

The Sustainability Evaluation for Ground-handling Companies

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Article Info	ABSTRACT
<p>Article History</p> <p>Received: 15/11/2024 Accepted: 26/12/2024 Published: 31/12/2024</p> <p>Keywords: Ground-handling, Sustainability Social Economical Environment</p> <p>Jel Codes: M10, M11, M14, M19</p>	<p>The increasing importance of sustainability today is developing in the understanding of seeing sustainability as a tool to gain competitive advantage for businesses in different sectors. In airline transportation, which is rapidly growing and where demand is increasing, conducting sustainability reviews at the enterprise level with the specific criteria of the sector will contribute to increasing the sustainability performance, which will be measured at the sector level and ultimately with the sustainability dimensions of the country. In the airline passenger transportation business, which works especially in integration with the tourism sector, ground handling companies are the suppliers of airline companies and play an important role in providing a sustainable service. Sustainability, which will be defined in economic, social and environmental dimensions, will also closely affect the service performance that ground services will provide in stakeholder relations. In the study, the economic, social and environmental sustainability dimensions of three ground handling companies, which were defined as Class A licenses by the General Directorate of Civil Aviation in Türkiye, were examined. In the study where qualitative research method was used, the sustainability measurement criteria of three companies were evaluated with the information obtained from their official websites. Content analysis was carried out by code-category-theme analysis. It has been observed that the social sustainability performance of ground handling companies is higher compared to their environmental and economic sustainability.</p>

Yer hizmetleri İşletmelerinde Sürdürülebilirlik Değerlendirmesi

Makale Bilgileri	ÖZ
<p>Makale Geçmişi</p> <p>Geliş: 15/11/2024 Kabul: 26/12/2024 Yayın: 31/12/2024</p> <p>Anahtar Kelimeler: Yer hizmetleri, Sürdürülebilirlik Sosyal Ekonomik, Çevre</p> <p>JEL Kodları: M10, M11, M14, M19</p>	<p>Sürdürülebilirliğin günümüzde artan önemi, farklı sektörlerde yer alan işletmeler için rekabet üstünlüğü elde etmede sürdürülebilirliği bir araç olarak görme anlayışında gelişmektedir. Hızla büyüyen ve talebin gittikçe arttığı havayolu taşımacılığında, sektörün spesifik kriterleri ile sürdürülebilirlik incelemelerinin işletmeler düzeyinde yapılması, sektör boyutunda ve nihayetinde ülkenin sürdürülebilirlik boyutları ile ölçümlenecek sürdürülebilirlik performansının artmasına bir katkı sağlayacaktır. Özellikle turizm sektörü ile entegre olarak çalışan havayolu yolcu taşımacılığı işkolunda yer hizmetleri işletmeleri, havayolu işletmelerinin tedarikçisi konumunda olup sürdürülebilir bir hizmetin sağlanmasında önemli rol üstlenmektedir. Ekonomik, sosyal ve çevresel boyutlarda tanımlanacak sürdürülebilirlik, yer hizmetlerinin paydaş ilişkisinde sunacağı hizmet performansını da yakından etkileyecektir. Araştırmada Türkiye’de Sivil Havacılık Genel Müdürlüğü’nde A sınıfı ruhsatı tanımlaması yapılan üç yer hizmetleri işletmesinin ekonomik, sosyal ve çevresel sürdürülebilirlik boyutları incelenmiştir. Nitel araştırma yönteminin kullanıldığı çalışmada, üç işletmenin sürdürülebilirlikle ilgili ölçümleme kriterleri resmi web sitelerinden elde edilen bilgilerle değerlendirilmiştir. Kod-kategori-tema çözümlemesi yapılarak içerik analizi gerçekleştirilmiştir. Çevresel ve ekonomik sürdürülebilirliği nazaran, yer hizmetleri işletmelerinin sosyal sürdürülebilirlik performanslarının daha yüksek olduğu görülmüştür.</p>

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INTRODUCTION

The aviation industry is a sector where the rules and regulations of national and international aviation authorities are intense (Hirst, 2008; Erdoğan, 2019). Air transportation is a very comprehensive system that includes the aircraft on which passengers, freight and cargo will be transported, the infrastructures required to carry out this service, suppliers and many other things. In order for this system to function flawlessly, each component within the system must perform its function correctly (Yaşar and Özdemir, 2016). An important component of the system is ground handling services.

