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# How to react to a crisis in the airline industry: Crisis Management Strategies of Turkish Airlines During the COVID-19 Pandemic

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Dissertation written under the supervision of Professor Pedro Parada

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**Abstract**

This paper examines how to respond to crises within the airline industry. To answer this question, the crisis management of Turkish Airlines during the COVID-19 pandemic is analyzed. The sudden restrictions on air travel and the resulting decline in demand for air travel plunged the airline industry into an unprecedented situation. As a leading airline, Turkish Airlines took several strategic measures to mitigate the effects of the crisis. The study uses expert interviews to develop an understanding of which measurements helped Turkish Airlines to recover from the crisis so quickly. The researcher analyzes these strategies using the resource-based view and dynamic capabilities theories to provide a comprehensive understanding of how the airline used its resources and capabilities to cope with the crisis. The results show that resources like Health and Safety Leadership and Operational Resilience as well as capabilities like Innovative Crisis Response, Customer-Centric Communication and Strategic Agility were the driving forces in overcoming and later recovering. This thesis contributes to research in the field of crisis management in the airline industry and provides valuable insights for other airlines facing similar challenges.

**Keywords:** Crisis Management, COVID-19 Pandemic, Turkish Airlines, Dynamic Capabilities, Strategic Response

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## **Resumo**

Esta dissertação examina a forma de responder a crises no sector das companhias aéreas. Para responder a esta questão, é analisada a gestão de crises da Turkish Airlines durante a pandemia de COVID-19. As súbitas restrições às viagens aéreas e o consequente declínio da procura de viagens aéreas mergulharam o sector das companhias aéreas numa situação sem precedentes. Enquanto companhia aérea líder, a Turkish Airlines adoptou várias medidas estratégicas para atenuar os efeitos da crise. O estudo utiliza entrevistas a especialistas para compreender quais as medidas que ajudaram a Turkish Airlines a recuperar tão rapidamente da crise. O investigador analisa estas estratégias utilizando a visão baseada nos recursos e as teorias das capacidades dinâmicas para fornecer uma compreensão abrangente da forma como a companhia aérea utilizou os seus recursos e capacidades para fazer face à crise. Os resultados mostram que recursos como a Liderança em Saúde e Segurança e a Resiliência Operacional, bem como capacidades como a Resposta Inovadora a Crises, a Comunicação Centrada no Cliente e a Agilidade Estratégica foram as forças motrizes para a superação e posterior recuperação. Esta tese contribui para a investigação no domínio da gestão de crises no sector das companhias aéreas e fornece informações valiosas para outras companhias aéreas que enfrentam desafios semelhantes.

**Palavras-chave:** Gestão de crises, Pandemia de COVID-19, Turkish Airlines, Capacidades dinâmicas, Resposta estratégica

**Título:** Como reagir a uma crise no sector das companhias aéreas: Estratégias de gestão de crises da Turkish Airlines

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## **List of Abbreviations**

IATA = International Air Transport Association,

ICAO = International Civil Aviation Organization

TCAI = Turkish civil aviation industry

WHO = World Health Organization

RBV = Resource-Based View

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## 1 Introduction

The aviation industry finds itself in a highly competitive and challenging environment, characterized by technological advancements, high investment requirements, and significant barriers to entry. However, when the COVID-19 pandemic began in 2019, no one could have guessed that it would be the biggest shock to the industry since the Second World War. Due to government regulations as well as cautious consumer behavior, the industry was exacerbated by the crisis (Brown & Kline, 2020; Deveci et al., 2022; Ulufer Kansoy & Bakanoğlu, 2021).

According to the ICAO, the number of passengers fell by 60.1 % to 20.3 billion within the first twelve months of the pandemic, making it the worst year in the history of the aviation industry since the Second World War (IATA, 2020; International Civil Aviation Organization, 2021). The International Air Transport Association (IATA) states "At the peak of the crisis in April 2020, 90% of our business disappeared" (2020). Accordingly, airline losses exceeded 118 billion dollars.

The aviation market, which collapsed rapidly during the pandemic, recovered only very slowly considering the different virus variants (IATA, 2023). Governments imposed various measures during the pandemic such as health masks, COVID-19 testing, and travel restrictions. This resulted in the adaptation of airline practices to cope with emerging situations.

Ahmet Bolat, Chair of the Board and Executive Committee of Turkish Airlines, described the situation as follows:

*"With the COVID-19 crisis, the global aviation industry experienced the most severe crisis in its history, and passenger flights came to an almost complete standstill. In addition to passenger losses, there were also significant losses in cargo in the passenger space, which accounts for about half of air freight traffic."* (quoted in Simple Flying, 2022).

Accordingly, many airlines were kept afloat by government aid. Given the scale of the unforeseen losses, many airlines would have failed without it (IATA, 2020). Turkish Airlines, on the other hand, did not need government subsidies thanks to its ability to adapt quickly and its clever use of resources. Instead, the airline managed to achieve impressive financial results at the same time and recover much faster than its competitors (Turkish Airlines, 2021).

For example, during the pandemic, THY ended the 2020 fiscal year with a turnover of 50% of the previous year's level despite the situation. Despite the uncertain times, it maintained its

robust route network and inaugurated new routes. Eurocontrol reports an average of 685 flights per day by Turkish Airlines in April 2021, almost double the number of its closest competitor in Europe, Lufthansa (2022). Additionally, in 2023, global flight capacity was still 12% lower than in 2019, while Turkish Airlines achieved 27% higher capacity than in 2019 (IATA, 2023).

Considering the enormous challenges the global aviation industry has faced and the impressive response, dynamic measures, and targeted use of capacity, it is worth taking a closer look at Turkish Airlines in the context of the COVID-19 pandemic. It raises many relevant questions about how companies in this industry can respond to crises and what strategies can save them. At a time when the entire world, and the aviation industry in particular, was facing unprecedented challenges, Turkish Airlines managed to perform exceptionally well. Analyzing its crisis management actions thus provides a valuable contribution to the literature for this industry, as well as other sectors facing similar challenges. Understanding the Turkish airline's strategy will result in many takeaways and help to draw important lessons for future emerging crises.

### **1.1 Aim of the Study**

This thesis explores the crisis management of Turkish Airlines during the COVID-19 pandemic. A constant theme is dynamic capabilities and the resource-based view. Accordingly, reviewing the resources and capabilities to respond effectively to the crisis seems important.

Based on this case study, concrete examples for the application of the theory in a real context will be provided. To increase the relevance of the results and to gain a deeper understanding of this topic, interviews were conducted with stakeholders in the industry. These interviews aim to explain Turkish Airlines' strategy as well as to visualize the industry's response to the pandemic.

The dissertation is divided into two main parts: The first part deals with the literature review, while the second part contains empirical research. The review draws on dynamic capabilities and resource-based-view theories and discusses their influence on crisis management. It examines the existing literature on crisis management, especially in the aviation industry, to provide a theoretical basis for analyzing the measures taken by Turkish Airlines. Furthermore, Turkish Airlines as a company and the impact of COVID-19 on the aviation industry will be discussed to be able to classify the measures holistically.

