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Organizational Flexibility of Airlines During COVID-19: A Study on The Airline Companies in Turkey

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Purpose: COVID-19 caused a highly uncertain environment and introduced a radical change in the airline industry. In that time, idle capacity due to drastic decline in passenger traffic, change in travel rules, and increases in air cargo demand have emerged as the main challenges. Effective responses to these issues became a fundamental requirement for airlines' survival and sustainability of supply chains. Organizational flexibility plays a vital role in dealing with those situations. Flexibility allows airline companies to adapt to changing environmental conditions and take advantage of opportunities. This study aims to explain the strategies of airline companies in Turkey to the COVID-19 crisis based on organizational flexibility.

Methodology: This study is structured on the qualitative research method. We interviewed five experts and compiled information by reviewing various publications on COVID-19. We analyzed obtained information within the framework of organizational flexibility.

Findings: The results indicated that airlines mitigate the effects of COVID-19, mostly through protective and exploitative maneuvers of organizational flexibility. Airlines focus more on cost reduction and saving strategies as protective maneuvers, while exploitative maneuvers focus more on the cargo market.

Originality: This study is novel in that it examined airlines' responses to COVID-19 within the framework of organizational flexibility.

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1 Introduction

The world has been struggling with COVID-19 since December 2019. COVID-19 was first reported in Wuhan, China (WHO, 2020a), then spread worldwide and was announced as a pandemic by the World Health Organization (WHO, 2020b). As of May 2021, the COVID-19 pandemic has caused more than 152 million cases and over 3 million deaths worldwide (WHO, 2021).

Countries have had to respond to this crisis with quarantine, lockdown, and travel bans to reduce its impact. This reaction negatively affected the economic activities of the world. In 2020, the gross domestic product of G20 countries shrank by 3.3%, except China and Turkey, which recorded growth of 2.3% and 1.8%, respectively (OECD, 2021). In 2020, global working hours decreased by 8.8% compared to the fourth quarter of 2019, equivalent to 255 million full-time jobs (ILO, 2021). COVID-19 has severely impacted poverty around the world. Poverty has increased for the first time in 20 years. It was estimated that between 119 and 124 million people suffer from severe poverty in 2020 (Lanker et al., 2021; CCSA, 2021). The tourism industry experienced its worst year in 2020, with a 74% decline in international arrivals compared to the previous year. Globally, tourism destinations hosted less than 1 billion international arrivals due to an unexpected drop in arrivals and strict travel restrictions (UNWTO, 2021).

The aviation industry is among the most affected sectors by the COVID-19 pandemic. Strict measures such as lockdown and travel bans to combat COVID-19 have resulted in an unprecedented drop in air transport demand. Compared to 2019, global passenger traffic declined by 60 %, equivalent to 2,699 million passengers in 2020 (ICAO, 2021).

Turkey has been one of the countries that have taken steps to respond to the pandemic proactively. In aviation, all international flights were suspended between May 27 and June 11, 2020. Also, domestic flights were restricted. As a result, in 2020, the number of domestic passengers decreased by 50.4%, and the number of international passengers fell by 70.5% compared to the previous year. Similarly, domestic, international, and transit traffic decreased by 31.5%, 60.8%, and 57.9%, respectively. Also, domestic and international cargo traffic decreased by 39.8% and 41.6%, respectively (SHGM, 2021).

The COVID-19 is continuing to pose a risk for the aviation industry. This risk is mainly due to uncertainty in the business environment. Uncertainty in the business environment causes a serious survival problem for companies. An uncertain business environment makes it difficult for companies to set future business standards and predict demand. Uncertainty, a significantly fatal feature of the business environment, affects firms' withdrawal from the market. So, it requires firms to go beyond their routines and develop new capabilities to maintain their activities. On the other hand, turbulent times allow companies to turn the change in the market to their advantage with appropriate strategies (Anderson and Tushman, 2001).