In the aviation industry, ground handling companies operating with A, B and C group operating licenses are at least as important as airline companies. In such organizations with corporate identity, there is a need for qualified employees and it is also necessary to manage them effectively and efficiently in line with organizational goals (Demir, 2012).

Sustainability and sustainable development have become some of the most widely discussed subjects in recent decades, especially in light of growing environmental degradation. The issue of sustainability is at the center of the triangle of energy, economy and environment, and therefore it is discussed across various fields, including social and natural sciences, as well as among politicians and both local and international environmental organizations, as well as institutions (Yeni, 2014). After the liberalization movements, the undertaking of both airline companies that provide air transportation services and complementary services such as ground and airport services by private sector businesses requires that sustainability dimensions be taken into consideration in all processes in business management (Yaşar and Özdemir, 2016). Today's business sustainable management, which will be adopted in the understanding of gaining competitive advantage regarding the productive, effective and efficient use of resources, is a different topic that can be examined for ground handling companies, which are an important link in the chain in air transportation services.

Given the environmentally unsustainable nature of the industry and issues with sustainability reporting, it is important to understand how airlines implement sustainability reporting and identify areas where improvement is needed (Karakuş, 2023). When Directorate General of Civil Aviation of Turkey (DGCA)'s publications on sustainability and studies in the literature are examined (Karakuş, 2023; Barutçu and Çolakoğlu, 2024), no academic research examining sustainability specifically for ground handling companies has been found. The aim of the study is to examine three Group A licensed ground handling companies (Havaş, Çelebi, TGS Ground-Handling) operating in Turkey in terms of sustainability.

1. LITERATURE FRAMEWORK

1.1. Ground Handling

Ground handling activities in Turkey are regulated by the Airports Ground Services Regulation (SHY 22), which was prepared by the General Directorate of Civil Aviation based on Article 44 of the Turkish Civil Aviation Law No. 2920 (DGCA 22, 2016, Erdoğan, 2019). DGCA, the global regulator of the aviation industry, defines the ground services offered at airports as "the services that must be provided to an aircraft, other than air traffic services, from the arrival of an aircraft to its departure at airports" (ICAO, 2000). The General Directorate of Civil Aviation, which is the aviation authority of our country, discusses the services provided by ground handling companies in DGCA-22, which is the airport ground services regulation, as follows (DGCA-22, Art. 5). Types of airport ground services;

- a) Representation,
- b) Passenger services,
- c) Load control and communication,
- c) Ramp,
- d) Cargo and mail,

- e) Aircraft line maintenance,
- f) Flight operation,
- g) Transportation,
- g) Catering service,
- h) Supervision and management,
- i) Aircraft private security service and inspection

In addition to related services, it also divided the organizations that will provide service at airports into three license groups: A, B, and C. In order for an organization to obtain a Group A operating license; Airports must provide all of the service types specified in Article 5 of DGCA-22 or provide at least passenger traffic, load control and communication, ramp services and be organized in at least three airports open to international traffic. Group B license refers to the working documents to be issued for each type of service to air carriers that will perform all or part of the service types in Article 5 for themselves (SHY-22, Art. 5). In other words, an organization that holds a Group B license belongs directly to the air carrier and can only provide services to the organization it belongs to. A company holding a Group C license is authorized to provide representation, supervision and management, aircraft private security services and inspection, catering service and flight operation services that require expertise in certain areas, among the types of services specified in Article 5.

In order for a commercial airline to engage in commercial activities at any airport, it must enter into a 'standard ground services agreement' with one of the airport ground services companies holding a Group A license (DGCA-22, Art. 17). This standard ground handling agreement is published by IATA, which is the international air carriers association and sets the commercial standards of air transportation. The IATA Standard Ground Handling Agreement collected the services provided in ground handling services under 14 main headings, but was renewed in 2003 and republished under 8 main headings (DGCA, 2004). According to the standard ground services agreement (2004), the types of ground services provided to airports are as follows:

1. Representation, supervision and management
2. Passenger Services
3. Ramp Services
4. Payload control, communication, flight operation
5. Cargo and postal services
6. Support services
7. Security
8. Aircraft maintenance

A ground handling company with a Group A license can use subcontractors in services such as catering and fuel supply, which are not included in the main headings but require expertise under the main heading of support services (DGCA, Art. 3; Günaşan, 2020).