The empirical research section covers the background and case selection. The findings from the interviews are integrated based on this detailed description. In this section, the data is discussed based on the literature. It illustrates how the previously explained methods were implemented by Turkish Airlines and how effective these strategies were during the COVID-19 crisis. Finally, the key findings are summarized and suggestions for further research are made.

## **1.2 Research Question**

The chosen research question, "How to respond to a crisis in the airline industry" specifically focusing on the crisis management strategies of Turkish Airlines during the COVID-19 pandemic, was chosen because the COVID-19 pandemic presents a unique and extreme challenge to the airline industry, which has rarely faced a disruption of this magnitude. As a major global airline, Turkish Airlines provides a compelling case study to explore how to effectively manage a large-scale crisis. The lessons learned from this study can contribute to a broader understanding of crisis management in highly regulated and operationally complex industries such as aviation. By analyzing Turkish Airlines' approach, this research will highlight strategies that not only ensured survival but also positioned the airline for recovery in a highly competitive and financially stressed environment.

Furthermore, the study seeks to address the following sub-research questions:

- What are the key elements of Turkish Airlines' crisis management strategies during the COVID-19 pandemic?
- How did these strategies help Turkish Airlines respond to the challenges posed by the pandemic?
- How do resources and capabilities contribute to building resilience during a crisis?
- What lessons can other companies in the aviation industry learn from Turkish Airlines' approach to crisis management?

These questions aim to discover the dynamics of crisis management of Turkish Airlines. This will be achieved by demonstrating how theoretical concepts like dynamic capabilities and the resource-based view help to understand real-world scenarios, especially in high-pressure crises.

## **1.3 Relevance of the Study**

The aviation industry is frequently exposed to crises. These range from health pandemics such as cholera, military coups, and climate crises to terrorist attacks. The frequency of these

incidents illustrates the industry's vulnerability to crises and the relevance of well-developed and diversified crisis management strategies. The study of crisis management strategies in the aviation industry is highly relevant for responding to and understanding crises (IATA, 2020).

This paper is current and relevant as it uses the example of Turkish Airlines to show how an airline utilized its resources and capabilities to withstand the unprecedented situation during the COVID-19 pandemic. The resulting findings are not limited to this industry but can provide valuable insights into other industries facing similar crises.

There are still gaps in research on the application of Resource Based View (RBV) and dynamic capabilities in the aviation industry and crisis management context. This thesis aims to fill this gap through the research and provide insights on how these theoretical frameworks can be applied in practice in this specific case. The aim is to strengthen the capabilities within the industry to manage crises and demonstrate resilience in challenging times (Barney, 1991; Teece et al., 1997).

The relevance is underlined by the need for airlines to adapt and recover quickly after crises. Social aspects such as the preservation of jobs and security also play a social role. The results of this dissertation can therefore serve as a basis for future crisis management strategies of other airlines. Furthermore, this work can be seen as an important contribution to the discussion on crisis management in the literature and contributes to the improvement of practice.

## **2 Literature Review**

### **2.1 Resource-Based View and Dynamic Capabilities**

The following chapter explains the theoretical frameworks of the Resource-Based View (RBV) and Dynamic Capabilities. These were selected as they are considered central approaches in strategic management research to explain the long-term competitiveness and adaptability of companies in dynamic and uncertain environments. RBV focuses on the importance of valuable, rare, and difficult to imitate resources, while DC emphasizes the ability to adapt these resources flexibly and efficiently to changing conditions.

#### **2.1.1 Resource-Based View**

The Resource-Based View by Barney (1991) is a theoretical ‘inside-out’ framework with a focus on the internal resources and capabilities of a firm. A company’s competitiveness in each environment is de facto dependent on the resources and capabilities it possesses. Three key concepts are important in this context: firm resources, competitive advantage, and sustained competitive advantage.

Firm resources are defined as “(...) *all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness*” (Daft, 1983).

In other words, these are the strengths that a firm can use to conceive of and implement its strategies. Also, firm resources can be classified into three categories: physical capital, human capital, and organizational capital resources. Physical capital resources cover a firm's technology, equipment, location, and access to raw materials. Human capital resources refer to the experience, training, judgment, intelligence, relationships, and insight of managers and employees. Organizational capital resources include the company's reporting structure, control systems, planning, and coordination processes, and both formal and informal relationships within and outside the organization (Barney, 1991).

Barney distinguishes competitive advantage and sustains competitive advantage, emphasizing that the two concepts are different and should not be confused with each other. A company has a Competitive Advantage “(...) *when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitor.*” (Barney, 1991). To be more precise, a firm must implement a strategy that generates value for the firm and is not replicable by competitors.

Accordingly, *“A firm is said to have a sustained competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy”* (Barney, 1991).

Therefore, to sustain competitive advantage it must be impossible for other firms to replicate the benefits of this strategy. For a resource to provide a competitive advantage and sustainable performance, it must meet the criteria of the VRIN model. The following section will explain the 'VRIN' criterion.

1. **Valuable:** Resources are valuable if they provide strategic value to the firm. They provide value if they help firms exploit market opportunities or reduce market threats. There is no advantage to possessing a resource if it does not add or enhance the value of the firm (Madhani, 2010).
2. **Rare:** Resources must be elusive among the firm's existing and potential competitors. Therefore, resources must be rare or unique to offer a competitive advantage. Resources that are in the possession of several firms in the market cannot provide a competitive advantage, as they cannot design and execute a unique business strategy compared to other competitors (Madhani, 2010).
3. **Inimitable:** The term 'inimitable' means that it is impossible to copy or imitate the resources. Bottlenecks for imperfect imitability can arise due to difficulties in acquiring resources, ambiguous relationships between capability and competitive advantage, or the complexity of resources. Resources can only be the basis of sustained competitive advantage if firms that do not possess these resources cannot acquire them (Madhani, 2010).
4. **Non-Substitutability:** The non-substitutability of resources means that they cannot be replaced by alternative resources. Competitors cannot achieve the same level of performance by substituting resources with alternatives (Madhani, 2010).

This method is particularly useful in studying how organizations can leverage their resources and capabilities to sustain a competitive advantage.

However, Thomas and Tymon (1982) argue that the theory is not descriptively accurate and does not generate prescriptions for strategy practitioners. Furthermore, researchers argue that it is not enough to simply advise practitioners to obtain rare and valuable, inimitable, and non-substitutable resources to have a competitive advantage. The advice provided lacks a clear indication of how it can be practically applied in the real world (Priem & Butler, 2001). Finally, it is noted that external factors, such as market dynamics and the environment, are not given enough consideration, making the theory too static (Priem & Butler, 2001; Whetten, 1989).