Airlines offer safe, efficient, and fast transportation services. They provide time and efficiency advantages in the delivery or transportation of perishable, subject to rapid obsolescence, and urgently required products (Wensveen, 2007). In 2015, 52.2 million tons of cargo worth \$5.6 trillion was transported by air. Although this amount corresponds to 1% of world trade in volume, it constitutes 35% of the value (Shepherd, Shingal and Raj, 2016). Despite the decrease in belly cargo capacity due to the suspension of passenger flights, the amount of cargo transported by air reached 57.5 million tons in 2020 (IATA, 2021). Airlines carried more than 1.5 million tons of medical supplies and protective equipment with 46,500 special cargo flights during the peak period of the pandemic. They also reorganized flight routes and compensated for disruptions in other modes of transport. These show the importance of airlines in the sustainability of the supply chain and world trade, especially during the COVID-19 period. (ATAG, 2020). Examining the strategies of airlines in the period of COVID-19 will contribute to the effective maintenance of the supply chain and make them more resilient against crises in the future. Although some studies have been conducted on airlines' responses to the COVID-19 pandemic, to the best of our knowledge, there has been no study examining the topic within the framework of organizational flexibility components. The purpose of this study is to examine the responses of airline companies operating in Turkey to the COVID-19 crisis in terms of dimensions of organizational flexibility. It is also aimed to reveal the practices of airline companies to cope with the uncertainties brought by the pandemic.

2 Theoretical Background

2.1 Organizational Flexibility

Flexibility is a key factor enabling organizations to operate in a dynamic, particularly changing and uncertain business environment. Flexibility refers to the capabilities of an organization to respond to its business environment in a variety of ways (Phillips and Tuladhar, 2000). It is related to the abilities of an organization to adapt its policies, practices, and procedures in response to the varying demands of the environment (Rowe and Wright, 1997). *“Flexibility is the degree to which an organization has a variety of managerial capabilities and the speed at which they can be activated, to increase the control capacity of management and improve the controllability of the organization”* (Volberda, 1996, p. 361).

Organizational flexibility occurs due to the relationship between two main components: management task and organizational design task. Managerial tasks refer to the timely and proper response of management to the environment. It consists of a variety of dynamic capabilities. Dynamic capabilities enable management to respond to changing environmental conditions and influence the environment to prevent organizations from external changes. Variety and speed are two main elements of managerial capabilities. Speed allows management to respond to change at an appropriate pace. Variability enables management to react to different conditions of the environment. Variability is related to the quality and quantity of capabilities required. Both elements increase the maneuvering capacity of management in changing environments. Organizational design task deals with organizational conditions that make managerial capabilities effective. Organizations have to have adequate organizational conditions to utilize managerial capabilities and respond to change effectively. In this respect, proper organizational structure and culture should be created, and efficient technology should be obtained (Volberda, 1996).

Many researchers regard the concept of flexibility as the dynamic capabilities of an organization (Teece, Pisano and Shuen, 1997; Hattum and Pettigrew, 2006). Dynamic capabilities are defined “as the firm’s ability to integrate, build, and reconfigure internal

and external competencies to address rapidly changing environments” (Teece, Pisano and Shuen, 1997, p. 516). In this definition, the term dynamic refers to the capacity of an organization to recreate its competencies in accordance with the changing business environment. Thus, capabilities indicate the primary function of strategic management in effectively adapting, combining, reshaping organizational skills, assets, and competencies to respond to the changing conditions of the environment (Teece, Pisano and Shuen, 1997).

The dynamic capability approach focuses on a way of gaining a competitive advantage for companies. This competitive advantage highly relies on the managerial capabilities and organizational processes of a company. In this approach, organizations should develop capabilities and assets that are unique and difficult to imitate. Those capabilities should be embedded into organizational processes in a novel way to be responsive to the environment. These capabilities, in particular, culture, values, and distinctive competencies are internal to the company, and they can not be bought or obtained from outside (Teece, Pisano and Shuen, 1997).

Flexibility requires the development of dynamic capabilities for the uncertain environment (Volderba, 1996). Organizations can achieve flexibility through the implementation of various methods. The simplicity of business processes and disciplines in procedures in the production industry enables companies to achieve flexibility (Collins, Cordon and Julien, 1998). In addition, the flexible structure can be created through the proper integration and management of components of their value chains by taking them into consideration (Sawhney, 2006).

Organizational flexibility in a broad sense consists of tactical, operational, and strategic flexibility (Carlsson, 1989). Operational flexibility refers to an organization's built-in procedures that allow variation in the production process and can accommodate disruptions that occur in a short period. Tactical flexibility indicates the flexibility in technological elements that allow an organization to cope with variations in production rate or production mix. Strategic flexibility is related to the company's long-term positioning in terms of production, marketing, and competition (Carlsson, 1998).

