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## The importance of aviation safety in terms of human resources management in air cargo transportation

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### Abstract

As a result of globalization, rapid technological advancement, and intensifying rivalry, the expectations of businesses and customers have altered in the current environment. Air cargo transportation, which has become a crucial component of the global supply chain because it enables countries to use outsourcing in the production process and allows both multinational and small businesses to participate in the process, has a shorter product life, enables reliable and quick delivery, and has the most advanced technological infrastructure. This allows these requirements to be met. Although air logistics plays a relatively limited role in the logistics sector, it is crucial for businesses due to its efficiency in international trade and modern logistics operations, as well as its role in the reliable transfer of mostly high-value or perishable goods. Manufacturers prefer rapid, safe, and dependable transportation services to meet the demand for quick and dependable delivery from consumers. Currently, air cargo offers significant competitive advantages on both the global and local markets. For these reasons, despite being the most expensive form of transportation, it is the most preferred mode of travel. These changes in the aviation industry have also heightened market competition to a critical level. In this scenario, airline firms will only be able to survive and maintain a competitive advantage if they establish and maintain human resources strategies that enable them to retain their competent personnel. Based on this setting, the purpose of this study is to investigate the significance of aviation safety in terms of human resource management in air freight transportation by analyzing it in the context of the relevant literature. It is anticipated that the findings would contribute to the aviation sector and business management literature.

**Keywords:** Air cargo transportation, Aviation safety, Human resources management, Business management

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## **INTRODUCTION**

Globalization, information and technological advancements, the shift from an industrial society to an information society, transitioning from industrial society to information society, liberalization and liberalization have all contributed to the creation of an intensely competitive environment for businesses operating on a global scale (Dictionary of Aviation, 2019). This environment affects the air cargo transportation sector in our country as well as everywhere else in the world. It is now exceedingly difficult to acquire a competitive advantage in the modern-day air transport industry, which is characterized by constant and unavoidable change. It is now much more difficult to maintain a competitive edge in a sustainable fashion in this context of intense competition, which has been generated by all of these advances. Gaining a competitive advantage in this environment was previously much easier.

The shifting environmental conditions brought on by globalization, the emergence of increasingly complex problems, and the adoption of novel management and business practices have made it necessary for contemporary companies to address their Human Resources (HR) concerns from a strategic point of view.

As a result of adopting a more strategic approach to Human Resource Management (HRM), the department has transformed into a more powerful central unit, which now provides more effective communication environments to the organization's internal units and individuals and develops specialized techniques as part of the process of working toward achieving its objectives. This contrasts with the traditional HR structure, which only provides limited narrow-scale expertise. In this context, it is asserted that human resources (HR), which provides a competitive advantage over its competitors, deals with the strategic dimension, acquires, and retains human resources that are compatible with market-oriented competitive strategies, and develops strategies that will carry their talents and performances to high levels with continuous training programs, thereby revealing a sustainable competitive advantage.

Therefore, the function of strategic human resource management in the effectiveness of organizations is that it contributes value to the extent that HRM strategies are put into action. As a result, it is essential to stress that HRM in the aviation industry can attain a

sustained competitive advantage if it accords the appropriate amount of significance and sensitivity to these tactics.

A record number of aircraft were produced as a direct result of the actions taken to liberalize the civil aviation industry and the opening of the aviation industry to the private sector, both of which led to an increase in the level of competition. According to the annual report of the General Directorate of Civil Aviation in 2021, the number of aircraft that were registered in Turkey increased by 219.1 percent, going from 162 in 2003, when liberalization in Turkey first started, to 517 in 2021. This represents an increase of 219.1 percent. According to the data provided by the DGCA in 2021, the cargo capacity of aircraft with Turkish registration rose from 302 thousand 737 kilograms (kg) fourteen years ago to 1 million 866 thousand 450 kg, representing an increase of 516.5 percent. This is in comparison to the previous figure, which was 302 thousand 737 kg. The aviation business in Turkey has seen tremendous expansion over the course of the past 15 years, as evidenced by an increase in the country's total cargo capacity as well as the number of aircraft in operation. Today, airline carriers are returning to the cargo market as a result of the intensifying rivalry brought on by the growing number of planes, the gradual decline in profits brought on by the growth of the passenger market over time, and the saturation of the market with demand for passengers. This shift that has taken place over the course of the past several years has also caused the level of competitiveness in the cargo industry, which has become more essential, to reach a threshold that is critical. In this regard, a study was carried out based on the idea that "the sustainable continuance of airline firms in the air cargo sector, as in other sectors, can only be possible with the establishment of an effective strategy HRM." This study was carried out in this direction. Considering this background information, the purpose of this study is to investigate the significance of aviation safety in relation to the management of human resources involved in air cargo transportation. This will be done by analyzing the topic within the context of the relevant body of literature. It is anticipated that the findings of the research will contribute to the existing body of literature on the field of business management as well as the aviation industry.

