

# Economic Sustainability of Air Transportation in Terms of Unfair Competition and Negative Externalities: Evidence from Turkish Commercial Law

Öner Gümüş<sup>1\*</sup>, Filiz Ekici<sup>2</sup>, Gamze Orhan<sup>3</sup>

<sup>1</sup> Kütahya Dumlupınar University, Accounting and Tax Department, 43300, Tavşanlı, Kütahya, Türkiye. (oner.gumus@dpu.edu.tr)

<sup>2</sup> Iğdır University, Department of Banking, Insurance and Finance, 76000, Iğdır, Türkiye. (filiz\_dasdemir@hotmail.com)

<sup>3</sup> Eskişehir Technical University, Department of Aviation Management, 26555, Eskişehir, Türkiye. (gozsoy@eskisehir.edu.tr)

## Article Info

Received: 25 July 2023

Revised: 03 October 2023

Accepted: 06 October 2023

Published Online: 09 October 2023

### Keywords:

Air transportation

Sustainability

Externality

Theory of public finance

Unfair competition

Comparison

Corresponding Author: Öner Gümüş

## RESEARCH ARTICLE

<https://doi.org/10.30518/jav.1332849>

## Abstract

Air transportation is a more advantageous form of transportation compared to other types of transportation. This is because it provides economic growth, place, and time benefits. However, the realization of the economic sustainability of these benefits may become difficult in certain cases. It is possible to express these situations as negative externalities in the theory of public finance. The solution to negative externalities lies in their internalization. Unfair competition is also a negative externality for air transport enterprises. One of the sanctions applied for the internalization of this negative externality is compensation. While material compensation can internalize externalities, moral compensation cannot fully compensate for externalities in a number of cases. Such a situation may constitute a violation of the rule that externalities will not be reflected in market prices. In order to understand whether such a rule violation actually occurred judicial decisions were examined using the comparison method in the study. The conclusion reached in the study is that in a few cases externalities are likely to be reflected in market prices and reveal a violation of a rule related to the theory of public finance. To ensure economic sustainability of air transportation, moral compensation decisions that have the potential not to reflect externalities to market prices must be fully determined.

## 1. Introduction

The air transportation sector, which is one of the most developed sectors thanks to globalization, is preferred because it is faster and safer than other transportation methods. The sector is also quite different compared to most sectors in terms of market structure and functioning. The fact that the demand for air transportation is derivative demand, the airline supply is constant compared to the high mobility in demand, and the fact that the market significantly provides competitive conditions makes the air transportation sector different from most other sectors (Çam, 2016). These differences are more clearly manifested in terms of economic growth, time, and place benefits. Therefore, these elements are mentioned in the first part.

In the theory of public finance, externalities may be in question for air transportation as in every field. These externalities can be treated as negative and positive externalities. In the theory of public finance, it is accepted that externalities are not reflected in market prices. This is because various solutions have been introduced for the internalization of these externalities. However, in a number of cases, it becomes controversial how sufficient the solutions to the externalities are. For example, when unfair competition is considered to be a negative externality, material and moral

compensation is ruled for its internalization. Therefore, it is accepted that negative externality is internalized. However, when moral compensation is not provided sufficiently as requested, it cannot be easily said that the damage suffered by the air transportation company is fully compensated. Such a situation means that externalities will be reflected in market prices. In other words, there is a contradiction to the theory of public finance. To determine whether such a violation would occur, the comparison method was used in law in the study and compensation decisions related to unfair competition were examined. Afterwards, the difference between the requested compensation and the compensation granted was mentioned and it was discussed whether externalities are reflected in market prices. While this discussion was being held, according to the comparison method, an answer was sought to the question as to what would happen if similar situations had happened in air transportation. In this context, externality, unfair competition, and the comparison method were mentioned respectively, and then a general assessment was made.

## 2. Why Air Transportation? Key Economic Benefits

Air transportation is a field that dates back to 1903, when the Wright brothers made the first successful motor flight and

is developing in parallel with technological advances (Anderson & Bowden, 2005; Pereira et al., 2022). Many developments following the Wright brothers' initiative have contributed to and guided today's air transportation. By 1909, Louis Bleriot had crossed the English Channel in a monoplane (Petrescu et al., 2017). After these early successes, air travel began to become a more comfortable and safer alternative to other travel options with the introduction of large, four-engine aircraft such as the Boeing 747 and the Douglas DC-3 in the 1930s (Geels, 2006: 1006; Frenken & Leydesdorff, 2000). When the competition between airline companies is added to this, there has been a significant increase in the number of people who prefer to travel by air (Gil & Kim, 2021). Air transportation has gone beyond being a popular mode of transportation used frequently by individuals to the point it has arrived at today. Today, a wide range of airline transportation from the insurance sector to tourism, from the agricultural sector to industry and the health sector is also part of the production process (Rosa, 2013; Hamaguchi, 2021; Huuskonen & Oksanen, 2018; Eren et al., 2020; Veldman et al., 2004).

Although air transportation has many advantages, it should be noted that there are a number of disadvantages. The advantages and disadvantages are summarized in Table 1.