Airline companies can provide one or more of these service groups from the ground handling company according to the contract between them. According to the regulation, transactions between the airline company and ground handling services are carried out with the "Standard Ground Services Agreement" prepared based on this regulation (DGCA 22, Article 4; Erdogan, 2019). There is a buyer-seller relationship between airline companies and ground handling companies based on outsourcing. Airline companies can provide the ground services required for ground operations with their own internal resources or from an independent ground service company through outsourcing (Fuhr, 2007). Transactions subject to exchange between the airline company and the ground handling company are called ground handling (Erdoğan, 2019).

It is mandatory to have a Standard Ground Handling Agreement between ground handling companies and air carriers operating regular flights (DGCA 22, Art. 17). Standard ground handling agreements include provisions such as provision of services, principles of honesty and fairness, outsourcing of services to subcontractors, representation of the carrier, work standard, fees, accounting and payments, liability and compensation, arbitration, stamp duties, registration fees, duration, change and termination. Although the standard ground handling agreement provides a framework for the parties, issues such as service tariffs and contract periods are freely determined by the parties (SYHA, 2008; Erdogan, 2019)

The authorities of ground handling companies vary depending on the type of license they have. Ground handling companies included in the scope of this research are businesses with Group A license. There are a total of 3 ground handling companies with Group A licenses authorized to provide service at airports in Turkey (DGCA, 2018; Erdoğan, 2019): They are Havaş, Çelebi, and TGS.

When international studies on ground handling operations in the aviation industry are examined, it is seen that they generally focus on safety, reducing costs by reducing delays and optimizing the duration of aircraft's stay on the ground (Günaşan, 2020).

1.2. Sustainability

Sustainability is defined by Kımılı (2006: 12) as "the evaluation or use of the resource in a way that does not consume it or cause permanent damage to the resource" and by Şen, Kaya & Alpaslan (2018: 5) as "the ability and ability of something to store itself, protect itself, and continue its existence", defined (Karakuş, 2023).

The roots of the concept of "sustainable development" date back to the report titled World Conservation Strategy prepared by the International Union for the Conservation of Nature and Natural Resources (IUCN) in 1980. The concept gained general acceptance and found a wide area of use with the report titled "Our Common Future" by the World Commission on Environment and Development (1987). Sustainable development is defined in this report as "development that meets today's needs without compromising the ability of future generations to meet their own needs". According to Markandya, Harou, Bellù, and Cistulli (2002: 17), this definition is useful to draw attention to concerns about the possible long-term consequences of development.

Analyzes regarding sustainable development have subsequently focused on the economic, social and environmental dimensions of the concept (Figure 1). With his approach, Munasinghe (2001) stated that in order to achieve sustainable development, a new framework called sustainomics, created with a transdisciplinary approach, is needed. Figure 2 illustrates the fundamental components of sustainable development and the interrelationships between them, based on Munasinghe's proposed framework. Each corner of the triangle represents a specific area, characterized by its unique driving forces and objectives. While the economy is mainly directed towards increasing human welfare through increasing the consumption of goods and services; The environmental field is focused on preserving the integrity and resilience of ecosystems. The social field, on the other hand, highlights the importance of helping individuals accomplish their objectives individually and as a group, in addition to enhancing and deepening the quality of human connections (Munasinghe, 2009: 34, 35).

Economic

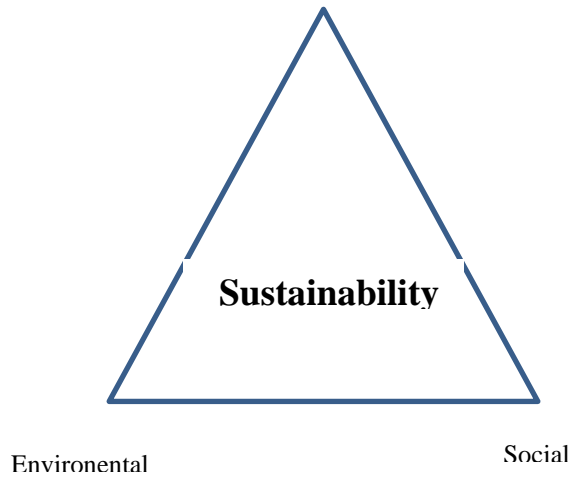


Figure 1: Sustainability Triangle

Source: Smythe (2014)