Strategic flexibility relies on capabilities to create variety to do something different when required. Strategic flexibility means doing something different from the initially intended

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to respond to unexpected changes. In a sense, it refers to an organization's capability to change itself to take advantage of its environment. Strategic flexibility consists of two different dimensions. These are temporal and deliberate dimensions. Temporal dimensions include ex-ante and ex-post modes. Ex-ante means being ready for future changes in advance, while ex-post means adjusting after the triggering event occurs. The intentional dimension is related to defensive and offensive modes of flexibility. Both modes of flexibility can be achieved through four types of maneuvers: preemptive, protective, exploitative, and corrective maneuvers, as indicated in figure 1. Preventative maneuvers are implemented to speed up transformation. The preventative maneuver can introduce new things like radical innovation and develop many options before required. Protective maneuvers refer to methods implemented by an organization to protect itself against the negative consequences of risky activities during the positioning process. Corrective maneuvers indicate the reformatory capacity of the organization to return to a normal state from the consequences of damaging occurrences. Exploitive maneuvers refer to the capability of an organization to respond to opportunities that emerge in the environment. Exploitive maneuvers enable an organization to take advantage of opportunities in the environment (Evans, 1991).

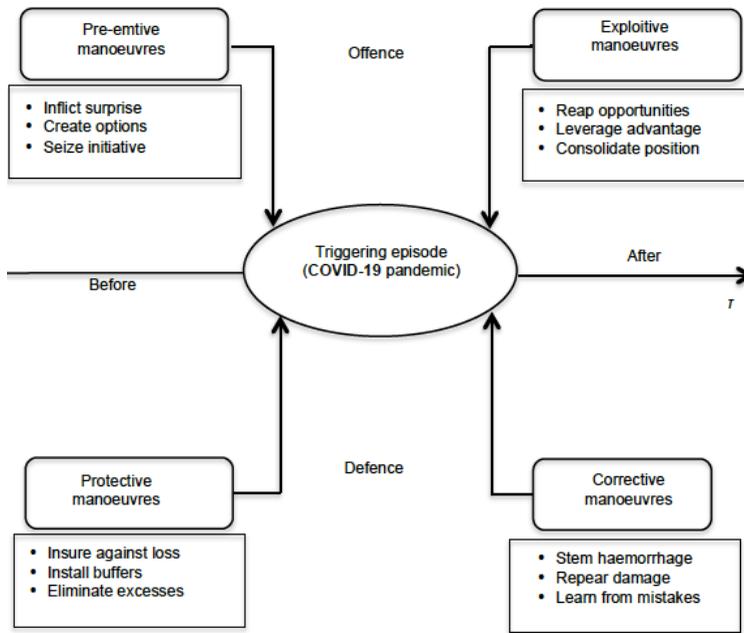


Figure 1: Strategic flexibility archetypal maneuvers (adapted from Evans, 1991)

Offensive and defensive modes of flexibilities could be regarded as anticipatory and adaptive flexibility. In anticipatory flexibility, companies try to predict the possible consequences of uncertainties and are prepared to be least affected by the negativities. The companies implementing this type of flexibility create more than one business scenario for the future and formulate many strategies to deal with the most likely ones (Engau, Hoffmann and Busch, 2011). In this preemptive move, organizations take action ahead of their rivalries and occupy an advantageous position in the market. Preventive actions should target essential positions and be easy for organizations to return when needed. Also, it should be challenging for competitors to implement them by using similar methods (MacMillan, 1983). In adaptive flexibility, organizations prepare to react

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quickly and adapt to the actual situation after uncertainty is eliminated (Engau, Hoffmann and Busch, 2011).

Engau, Hoffmann and Busch (2011) identified five capabilities required to create both types of flexibility. These are diagnostic, coordinative, integrative, transformative, and cultural capabilities. As shown in Figure 2, diagnostic, coordinative, and integrative capabilities are associated with anticipatory flexibility, while transformative and cultural capabilities are mostly related to adaptive flexibility.