**Table 1.** Advantages and disadvantages of airline transportation

Advantages	Disadvantages
Time saving; air transportation is the fastest transportation option today (Ali et al., 2023).	Contribution to environmental pollution and climate change; air transportation is an industry that has an undeniable share of greenhouse gas emissions (Dinc et al., 2022).
Accessibility; provides easy transportation from both big and small cities to all parts of the world (Papatheodorou, 2021).	Cost: Although there has been certain improvement due to increasing competition in recent periods, especially as the distance gets longer, air transportation is still not a choice that consumers of all budgets can reach (Elgin et al., 2017).
Safety and security; risks are minimized thanks to strict rules and controls applied on an international scale (Brangdon, 2011)	Infrastructure problem; the equipment needed for air transportation to take place is quite expensive (Jorge&de Rus, 2004).
Comfort: thanks to current technology, the quality of service has increased with services such as comfortable seats, additional services, and food and beverage facilities available on airplanes. (Mahapatra & Bellamkonda, 2023).	Security concerns; airports and airplanes, no matter how strict measures are taken, may be pushed to the background by potential consumers due to examples such as the 09/11 events (Sweet, 2008).

Sustainability issues affect the economic success of companies more than ever. This is because sustainability has become the driving force of both risks and opportunities in the business world (Schaltegger, 2011). This situation refers to the private sector leg of air transportation activities.

The essence of sustainable development is to meet the basic needs of humanity without inflicting violence on the natural life systems of the world. This idea was put forward in

the early 1980s and came out of a scientific deconstruction of the relationship between nature and society. In this context, it is possible to suggest that the concept of sustainable development reflects the struggle of the world population for peace, freedom, better living conditions and a healthy environment (Martens, 2006). Therefore, the concept of sustainable development also represents the public sector leg of air transportation activities.

In this context, as a result, economic growth, place, and time benefits should be considered in ensuring the economic sustainability of air transportation activities.

### 2.1. Economic growth benefit

When measuring the size of a country's economy, sectoral data within that economy is used. Although different classifications can be made from each other, the main topics are usually the agricultural sector, the services sector, and the industrial sector (Hussin, 2013). The developments in these sectors are extremely important elements because they determine the country's economy, and they are all influenced by air transportation. For example, the availability and development of air transport provides people with the freedom to travel and allows the tourism sector to grow (Bieger & Wittmer, 2006). Since the tourism sector is a sub-branch of the services sector, the growth of the tourism sector means the growth of the services sector (Özsağır & Aliye, 2012). By the same logic, it is possible to say that sectoral growth is also reflected in economic growth.

Another element of economic growth is the industrial sector (Hussin, 2013). Industry encompasses a broad process in which inputs are processed and made ready for human use. The operation of facilities in the industrial sector depends on elements such as capital, energy, labor, raw materials, and transportation (Tümertekin, 1994). The fact that any of these elements, which are part of the economic growth process, are insufficient or cannot be used in the desired way will indirectly cause disruption in the sector and negatively affect the country's economy. Therefore, in the field of transportation, air transportation is also an important topic for the industrial sector. When considering today's transportation methods, the fastest alternative is air transportation (Ali et al., 2023). For this reason, air transportation is also an indispensable part of the industrial sector.

In addition to the services and industrial sector, the agricultural sector is another pillar of national economies (Hussin, 2013). However, the development of the sector consists of the use of aircraft for technical tasks such as agro-spraying, control, and seeding, which is called the agricultural aviation industry, rather than air transportation (Su et al., 2022).

### 2.2. Time Benefit

The indispensable element of the age we live in is the concept of speed. The factor that shapes consumer preferences the most is how fast a manufacturer or seller is (Bakkal & Demir, 2011). This factor affecting consumption preferences shows the same effect in transportation (Doğan, 2013). Nowadays, people want to spend as little time as possible traveling from one point to another. The travel may be for business purposes as well as for entertainment/tourism purposes. For whatever reason, individuals will try to minimize the time they spend on their journey by being result oriented. In this case, the most logical choice is air transportation (Şahin & Tektaş, 2021). Factors such as increased competition reducing costs, and air transportation ceasing to be a luxury, an increasing number of direct flights,

and arranging connecting flights to non-direct destinations - provided an acceptable waiting time - have also made air transportation more attractive (Bakırcı, 2012; Yaşar, 2017).

## 2.2. Place Benefit

According to today's business life requirements, a person may need to be present in more than one city and even country on the same day. Due to factors such as technological developments and globalization, business life has moved to an international dimension by no longer remaining within national borders and has also changed our perception of distance to some degree. A CEO who attends a meeting in Italy in the morning can participate in a congress in Spain in the afternoon. To ensure this rapid change of location, the preferred transportation alternative has been air transportation.

## 3. Externality in The Theory of Public Finance: A Brief Overview

Over time, significant changes and deviations have emerged in economic activities, markets, and the economic conjuncture as the assumptions in a fully competitive market have lost their validity; serious imbalances at the micro and macroeconomic level, and serious crises in social life have manifested themselves. The cyclical expression of these deviations is that three stages occur in the economic conjuncture. In the case of a dynamic process, there are three consecutive conjunctures in the economy. These are high and low conjuncture and equilibrium conjunctures in normal or full employment. Here is this state that disrupts the equilibrium state and distribution in the economy, which is essentially deviations in production and consumption in an economy that has been left to itself; that is, externalities (Devrim, 2002).

