinct from the competition. However, TAP maintains the benefit of not being required to upgrade for A321XLR, which is more powerful than the A321LR, has a higher fuel consumption, and can operate in the same market.

Question 6 – Where and how do you see TAP in long term, considering the crisis they have been through?

The TAP Senior Director of Operations Strategy and Performance discussed the company's future in the conclusion of the interview. In order for TAP to be a successful airline in the future, the question arises - *what aspects must be prioritised and what are the biggest challenges to achieving the company's goals?* 

Before discussing the goals of TAP, it is important to mention some of the obstacles that the company will need to overcome to become a competitive airline in the future. The Senior Director of Operations Strategy and Performance cited the following five factors to consider in TAP's future strategy:

1<sup>st</sup>: In terms of competition, low-cost airlines recovered faster and are a great threat. Lowcost airlines offer cheaper ticket prices and simplified business models, disturbing the equilibrium of the aviation industry. Their agility, cost-effectiveness, and competitive pricing push established airlines to adjust their strategies to remain competitive and relevant in an everchanging market environment.

2<sup>nd</sup>: Insufficient personnel and resources, air traffic controller, and cargo carriers. The difficulty in retaining talent is a reoccurring issue that has been mentioned previously.

3<sup>rd</sup>: The growth of the industry in recent years. The pandemic has led to a change in the airline industry, which will lead to new trends and future expansion. It is necessary to pay attention to market changes, comprehend how to capitalise on opportunities, and achieve success as an airline that can expand and develop.

4<sup>th</sup>: The new airport can be either an opportunity or a risk. Greater capacity can result in increased competition, but also more growth potential. The new airport is expected to be completed in ten years, and considering it is a project that can bring both benefits and challenges, TAP will need to carefully consider its integration strategy well in advance.

5<sup>th</sup>: According to TAP Senior Director of Operations Strategy and Performance, TAP is at a technological and digital disadvantage for consumer use compared to its competitors and must enhance the quality of its application and website to remain competitive.

After discussing the challenges to consider, TAP's long-term objective was mentioned as well as how the company plans to recover from the pandemic crisis and its effects. First, improve the customer relationship: The consumer needs to feel that the company has made everything possible to match their expectations, that TAP prioritises their rights, strives to inform the client, and creates the most effective solutions possible. If there are issues, it is essential to compensate the consumer in the most efficient way. Through excellent service, good performance, and efficiency, it is possible to satisfy customer needs. It is crucial to implement internal procedures and protocols that prevent passenger damage. Reducing delays and cancellations is essential to enhance customer satisfaction, regardless of internal issues.

The purpose is to make the consumer feel safe when booking a flight with TAP, even if airport and weather conditions are unfavourable. The absence of disruptions results in improved outcomes, lower costs, less reimbursement, and teams that can complete their responsibilities on time and within the time limit specified, which motivates employees to stay focused.

Second, brand reputation: It is essential to enhance the company's reputation so that employees are driven to work in the organization. The aim is to build an image of a modern, technological company with good practises and an atmosphere that attracts talent, something that is currently challenging due to the negative connectivity that has been exposed by the media about the relationship between the Portuguese government and TAP. It would be advantageous to privatise the company in the future, so that the Portuguese could come to change the negative opinion on the company. Integration into an airline group and privatisation would be the optimal approach, as the firm would benefit from cost reductions, benefits, innovation, better practises, fewer errors, and group scale factors.

For the future success of TAP, the topic mentioned above is extremely important, since the brand's image is heavily influenced by public opinion. A firm should only be affiliated with the government if it is for good or even neutral reasons. On the contrary, public opinion will suffer if the Portuguese people believe that tax money is being put in an organisation that solely harms the Portuguese economy and adds no value.

#### 5.7 Slides for case resolution

The slides for the case study resolution are presented on Appendix B.

#### Conclusion

This pedagogical case study allows students to comprehend how airline corporations like TAP Air Portugal responded to one of the most challenging periods in recent history. The case provides the opportunity to analyse a real-world scenario, understand how the pandemic crisis affected TAP and the whole airline business, what measures were necessary to survive during this period, how the industry changed, what are the new challenges in the future and identify the company's plans for the next years.

It is extremely important for companies to have a strategy that can be flexible and adaptable in the face of change, which is essential because it allows individuals and organisations to respond rapidly and successfully when a global crisis appears. In a fast-changing business environment, the ability to adapt and remain resilient in the face of adversity is more crucial than ever. The most successful businesses are those that can innovate and evolve to remain ahead of the competition, as well as be adaptable and flexible enough to overcome obstacles. Successful businesses are distinguished from those that are set in their habits and do not have the ability to adapt.

The objective of the project was to provide a pedagogical case study so that its audience could not only increase their understanding of how COVID-19 impacted TAP Air Portugal and the airline industry, but also to gain knowledge of how a large corporation, in one of the most competitive industries, overcame the obstacles during a global crisis that stopped the world for nearly three years.