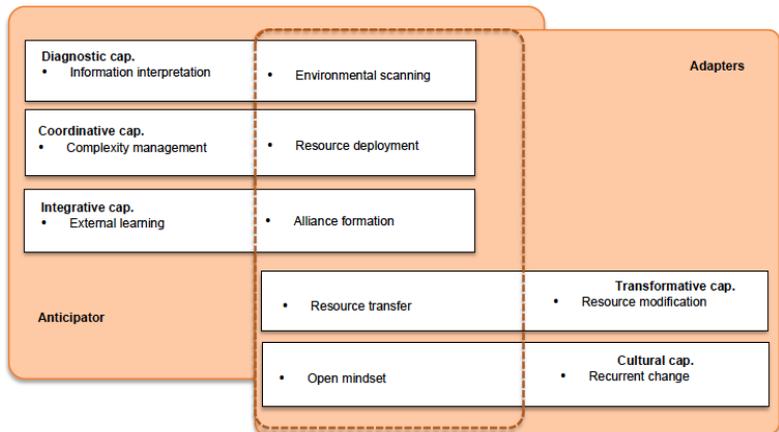


Figure 2: Capabilities for building up strategic flexibility (Engau, Hoffmann and Busch, 2011)

Diagnostic capabilities allow companies to scan the environment and analyze information to identify resources that enable them to survive in an uncertain business environment (Engau, Hoffmann and Busch, 2011). In addition, environmental scanning and information interpretation contribute positively to an organization's strategic action, which takes place in the form of changes in its products and services (Thomas, Clark and Gioia, 1993).

Coordinative capabilities refer to a company's distinctive capabilities that enable it to direct its resources in a specific way (Teece et al., 1997). Companies use such capabilities to deploy resources and manage complexities (Engau, Hoffmann and Busch, 2011).

Integrated capabilities function to accumulate critical information from external sources and processes in which information with technical capabilities is specific to the organization's various departments. External integrative capabilities allow an organization to capture functional and tacit information using managerial process, external communication, networking, empowerment of workers, and external technical experts. Internal integrative capabilities determine methods or ways the organization use obtained information. Managerial processes, internal communication, integrative structures, and culture and values affect internal integrative capabilities (Verona, 1999). Forming alliances and collaboration for learning plays an essential role in having integrative flexibility that provides access to new resources (Engau, Hoffmann and Busch, 2011).

Cultural capabilities consist of habits, attitudes, beliefs, and values that affect human resources. An organizational culture oriented to high standards can be recognized as a capability that contributes to competitive advantage (Hall, 1993). An open mindset and promoting change are two critical elements of such a culture that are important in building flexibility (Engau, Hoffmann and Busch, 2011).

Transformative capability refers to a company's ability to maintain and develop its already owns technology (Garud and Nayyar, 1994). Transformative capabilities that enable a company to transfer and modify resources play an essential role in flexibility (Engau, Hoffmann and Busch, 2011).

2.2 Literature review on airlines' strategic responses to COVID-19

Albers and Rundshagen (2021) investigated strategic responses of European airlines to COVID-19 based on news items and related articles. Results indicated that airline companies followed retrenchment, preserving, innovative, and exit strategies sequentially or simultaneously in response to the crisis. As a retrenchment strategy, most

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airlines discontinued their flight operations, grounded their fleet, and were involved in cost reduction activities. Some airlines aimed to preserve their existing structures with government support and external resources such as bailouts and subsidies. In addition, some airline companies sought to take advantage of the opportunities arising from urgent needs with innovative approaches. Especially, airline companies converted their passenger aircraft into cargo aircraft and responded to increased cargo demand. Also, airlines entered new markets, were involved in joint ventures and other partnerships, and expanded their cargo operations. Lastly, some airline companies have resorted to withdrawal methods from specific markets and partially or completely stopped their operations (Albers and Rundshagen, 2020).

Amankwah-Amoah (2020) examined internally generated and externally exposed strategic responses of airline companies to the COVID-19 pandemic in the short and long periods. Results revealed different approaches of airlines to the uncertainty. First, as internally generated short-term responses, airlines were involved in environmental scanning and tried to understand the nature of viruses and government regulations. Secondly, as externally required short-term responses, airline companies took steps to comply with health organizations' initial directives and measures against COVID-19. Thirdly, as internally generated long-term response, airline companies focused on post-crisis activities. Finally, airline companies focus on new normal, new industrial, and government directives rules as externally imposed long-term responses.