### **2.1.2 Dynamic Capabilities**

Dynamic Capabilities Theory emerged in the late 1990s and is based on the RBV. The Theory concentrates on how organizations use their resources and capabilities to adapt to changing environments and gain competitive advantage. It is sometimes insufficient to support a significant competitive advantage. Research has shown that industry leaders are those who can demonstrate timely responsiveness and rapid, flexible product innovation, coupled with the management capability to effectively manage, and redeploy both internal and external competencies (Teece et al., 1997).

The Dynamic Capabilities Theory postulates that organizations should not only have resources and capabilities but also the ability to adapt, recombine, and renew their resources due to changing markets. This requires an elevated level of flexibility, learning ability, and leadership from the company to sustain long-term competitive advantage. Winter (2003) identified dynamic capabilities as a process of extending, modifying, or creating new capabilities.

They differ from ordinary capabilities in that they are linked with change and more particularly, changing the resource base of a firm (Collis & Montgomery, 1995). Companies may possess many valuable technological assets but still lack useful capabilities. In this context, the term 'dynamic' alludes to the ability to update skills and capabilities as a response to a changing business environment. The term 'capabilities' refers to the essential role of strategic management in appropriately adapting, integrating, and reconfiguring internal and external organizational capabilities, resources, and functional competencies to meet the demands of a changing business environment. Especially in the context of changing environments of industries and technologies, the dynamic capabilities approach is relevant. When time-to-market and timing are critical, certain innovative responses are required (Teece et al., 1997).

## **2.2 Crisis Management in the Aviation Industry**

In the aviation industry, crisis management has a special position due to the high requirements regarding safety and the global nature of this industry. Consequently, airlines, airport operators, aircraft manufacturers, and all other affected companies in the industry are forced to respond to a variety of crises. Such crises include technical failures, terrorist attacks, military coups, natural disasters, pandemics, and geopolitical tensions. The preparation of organizations for such situations plays a key role here. This requires comprehensive plans for emergencies, which need to be regularly updated and tested through regular simulated crisis exercises (Glaesser, 2004). These plans include specific scenarios such as large-scale system failures, bomb threats, and hijackings. They serve to ensure the safety of passengers and the rapid restoration of operations. To be able to react quickly to crises, the available resources need to be organized quickly, and communication needs to be clear. This requires special on-call crisis response teams, which are deployed by the airlines. These teams are trained to communicate and coordinate effectively. Effective external communication to customers, the media, the public, and other stakeholders is just as relevant as effective internal communication. This strategic communication plays a significant part in maintaining or building trust in the airline, which is important for lasting success. Responding to a crisis requires rapid organization of resources and clear communication. Airlines often deploy dedicated crisis response teams trained to communicate and coordinate effectively (Coombs, 2015).

Another important aspect of crisis management is the follow-up to the crisis. This involves learning from the crisis and using the knowledge gained to improve existing processes. Airlines often conduct a detailed analysis after a crisis to understand the causes and minimize future risks (Hiles, 2011). This can lead to the adaptation of training programs, the revision of emergency plans, or the improvement of technical systems.

Often crises in the aviation industry have a global dimension. Resultingly, cooperation within the industry with global organizations is crucial for the development and application of industry-wide standards (IATA, 2019). The best-known international organizations are the International Air Transport Association (IATA) and the International Civil Aviation Organization (ICAO). The recent COVID-19 pandemic particularly put the industry on trial. Key aspects were responding quickly to rapidly and drastically changing requirements, maintaining operations, and ensuring the health and safety of passengers and employees (Suk & Kim, 2021).

Overall, crisis management is a crucial, dynamic, and integral part of the aviation industry. By adapting appropriately to crises airlines not only ensure the safety of the people affected but also the resilience of the company.

### **2.3 Turkish Airlines: Case description**

Turkish Airlines was founded in 1933 as the state airline of Türkiye. Over the years, it has developed into a global power and now flies to the largest number of international destinations worldwide (Alcácer & Çekin, 2015; CAPA - Centre for Aviation, 2021; Turkish Airlines, 2020). In 2019, the network comprised 321 destinations in 126 countries, divided into 52 domestic destinations and 269 international destinations. In the same year, the company achieved a net profit of 788 million US dollars and an annual revenue of USD 13 billion, up 2.9% year-on-year. Despite rising operational costs, such as the great move of the hub from Atatürk Airport to Airport Istanbul and the Boeing 737 MAX crisis, the airline was able to keep the numbers of passengers stable and increase the number of international passengers slightly by 3.8% (Turkish Airlines, 2020).

From 2014 to 2019 Turkish Airlines was able to increase the number of aircraft in its fleet by 17.1% to 350 with an average age of 8.3 years. Recently added airplanes to the fleet included Boeing 787-9 Dreamliner and Airbus A350-900, which reflected the boost in operating efficiency and reduction of CO2 emissions (Alcácer & Çekin, 2015; Turkish Airlines, 2020).

As previously mentioned, in 2019 Turkish Airlines moved from Ataturk Airport to the new hub at Istanbul Airport, the world's largest airport under one roof. The airline continues to benefit from Istanbul's geographical location. The city offers a strategic advantage as an interface between Europe, Asia, and close to Africa. This position favors a broad network of short and long-haul flights, making it an ideal hub for international connections. The unprecedented large-scale operation took place in April 2019 in only 33 hours and made it possible to significantly increase capacity, passenger satisfaction, improve infrastructure and services (Turkish Airlines, 2020).

The airline has positioned itself as one of the most competitive airlines in Europe. This was achieved through a substantial number of strategic alliances, partnerships, countries served, and international destinations. Among others, Turkish Airlines is a Star Alliance member. Alliances

and partnerships such as these make it possible to assert oneself against competitors and gain market share (Centre for Aviation, 2018).

Before the pandemic, THY was characterized by steady growth, aggressive fleet expansion, and solid financial performance. This was despite geopolitical tensions, economic uncertainties, and increased competition (Alcácer & Çekin, 2015; Simple Flying, 2022). The company was known for its resilience and adaptability. Over the years, various cost-cutting measures were introduced, and strategic capacity management was established to minimize the impact of challenges and remain profitable. In this context, continuous investments in the fleet and infrastructure formed a cornerstone for future growth (IATA, 2019).

To summarize, Turkish Airlines was in a strong position with strategic preparation for the Covid-19 pandemic. The airline was aware of the presence of crises in the industry and was therefore well positioned to withstand the challenges ahead while improving its market position.

#### **2.4 Impact of COVID-19 on the Aviation Sector**

The COVID-19 pandemic caused unprecedented disruption in the aviation industry and had a profound impact on it. According to IATA data, flight travel fell by 65.9% in 2020 compared to 2019 (IATA, 2021). As mentioned in 1. Introduction, the reason for the decline was widespread travel restrictions and health concerns, which led to a significant loss of revenue. Many government regulations influenced consumer behavior (Brown & Kline, 2020; Deveci et al., 2022; Ulufer Kansoy & Bakanoğlu, 2021). It is estimated that airline losses worldwide amounted to 126 billion US dollars in 2020 (IATA, 2020).