In general, externality refers to the positive or negative effects that are indirectly observed on other economic units or units due to the activity of an economic unit, and it occurs on other production or consumption activities depending on a production or consumption activity (Akdoğan, 2011).

The characteristics of externalities are (Akça, 2011)

- Externalities can be realized by both producers and consumers. For example, while the negative impact of agricultural production on land around a cement factory is an externality created by the manufacturer, it is an externality created by the consumer that a smoker disturbs the people next to him.
- Externalities are based on the principle of reciprocity. Based on reciprocity, it should be affecting and affected. The fact that it affects farmers near the cement factory can be given as an example of this.
- Externalities can be positive or negative. The effect that will occur in positive externality will create benefits. In negative externality, there will be harm.
- Public goods can be considered as a special state of externalities. Since bug spraying done by a garden owner in a region where orchards are dense will cause the death of harmful insects in other gardens, the externality provided to other garden owners takes on the character of a public good.

Externalities are basically divided into two types as external benefits and external costs that are distributed to society (Yılmaz, 2016). In other words, externalities are generally divided into positive and negative externalities.

If an activity performed by a production or consumption unit positively affects other economic units, there is a positive

externality (Ay, 2021). Negative externality is the cost or damage caused by the negative impact of third parties on the production or consumption activities carried out by any economic unit. The most common example of negative externality is environmental pollution caused by certain production activities. The costs that other producer units must bear to protect themselves from the negative effects of environmental pollution are negative externalities (Pehlivan, 2020).

In the case of the existence of externality, the distribution of resources by the market system impairs the efficiency of resource use because the private sector avoids compensating for the negative externality it creates. In the case of positive externality, production remains below the optimal level for society, as the private sector will make investment and production planning that does not consider the benefits of third parties. The state is forced to intervene in the economy in the presence of externalities. If there is a negative externality, it brings regulation to the relevant production activity. For example, it imposes an obligation to treat waste and compensates the losses of the agricultural landowners in the vicinity by imposing additional taxes on the production unit. In a case of positive externality, it applies tax deduction, exemption, and similar incentive policies to the relevant production unit (Erdem et al., 2012). Externalities are internalized in these ways. For this reason, it is accepted that externalities are not reflected in market prices.

## 4. Unfair Competition

Unfair competition is commercial practices with are deceptive or other forms of deceptive behavior that affect relations between competitors or between suppliers and customers. The right to competition, which forms the basis of a free market economy, and the opportunity to engage in commercial activities in a competitive environment are granted to all natural and legal persons. However, as with all rights, the right to competition must be exercised within the framework of the rules of morality and honesty in accordance with the provisions of Article 2 of the Turkish Civil Act. Provided that the characteristics of each event are also considered, decrying someone else or their business and products as defective, taking unfair advantage of someone else's name, title or effort and labor, sometimes committing certain behavior by ignoring an obligation to behave like a prudent businessman, even if there is no defect, may be considered unfair competition (Kayar, 2018). The elements of unfair competition are as follows (Bahtiyar, 2019):

- There must be behavior or commercial practice that affects relations between competitors or between suppliers and customers. Therefore, the protection area of unfair competition rules is being expanded, and the old protection system, which is based only on the race between competitors, is being decoupled.
- Behavior or practice should constitute a violation of the rule of honesty. Since the deceptive act will already be contrary to the rule of honesty, it seems unnecessary to emphasize this additionally. As is clearly understood from Article 56 of the Turkish Commercial Act regulating unfair competition cases, the fault of the perpetrator is not an element of unfair competition, but only one of the issues that must be proved along with the damage to claim compensation.
- The behavior or practice must lead to harm or at least the danger of harm. However, the danger of damage is not

sufficient for a compensation claim, and the existence of damage is a must.

The main unfair competition situations are considered in Article 55 of the Turkish Commercial Act. Unfair competition cases are not only limited to the actions listed in this act. The situations considered as unfair competition in this act are engaging in advertisements and sales methods contrary to the code of integrity, to direct to breach or terminate the contract, to make unauthorized use of other people's business products, to disclose production and business secrets illegally, not to comply with business conditions and to use transaction terms contrary to the code of integrity (Ülgen et al., 2019).

Civil and criminal liability may arise as a result of unfair competition. If unfair competition is considered within the scope of legal liability, those who are harmed may file the following lawsuits (Topsoy, 2019):

- A detection case,
- A case for prevention,
- A Correction (reinstatement) case,
- A Compensation (material or moral) case.

In a case of criminal liability arising within the scope of unfair competition, the perpetrator is punished with up to two years in prison or a judicial fine (Bozer & Göle, 2020). Persons who are subject to these criminal sanctions are as follows (Kaya & Tatlı, 2020):

- Those who intentionally carry out one of the unfair competition situations listed as an example in the act,
- Those who intentionally provide false or misleading information regarding their personal situation, products, business products, business activities and jobs preferring their own requirements and offers to those of competitors,
- Those who deceive employees, surrogates, or other assistants to enable the employee or their clients to obtain production or trade secrets,
- Those who learn from employees or clients that their employees or employees or their deputies have committed an act of unfair competition that requires a penalty during their work, but do not prevent this act or correct statements that contradict the truth.