Firstly, it is crucial to examine what has changed since the COVID-19 outbreak began to spread. TAP was in a phase of fleet renewal and expansion, which leads to a greater capacity to develop profitable commercial strategies. However, when the global pandemic suspended the entire world economy, TAP had to change its strategy, focusing on reducing costs and being able to relocate all the aircraft, as well as bringing home everyone else trapped abroad safely. During the first few months, the company's top priority was to eliminate all unnecessary operations and ensure everyone's safety.

Secondly, TAP needed to reconsider its commercial strategy, organizational culture, and business practices in accordance with the current situation, which is the best approach to reduce the damage caused by COVID-19. Some adaptations were crucial to survive during this period, such as the conversion of aircraft to cargo and the possibility for employees to work remotely, which proved to be essential for their safety and satisfaction. These actions represent, above all, what must be done to overcome a situation of transition.

Thirdly, the airline industry is highly competitive, requiring that businesses continually evaluate their market environment and competencies to adapt their strategy over time. After a period of crisis, there will always be changes, opportunities, and challenges ahead. Identifying the characteristics that will be required for future success is extremely important. Every organisation must identify what is required to remain competitive following this period of change.

Lastly, before defining a strategy, it is crucial to consider two factors after a global crisis that has caused multiple changes in the market. Determine the new challenges and the future ambitions of the company. Focusing on TAP and the airline industry, low-cost carriers are gaining market share, and consumers' preferences are changing. TAP aims to improve and offer what low-cost carriers do not offer to the local market, through service quality, a portfolio of diverse products that have different specifications, and a high level of personalised customer service. Moreover, if TAP wishes to remain competitive, it will need to deal with the difficulty in retaining talent and its technological disadvantage in comparison to its competitors. In the meantime, the company's objectives are clear: improve customer relationship and enhance TAP's reputation. Considering these future objectives, it is essential to reconsider and adjust its strategy. The company must explore more profitable commercial routes and utilise its geographical location to its advantage. Furthermore, TAP will remain to be Portugal's airline and a country symbol, consequently it is essential to change the company's public opinion. To ensure a sustainable position, stability, and future competitiveness, privatising the company would be valuable and advantageous.

Therefore, this pedagogical case study may be a useful tool to:

- Analyse how the airline industry was impacted by COVID-19, focusing on TAP.
- Understand how airline corporations are addressing a global pandemic.
- Identify important factors to succeed in the airline industry in the future.
- Identify challenges faced by TAP before, during and after COVID-19.
- What are the airline industry future perspectives after facing a global crisis.

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# Appendices

# Appendix A – Interview table

TOPIC	QUESTIONS		
The company before the crisis	• Before the pandemic, what were the main challenges faced by the company?		
The impact of COVID-19	• What is the impact of COVID-19 in terms of external factors, such as political, economic, social and environmental, on the airline business, specifically for TAP?		
Business strategy and measures implemented	<ul> <li>How did TAP face and manage this crisis and what tools were the most important to overcome it?</li> <li>When deciding which measures were appropriate to overcome the pandemic, did you follow a plan with specific goals and targets to guide you?</li> <li>Among the measures implemented, which were the most important, and which ones are still maintained today?</li> </ul>		
Internal and external analysis	<ul> <li>What potential opportunities can you spot in the sector after the pandemic has passed and what challenges are on the horizon for the company?</li> <li>What are TAP Air Portugal main sources of competitive advantage?</li> <li>What are the main success factors in the airline industry to stay competitive during and after COVID-19?</li> <li>What are TAP's current primary goals and long-term objectives?</li> </ul>		
Future predictions and improvements	<ul> <li>What will be the new challenges in the future after COVID- 19?</li> <li>Considering the crisis that crossed, where or how does TAP envision itself in the long run?</li> <li>What do you consider should be changed at TAP in order to improve performance?</li> </ul>		

Source: Author. Table created based on interview.

# **Appendix B - Slides for Case Resolution**



#### Before the pandemic, what were the main challenges faced by the company?

The following three challenges are the most relevant:

- 1. Uncertainties in aircraft deliveries
- 2. Limited airport space for TAP growth
- 3. Low-cost market growth (EasyJet and Ryanair)

#### Before the pandemic, what were the main challenges faced by the company?

#### 1. Uncertainties in aircraft deliveries

Failure to schedule and deliver aircraft, aircraft defects and inspection by the ANAC regulatory entity to verify compliance with regulated standards.

As a solution, TAP gave a delay margin of 2 to 3 months, in case there was any delay. However, this margin was sometimes exceeded. Some flights had to be cancelled due to delay in the delivery of aircraft in 2018/2019.

#### **QUESTION 1**

#### 2. Limited airport space for TAP growth

TAP's commercial strategy required the company to grow and be able to have more capacity, the company was already having delays and losses of connections due to the number of aircraft they had to operate for all destinations.