## **LITERATURE REVIEW**

### **Aviation Industry Worldwide**

In comparison to other transportation industries, the aviation industry is rather young, having only been around for about a century. Despite this, it has made enormous advancements in that time, cutting travel times from days to even months to just a few hours. In Turkey, pre-flight, in-flight, and post-flight services provided by airline companies have transformed how people perceive air travel. Air travel now has a different meaning than just a method of transportation.

Afer COVID-19 pandemic around 3.2 billion people use air travel yearly, according to figures from the International Civil Aviation Organization (ICAO). This sum equates to nearly half of the world's population when measured against the total population. Regional analysis reveals that the USA, with 650 million passengers, and China, with 350 million passengers, account for nearly one-third of all passengers worldwide. Once more, according to projections from the International Civil Aviation Organization, there would be 6.4 billion passengers globally in 2030. 33 million flights are scheduled globally in this industry, which grows at an average yearly rate of 5%. It is noted that the expansion in foreign trade has resulted to a 5.9% increase in scheduled passenger traffic. The amount of air travel has increased by 6.2% yearly during the past five years. Along with the expansion of the middle class in developing nations and the rise in living standards, the technological and economic advancements in the airline industry, the decline in ticket prices, the growth of local and international tourism, and the rise in consumer spending on air travel in developed economies. Demand for airlines has grown and will continue to grow. Air traffic is predicted to increase by an average of 4.1% in the next ten years and 4.9% on average during the next twenty years, despite some regions expecting downward revisions. Because it will eventually slow once the aviation industry reaches a particular stage of development, the predicted growth in the second decade will differ from the expected growth in the first decade (ICAO, 2014: 1; ICAO, 2021; Boeing, 2018: 7; Airbus, 2018: 22).

Despite the external shocks the business has suffered, the airline industry has proven time and time again how resilient it is to such shocks and has continued to uphold its

structure throughout time. The expansion of international trade has a major impact on the sector's growth. The global passenger load factor stands at 79.2% thanks to the combined efforts of airline businesses and aircraft building industries. This percentage is 81.7% in the domestic US market, the airline industry's most developed region (IATA, 2015; IATA, 2017). According to estimates, the Middle East and Asia-Pacific region would have the fastest-growing aviation market in 2036, with 6% growth, followed by Latin America with 5.2%, Africa with 4.9%, Europe and the CIS with 3.6%, and Latin America with 5.2%. According to predictions, North America will come in fourth with 2.7% and fifth with 2.7%.

### **Industry in Turkish Aviation Business Management**

Developments in the aviation sector are one of the other elements affecting the Turkish aviation business, in addition to Turkey's geographic and tourism attractions. Turkey serves as a bridge between the East and the West in addition to being a popular tourist destination, making it a hub for both domestic flights and international connections within Turkey. The opening of the Istanbul New Airport on October 29, 2018 gave the Turkish aviation sector not only the largest airport in the world but also a key location for the growth of the civil aviation sector. The largest airport in the world, Istanbul New Airport, is expected to handle 100 million people a year.

In Turkey, there are 54 airports that are accessible for commercial air travel. The State Airports Authority is the largest operator in terms of the number of airports it operates (DHMI). Airports like Istanbul, Antalya, Sabiha Gökçen, Esenboğa, and Adnan Menderes, where terminal investments are made and operated by the private sector, accommodate 74% of the annual total number of passengers (DHM, 2021).