## 5. Methodology

In the study, the comparison method in law was used. Comparison is mainly one of the reasonings in the science of logic. However, due to the use of the science of logic in other branches of science, the comparison is also used as an interpretation method in law. Logic followers define the comparison as establishing a logically valid relationship between more than one proposition called the premise and a proposition called the conclusion (Demir, 2009). Comparison in law can generally be defined as the application of a rule contained in an act in relation to an event to an event that is similar to it in nature but one that is not regulated by legislation. It is possible to apply to the comparison method if there is a gap in the law (Arık, 2018). The advantages of the comparison method are as follows (Altuntaş, 2020):

- The method of comparison is considered to be one of the most useful reasoning methods, due to the limited capabilities and time of people. This is because the method of comparison acts on certain events that people can easily comprehend. In other words, a person who applies the

comparison method does not need to develop a completely perfect theory to justify the conclusion he has reached.

- The second advantage of the comparison method is that people do not need the consensus that should be provided regarding general principles when using this method to achieve a certain result because sometimes it is extremely difficult for people to agree on a general principle in terms of their own judgments. However, during the application of the comparison method, it is likely that the same people will agree on a principle at a lower level or on certain events.
- Another advantage of the comparison method is that it is open to innovation. In this aspect, the comparison method also helps to reach a consensus to solve controversial and uncertain issues.

What is important in comparison is the meaning of the words used in the current regulation and the purpose of establishing the relevant norm. Considering the purpose of the article, it is extremely important that the words used in the norm are not understood in a different way while the situations that are within the scope of the article and those that are not within the scope of the article are examined within the framework of this purpose. If it is considered that both situations are within the purpose of the article, the current regulation is extended and applied for both situations. Therefore, the way in which the regulation is applied to a situation outside its scope, and the name of this method, is comparison. In light of these explanations, an example can be given as follows: If the existence of a regulation such as "smoking is forbidden on the train" is accepted, is it also forbidden to smoke a pipe on the train? As explained above, the first thing to be considered is to determine whether there is a partnership between the situation about which there is regulation and the second situation about which there is no regulation in terms of its purpose. According to this, the reason why a cigarette cannot be smoked in enclosed environments is that it disturbs people in an enclosed area with the smoke it emits. A smoked pipe, like a cigarette, has the quality to disturb other people in the environment with the smoke it emits. Therefore, smoking a pipe in enclosed environments may be considered to be prohibited by the comparative implementation of the smoking ban (Baytaş, 2018). In this study, whether the amount of compensation awarded is reflected in market prices when an unfair competition situation arises as a negative externality is considered using the comparison method.

## 6. Findings

The findings obtained from the judicial decisions in the study are of importance. This is because, thanks to these findings, it will be revealed whether externalities are reflected in market prices from the point of view of Turkish Commercial Law. The decisions are summarized below:

- Court of Appeal 11th Civil Chamber, Date: 18 September, 2008, Docket No: 2008/8441, Decree No: 2008/10218: The defendant's attorney requested decertification of the case, arguing that his client was a pilot and started working at the plaintiff company as a pilot, the plaintiff's claims that he trained his client as a pilot were untrue, that there was no basis for compensation claims, and that the plaintiff's claims remained unfounded, since there was no written contract between the parties. The defendant's attorney requested that his client had no intervention when the defendant resigned from the plaintiff company, and also that it was out of the question for the defendant to be raised by the



registration No. 2014/22048 and unfair competition. To announce the summary of the judgment, he demanded 1.000 TL and sued for a decision to collect the financial and moral compensation of TL 1,000 from the defendant together with the rediscount interest. The Court of Appeal approved this request.

- Court of Appeal 11th Civil Chamber, Date: 08 May, 2019, Docket No: 2018/927, Decree No: 2019/3506: Acting for the plaintiffs, one of his clients A's other client is the director and founding partner of the company, his client provides the company's ballooning service, for the promotion of this service 'www.Xballons.com' he stated that he was using the domain name website. The plaintiff's attorney also claimed that there are internet sites created with domain names with the main element 'X' created by the defendant party when 'X' or 'X ballon' is entered into search engines, this situation negatively affects the business situation of the client company and constitutes unfair competition. For this reason, the plaintiff requested that a decision be made on the collection of 1,000 TL material and 3,000 TL moral compensation from the defendant. The court accepted this request, and the Court of Appeal approved it.