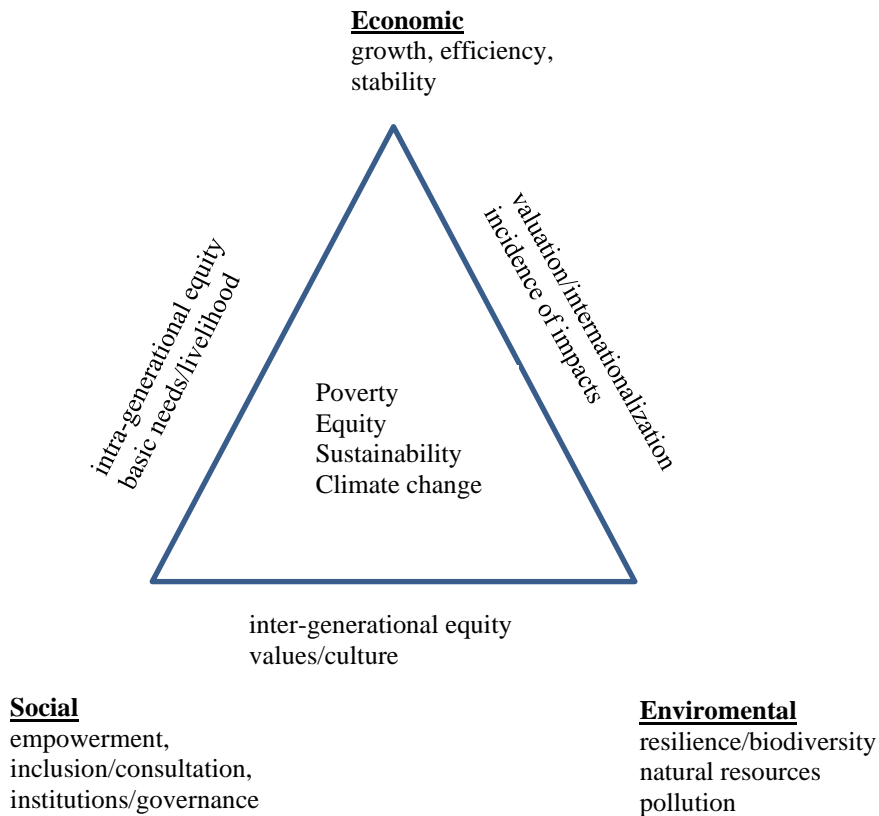


Figure 2: The core components of sustainable development and the relationships that link them.

Source: Munasinghe (2009)

Economic Sustainability: According to Hamilton (2006: 307), the most appropriate starting point to discuss the economic dimension of the concept of sustainability is Hicks' definition of income. Hicks defines income as the highest amount that a person or nation can consume in a given period of time and

still be as well-off at the end of that period as at the beginning (Hicks, 1946: 172). In this case, income is the highest sustainable consumption. The way to sustain consumption for a certain period of time is to preserve the productive potential of the capital stock required to ensure the flow of goods and services subject to consumption (Hamilton, 2006: 307). In order to sustainably increase human welfare, its productivity must be increased, or at least protected, along with increasing the capital stock (Yeni, 2014). Economic sustainability is an approach that eliminates or prevents factors that harm the production process, prioritizes continuity in the production of goods/services, and ensures that debts remain at a manageable level. From an economic perspective, the issue of sustainability has been examined through the lens of resource allocation efficiency, the influence of limited resources on growth, and the role of technological advancements. and substitutability of inputs, in other words, types of capital (Yeni, 2014). Economic sustainability defines systems in which recyclable products are developed with a social responsibility approach and produced without harming the environment (Özçağ and Hotunluoğlu, 2015). Economic sustainability includes the use of renewable resources (Üçgül, 2015: 1), environmental sciences and technologies (Alagöz, 2004: 15), understanding and solving the internal and external impacts of businesses (Gedik, 2020: 210) and effective monetary policy practices (Alagöz, 2004: 16; Karakuş, 2023).