The employment factor in the aviation sector also suffered considerably. Many airlines and airports had to lay off an outside proportion of their workforce or take unpaid leave to cope with the financial stresses (Sobieralski, 2020). According to estimates by the Air Transport Action Group (ATAG), up to 4.8 million aviation-related jobs were at risk worldwide in 2020 (Air Transport Action Group, 2020).

Airlines are using various crisis management strategies to counteract the effects of the crisis. The financial damage was to be mitigated by reducing operating costs, postponing investments, and providing state support. Major airlines such as American Airlines and Lufthansa received substantial government rescue packages during this period to maintain liquidity and avoid

insolvency (GAO, 2021). State aid for Lufthansa, for example, amounted to six billion euros from the German government and other EU states (Zeit Online, 2024).

However, the pandemic has not only led to immediate financial and employment-related challenges but also to long-term changes in the industry. For example, self-service check-in was introduced, and biometric border control was digitized. These changes continue to this day and have become part of everyday airport life. Additionally, health and safety protocols became a standard process, which also accelerated the digital transformation. Furthermore, there was a remarkable shift in passenger behavior, from long-haul and international flights to domestic and short-haul flights (Suk & Kim, 2021).

Despite all the difficult challenges and changes in day-to-day business, the aviation industry has also shown signs of resilience. According to the Government Accountability Office (GAO), passenger numbers were already on the rise in mid-2021. There was a noticeable difference in tourism: Domestic tourism recovered faster than international tourism. Nevertheless, the figures were still below pre-pandemic levels (GAO, 2021).

### **3. Methodology & Case Selection**

#### **3.1 Case background**

The airline industry represents only a small share of OECD countries' value-added (around 0.3 % on average). Nevertheless, strong inter-industry linkages with both upstream as well as downstream sectors make it a relevant part of the economy. According to Airlines For Europe, tourism generates (directly and indirectly) 10.1 % of the total EU-28 GDP. Meanwhile, aviation accounts for 58% of all global travel and tourism flows (Santander, 2020). Air transport is also an important input for downstream sectors. It enables economic activity through the trade of goods and services through the movement of people. Air freight is essential for global supply chains, and business travel is an important channel for international knowledge transfer. The availability of non-stop long-haul flights is a crucial factor in the choice of location for large companies and international tourism (OECD, 2020).

#### **3.2 Case Selection**

The decision to use Turkish Airlines was based on its exceptional performance during the challenges posed by the COVID-19 pandemic, particularly when compared with other European companies within the aviation industry. Turkish Airlines was also chosen for this case study due to the extensive number of countries it serves. It stands out as the airline that flies to most countries worldwide. This wide range emphasizes the importance of the company in the industry. During the pandemic, the company demonstrated resilience and effective crisis management. Turkish Airlines is known for its customer-oriented approach and innovative strategies. Additionally, its hub is one of the largest in Europe and has been among the busiest for the last few years. These factors combined establish Turkish Airlines as a key player in the aviation Industry and an ideal choice for this case study.

#### **3.3 Sample Strategy**

The convenience sampling method, also known as Haphazard Sampling or Accidental Sampling method, and the purposive method were used. The convenience sampling method entails nonrandom sampling where members of the target population meet explicit criteria, such as availability at a given time, willingness to participate, or easy accessibility. Purpose Sampling is based on the researcher's decision on what needs to be known. He then sets out to find interviewees who can and are willing to provide the information by experience or virtue of knowledge. The idea behind purposive sampling is to concentrate on people with characteristics

who will be able to assist with the relevant research (Etikan, 2016). Contacted persons were selected based on the following criteria:

- 1) The interviewee is an employee of Turkish Airlines or a competing Airline and is in a crucial role (e.g. crisis manager, operations director, executives from other major airlines)
- 2) The interviewee is part of the aviation industry or an external, independent expert (i.e., in the field of crisis management)
- 3) The interviewee represents a key stakeholder associated with the aviation industry (i.e., catering companies, ground handling services, IT service providers, or aviation unions.)

Over 105 people were contacted on LinkedIn and additionally, 7 offices were contacted by email. Furthermore, to identify potential partners, friends and family members were consulted and asked to establish contact. Nine people agreed to take part in an interview. It is compulsory to mention, that usually people can be excluded within the convenience sampling method. In this context, it would be people who were not affected during the COVID-19 pandemic. However, this is hardly possible as 91% of the world's population was affected by the pandemic (Phillip Connor, 2020).

A total of nine people were identified, consisting primarily of Turkish Airlines employees, including crisis management. Among others, one Chief Operating Officer (COO) from a European airline and two external stakeholders were included. This diverse selection highlights the comprehensive approach taken to capture various perspectives. The range of interviewees provides a holistic view of how stakeholders witnessed and experienced Turkish Airlines' crisis management. A detailed overview of the interviewees and relevant details can be found in Appendix 2.

### **3.4 Data Collection Method**

For this study, semi-structured, in-depth interviews were conducted. The effect is that spontaneous questions adapted to the participants could be asked while a basic framework was adhered to. Additionally, the standardization of some questions increases the reliability of the data. As identified by Woods (2011) the participants feel more comfortable having a conversation with the researched due to the more relaxed atmosphere than filling out a survey. The questions guiding the conversation can be found in Appendix 1.

To gain a comprehensive understanding, interviews were conducted in Turkish, German, and English, and sources were consulted in these three languages. Consequently, DeepL, a translation tool, was used to facilitate the analysis of the data. There is a possibility that some parts will be shown as written by AI, but it is written by the Author.

All nine interviews were conducted via the video conferencing tools Zoom and Microsoft Teams. Each interview lasted depending on the interviewee's availability and length of answers, for a minimum of 32 and a maximum of 60 minutes. Each interview was conducted between the 2<sup>nd</sup> of March 2024 and 28<sup>th</sup> of June 2024. To clarify the research question and to avoid any misunderstandings, a short introduction about the dissertation was given at the beginning of each interview. All Interviews were transcribed using a software tool, Jamie. The data was transcribed to obtain any relevant information. A transcript can be found in Appendix 1 for reference. Upon request, the remaining eight interviews will be provided. The questions are based on the theoretical frameworks and literature review. Under the participant's background, questions have varied, been added, or omitted. To encourage participants to give any answers that came to mind and to express any ideas, the questions were open-ended and did not steer the answers in any direction (Gioia et al., 2013).

### **3.5 Data Analysis**

To develop a deep understanding of the participants' statements the transcripts were read several times. Next, the process of coding began. Considering this, all interviews were printed, and then key themes, patterns, and recurring statements were identified and marked with colours.