- Court of Appeal 11th Civil Chamber, Date: 08 April, 2014, Docket No: 2013/17737, Decree No: 2014/6831: The plaintiff's attorney claimed that his client "X Tourism Limited Company has been transporting passengers between A and B for about 30-40 years, defendant Y has unfairly reduced the road fare from 6.00 TL to 3.00 TL, including in the morning and evening hours when passengers are busiest since 10 February, 2011, the defendant caused material and moral damage to the client company by unfair competition. The plaintiff's attorney also stated that the situation has been notified to the necessary authorities, ... According to the letter No. 24/05/2011 of the Regional Directorate of Transport, the defendant was given a 5 warning penalty for violating the Highway Transportation Regulation, then the transport document was warned to be cancelled, the defendant's unfair competition was considered fixed by the Ministry of Transport, 10.000,00 TL financial, 10.000,00 TL moral compensation will be processed from 10.02.2011, provided that the prevention of unfair competition, excess claims and rights are reserved together with the legal interest, he requested and sued that a decision be made to collect it from the defendant. The Court decided to pay 10.000,00 TL financial compensation and 500,00 TL moral compensation, and the Court of Appeal upheld this decision.

- Court of Appeal 11th Civil Chamber, Date: 02 March, 2020, Docket No: 2019/2866, Decree No: 2020/2223: The plaintiff's attorney stated that the defendant, a cooperative, provides transportation services within the ETUS system of which it is the pioneer, by the decision of the X Municipal Council dated 03 April, 2013, and numbered 2013/162. A maximum of eight vehicles included in the ETUS system on line 3A, including the routes that his client transports, were placed under regulation. The defendant cooperative carried out transportation using 35-40 vehicles, despite this being contrary to this decision. The defendant's actions constituted an act of unfair competition regulated by Article 55/1-e of the Turkish Commercial Act. Due to these actions claiming that his client's commercial activities and economic interests were damaged, he requested that a decision be made on the determination of unfair competition, and the collection of 10.000,00 TL material and 10.000,00 TL moral compensation from the defendant and the announcement of the judgment was made. The court accepted the financial compensation of 10.000,00

TL but rejected the moral compensation. The Court of Appeal also upheld this decision.

- Court of Appeal 11th Civil Chamber, Date: 09 December, 2013, Docket No: 2013/8300, Decree No: 2013/22365: The plaintiff's attorney stated that his client had trademark registration documents bearing the X phrase, and that these trademarks also had land transportation services within the scope of registration. He claimed that the defendants used his client's registered X phrase as a trademark and trade name in the price and offer letters sent by the defendants to their customers, at the same time as there are websites with the phrase 'www.Xnakliyat.com', and that the defendants advertised as X NAKLIYAT in the ads they placed in various newspapers. He claimed that this situation constituted an encroachment on the well-known registered trademarks of his client and was unfair competition. To stop and eliminate the encroachments of the defendants using 'www.Xnakliyat.com' he demanded and sued for a decision to close the website with the phrase, to collect 50,000 TL moral compensation from the defendants along with interest from the date of the violation, and to announce the summary judgment. The court decided on 5000 TL moral compensation and the Court of Appeal upheld this decision.

- Court of Appeal 11th Civil Chamber, Date: 02 July, 2014, Docket No: 2014/120, Decree No: 2014/12653: The attorney of the plaintiffs stated that the 'X' brand belonging to his clients is a well-known brand in Turkey and throughout world, and the same phrase is also used as a 'guide word' in the trade name. He claimed that the defendants used the 'X' brand belonging to the plaintiff unfairly and without permission in the transportation sector and that the defendants collect customers by taking advantage of the seriousness and trust created by the X brand/ name in society through the company they operate, and that they get an unfair advantage. The plaintiffs' attorney also claimed that such untrue statements constitute an attack on the plaintiff's reputation due to his recognition and that they cause moral damage, requesting an injunction to detect trademark infringement and unfair competition, to stop using the defendants' X phrase in printed documents on newspaper advertisements on Internet pages, to close the defendant's website or block access to this website, and seeking 5000 TL in moral compensation. The court ordered 2000 TL moral compensation. The Court of Appeal also upheld this decision.

## 7. Discussion and Conclusion

First of all, the issue that needs to be stated is that a comparison method can be made in terms of the Turkish Commercial Act. In other words, according to the decision made by the judiciary in an incident, the same provision may be applied to a similar decision related to commercial law. When the first of the judicial decisions made is examined, it is noteworthy that the expression '...reasonable compensation ...' is passed in the decision. Considering that both the plaintiff and defendant parties are airline transportation companies in the first judicial decision, the fact that the compensation awarded is not expressed as a precise amount raises the possibility that externalities will be reflected in market prices. This is because unfair competition is a concept that can serve as an example of negative externality. If the compensation awarded is greater than the damage suffered, the airline transportation company, which is the victim of unfair competition, will have made an unfair profit. If the compensation awarded is lower than the damage suffered, in this case the company will have to increase the price of the

services it provides to cover the loss. If such a situation sets an example for other airline transportation companies, in other words, if this decision turns into a kind of negative externality, the equilibrium price that will occur in the market will increase, and the amount of service produced will decrease.

Looking at the second judicial decision, material compensation is appreciated in the amount requested by the plaintiff, while moral compensation is almost a quarter of what is requested. In Turkish law, it is essential that moral compensation be determined at a level that will not enrich a person. It is obvious that the situation where the difference between the determined moral compensation and the demanded moral compensation is too much, the difference between them may lead to the possibility of a reflection on the market. In other words, negative externality may be reflected in market prices.