Social Sustainability: The social dimension of sustainability has been ignored for many years, and economic and environmental dimensions were prioritized during the first half of the 1980s (Karakuş, 2023). Starting from the 1990s, discussing issues such as social exclusion, gender inequality, democracy, participation and community empowerment, as well as socio-economic issues such as poverty, has revealed that sustainability also has a social dimension (Wise, 2001; Yeni, 2014). Economic and environmental factors are insufficient to explain the differences in economic development between countries with similar human capital and natural and physical capital equipment, and the different results that arise from similar policy practices of countries with similar characteristics (Yeni, 2014). The missing link in the sustainable development chain is the social capital dimension, which expresses the interaction and organization styles of the society to ensure economic growth and development (World Bank, 1997, 1999; Yeni, 2014). According to the United Nations' "Our Common Future" report in 1987, as long as poverty and inequality continue in the world, the tendency for ecological crisis will always exist (Köşker & Gürer, 2020: 93). The social aspect of sustainability is related to the well-being of the society and this is defined as prosperity (Özdeş, 2019: 37; Karakuş, 2023). According to Cook, if human-induced weakening of nature's capacity to provide humans with environmental values (such as clean air and water) and natural resources (such as food and raw materials) continues, there may be increasing pressure on individuals and the social relations between them. As a result of this pressure, conflicts will increase and public health, personal security, etc. will be negatively affected (Yeni, 2014). If increasing numbers of people live in a social system that systematically restricts their ability to meet their own needs, participation and investment in that system will cease. If social sustainability cannot be achieved, social tensions such as conflict and poverty will increase environmental degradation (Yeni, 2014). Social sustainability is the adequate provision of social services in areas such as social equality, health, education and political accountability (Gedik, 2020: 197), while employee satisfaction is considered based on business life (Gökbulut, 2019: 40; Akandere, 2020: 66). criteria such as health and safety (Akandere, 2020: 66), social welfare (Gökbulut, 2019: 40-41; Karakuş, 2023). Environmental sustainability has become dependent on social sustainability (Yeni, 2014).

Environmental sustainability: Unlike economic sustainability, which focuses on sustaining growth and consumption at the highest level under natural resource constraints, environmental sustainability focuses on the quality and quantity of the natural environment that provides the necessary life support for human life, which is a prerequisite for the existence of an economy. This quality and quantity is called natural capital by neoclassical and ecological economics movements. As industry increasingly becomes the dominant sector, new ones have been added to the environmental degradation caused by people's agriculture-based economy. Factors such as rapid industrialization and, as a result, modern urbanization and rapid population growth have caused air, water and soil pollution, a decrease in biodiversity, and caused problems such as soil loss and desertification to reach even more serious levels (Childe, 1951/1983; Gowdy and McDaniel, 1995; Ponting, 2008; Keleş et al., 2009; Yeni, 2014). Environmental sustainability means protecting the environment we have and use as the current

generation and transferring it to future generations (Akgül, 2010: 156). In order for environmental sustainability to yield positive results, natural resource consumption must be minimized and renewable energies must be used (Duran, 2018: 17). Environmental sustainability, environmentally friendly building design (Dikmen & Prosecutor, 2015: 215), efficient use of water (Aksungur & Firidin, 2008: 9), waste and material management (Palabıyık, 2001: 117), use of environmentally friendly energy resources (Gökdalay & Firidin, 2008: 9). Evren, 2011: 42), reducing greenhouse gas emissions (Bali & Yayli, 2019: 306) etc. It covers the subjects (Karakuş, 2023).

The main purpose of sustainability is to carry today's resources to the future, and the correct and appropriate use of these resources will enable future generations to live a more comfortable and beautiful life. Businesses should evaluate the economic, environmental and social impacts they create while carrying out their activities and make improvements (Karakuş, 2023)

1.3. Sustainability in the Aviation Industry

Considering the magnitude of the sector's contribution to global growth and environmental impact, it is normal for it to be at the forefront of the sustainability debate (Hooper & Greenall, 2005: 156; Karakuş, 2023). With the increase in global economic activities and developing technology, trust and orientation in the sector is constantly increasing. While the sector progresses economically with increasing customer demand, it also aims to maintain balances in social development and environmental responsibility (Karakuş, 2023).

While global warming and climate change pose vital threats to humanity, the role of the aviation sector in this context is increasingly questioned and regulated (Barutçu and Çolakoğlu, 2024).