The Gioia method, a qualitative methodological approach, was chosen to analyze the data. The method is a comprehensive approach that can meet the rigorous standards of reliable research (Gioia et al., 2013). Gioia is structured into three key steps to adequately justify its assertions. The first step includes the creation of analytic codes and categories, assembled into a data structure. This so-called 1<sup>st</sup>-order analysis aims to determine categories true to the terms used by the interviewees so that the number of categories tends to explode at the beginning of the analysis (Gioia et al., 2013). In the second step, the words and lived experiences which are shown in detail are then aggregated into 2<sup>nd</sup>-order codes (Murphy et al., 2016). Moreover, the codes are abstract and categorized into labels created by the researcher. Finally, the themes are synthesized to gain comprehensive insights from the detailed data and develop a model that explains Turkish Airlines' crisis management strategies in the context of the pandemic. The

Gioia method ensures that the findings are theoretically sound and innovative by using the visualization of data (Gioia et al., 2013; Murphy et al., 2016).

#### 4. Findings

Based on the data collected through the nine interviews, several valuable insights and emerging themes were identified, which are methodically structured and presented in an Excel file in Appendix 2. Additionally, in Figure 1, the three dimensions that have been explored are visualized and sorted according to Gioia's classification. A total of 108 1st order concepts were identified. Thereby the data were summarized, categories were formed, and the language of the data was included. Therefore, these are quotes from the interviews with the nine experts. For the 2nd-order analysis, the quotes from the 1st-order analysis were grouped and patterns were tried to recognize. Abstract categories were created that summarized several 1st-order concepts and were given their names. Theoretical sampling ended when no new 2nd order concept could be discovered, the so-called "theoretical saturation". Thus, 38 2nd-order concepts could be identified. Finally, the 38 2nd-order terms were summarized one more time, resulting in five theoretical dimensions:

- 1) Customer-Centric Communication
- 2) Health and Safety Leadership
- 3) Innovative Crisis Response
- 4) Operational Resilience
- 5) Strategic Agility

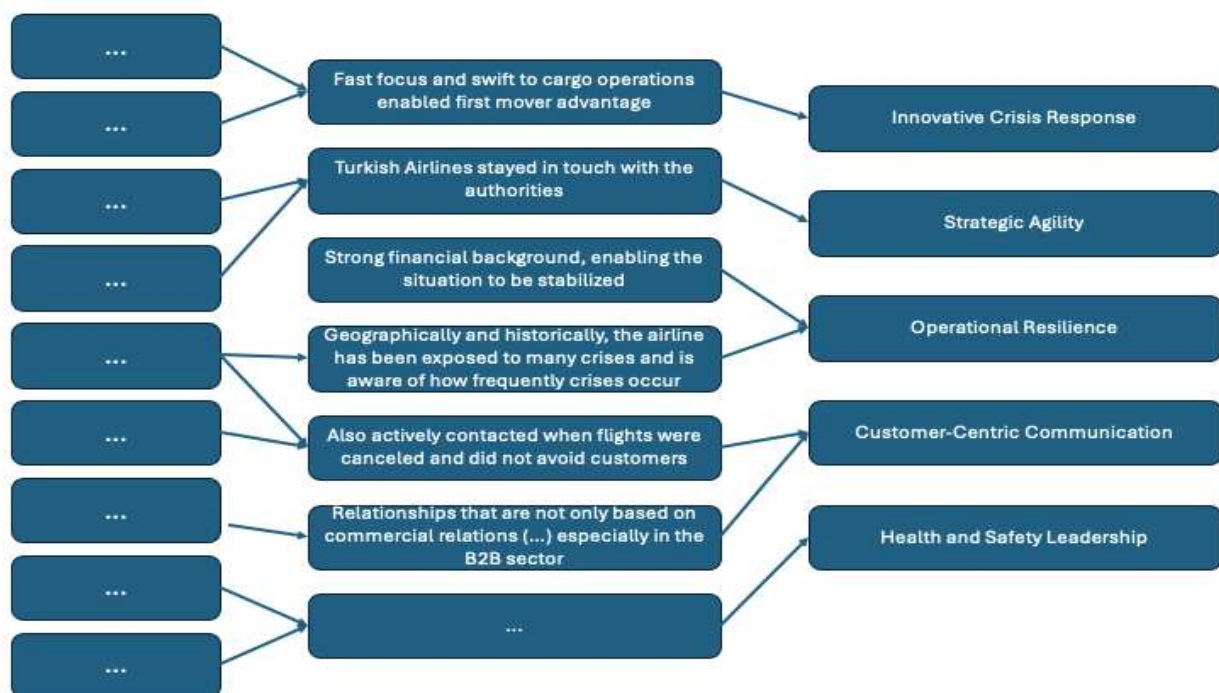


Figure 1: Overview of qualitative content analysis using Gioia's methodology (2013).

These dimensions and the subordinate concepts provide essential insights for answering the research question “How to react to a crisis in the aviation industry”. They support the analysis of how Turkish Airlines was able to react agilely during the COVID-19 pandemic by utilizing its resources and dynamic capabilities. It shows which strategic and organizational measures are necessary to operate in this industry. To paint a comprehensive picture of agility and adaptability, data sources were used as a supplement. In the following section, the five dimensions developed were assigned to Resources Based Theory and Dynamic Capabilities and explained.

#### **4.1 Resources at Turkish Airlines**

The Resource-Based View (RBV) emphasizes the significance of a firm's internal resources. A firm achieves a competitive advantage when it can generate “more economic value than the marginal (breakeven) competitor in its product market” —those that are valuable, rare, inimitable, and non-substitutable—in achieving sustained competitive advantage. Turkish Airlines utilized several key resources to maintain resilience and operational continuity during the COVID-19 crisis.

##### **4.1.1 Health and Safety Leadership**

A frequently mentioned factor was Health and Safety Leadership as an important resource and integral part of the airline's operational strategy during the pandemic. The proactive implementation of health and safety measures not only protected passengers and employees but also created confidence in Turkish Airlines' actions. The health and safety leadership went beyond mere compliance, they saw safety and security protocols as a top concern, “additionally, we prioritized the health and safety of our passengers and employees by implementing rigorous sanitation protocols, enforcing social distancing measures, and providing personal protective equipment” (Interviewee 1). Among other things, they provided masks and other hygiene items so that customers did not have to use their own “Well, I talked to a few customers back then and they, they really appreciated this. Not having to bring own masks, uhm, you know, it's like, I understand your pain points” (Interviewee 1), “And it wasn't only the masks, for instance, we were telling them about the filters, air filters, and the aircraft, telling them how clean the air is in the aircraft because all these, because of these are very advanced” (Interviewee 6).

Particularly important was communicating about health and safety with customers to show them that they understood their issues and would support them in safeguarding their health, “If you are worried about your health, the last thing you want to see is that someone is pitching their product and and and you know, not caring about your problems and only thinking about themselves (...)” (Interviewee 2), “So those facts, so instead of you know talking about our brand, we told people about how we keep them healthy and that meant a lot because it showed that we are showing empathy and that we are actually feeling their pain points” (Interviewee 6).