According to the World Health Organization's instructions, governments restricted air travel first, then closed their borders and halted most of their aircraft activity to prevent the new coronavirus COVID-19, which affected the entire world in 2020, from spreading. Year-End Evaluations for ICAO 2020 1.8 billion passengers traveled internationally in 2020, down from 2.7 billion, or 60%, according to figures released by the International Civil Aviation Organization (ICAO). The number of seats offered by airlines has dropped by 50%. (UTIKAD, 2020).

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Beginning with flights from China on February 5, 2020, all international flights were progressively suspended because of the COVID-19 outbreak in Turkey. On March 27, 2020, all domestic flights were suspended as of April 3, 2020. The Aviation Sector is significantly impacted by the crises because of its structure. Consumers typically forego travel (particularly by air) during a crisis and focus instead on their most fundamental necessities. The aviation sector has seen phases of contraction and stagnation in recent years because of crises like the Gulf Wars, the 2008 Global Crisis, SARS, MERS, and the attack on the World Trade Center in the USA. However, none of these disasters had the same impact on civil aviation as COVID-19 (Akca, 2020).

### **Organizations that Operate Air Cargo Transportation**

Internationalization of air travel dates to its inception. The characteristics of air transportation's internationalization became increasingly obvious in the 1980s because of the growth of interdependence and collaboration among international air travel as well as the emergence of multinational carriers. The goal of internationalization is to guarantee that any passenger, commodities, or mail is delivered from any location in the world to any desired location at any time in a manner that is cozy, secure, affordable, and dependable.

Four categories can be used to group air cargo firms. The first of them are businesses that primarily transport people while also transporting cargo in areas of the airplane where there is still room for passenger belongings. Pure air cargo enterprises that use airplanes exclusively for cargo delivery come in second. Combination airlines, which use only aircraft intended to carry both passengers and cargo, are in third position. There are cargo businesses, sometimes known as express or parcel-mail carrier airplanes, that provide door-to-door long-distance integrated express transportation (Gerede, 2012, 95). These air cargo business models are briefly described as follows by Maynard et al. in 2015:

Airlines that carry passengers: Airlines that transport passengers use the remaining space in the fuselage of the current aircraft to transport cargo after loading passenger-related things such as passengers, luggage, food, beverages, and corporate supplies. Passenger airlines can fly to a variety of locations frequently, which is their major advantage. However, it is unfavorable for them to have size restrictions on the cargo they accept due to integrated services, cargo doors, cargo capacity, and airframe limitations. Airlines that transfer passengers often do so from airport to airport. The sender leaves the cargo at a warehouse at the airport of origin, and the cargo customer or its agent, the freight forwarder, picks it up at the airport of destination. Airlines that fly passengers, like American, Delta, and United, also transport freight in the fuselage.

**All cargo transporters:** Airport-to-airport air cargo and freight services are operated by all cargo carriers that provide scheduled services to significant markets across the world using wide-body or containerized cargo aircraft, but not passenger service. All cargo airlines do scheduled flights for carriers with which they have agreements, but they can also conduct charter flights for other airlines (Worldbank, 2009:18). To all cargo carriers, MNG Cargo, Polar Air Cargo, Atlas Air, Kalitta Air Cargo, etc. One can use businesses as an example. Additionally, some significant airline corporations operate their whole fleet of cargo subsidiaries in their home markets. These include China Cargo Airlines, a subsidiary of China Eastern Airlines, Nippon Cargo, a subsidiary of All Nippon Airline (ANA), and Lufthansa Cargo, a subsidiary of Lufthansa (Zhang and Zhang, 2002:185). Both Pegasus Airlines and Turkish Airlines have air cargo transportation companies in Turkey under the names Pegasus Cargo and Turkish Cargo, respectively.

**Combination carriers:** These are transport companies that operate both passenger and cargo aircraft in their fleet. Combination aircraft are frequently mistaken for a type of aircraft that transports both passengers and cargo on the main deck of the aircraft, but these are aircraft that can transport either passengers or cargo and have a quickly reconfigurable bulkhead in the cabin for both uses simultaneously. These hybrid aircraft frequently have an extra-large cargo door and tools for swiftly adding or removing seats from the cabin floor.

**Integrated express carriers (FedEx, UPS, DHL):** Integrated express carriers provide shipment collection, air/truck handling, and delivery to transfer customers' goods from door to door. These businesses offer documents and small items weighing between 1 kilogram and 30 kg in a very quick and flexible manner. Integrated express carriers have begun to transport loads more than 30 kg over time.