The International Air Transport Association (IATA) has set the goal of achieving net zero carbon emissions by 2050 (IATA, 2023). This goal is supported by various strategies such as sustainable aviation fuels (SAF), innovative technology solutions and operational improvements.

The activity reports of the General Directorate of State Airports Authority reflect the environmental sustainability policies of airports (DHMİ, 2023).

When aviation activities are considered for sustainability, it is seen that many operations negatively affect sustainability. While the most important of these negativities are the high energy requirements of the sector and the associated high carbon emissions, this is accompanied by problems such as noise pollution, environmental pollution related to solid waste and groundwater pollution due to operations. Therefore, environmental pollution is also increasing as a result of increasing aviation activities (Alpman and Göğüş, 2017).

Sustainability-related regulations of aviation industry managers (Green Deal, Carbon Accreditation Program and Taxation System), sustainability practices of airline companies and aircraft manufacturers (Solid waste conversion, A320neo, B737max), green aircraft designs (B787, A350) and alternative fuel options (Biodiesel). , hydrogen) is formed (Yıldız et al., 2024).

The task of regulating carbon emissions in the aviation sector is carried out by the International Civil Aviation Organization (ICAO) and this regulation is called Carbon Offsetting and Reduction Scheme for International Aviation – CORSIA, 2022. Participation in CORSIA is voluntary between 2021 and 2026, but from 2027 participation in the program will become mandatory. The Carbon Offsetting and Reduction Scheme for International Aviation (CORSAIR) is a global program to ensure low-carbon growth of the international aviation sector from 2020.

Taskinsoy and Uyar (2017) conducted research on sustainability reporting at Turkish Airlines (THY), Turkey's largest airline company, and made some inferences within the context of the sector within the scope of the results of this research. Although some dimensions of sustainability are reported regularly every year, other, more important dimensions have only begun to be reported in recent years. For example, while economic indicators and passenger services fleet information are reported, environmental indicators, occupational health and safety, and sponsorship activities have also been reported in recent years. Additionally, within the scope of sustainability, Boeing has pioneered a major

transformation in aircraft production by producing 50% of the body of the 787 Dreamliner model from carbon fiber reinforced plastics (Yıldız, 2023).

In their research, Barutçu and Çolakoğlu (2024) examined the steps taken by the airline companies Turkish Airlines, AJet, Pegasus and Sunexpress airlines for sustainable development. Businesses' sustainability activities, especially in the environmental dimension, include carbon emissions, vision and mission, sustainable expression in motto statements, memberships to sustainability-related accreditations, offering environmentally friendly products to passengers on flights, sustainable air fuel supply, sustainable feature of the airports they operate flights from, new generation energy and environmental friendliness. They evaluated and compared the subject with criteria such as the use of equipment.

In order to ensure sustainability in the aviation industry, where 10% of its activities are carried out in the air and 90% on the ground, it is an important necessity to understand and implement sustainability correctly in all subsystems (Karakuş, 2023). Therefore, sustainability is important in ground handling services. Conducting a study on sustainability specifically for ground handling companies will also reveal necessary information for industry stakeholders.

2. RESEARCH

2.1. Sampling

Havaş, Çelebi and TGS companies, which are classified as Class A ground handling companies in DGCA, were included in the study.

2.2. Method

Qualitative research design is utilized in the study. The codes obtained from the official websites of the enterprises (Havaş, 2024; Çelebi, 2024; TGS, 2024), activity reports, DGCA and DHMİ publications and sector bulletins were converted into categories and themes and examined. Organization' vision, mission, basic principles/values, business models/integrated management systems, quality and customer satisfaction policies, safety policies, sustainability practices they carry out, sustainability-related certificates they have, sustainability certificates airports they work in, ethical principles, social responsibility understandings, human resources. policies and strategic objectives statements were examined. N-vivo software was used in the given analysis.

3. DATA ANALYSIS

Code, category and theme analysis of the examined expressions are given in Table 1,2,3,4,5,6,7,8,9,10,11,12,13,14

3.1. Vision Statements

HAVAŞ: “To disseminate the sustainable aviation experience we offer as a reliable solution partner”

ÇELEBİ: “To be the most admired/appreciated global service provider by our employees and customers.”