Similarly, the health of its employees was an important resource that Turkish Airlines recognized very early on. One manager reported that due to the Turkish culture, he was aware that many of his employees cared for elderly relatives and that health was therefore very important. Regular briefings were held, and the health of the employees was prioritized, “Nothing was more important than your health. We really tried to work in a safe environment to ensure our employees’ health. We did many briefings, tried to explain ok, this is going on. This you can expect, this you need to adapt” (Interviewee 5). This resource played a crucial role in maintaining passenger confidence and keeping operations running and fulfilling the VRIN criteria, as seen in Appendix 2.

#### **4.1.2 Operational Resilience**

The other resource identified is Operational Resilience, a cornerstone of Turkish Airlines' strategy. Maintaining service continuity despite the challenges caused by the pandemic played a crucial role. The airline's ability to adapt its operations effectively and quickly to the situation was a testament to its robust operational infrastructure and investments. In contrast to most other airlines, which largely suspended operations, Turkish Airlines continued to fly even when the planes were almost empty. One interviewee noted, “Turkish Airlines was one of the few airlines that kept flying in the in the middle of the pandemic. A lot of the European carriers, Middle Eastern carriers, canceled their flight. So, we kept flying in some cases with almost empty aircraft, but we kept the aircraft in the air” (Interviewee 2). This resulted in numerous advantages, as the retention of flight and landing rights, known as slots, is linked to the use of the airlines. If the slots are not used, they are lost. Furthermore, employees were able to maintain their certifications, which apply to pilots, among others (EASA-Verordnung Nr. 1178/2011 - Anforderungen an Personal, 2012).

Resilience was further strengthened by the airline's focus on digital transformation. Another interviewee mentioned, „It was and it is still like having more digital airline. So just like trying to digitalize all the processes“ (Interviewee 8). This digital focus covered all parts of the airline to help passengers “They're getting like more digital processes to help passengers, as European and US carriers are doing so a general strategy about innovation” (Interviewee 8).

In addition, Turkish Airlines benefited from its strong relationships and local presence to resume flights to key international hubs more quickly. The same interviewee noted " This point that we had our teams in the field, that's why we had chance to talk to airports, governments. And take measures to start as soon as possible to our flights. Turkish Airlines was the first airline transatlantic international that landed in Colombia, Panama, and Venezuela” (Interviewee 8).

Turkish Airlines' operational resilience was also supported by its subsidiary, Turkish Technic, which serviced both its own and other airlines' fleets. The efficiency and reputation of this maintenance division became even more important during the pandemic, as one interviewee pointed out: “is responsible not only for maintaining our aircraft but also aircraft of other airlines as well. And we have a big facility in Istanbul and it's a very well respected, the maintenance facility that department also became very efficient during the pandemic and to this day actually. They are one of the biggest suppliers of maintenance services to a lot of airlines around the world” (Interviewee 2).

These combined efforts demonstrate that Turkish Airlines' operational resilience was not just about keeping planes in the air, but also about leveraging technology, strong international relationships, and a robust maintenance infrastructure to effectively manage the crisis. These combined efforts demonstrate that Operational Resilience is a valuable, rare, inimitable, and non-substitutable resource as shown in Appendix 2.

#### **4.2 Dynamic Capabilities at Turkish Airlines**

Dynamic capabilities involve the ability of the organization to adapt, recombine, and renew internal and external competencies to address rapidly changing environments. Turkish Airlines demonstrated several dynamic capabilities that were critical to its successful response to the COVID-19 pandemic.

#### **4.2.1 Innovative Crisis Response**

Innovative Crisis Response was a dynamic capability that allowed Turkish Airlines to adapt quickly and effectively to the challenges posed by the pandemic. The airline's ability to innovate across its operations, from adjusting flight routes to exploring new revenue streams, was central to its crisis management strategy. The shift showcases its capability to adapt, recombine, and renew its resources, as seen in Appendix 2.

An interviewee explained, “Turkish Airlines made rapid decisions to adapt to the situation” (Interviewee 4). This capability to innovate ensured that the airline could continue operating in a highly restricted environment, capitalizing on new opportunities as they arose.

The airline also expanded its cargo operations, a significant innovation during the pandemic. “And cargo became a big, big business. As a matter of fact, I think right now we are #4 in the world in terms of cargo capacity. Which means that whatever cargo advantage we got during the pandemic, actually, was sustainable.” (Interviewee 2), “Once passenger flights were cut, uhm, cargo faced a huge influx” (Interviewee 4, “We used passenger planes for cargo and conducted cabin loadings (...) Turkish Airlines was among the fastest to take action globally. However, converting a passenger plane to cargo isn't easy.” (Interviewee 4).

This strategic pivot to cargo not only compensated for the significant drop in passenger flights but also allowed the airline to sustain operations and even grow in a challenging environment, “Obviously, those days, you know if you are the only airline, you have a big market share” (Interviewee 2), “And when I said they kept our position as a major cargo carrier after the pandemic is you know partly because of that. We created that business relationship with those people who have not shipped with Turkish Airlines before but once they did and once, we delivered the goods and once we gave the service they stuck with us. So, maybe that goes as an example of how innovative we were during the pandemic” (Interviewee 6).

By converting 50 passenger aircraft into cargo planes, Turkish Airlines managed to carry 1.5 million tons of cargo in 2020, increasing its market share to 4.7% globally. This adaptation was crucial in maintaining the airline's financial stability, with cargo revenues increasing by 61% to USD 2.7 billion, constituting 40% of total revenues (Turkish Airlines, 2021). Another interviewee reflected on this strategy, stating, " This innovation uhm, effort from the employees helped maintain essential operations during the lockdown" (Interviewee 4). This

innovative crisis response highlights Turkish Airlines' ability to swiftly adapt and leverage its existing resources, a key factor in its resilience during the pandemic.

Furthermore, the airline proactively utilized the necessity for evacuation flights, operating as many as 1,500 such flights during the pandemic to facilitate the return of stranded passengers to their respective countries of origin, one interviewee mentioned “Then step by step some passenger evacuation flights started” (Interviewee 5).

This shift not only mitigated the financial impact of the crisis but also positioned the airline for future growth.

#### **4.2.2 Customer-Centric Communication**

Customer Centric Communication proved to be an extremely relevant capability for Turkish Airlines, enabling the company to stay in close contact with customers and maintain a relationship that goes beyond marketing “(...) communication was crucial, of course” (Interviewee 8), “I think we created this personal almost personal relationship so they could feel that yes, this brand actually knows and cares (...)” (Interviewee 2). This close contact enabled all stakeholders to stay informed about the current situation “We're trying to keep our customers up to date on what's going on because in the beginning nobody was sure how long the pandemic was going to last, how long the flights were canceled.” (Interviewee 2). Open communication about flight cancellations, for example, proved to be a key differentiator “we made it our number one priority to let everybody know what going on our side in the name of transparency” (Interviewee 2), “We prioritized transparency and provided timely updates on flight cancellations, rebooking options, and refund policies to minimize inconvenience and maintain trust” (Interviewee 5).