#### **FEATURES AND AREAS OF STRATEGIC HUMAN RESOURCE MANAGEMENT ACTIVITY**

A strategic vision of the function of human resources management has resulted from an appreciation of the true value of businesses' human assets and the fact that the unique abilities that organizations require do not exist by themselves and require incentives (Hindle, 2008). At this stage, it is possible to define human resource management as a strategic, unified strategy created for the efficient administration of an organization's most precious resource: its employees. Human resource management's ability to help individuals grow and perform at a high level helps the organization succeed, which depends on the success of each employee individually. However, human resources management, which hinders progress, has negative effects on the entire firm (Barutçugil, 2004). As a result, in the strategic human resources management method, the effectiveness of the organization's strategic management and the effectiveness of human resources management are closely intertwined. Focusing on the market, the future, abilities, and differences is typically highlighted in the strategic human resources management strategy.

Create a connection between the organization's strategy and the needs of the customer. Human resources are the ones who will innovate and make the strategic choices that will set the product apart, or, in other words, who will track and study the market and maintain positive relationships with customers. As a result, human resources should choose employees who are in line with the company's strategy and target audience, assign them to key positions, keep them on board, and create externally integrated human resources plans (Barutçugil, 2004). By offering vertical integration, where the link between human resources and human resources is developed, and horizontal integration across the functions of human resources management, it aims to achieve



strategic dominance. In the future, an organization's human resources management will pursue a differentiation strategy when it enters a new market. In order to do this, strategy will design its own plans, plan the amount of people and qualifications necessary for the strategy, locate the right candidates, develop them in line with the organization's strategy, and work to keep them on board. Ideas are at the heart of strategic management. Difficult concerns about the future of labor are being sought after for answers. Therefore, it is crucial for managers to be able to think strategically and act accordingly (Betz, 2010). Managers who can think analytically and make analytical analyses, as well as who are creative and have varied mindsets, produce good results and provide the firm a competitive advantage. Training and developing managers who can effectively make strategic decisions and implement them in businesses is crucial for this reason. In order to be sustainable, multinational corporations and businesses that offer services to all parts of the world, like those in the aviation industry, must address these issues, make improvements, and turn them into competitive advantages on a worldwide scale. The idea of "diversity management," which was developed in order to make this problem beneficial for both sides, views workforce diversity as an organizational asset that may give businesses a significant competitive edge (Tozkoparan & Vatansever, 2011). The first step in managing differences is to accept and value individuals for who they are, regardless of how similar or different they may be from you.

Human resource planning is a procedure used by managers to ensure that they have a workforce that can perform the proper amount and quality of work at the right time, in the right location, effectively, and efficiently, as well as support the organization's goals. By providing the foundation for human resource planning of the company's mission and goals, human resource planning aids the organization in achieving its goals. Future human resource requirements must be identified in this process, and a strategy must be developed to satisfy those requirements. Usually starting with an inventory of human resources, managers first assess the status of the available human resources (Robbins, Decenzo, & Coulter, 2013). The workforce inventory is a crucial step in ensuring that the new and changed jobs, as well as the personnel who will do them, are compatible with the chosen strategy. Job analysis and job descriptions are additional

steps. Job analysis is a method of gathering thorough data on jobs. This strategy allows for the identification of positions, the tasks and obligations associated with them, business practices, working circumstances, necessary qualifications, etc. Information that is pertinent is gathered. Work descriptions and job requirements are documents that summarize the extensive material collected at the conclusion of this investigation. A written description of the job that aids in human resource planning is called a job description. Future human resource requirements are established in accordance with the organization's strategic orientation. The demand for the organization's goods and services leads to a demand for human resources. Managers can forecast quantitative and qualitative deficits or surpluses once the current workforce and future demands have been determined. It can formulate a strategy by comparing these projections with the anticipated labor supply. Human resource planning is future-focused since it not only helps determine the present workforce demands, but also forecasts the future workforce requirements and its availability.