When looking at the third judicial decision, it can be seen that the material and moral compensation was granted at the level requested by the plaintiff. In such a decision, it can be suggested that negative externalities will not be reflected in market prices since there is a uniformity between the decrees of the court and the plaintiff in the compensation levels.

In the fourth decision, there is an unfair competition action that takes place through the provision of trade secret information. Although 100,000 TL moral compensation has been requested here, the amount of compensation granted is only 7,500 TL. The potential for the difference to be reflected in market price is quite high.

In the fifth decision, the requested and accepted compensation amounts are equal and the compensation in question is 1,000 TL. In this respect, it can be suggested that the reflection of negative externality on market prices can be prevented by the Turkish Commercial judiciary. There is a similar situation in the sixth decision. The plaintiff requested 3,000 TL and the court decided on 3,000 TL moral compensation. Here, too, the probability of negative externalities being reflected in market prices becomes quite low.

While the compensation requested in the seventh decision is 10,000 TL, the compensation granted is only 500.00 TL. Therefore, unfair competition, again as a negative externality, will be reflected in market prices. In other words, a situation that contradicts the theory of externality will arise again.

In the eighth decision, the claim for financial compensation of 10,000 TL was accepted, while the claim for moral compensation was rejected. Non-pecuniary compensation will mean that the requested amount can be reflected in market prices. Therefore, again, a situation contrary to the theory will arise.

In the ninth judicial decision, 50,000 TL moral compensation was requested, but the court only decided 5,000 TL moral compensation. Here, too, the difference between the amount requested and that given in terms of moral compensation is quite large. Therefore, the probability of negative externalities being reflected in market prices is quite high.

When looking at the last judicial decision, it can be seen that the amount of moral compensation requested is 5,000 TL and the amount of moral compensation awarded is 2000 TL. Here, too, negative externalities may be reflected in market prices, and therefore a situation contrary to the theory may arise.

When looking at all the judicial decisions in the findings, it is seen that the financial compensation is at the level desired by the plaintiff parties. The reason for this is that the material damage consists of concrete elements that can be calculated. Therefore, it is observed that disputes related to unfair competition are knotted in matters of moral compensation.

Here it is seen that the judiciary generally keeps the moral compensation low because it wants to prevent the enrichment of the plaintiff party. However, it is unclear to what extent moral compensation, which is kept low, can relieve the pain, grief or anguish felt by the injured party. It is necessary to emphasize one more point here. The party that demands high moral compensation may also ask for this amount to enrich itself. It is obvious that this situation will not be compatible with good intentions. Therefore, it is important according to what the standard will be determined according to. Here, the judiciary considers the amount of moral compensation aimed at not enriching a person as a measure of justice. However, the presentation of scientific findings that can analyse the psychological state of the injured party will be able to ensure that law and fairness are achieved in the amount of moral compensation awarded.

When all these judicial decisions are examined, it is clear that the air transportation sector may be affected if externalities are reflected in market prices. To examine this effect, it is necessary to determine what external effects unfair competition may have on the benefits of air transport.

The air transport company, whose costs will increase when externalities are reflected in market prices, may have difficulty in capturing its level before unfair competition in revealing the economic growth benefit. Such a negative situation will cause a negative supply shock in terms of agricultural, industrial, and service sectors.

Consumers want to minimize the time between the point of departure and the point of arrival. Today, increasing competition is also reducing air transportation costs. However, it is clear that air transportation will be less preferred by consumers, as increased competition will turn into unfair competition and the lack of compensation at the desired level will create the possibility of increasing the market price of externalities. This situation also negatively affects the entertainment and tourism sectors.

Increasing the volume of trade on a global scale is important for increasing the world's gross national product. For this to happen, the units that will carry out commercial activities must be able to travel easily to remote places with short time intervals. It is quite difficult for a sector whose material and moral damages cannot be compensated due to unfair competition to provide this convenience. This is because externalities are reflected in market prices, creating the possibility of increasing costs.

In this context, air transportation will have to deprive the market of the economic growth benefit, time benefit and place benefit due to unfair competition, which can be considered as a special type of externality, and therefore its costs will increase. Undoubtedly, this will mean moving away from activity in the air transport market.

It is possible that some scientific studies may be carried out for the future in order to further develop this study. These studies can be summarized as follows:

- The air transportation sector will take a position that is gaining more and more importance day by day. However, as the sector grows, legal disputes will also increase. As a result of these disputes, precedent decisions will arise. Legal evaluation of these decisions can be made.
- It is possible that some methods in the field of psychology may be applied to reduce the differences between moral compensation and demanded compensation. A study to be conducted in this direction may have affirmative results in terms of the efficiency of the sector.

- A teleological interpretation can be made regarding judicial decisions made concerning air transportation. Thus, it is possible to create secondary resources that will guide judicial decisions.
- The creation of separate legislation aimed at the phenomenon of unfair competition, which may arise as an externality in air transportation, may create positive results in terms of guiding policy makers.
- International civil aviation authorities can be helped by drawing attention to the negative externalities that unfair competition in the field of air transportation can create in the international area.
- Another element that may reveal unfair competition is cooperation in the field of aviation. Which of these collaborations will be effective or not can be considered within the scope of the phenomenon of externality.
- If unfair competition is considered as a phenomenon of externality, it is also possible to levy a tax in order to eliminate this situation from the point of view of the public economics. A scientific study to be conducted within this framework can help the states.
- Not every element that may arise is included in the scope of unfair competition. For example, it would be a wrong approach to suggest that companies that gain an advantage by employing qualified pilots cause unfair competition. For this reason, a scientific study that will determine the limits of unfair competition in air transportation can help policy makers.