The adaptability of the communication strategy was also emphasized. One interviewee said that at times Turkish Airlines was the only operating airline and then the communication was adapted to this so that potential customers were aware of it “We made sure people knew that we were still flying because automatically almost everybody thought every single airline had cancelled their flights. This was the default thinking. Now our job was to change that perception as far as Turkish Airlines was concerned” (Interviewee 2).

The focus on transparent communication illustrated the company's ability to adapt and renew its communication methods to meet the evolving needs of the market, as seen in Appendix 2. Communicating in a customer-focused way was vital to getting through the pandemic successfully.

#### **4.2.3 Strategic Agility**

Strategic agility was the most frequently recognized dimension during the data analysis. It plays a very important role in the dynamic capabilities of Turkish Airlines. It enables the Turkish company to change its strategy quickly in the context of the pandemic. This ability to make decisions quickly, re-evaluate priorities, and forecast future trends was crucial in managing the crisis, "(...) Flexibility was and is always key to adapt, this however means that all connected processes shall also be flexible which is not always the case ; with the help of digital support aspects we prepare ourselves to be even better prepared for such things" (Interviewee 9), "We had to be very flexible and innovative to meet the new demands. This flexibility helped us manage the crisis effectively" (Interviewee 7).

Innovation was also for Strategic Agility another key component. The airline's ability to innovate in response to new demands was highlighted by an interviewee who noted, "We had to be very flexible and innovative to meet the new demands. This flexibility helped us manage the crisis effectively" (Interviewee 7). This approach was complemented by the airline's focus on digital transformation, which enhanced its ability to adapt to the rapidly changing environment. An interviewee mentioned, "We are an agile company, but at the same time we are a very big company and I think that's a beautiful combination" (Interviewee 2).

Furthermore, Turkish Airlines' proactive approach to engaging with regulatory bodies and stakeholders was crucial in implementing effective crisis management strategies. This allowed the airline to maintain operations and quickly resume flights to key international destinations. An interviewee highlighted this by stating, "We worked closely with regulatory bodies to implement safety protocols" (Interviewee 3).

Additionally, the airline's ability to anticipate and respond to emerging trends ensured that it was well-positioned for recovery. "Our proactive approach, coupled with effective crisis management strategies, positioned us relatively well in comparison to others in the industry" (Interviewee 3). This forward-thinking mindset not only helped Turkish Airlines survive the

immediate impacts of the pandemic but also laid the groundwork for sustainable growth and resilience in the post-pandemic era.

Appendix 2 provides additional insights into how Turkish Airlines' strategic agility meets the criteria of dynamic capabilities.

These factors—flexibility, innovation, digital transformation, proactive stakeholder engagement, and forward-thinking strategies—collectively underscore the importance of strategic agility in Turkish Airlines' successful navigation of the COVID-19 crisis.

## **5. Discussion & Analysis**

This section provides an in-depth analysis of the findings, comparing them with the existing literature on crisis management, RBV, and Dynamic Capabilities. The discussion highlights how Turkish Airlines' strategies align with theoretical frameworks and offers insights into the practical implications of these strategies.

### **5.1 Synopsis of Findings**

The findings of this thesis highlight the strategic responses of Turkish Airlines to the COVID-19 pandemic, framed within the RBV and Dynamic Capabilities frameworks.

Turkish Airlines' success in navigating the crisis can be attributed to several key resources and capabilities. First, the airline's customer-centric communication strategies were crucial in maintaining customer trust and satisfaction during a period of unprecedented uncertainty. The company implemented comprehensive communication strategies that ensured transparency and responsiveness, addressing customer concerns related to flight cancellations, refunds, and safety measures. Second, the airline's emphasis on health and safety leadership played a pivotal role in reassuring both passengers and employees. Turkish Airlines quickly adapted to new health protocols, such as enhanced cleaning procedures, the use of personal protective equipment, and social distancing measures within aircraft and airports. This proactive approach not only complied with international health regulations but also positioned the airline as a leader in safety, enhancing its brand reputation during the crisis.

The airline's operational resilience was also a significant finding. Despite the severe disruptions caused by the pandemic, Turkish Airlines demonstrated an ability to maintain critical operations, particularly in cargo transport, which became a vital revenue stream during the downturn in passenger flights. The airline's innovative crisis response was evident in its rapid pivot to cargo services, leveraging its extensive fleet and global network to meet the increased demand for freight, including medical supplies and essential goods. Furthermore, the company's strategic agility—its capacity to rapidly adjust strategies and operations in response to evolving conditions—was a key dynamic capability that underpinned its crisis management efforts. This agility was reflected in Turkish Airlines' ability to swiftly modify its route network, scale operations up or down as needed, and implement digital innovations to enhance customer experience and operational efficiency.

## **5.2 Comparison with Literature**

When compared to the broader literature on crisis management, the strategies employed by Turkish Airlines align closely with established theories on RBV and dynamic capabilities. The RBV posits that firms achieve sustained competitive advantage through the acquisition and deployment of valuable, rare, inimitable, and non-substitutable resources. In the case of Turkish Airlines, the resources that proved critical during the COVID-19 crisis included its strong brand reputation, extensive global network, and robust customer relations infrastructure. These resources were effectively leveraged to maintain customer loyalty and operational continuity despite the severe external shocks presented by the pandemic. This finding is consistent with the work of Barney (1991), who emphasizes the importance of strategic resources in navigating periods of uncertainty and disruption.

Dynamic capabilities, as articulated by Teece, Pisano, and Shuen (1997), refer to the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. Turkish Airlines' ability to quickly adapt its operations—such as shifting focus to cargo services and implementing advanced digital solutions—exemplifies these capabilities. The airline's agility in responding to the crisis is also supported by the literature, which underscores the importance of flexibility and innovation in organizational resilience. For instance, Coombs (2015) highlights that organizations with robust crisis management capabilities are better positioned to respond effectively to unforeseen challenges, which aligns with Turkish Airlines' experience during the pandemic.

## **5.3 Implications for Theory and Practice**

The findings of this study have significant implications for both theoretical and practical applications. From a theoretical standpoint, the case of Turkish Airlines offers empirical evidence in support of the RBV and Dynamic Capabilities frameworks as they pertain to crisis management. The airline's success in navigating the Coronavirus Disease 2019 crisis highlights the significance of strategic resources and dynamic capabilities in ensuring organizational resilience. This case study makes a significant contribution to the existing literature on this topic by demonstrating how these theoretical constructs operate in a real-world crisis scenario. It provides a solid basis for further research in this area.