The choice of workers is crucial to the organization's strategic management performance. Because employee performance affects the performance of the organization (Erdut, 2002). Finding candidates with the desired qualifications and developing a candidate pool, choosing the best candidate for the organization's strategy and the job's requirements, using various techniques from this pool, placing the chosen candidate in the position, and acclimating them to the company are crucial steps for the organization's future. The most crucial resources that will determine the organization's future course and offer it a competitive edge are the hired candidates. Making sure qualified personnel stay in the organization is one of the most important jobs of human resources management. It takes time and money to replace a departing employee, especially a management. Additionally, the information, experience, and network that a departing employee brings with him might result in substantial losses for the company (Barutçugil, 2004). It is widely acknowledged that employees' productivity, ease of strategy implementation, and level of personal satisfaction all increase with increased commitment to their jobs (Kourdi, 2012). But it's challenging to get people to go beyond feeling content and inspired to showing loyalty, dedication, and commitment to their jobs. Especially in the aviation business, it is challenging to raise the dedication of

workers who must combine physical, mental, and emotional labor. Therefore, efficient methods ought to be applied. The working customer profit chain and the three-factor theory are two examples of these strategies. Employee loyalty is explained in two ways by the employee customer profit chain. Because his work satisfies his financial, professional, and personal development objectives, an employee may have a rational commitment or an emotional attachment to the company. Traditional ways can motivate rationalists, but in order to be motivated by emotional attachments, one must look beyond these methods. Employees that have a strong emotional connection to the company desire to actively value, enjoy, and believe in their work in addition to feeling happy with it. The most precious asset of a corporation is its workforce. These people advance to the highest levels in their professions. This chain claims that what has to be done is to assist and motivate this group to put more effort into their work, which will be to everyone's advantage. Contrarily, the three-factor approach is predicated on the idea that employees have fundamental wants that they must make an effort to satisfy (Kourdi, 2012). Employee satisfaction and enthusiasm are increased by providing an atmosphere that satisfies these criteria. These needs revolve around three primary concepts: doing justice, feeling respected, and cooperating. Fairness is about expecting equal treatment under all workplace circumstances, including physiological, financial, and psychological ones. Being proud of completing key tasks successfully and receiving praise for them is a sign that you are respected. On the other hand, collaboration is about employees' desire for friendly, interesting, and collaborative connections at work. These methods suggest that in order to boost employee engagement, all managers—not just human resources managers—should take these important factors into account.

## **STRATEGIC HUMAN RESOURCES MANAGEMENT IN THE AVIATION INDUSTRY: POSITION AND IMPORTANCE**

Due to the increasing diversity of the workforce, the size and complexity of businesses, the absolute and relative increases in labor costs, the intensification and globalization of competition, the individualization of HRM issues, and the structural changes in the labor market, HRM must develop strategic decisions and practices in these areas. Globalization, technological advancements, the shift from an industrial to an

information society, liberalization, and other factors that affect the aviation sector as well as other sectors have all had a significant impact on the industry, creating a highly competitive environment for businesses on a global scale (Wilson, 2005:2-3).

The "Golden Period" of aviation is referred to be the years between 1940 and 1960, when the states made significant financial investments in the aviation sector (Benligiray & Kurt, 2016:358). Although the governments claim that the primary goal of these contributions is to raise the worldwide stature of the nations all of these investments are being made to raise the efficiency and capability of the states' armed forces. In the decades that followed the Second World War, civil aviation underwent a significant technological advancement. Aerial vehicles are becoming much more mobile. As a result, successive new aircraft models have been developed in most developed nations. As a result, states have decided to support the aviation industry to advance civil aviation. Thus, the choices made not only merged the aircraft and engine industries, but also significantly aided in the development of skilled engineers, technicians, and pilots.

The "Human Factor Period" in aviation is defined as 1960 to 1979 (Benligiray & Kurt, 2016:358). The long-distance passenger and freight transportation by aircraft has faced significant challenges during the human factor age of aviation. The development of air travel was greatly aided by the ability of the aircraft built at this time to land and take off on short-haul runways (Richter & Koch, 2004). Inadequate safety and control procedures have contributed to aviation mishaps as air travel has grown in popularity. The belief that flying is risky and unsafe relative to other transportation systems has gained popularity because of the mishaps and massacres that have occurred. Thus, the idea that aviation accidents can be decreased with the implementation of regulatory and preventive research has emerged because of the analysis of human-induced technical and piloting errors caused by accidents and crashes.