Suk and Kim (2021) investigated airlines' response to the COVID-19 pandemic based on a matrix containing the time dimension and devastating magnitude of COVID-19. The results indicated that airline companies changed their decision-making and strategic priorities due to the increase in the negative effects of COVID-19 on the industry. Airlines struggled to maintain their current position in the early stages of the crisis and resorted to capacity adjustment. As time elapsed and the crisis deepened, they asked for government supports and focused on the cargo market.

Akbar and Kisilowski (2020) examined airlines' non-marketing responses to governments' COVID-19 measures. They emphasized that the perceived legitimacy of travelers ultimately shapes non-marketing strategies. In addition, airlines do not prefer to bargain measures with the government when the economic and health impact of the

decisions is small. Instead, they resort to selective avoidance and adherence to measures. Airline companies collaborate with the government to effectively achieve common goals with high health and economic impact. Airline managers prefer to bargain hard with investors when the economic impact is high and the health impact on society is low.

Scheiwiller and Zizka (2021) investigated the communication strategies of airlines during COVID-19. The results showed that airlines mostly posted informative messages about safety measures, adjustment of flight activities, praising stakeholders, and reminders of the company's past. Low-cost carriers sent more informative and adjusting messages, while full-service carriers implemented the bolster communication strategy, which included mostly messages to praise stakeholders and remind them of the company's good past.

Ou and Wong (2020) examined airlines' responses to crises through the modified message framework. The results showed that airline companies emphasized corporate resilience, social responsibility, and empathy in their messages to strengthen their image and reputation.

Budd, Ison and Adrienne (2020) investigated European airlines' strategies to the COVID-19 crisis. The results revealed that although COVID-19 poses similar challenges for airlines, they have implemented different saving and cost reduction strategies. In addition, staff reduction and rearrangement of flight operations, fleet, network structure, and capacity were shown as airlines' main responses to mitigate the negative effects of the COVID-19.

3 Research Method

In this study, the qualitative research method is used. The research method applied in this study is twofold. First of all, we examined the news, press releases, annual reports, and interviews with the managers of airline companies in terms of the content regarding the airline companies operating in the Turkish civil aviation industry during the COVID-19. Secondly, we conducted a detailed interview with five experts, consisting of middle

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and senior managers working in the various airline companies in Turkey, focusing especially on organizational flexibility components. Having experience in the operative processes of the airline and taking an active role in the management of the COVID-19 crisis were set as the criteria for the selection of interviewees. The interviews were conducted via online tools and phone lasted between 30 minutes and one and a half hours. During the interviews, the note-taking method was used instead of recording for confidentiality reasons. The interviewees were first asked to describe the strategy of the company and company-specific practices to deal with the COVID-19 crisis. Then, the framework of the study, consisting of the concept of flexibility and preemptive, protective, corrective, and exploitive maneuvers (Evans, 1991), was explained to the interviewees. In line with this framework, the interviewees were asked which practices of the airline companies during the COVID-19 could be considered flexibility maneuvers.

The information obtained by both methods was evaluated in terms of the response of airlines in Turkey to COVID-19 and organized according to the four components of organizational flexibility offered by Evans (1991).

4 Results and Discussions

The first approach of the airline companies to the COVID-19 was to follow the latest developments regarding the outbreak at the national and international level and assess the situation. Airline companies made an effort to understand the nature of the outbreak with information obtained from subject matter experts and relevant institutions (Ayci, 2021).

As a first reaction to the outbreak, Turkish Airlines temporarily suspended its flights to China and some destinations in Iran and announced that it is closely monitoring the situation (Turkish Airlines, 2020a). Similarly, some interviewees expressed that their first reaction to the crisis was to find an answer to the question of “what we can do.” In line with this inquiry, the main priority was the protection of flight crews which is the most critical element of the airline operation. Interviewees stated that working from home, reducing the number of employees in the operations control center and briefing pilots online are common practices to minimize the contact of flight crews with other people.

In addition, regular testing for COVID-19, the absence of anyone other than flight crew members (no transfer crew) on cargo planes for flights, and the selection of alternative crew stay, transfer and change bases were indicated as other health measures crew members during the crisis.