From a practical standpoint, the strategies deployed by Turkish Airlines offer valuable insights for other organizations confronting comparable crises. The findings of this study highlight the importance of maintaining strong customer relationships, prioritizing health and safety, and being able to quickly adapt operations in response to changing circumstances. These key takeaways can be applied across industries. Furthermore, the study underscores the necessity for organizations to invest in building and nurturing their strategic resources and dynamic capabilities as a means of enhancing their resilience to future crises. This includes not only tangible assets, such as infrastructure and technology, but also intangible resources like brand reputation, customer trust, and organizational culture.

## **6. Conclusion**

### **6.1 Summary of Findings**

The COVID-19 pandemic presented an unprecedented challenge to the global aviation industry, and Turkish Airlines was no exception. The airline's response to the crisis was characterized by a strategic focus on leveraging its core resources and dynamic capabilities. Key findings from the study include the airline's effective use of customer-centric communication, which maintained customer trust during a period of significant uncertainty. The emphasis on health and safety leadership not only complied with regulatory requirements but also enhanced the airline's reputation as a leader in crisis management. Operational resilience, particularly in maintaining cargo operations, was another critical factor in the airline's ability to weather the crisis.

Turkish Airlines' innovative crisis response, including its rapid pivot to cargo services and the implementation of digital innovations, demonstrated the airline's dynamic capabilities. These capabilities enabled the company to quickly adapt to the rapidly changing environment, ensuring continuity of operations and positioning the airline for recovery. The study's findings underscore the importance of strategic agility in crisis management and provide a framework for understanding how organizations can leverage their resources and capabilities to navigate crises successfully.

### **6.2 Recommendations for Future Research**

The findings of this study open several avenues for future research, both within the context of the aviation industry and beyond. One of the primary recommendations for future research is to extend the analysis of the RBV and dynamic capabilities to other industries that were similarly affected by the COVID-19 pandemic. Comparative studies across different sectors, such as hospitality, retail, and manufacturing, could provide a broader understanding of how these theoretical frameworks apply in diverse contexts.

Additionally, future research could explore the long-term implications of the strategies employed by Turkish Airlines. While this study has focused on the immediate and short-term responses to the crisis, it would be valuable to examine how these strategies have influenced the airline's recovery trajectory and its competitive positioning in the post-pandemic market. Longitudinal studies that track the airline's performance over several years could offer insights

into the sustainability of the dynamic capabilities and resource management strategies that were deployed during the crisis.

Another important area for future research is the role of technological innovation in enhancing dynamic capabilities during crises. The pandemic has accelerated the adoption of digital technologies across various industries, and it would be beneficial to investigate how these innovations have been integrated into crisis management frameworks. For instance, future studies could examine the impact of digital transformation on operational resilience, customer engagement, and supply chain management in the aviation industry and other sectors.

Furthermore, the human dimension of crisis management, particularly the role of leadership and organizational culture in fostering resilience, warrants further investigation. Future research could delve into how leadership styles and organizational cultures that prioritize flexibility, innovation, and employee well-being contribute to the development of dynamic capabilities and effective crisis management strategies.

Finally, there is a need for quantitative research that measures the impact of dynamic capabilities and resource management on organizational performance during crises. While this study has provided qualitative insights into the strategies employed by Turkish Airlines, quantitative analyses could offer a more robust understanding of the relationship between these factors and key performance indicators, such as financial performance, customer satisfaction, and market share.

### **6.3 Limitations**

Despite the valuable insights generated by this study, it is important to acknowledge its limitations, which may have implications for the generalizability of the findings. One of the primary limitations is the focus on a single case study—Turkish Airlines. While this in-depth analysis provides a detailed understanding of the airline's strategies and responses to the COVID-19 pandemic, the findings may not be fully applicable to other airlines or industries. The unique characteristics of Turkish Airlines, such as its geographical positioning, fleet composition, and corporate culture, may have influenced its ability to manage the crisis in ways that differ from other organizations.

Moreover, the study relied heavily on qualitative data obtained from semi-structured interviews with a select group of stakeholders. While this approach allowed for a rich exploration of the

experiences and perspectives of those involved in crisis management, it also introduced the potential for bias and subjectivity. Three limitations apply to the present research in the context of convenience sampling. The limitations of convenience sampling are manifold:

a) It is also necessary to mention that convenience sampling is likely to be biased. The probability that a group is under or overrepresented is very high. Convenience sampling often leads to distortions of the entire target population.

b) There is a great concern related to the problem of outliers. Specifically, because of the high self-selection probability in non-probability sampling, the impact of outliers can be more significant in this type of subject selection. Hence, outliers are defined as cases who considered as not belong to the data.

c) Unpredictability: convenience samples are particularly vulnerable to hidden biases that cannot be quantified. This leads to the unpredictability of results, as the researcher does not know exactly to what extent the sample represents the population in terms of the characteristics or mechanisms under investigation (Etikan, 2016).

The limited number of interviewees, combined with the focus on senior management and key decision-makers, may have resulted in an incomplete representation of the broader organizational dynamics at play.

Another limitation concerns the generalizability of the findings to other contexts. The study is situated within the specific context of the COVID-19 pandemic, which was an unprecedented global event with unique characteristics. The strategies that proved effective for Turkish Airlines during this crisis may not be as applicable in other types of crises or different industries. Future research could address this limitation by examining the applicability of the identified strategies in different crisis scenarios, such as economic recessions, natural disasters, or geopolitical conflicts.

Additionally, the study's focus on the immediate and short-term responses to the crisis may overlook the long-term impacts of these strategies. As the situation continues to evolve, there may be new developments and challenges that were not anticipated during the initial phases of the crisis. Longitudinal studies that track the ongoing impact of the crisis on Turkish Airlines

and other organizations could provide a more comprehensive understanding of the effectiveness and sustainability of the strategies employed.

Finally, the study did not fully explore the perspectives of external stakeholders, such as suppliers, and regulators, whose experiences and responses to the crisis could provide additional insights into the effectiveness of Turkish Airlines' strategies. Future research could incorporate these perspectives to gain a more holistic understanding of the crisis management process.

In conclusion, while this study offers valuable contributions to the understanding of crisis management, resource management, and dynamic capabilities, it is important to consider these limitations when interpreting the findings. The recommendations for future research outlined above provide a pathway for addressing these limitations and furthering our knowledge of how organizations can navigate crises and build resilience in an increasingly uncertain world.

## **7 Appendix**

### **7.1 Appendix 1: Transcript of Interview**

Interview Transcripts can be accessed through the following link:

[Appendix 1 - Interview.pdf](#)

In case of difficulties, please contact the researcher: s-dguerbuez@ucp.pt

### **7.2 Appendix 2: Qualitative Analysis**

The detailed qualitative analysis and the summary of interviewees can be accessed through the following link:

[Appendix 2 - Qualitative Analysis.xlsx](#)

In case of difficulties, please contact the researcher: s-dguerbuez@ucp.pt

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Gürbüz