The years between 1980 and 1990 are referred to as the "Embryo Period" of aviation because they saw the beginning of the traditional worker-employer relationship, the implementation of liberalization and liberalization policies, and the elimination of a monopolistic structure in air transport. So, rather than a system in which only the traditional airlines are the flag carriers, it represents a market in which flag carriers and

private airlines are involved in the system and a totally competitive atmosphere is created. This shows that the aviation sector is headed for a highly competitive climate (Roughton & Mercurio, 2002).

Liberalization is the first of the two primary causes of the escalating competitiveness (Benligiray & Kurt, 2016, 358). Deregulation is a key liberalization term; it refers to the situation of having less or no government regulation in a particular industry. Therefore, in the aviation industry, where competition is growing, with fewer and simpler regulatory regulations, both the service quality and pricing will be improved. As a result, from being an industry that does not regard working persons, all these advances that boost competitiveness in the aviation sector have led to the birth of an industry that values personnel and is sensitive to the workforce. All these changes have also had significant effects on labor-management relations, including part-time jobs and layoffs. The Low-Cost Airline (LCC), which has formed under rising price pressure, is another reason causing the rivalry to become more intense. Due to their reduced operating costs than traditional airlines, LCCs have risen to prominence in numerous fields. As a result, the low wages required by LCCs have altered how the aviation sector views competition (Wilson, 2005, 6). LCCs value human resource management more than traditional airlines, according to Gillen (2008).

In aviation, the 2000s were known as the "Talent Wars Era" because to 9/11-related crises and intense competition. The crises, which caused the air transport sector to contract by about 20 percent, led to a reduction in training expenses and layoffs. Therefore, the aviation industry's contraction damaged aviation education institutes and lowered the number of workers holding aviation licenses. According to Harvey and Turnbull (2002), airlines reduce their capacity during economic downturns. Consequently, as usual, this circumstance also results in significant employment losses.

Today, because of the recovery and acceleration of the aviation industry, the demand for competent and qualified engineers, technicians, and pilots has surged, making it impossible to meet this demand. This circumstance in the aviation business has prompted LCCs to transfer their competent and skilled people from other airlines at extravagant costs, particularly through talent hunting. Consequently, many airlines

consider LCCs as thieves. This situation has raised the question of gentleman's agreements among airlines (Benligiray & Kurt, 2016:358). In 2015, for instance, Gozen Aviation and THY inked a gentleman's agreement to restrict employee transfer. This problem can be attributed to the recent increase in the number of staff transferred from Gozen Aviation to THY. Thus, the transfer of Gozen-trained workers to THY, which provides superior conditions, was halted. It is stated in the fourth paragraph of the circular on personnel transitions in the aviation sector published by DGCA on 28.12.2015 (SHGM SHT - SMS, 2015):

Due to the transfer (circulation) of flight crews during the months of April-May-June-July-August, when the number of flights is high, the flying duty and rest time limits are violated by exceeding them.

It has been determined that during these busy months in the aviation industry of our nation, where there is a lack of flight crew, the crews are unable to benefit from that crew for a period due to the training they must do to begin working in another firm. It has been determined that it negatively impacts flight safety (Robson et al., 2009).

With this Circular, airline operators must take the required steps prior to the peak season to ensure that crew planning is conducted within the framework of schedule and number of aircraft planning, while also taking into consideration unforeseen circumstances. personnel are barred from transferring to other airlines in April-May-June-July-August, except for force majeure.

Almost every month, more than 100 aircraft are purchased around the world for use in air transportation. For each aircraft, at least 10 to 12 new pilots must be hired, and appropriate training procedures must be implemented (Brugge et al., 2015:1). As in other businesses, the demand for professional and skilled human resources remains a valuable precious resource in the aviation industry.

In 1978, the "Airline Deregulation Act" was passed in the United States, initiating the sector's initial deregulation. Later, similar patterns were observed in Europe, South America, and Canada. With the opening of the Turkish civil aviation industry to competition, the number of aircraft increased by 34.3% from 385 in 2013 to 517 in

2017. While roughly 65,000 employees were engaged in the sector in 2003, this number climbed 191,709 with an increase of 194.9% in 2021 (definitive data on both personnel and sector turnover for 2022 will be reached in May 2023) (definitive data on both personnel and sector turnover for 2022 will be reached in May 2023). In addition, the sector's revenue, which was 3.6 billion TL in 2003, climbed by 2195.4% between 2003 and 2016 to reach 70.24 billion TL (SHGM, 2021). Thus, both the competitiveness of the Turkish civil aviation sector has increased, and the economic and social development process of the country has quickened. In addition, with the implementation of the Civil Aviation Law No. 2920, a rapid, dependable, and technologically advanced air transport system has been established.