#### Ethical approval

Not applicable.

#### Conflicts of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

#### References

- Akça, H. (2011). Devleti ekonomiye çeken faktörler. E. Karayılmazlar (Ed.), In: Kamu maliyesi, Lisans Yayıncılık, İstanbul, 27-42.
- Akdoğan, A. (2011). Kamu maliyesi. 14. Baskı. Gazi Kitabevi, Ankara.
- Ali, R., Bakhsh, K., & Yasin, M. A. (2023). Causal nexus between air transportation and economic growth in BRICS countries. *Journal of Air Transport Management*, 107, 102335.
- Altuntaş, F. (2020). Analogy as legal reasoning. Unpublished Master Thesis. Erzincan Binali Yıldırım University Institute of Social Sciences, Erzincan.
- Anderson, J. D., & Bowden, M. L. (2005). Introduction to flight (Vol. 582). McGraw-Hill Higher Education, New York.
- Arık, E. (2018). Ekonomik yaklaşım ve kıyas yasağı ilke midir kural mıdır? Bir hukuk teorisi uygulaması In: VIII. Genç vergi hukukçuları sempozyumu (Bildiri Kitabı). N. Aşçı Akıncı & S. Ovalıoğlu (Yay. haz.), (s. 151-184). On İki Levha Yayıncılık, İstanbul.
- Ay, H. (2021). Kamu maliyesi. 7. Baskı. Enki Matbaacılık, İzmir.
- Bahtiyar, M. (2019). Ticari işletme hukuku. 20. Bası. Beta Basım Yayım Dağıtım, İstanbul.

- Bakırcı, M. (2012). Historical Progress and Current State of Air Transportation in Turkey with respect to Transportation Geography. *International Journal of Geography and Geography Education*, (25), 340-377. <https://dergipark.org.tr/tr/pub/marucog/issue/472/3869>
- Bakkal, M., & Demir, U. (2011). Lojistik yönetimi ve e-lojistik (Vol. 30). Hiperlink eğit. ilet. yay. san. tic. ve ltd. sti., İstanbul.
- Baytaz, A. B. (2018). Kanunilik ilkesi bağlamında ceza ve ceza muhakemesi hukukunda yorum. On İki Levha Yayıncılık, İstanbul.
- Bieger, T., & Wittmer, A. (2006). Air transport and tourism— Perspectives and challenges for destinations, airlines and governments. *Journal of air transport management*, 12(1), 40-46.
- Bozer, A. & Göle, C. (2020). Ticari işletme hukuku. 6. Bası. Banka ve Ticaret Hukuku Araştırma Enstitüsü, Ankara.
- Bragdon, C. (2011). Transportation security. Butterworth-Heinemann, UK.
- Çam, Ü. (2016). Theoretical Analysis of the Airline Transport Market. *Kafkas University Journal of Economics and Administrative Sciences Faculty*, 7 (14), 711-725. <https://dergipark.org.tr/tr/pub/kauiibf/issue/37950/579692>
- Demir, A. (2009). Karşılaştırmalı Bir Yaklaşımla Kıyas. *Dicle University Journal of Law Faculty*, 14 (20-21), 157-182. <https://dergipark.org.tr/tr/pub/duhfd/issue/23020/246154>
- Devrim, F. (2002). Kamu maliyesine giriş. 4. Baskı. İlkem Ofset, İzmir.
- Dinc, A., Çalışkan, H., Ekici, S. & Şöhret, Y. (2022). Thermodynamic-based environmental and enviroeconomic assessments of a turboprop engine used for freight aircrafts under different flight phases, *J Therm Anal Calorim*, 147, 12693-12707
- Doğan, T. (2013). Logistics management theory and improvement of a global procurement process with engineering. Unpublished Master Thesis. Maltepe University Institute of Social Sciences, İstanbul.
- Elgin, C., Ateşagaoglu, O. E., & Öztunalı, O. (2017). Determinants of ticket prices in Turkish aviation industry. *Journal of Yaşar University*, 12(48), 329-338. <https://dergipark.org.tr/tr/pub/jyasar/issue/31740/328606>
- Erdem, M., Şenyüz, D. & Tatlıoğlu, İ. (2012). Kamu maliyesi. 10. Baskı. Ekin Basım Yayın Dağıtım, Bursa.
- Eren, A. S., Eryer, A. & Eryer, S. (2020). Examining the relationship between air transportation and economic growth: The Turkey case empirical analysis. *International Journal of Social and Educational Sciences*, 2(3), 236-257. <https://dergipark.org.tr/tr/pub/usbed/issue/57491/769328>
- Frenken, K., & Leydesdorff, L. (2000). Scaling trajectories in civil aircraft (1913–1997). *Research Policy*, 29(3), 331-348.
- Geels, F. W. (2006). Co-evolutionary and multi-level dynamics in transitions: The transformation of aviation systems and the shift from propeller to turbojet (1930–1970). *Technovation*, 26(9), 999-1016.
- Gil, R., & Kim, M. (2021). Does competition increase quality? Evidence from the US airline industry. *International Journal of Industrial Organization*, 77, 102742.