Airline companies regularly disinfected the planes, distributed public health information brochures to passengers, closely followed passengers showing COVID-19 symptoms, and kept masks on board for travelers. In addition, airline companies held regular informative meetings, organized seminars, and shared these activities with all their employees on the Internet to raise employees' awareness about the COVID-19 (Pegasus Airlines Flypgs, 2020a). At the senior management level, the airlines held strategy discussions focusing on alternative scenarios to protect the company, public health, and resources (Ayci, 2021).

After the World Health Organization recognized the COVID-19 outbreak as a pandemic, the seriousness of the situation began to be understood more clearly. Airlines companies had to ground most of their fleets in line with stringent measures of governments to combat COVID-19. This has prompted airlines to find effective cost reduction strategies. Turkish airlines followed a “zero-lay-offs” policy (Chui, 2021; Turkish Airlines Annual Report, 2021). The interviewees stated that the company aims to protect its qualified human resources and reinforce its sense of belonging by a zero layoff policy. In addition, this method has been evaluated as not experiencing the difficulties that the company may encounter in creating a new team in the post-crisis period.

As a cost-saving strategy, the flag carrier company has made a deal with the union to cut pilots' salaries in half by 2021. Also, it was decided to reduce cabin crew salaries by 35 percent and ground workers by 30 percent (Ozbel and Bilgiç, 2020). Also, the national flag carrier reviewed its fleet planning and canceled some of the orders (Turkish Airlines Annual Report, 2021).

During the COVID-19, keeping grounded aircraft safe and operative became a challenging issue for airline companies. In order to reintroduce airplanes to flight operation after a long period of ground position, plenty of works, including maintenance, safety, and security checks, must be completed (Kotoky, Stringer and Saxena, 2020). These cause airline companies to incur additional maintenance costs and face the challenging issues

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of safety. Some airline companies had flown airplanes alternately to reduce aircraft maintenance costs and avoid such safety problems (Nane, 2020). On the other hand, Turkish Airlines has one of the largest aircraft maintenance and repair organizations (MRO), which provides aircraft maintenance services internationally (Turkish Airlines Annual Report, 2021). Interviewees stated that having an MRO provides a cost advantage for aircraft on the ground compared to its competitors.

During the COVID-19 crisis, the shipping industry experienced a shortage of containers. This negatively affected the shipping industry in carrying freight or cargo via sea transportation and increasing demand for air transportation (Brett, 2021). On the other hand, the suspension of passenger flights caused a decrease in the total air cargo capacity supplied (Philip, 2021). Besides the continuity of the supply chain, the urgent need to transport medical supplies has increased the importance of air cargo. Airline companies, which had to suspend their flights within COVID-19 restrictions, responded to this situation by arranging their passenger planes for cargo transportation (Horton, 2020). Pegasus Airlines, a leading low-cost carrier of Turkey, carried cargo in the cabin and belly-hold of a passenger airplane (Pegasus Airlines Flypgs, 2020b; Harry, 2020).

Turkish Airlines is one of the first companies to start carrying cargo with passenger planes and cargo planes. When passenger flights were completely cut off, Turkish Airlines assigned 50 wide-body passenger planes to cargo operation. At that time, Turkish Cargo managed to differentiate itself positively from its competitors in cargo transported and revenue generated. The company has become the 6th largest air cargo carrier globally, with 1.5 million tons of cargo volume and a 4.7% market share in the global cargo market in 2020. This enabled the company to compensate for a significant part of the loss caused by the passenger flight suspension. In addition, the company managed the crisis without financial support from the government and with no layoffs (Turkish Airlines Annual Report, 2021). The interviewees attributed the effectiveness of the company in crisis management, especially its success in the air cargo market, to be an agile organization that has a network of teams capable of quick learning and making decisions in a short period (Brosseau et al., 2019). In addition, effective coordination and working with other stakeholders and business partners, especially with government agencies, have been shown among the factors contributing to crisis management. In particular, the positive

approach of government agencies to the company's requests, effective decision-making mechanism, and quick response to the company's demand have been emphasized in terms of this coordination. Besides, the managerial skills and practices were highlighted as the core elements of effective crisis management. As a managerial practice, the company met increased workforce need on the cargo side from other departments of the company.