There are twelve airlines active in the Turkish civil aviation sector, four of which operate cargo aircraft. The number of aircraft owned by airline firms increased by 219.1% between 2003 and 2021, from 162 to 517. While the fleet's total seat capacity is 97,500, cargo aircraft have a capacity of 1,866,450 kilograms.

All these changes in the aviation industry have made it imperative for firms to manage all processes in a strategic manner. Therefore, all companies in the aviation industry must demonstrate a sustainable competitive advantage by developing strategies that will raise their talents and performances to a high level through continuous training programs and by acquiring and retaining human resources that are compatible with market-oriented competitive strategies. In addition, the most precious resource that cannot be imitated and will give value to an organization's strategic management is human capital (Yüksel, 2021). Consequently, HR, which is an integral part of organizational strategies, can provide a competitive advantage by generating value for other organizations through effective HRM practices. Examining the benefits that competition brings to the aviation industry reveals that airlines have reaped benefits such as increased efficiency and productivity, a greater emphasis on the concepts of competence and talent, and the hiring of foreign managers, teams, and personnel. Based on this interpretation, he asserted that the airline business, which services a vast market network, and other airline companies that share the same market network should place a premium on high quality, dependability, and safety to maintain their competitive edge.

Additionally, he asserted that airline personnel play a significant role in revealing these values (Küçükonal & Korul, 2009). Therefore, the strategic function of strategic human resource management is vital to the aviation industry's competitive edge.

## **DISCUSSIONS AND CONCLUSION**

It is an important system consisting of the subject of activity, public and private institutions and organizations that carry out the activity, high-tech vehicles and equipment used, special infrastructure and communication systems, qualified human resources, people served, rules and legislation with national and international characteristics. The airline transportation sector is an important sub-sector of the transportation sector. None of the critical components in this system are "human," despite the fact that there are numerous important economic, technological, and information-based factors involved. The human being is the most important component of this sector, as it is impossible for the industry to function without them. Any errors made in the administration of the essential component would result in disastrous outcomes (Wilkinson, Lepak, Snell, & Bacon, 2019).

For airline companies, human resources are crucial. When looking at aircraft accidents, it is clear that a significant portion of them (between 70 and 80 percent) include human error. One of the first actions to be made to prevent the same type of accidents is to recognize human-induced accidents and massacres and establish corrective procedures. The pilot, technician, air traffic controller, maintenance, radar operator, and engineer—the human factors that can cause the accident—are therefore the factors that can lower the probability of an accident. It is a well-trained, equipped, competent, and professional human element that will help to eliminate these problems as training will be given with effective strategic HR practices. Nearly all potential accidents, massacres, and attacks that may affect aviation operations and security may be human induced. In aviation, even the smallest act of carelessness can result in tragedies and massacres that claim hundreds of lives. Additionally, an airline that has been associated with tragedies like accidents and murders is made whole by using standard HR procedures; but, substantial reputational damage, market losses, and sustained competition are nearly impossible to reverse. Particularly licensed professionals who are crucial to the execution of the flight



and operation include air traffic controllers, mechanics, radar operators, aircraft technicians, dispatchers, and pilots. Strategic HRM should always exercise tact while carefully choosing, hiring, putting, developing, and supervising the individuals who will contribute to the enterprise's strategic points. (Amankwah-Amoah, 2020).

The only way for most airlines to survive in today's very competitive air cargo transportation market has been to implement an excellent HRM. According to Blyton (2001), the top airlines of today give a level of service that is comparable to one another, and the only aspect that can be used to demonstrate a competitive edge for airlines is the workforce that delivers the service component. He therefore stressed the value of human resources rather than procedures, items, or equipment that represent fundamental competency by pointing out this difference instead (Wilson, 2005:8).