- Hamaguchi, Y. (2021). Does the trade of aviation emission permits lead to tourism-led growth and sustainable tourism?. *Transport Policy*, 105, 181-192.
- Hussin, F. (2013). The contribution of economic sectors to economic growth: The cases of Malaysia and China. *International Journal of Academic Research in Economics and Management Sciences*, 2(2), 36-48.
- Huuskonen, J., & Oksanen, T. (2018). Soil sampling with drones and augmented reality in precision agriculture. *Computers and electronics in agriculture*, 154, 25-35.
- Jorge, J. D., & de Rus, G. (2004). Cost-benefit analysis of investments in airport infrastructure: a practical approach. *Journal of Air Transport Management*, 10(5), 311-326.
- Kaya, M.İ. & Tatlı, B. (2020). Ticaret hukuku-I (Ticari işletme ve ortaklıklar hukuku). Seçkin Yayınevi, Ankara.
- Kayar, İ. (2018). Ticari işletme hukuku. 11. Baskı. Seçkin Yayınevi, Ankara.
- Mahapatra, S. C., & Bellamkonda, R. S. (2023). Higher expectations of passengers do really sense: Development and validation a multiple scale-FliQual for air transport service quality. *Journal of Retailing and Consumer Services*, 70, 103162.
- Martens, P. (2006). Sustainability: Science or fiction?. *Sustainability: Science, Practice, & Policy*, 2 (1), 36-41,
- Özsağır, A., & Aliye, A. K. I. N. (2012). Service sector's place in the service trade and a comparable analysis. *Electronic Journal of Social Sciences*, 11(41), 311-331. <https://dergipark.org.tr/pub/esosder/issue/6155/82719>
- Papatheodorou, A. (2021). A review of research into air transport and tourism: Launching the Annals of Tourism Research Curated Collection on Air Transport and Tourism. *Annals of Tourism Research*, 87, 103151.
- Pehlivan, O. (2020). Kamu maliyesi. Celepler Matbaacılık, Trabzon.
- Pereira, B. A., Lohmann, G., & Houghton, L. (2022). Technology trajectory in aviation: Innovations leading to value creation (2000–2019). *International Journal of Innovation Studies*, 6(3), 128-141.
- Petrescu, R. V., Aversa, R., Akash, B., Bucinell, R., Corchado, J., Apicella, A., & Petrescu, F. I. (2017). History of aviation-a short review. *Journal of Aircraft and Spacecraft Technology*, 1(1).
- Rosa, A. C. V. O. G. (2013). Aviation or space policy: New challenges for the insurance sector to private human access to space. *Acta Astronautica*, 92(2), 235-242.
- Schaltegger, S. (2011). Sustainability as a driver for corporate economic success: Consequences for the development of sustainability management control. *Society and Economy*, 33(1), 15-28, <https://www.jstor.org/stable/10.2307/90002239>
- Sweet, K. (2008). Aviation and airport security: Terrorism and safety concerns. New York and UK: CRC press.
- Su, J., Zhu, X., Li, S., & Chen, W. H. (2022). AI meets UAVs: A survey on AI empowered UAV perception systems for precision agriculture. *Neurocomputing*.
- Şahin, B., & Tektaş, N. (2021). Swot analysis of aviation: Assessment of the situation in Turkey. *Journal of Intelligent Transportation Systems and Applications*, 4(1), 87-98.
- Topsoy, F. (2019). Ticari işletme hukuku. Legal Yayıncılık, İzmir.
- Tümertekin, E.,(1994).“Ekonomik coğrafya”, İ.Ü. Edb. Fak. Yay. No:2926, İstanbul, s.402-420.
- Ülgen, H., Helvacı, M., Kaya, A. & Ertan Nomer, N.F. (2019). Ticari işletme hukuku. 6. Bası. Vedat Kitapçılık, İstanbul.
- Veldman, A., Diefenbach, M., Fischer, D., Benton, A., & Bloch, R. (2004). Long-distance transport of ventilated patients: advantages and limitations of air medical repatriation on commercial airlines. *Air medical journal*, 23(2), 24-28.
- Yasar, M. (2017). Air transport and high speed train competition: A comparative analysis in selected routes. *PressAcademia Procedia*, 3(1), 68-74.
- Yılmaz, B.E. (2016). Maliye. 2. Basım. Der Yayınları, İstanbul.

**Cite this article:** Gumus, O., Ekici, F., Orhan G. (2023). Economic Sustainability of Air Transportation in Terms of Unfair Competition and Negative Externalities: Evidence from Turkish Commercial Law. *Journal of Aviation*, 7(3), 406-414.



This is an open access article distributed under the terms of the Creative Commons Attribution 4.0 International Licence

**Copyright © 2023 Journal of Aviation** <https://javsci.com> - <http://dergipark.gov.tr/jav>