On the other hand, with the increasing demand on the cargo side, the flag carrier airline gave particular importance to the management and organization of the cargo business. Firstly, revenue management is reorganized to be represented at the upper managerial level. Thus, it became possible to manage the revenue effectively under a single roof. Many regional sales offices were established for effective cargo marketing. Furthermore, the company hired foreign managers to create diversity in decision teams. For the cargo capacity of the airplanes to be used effectively, practices such as deferred transportation and fines were applied to the agencies that did not use the reserved capacity or were unable to present shipment on time.

Moreover, the company's strengths on the cargo side were used effectively. The low rate of pre-contracted cargo (less block space agreement with freight forwarders), wide flight network, geographical location of the company's cargo base, and experienced cargo management teams were highlighted as the company's internal capabilities by interviewees.

The practices mentioned above of airline companies can be broadly classified as follows within the framework of pre-emptive, protective, exploitive, and corrective maneuvers that Evans (1991) put forward as components of organizational flexibility:

First of all, practices of airline companies such as holding COVID-19 information meetings, converting and reorganizing passenger planes for cargo transportation, and following the latest developments regarding the disease can be considered preventive maneuvers because they indicate proactive approaches of airline companies to be prepared for the undesirable situation.

Second, compliance with regulatory agencies' health and safety requirements, various cost reduction, saving strategies, alternately utilization of airplanes, and practices to

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reduce COVID-19 transmission can be classified as protective maneuvers, as airlines' practices stay in a safe zone. Thirdly, the practices of airlines such as organizing the cargo unit as a separate company, establishing regional cargo sales offices, establishing facilities that meet the storage requirements of special cargo can be categorized as exploitative maneuvers as they point to get more shares from the growing cargo market. Lastly, the practices of airline companies, such as reviewing fleet plans and canceling some orders, reorganizing revenue management, changing the amount of hedged oil according to the market situation, quarantining personnel infected with COVID-19, can be considered as corrective maneuvers as they are practices to eliminate the negativities they encounter.

Based on the research findings, it can be reasonable to conclude that the basic capabilities that play an important role in organizational flexibility are organizational culture and managerial practices. Turkey has a collectivist culture. Collectivist culture is characterized by members' greater commitment to their organizations (Hofstede, 1984). As members of such culture, employees of airline companies in Turkey prioritized organizational purposes by accepting wage cuts and flexible working in different units during the crisis period. In addition, such sacrifices for organizational goals contributed to effective coordination and quick implementation of decisions.

5 Conclusion

COVID-19 pandemic has posed an unprecedented risk for airlines. Airline companies designed various strategies to deal with these uncertain times. By focusing on organizational flexibility dimensions, in this study, we investigated responses of airline companies operating in the Turkish Civil Aviation Industry to COVID-19. We have shown that airlines in Turkey manage the COVID-19 crisis with pre-emptive, protective, exploitative, and corrective maneuvers as organizational flexibility components. These maneuvers, in particular, enabled the flag carrier airline to manage the crisis without layoffs, downsizing, and without government financial support, as well as significantly increasing its share in the cargo market.

Although the COVID-19 pandemic has caused similar challenges for airline companies, airlines responded to the crisis with different strategies. In this study, we have shown that organizational culture and managerial practices are the two most important capabilities that influence the strategy of Turkey's airline companies, particularly the flag carrier airline, in managing the COVID-19 pandemic. As a source of motivation for cooperation and common goals, the collectivist culture has enabled the employees of airline companies in Turkey to work effectively for the company's future. This result demonstrated the importance of developing a collaborative culture for companies to respond effectively to crises.

Analysis of secondary data sources and in-depth interview methods enable us to obtain meaningful results in the study. However, this study has some limitations. In this study, we interviewed five experts from different airline companies. Interviewing more experts may allow different perspectives to be reflected in the study. Thus, it may be possible to learn more specific practices related to the management of COVID-19. In addition, as the impact of COVID-19 continues, airline companies may have to take new measures and implement different strategies. This study includes the practices of airline companies for a certain period of COVID-19.

This study suggests research topics for future studies. Examining the effects of the elements of culture on the components of organizational flexibility will make important contributions to the airline flexibility during the crisis. In addition, the effectiveness of flexibility dimensions and their sub-elements in the management of the crisis caused by COVID-19 can be investigated using quantitative methods. Lastly, this study was focused on airline companies in Turkey. Similarly, the actions taken by various airline companies against COVID-19 in different countries can be compared within the framework of organizational flexibility components.

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