To solve this challenge, TAP needed to have more aircraft to be more efficient and to offer a better service for its customers. The punctuality improvement programme has also been implemented since 2019, in order to improve operational efficiency.

#### 3. Low-cost market growth (i.e. EasyJet and Ryanair)

**Impossible to compete in price**. Because the cost of airplanes and the rest is lower than TAP's, competitors are able to lower the price of tickets and have a good margin, which TAP cannot do because it has a higher cost. TAP has a **higher operational structure** than low-costs, which involves more costs.

To solve this challenge, TAP aims to improve and manage to offer what low costs cannot offer to the local market, through the **quality of its service**. It is extremely important to manage to pull the revenue from local traffic to support operation, the mid-range destinations "feed" the long-distance flight. This adaptative strategy can be an important tool to increase the revenue. It would also be quite beneficial for TAP to be able to **integrate a private group** in order to obtain the above-mentioned benefits.

#### **QUESTION 2**

# What is the impact of COVID-19 in terms of external factors, such as political, economic, social, and environmental, on the airline business, specifically in TAP?

To answer this question, we should divide COVID-19 into 4-time phases, showing how each phase impacted the industry, focusing on TAP:

- 1st phase: March 2020- June 2020:
- 2nd phase: June 2020 to March 2021:
- 3rd phase: March 2021 to March 2022:
- 4th phase: After March 2022:

#### 1st phase: March 2020 - June 2020



**QUESTION 2** 

#### 2nd phase: June 2020 - March 2021

#### Situation

- In this phase, only passengers with essential trips were allowed to travel;
- Flights according to **measures implemented** in the world and the pandemic condition of certain countries;
- Establishment of a bureaucratic process to shipping control.

#### Challenges

- Masks and alcohol gel and all the necessary material;
- Operate to China, the company had never operated in China;
- Financial and operational challenge has emerged: the refunds to passengers. It was challenging to provide a solution for every passenger, since during that period a huge number of refunds was requested.

#### 3rd phase: March 2021 - March 2022

- ✓ Significant improvement in the activity of the company, about 70% of the normal operation.
- ✓ It was possible to see a slowing down of restrictions and the emergence of vaccines.
- Omicron variant appeared, which eventually normalized after a short time due to low mortality rate.

#### 4th phase: After March 2022

- ✓The fall of the tests, restrictions and most of all procedures related to the COVID-19 pandemic. From this point forward, the company can operate at full capacity.
- ✓The years 2020 and 2021 were devastating, which forced the organization to take action.
- ✓Wage cuts that are in force to this day, negotiated discounts with several suppliers, in order to manage to survive until receiving a bailout from the Portuguese government.



#### How did TAP face and manage this pandemic crisis?

**Rethink TAP's strategy** 

#### Delay the renewal plan





Minimize costs to the

maximum



#### Adaptation to remote work



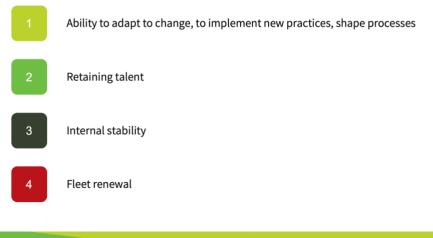


No demand in 2020 and 2021 New markets and conversion of aircraft to cargo

Be as efficient as possible

Ensure employee safety

# What are the most important factors to be a successful company in airline industry in the future?



#### **QUESTION 5**

#### What are the main sources of competitive advantage for TAP Air Portugal?



**Geographic location:** Being at the tip of Europe is advantageous usually one of the safest in the world. Specifically for the U.S. and South America market, one of the markets that expanded the most after the COVID outbreak.



**Aircraft (A321LR):** Reduces TAP's costs, and since the competition does not possess these aircraft, TAP is able to reach destinations that its competitors cannot. Due to the limited number of competitors who can fly to these destinations, TAP can **increase ticket prices** and consequently increase its profit margin.

Currently, TAP competitors, i.e., Iberia is using an A330 that requires more staff and weighs nearly twice as much as an A321LR, resulting in a much higher cost, which means it can only operate one extra-large flight per day, at a set hour, and with less flexibility for customers. On the other hand, TAP can operate two smaller flights per day, offering **more flexibility** compared to Iberia's A330, which requires more staff and weighs more.

Where or how do you see TAP in the long term, considering the crisis it has been through?



## **Company Goals**





- ✓ Prioritise customer rights and provide effective solutions
- ✓ Implementing internal procedures to prevent passenger damage

#### **Brand reputation**



- $\checkmark\,$  Crucial for employee satisfaction and talent attraction
- ✓ Privatising TAP
- ✓ Build a technological company with good practices
- ✓ Change the negative perceptions about the relationship with Portuguese government

#### ADDITIONAL DATA

Graphics