The following organizations, in addition to the airlines involved in passenger transportation, significantly contributed to the successful completion of the operation: ramp services (such as aircraft parking on the apron, passenger, baggage, and cargo loading and unloading, and other services required on the apron), passenger services, operations, cargo, catering, fuel operations, line maintenance, terminal, transportation, aircraft private security, surveillance – organization. (Adedoyin and others, 2020). Therefore, every employee who is assigned to work at the airport must ensure a safe and secure operation; During the flight operation, it takes a direct part in welcoming the aircraft, parking it, opening the door, disembarking and unloading the passengers, loading and unloading the fuel and luggage, providing cleaning and catering services, ensuring passenger satisfaction, and safely taking off and flying the aircraft.

In the aviation industry, it is anticipated that airplanes will operate continually. A non-flying fleet is losing every minute. As a result, fleet planning is crucial for airline firms. Particularly, factors like technology levels, number, capacities, flight networks, ground services, R&D costs of the aircraft in an airline's fleet, an indicator of their assets, and newly planned routes by the businesses can result in significant costs when the strategic HRM makes decisions regarding fleet planning. For instance, in a strategic HRM decision to pull an airline out of a loss-making market; the question of how the aircraft will be evaluated in which market; or on a territory it will take four years in advance at

the point of fleet planning to enter a market that it believes will provide high profits; It is necessary to have the expertise and equipment to answer all these crucial questions, such as to what extent the aircraft order to be given will meet the needs of that region. It should not be forgotten that making the wrong choice can result in significant expenditures. Because the rise of high costs would impact sustained competition, strategic HRM competency is crucial to the formulation and execution of strategic decisions. To put it another way, what competitive strategy should be used for low profitability markets—downsizing, merger, integration, retreat, liquidation, purchase—and which new, highly profitable markets to enter? should be used, or is it a plan for collaboration (Ekici, Orhan, Gümüş, & Bahce, 2022). Therefore, it is the organization's human resources that will look for answers to such crucial questions, throw light on the organization's future with strategies that will assure sustainability in the face of competition, and put plans and policies into action. Given all this information, it is evident that he places a strong emphasis on the role that strategic HRM plays in giving one of the airline companies—air cargo—a competitive edge.

The environment in which airlines operate is both dynamic and complicated, and they are subject to a wide range of forces. Globalization, policies of liberalization, technical improvements, an increase in customers' quality expectations, terrorist threat, and increased security are among the most important of these effects. In addition to all of these consequences, the economic repercussions brought about by the tight dependence of businesses in the sector on both the conditions of the surrounding environment and on one another should be added. The influence of competition is the most significant of these factors. Taking a strategic approach to managing one's human resources is necessary in order to achieve a lasting competitive advantage in the conditions that exist today (Kankaew, 2022). Gaining a competitive advantage is extremely difficult without having strong management and adequate human resources. In the field of civil aviation, human resources are connected, either directly or indirectly, to all of the processes that a company goes through; as a result, these resources are of the utmost significance for an organization to acquire and keep a competitive edge. The application of market concepts to different types of business organizations is the fundamental tenet upon

which strategic human resource management is founded (Eaton, 2017). As a result, market principles have largely replaced hierarchical structures in enterprises.

Integration of organizational strategy and human resources strategy is the means by which aviation companies can achieve sustainable competitive advantage despite operating in a market that is fraught with intense competition. This is possible on account of the fact that the aviation industry is highly competitive. Aviation organizations should have a focus on the future, harmonize the structure of the market and their policies regarding human resources, be able to train, develop, and keep the talents that will be needed in the future for the continuity of the organization, and be able to see the differences of their employees as a value and turn those differences into an advantage through management (Haerani ve diğerleri, 2020). Employees should not be viewed as an expense, but rather as a competitive asset and business partners that help drive the company forward. One of the most essential aspects that must be taken into account is the requirement that managers of human resources be located in close proximity to senior management and take part in making strategic choices. In this way, the employees of the business will be informed about the organization's future strategies, and the planning of the human resources that will be required to put those strategies into action can take place. A sustainable competitive advantage can be achieved by aviation organizations not only by providing products or services that are distinct from those provided by other organizations or by concentrating on cost, but also by having employees who are able to ensure the continuity of these services and develop them further. Because of this, airlines are required to implement a strategic approach to managing their human resources, as well as comprehend, adopt, and apply the principles of strategic human resource management.

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