TGS: “To be the leading ground handling company preferred on national and international platforms with its sustainable service quality, reliability and competitiveness.”

By combining the vision codes of Ground Handling companies with an inductive approach and collecting the individual meanings of the terms in a holistically different term content, theme categories and sustainability themes were obtained for the business in question. The term extracted from the expressions is shown as an underlined example as a code (Table 1)

Table 1. Analysis of Code-category-sustainability theme for vision statements

Company	Codes	Categories	Sustainability themes
HAVAŞ	1-reliable, 2- <u>solution</u> 3-partner, 4-sustainability	1-sustainable service, 2-stakeholder	1-general
ÇELEBİ	1-employee, 2-customer, 3-global	1-global human,2- global	1-economic, 2-social
TGS	1-quality, 2-service, 3-reliable, 4-competition, 5-leader, 6-global, 7-sustainable	1-leader, 2-sustainable	1-economic

Note: Created by the author.

3.2. Mision statements

HAVAŞ: “To offer a determined, innovative and reliable aviation experience with our strength from the past.”

ÇELEBİ: “To be a global solution partner that creates value for its stakeholders by correctly understanding the needs of airport customers and providing continuous quality service.”

TGS: “To contribute and add value to the reputation and added value of the customer airlines it serves in the global market with an understanding that is hospitable, adheres to customs, traditions and customs, protects customer information and confidentiality, cares about expectations and commitments, adheres to the principles of impartiality, complies with the sustainable principle of the environment and natural life. “

By combining the mision codes of Ground Handling companies with an inductive approach and collecting the individual meanings of the terms in a holistically different term content, theme categories and sustainability themes were obtained for the business in question. The term extracted from the expressions is shown as an underlined example as a code (Table 2)

Table 2. Analysis of Code-category-sustainability theme for mision statements

Company	Codes	Categories	Sustainability themes
HAVAŞ	1-stable, 2- <u>innovative</u> , 3-reliable	1-innovative-stability	1-economic
ÇELEBİ	1-stakeholder, 2-customer, 3-quality, 4-service, 5-global	1-sustainable global service, 2- stakeholders	1-economic
TGS	1-hospitable, 2-committed to tradition, 3-protecting customer 4-information and privacy, 5-considering expectations and commitments, 6-adhering to the principles of impartiality, 7-complying with the sustainable principles of environment and natural life, 8-global, 9-customer	1-traditional, 2-customer, 3-privacy, 4-loyalty, 5-fair, 6-global sustainable	1-environment

Note: Created by the author.

3.3. Basic principles/Values

HAVAŞ: “Determination: We do our job with passion, care and a focus on consistent performance under all circumstances.

Reliability: We establish long-term and trust-based relationships with our employees, customers and all other stakeholders.

Innovation: We adapt quickly to change and develop value-creating solutions by being open to new ideas, closely following developing technologies.

Respect for the Environment: We actively participate in transformation activities in this regard with sensitivity to environmental sustainability.”

ÇELEBİ: “Service excellence, Customer Centered, Safety Focused, Entrepreneurial, Innovative”

TGS: “Professionalism: Professionalism means working result-oriented using knowledge and experience and knowing that there is always a way. We believe that the service we provide should have holistic quality. That's why we approach every job we do with the same professionalism and care.

Respect: Acting within ethical rules is one of the basic requirements. The basis of a well-functioning order is only based on respect. We care about respecting ourselves, our work, each other, our environment, our customers and the law.

Teamwork: Uniting for common values and goals and acting in harmony always leads to success. There is nothing that the feeling of "being a team" cannot overcome. We never forget that we are parts of a whole. We embrace teamwork and know that cooperation and information sharing are the basis.

Dynamism: Dynamism requires working result-oriented and fast, regardless of the conditions, and adapting to the rapidly developing world and change in a timely manner. We are not satisfied with the realization of the result we focus on. We believe that every goal we achieve is the beginning of a new goal.

Innovation: Innovation is the best way to grow. Difference emerges with innovative applications. We always leave room for innovation in all our business processes and attach importance to development. We know that this is the only way we can provide the best service to our customers.

Customer Satisfaction: Creating value for customers ensures continuity of success. The quality of service and the right approach increases customer satisfaction and brand value. We value our customers. We first inspect ourselves, our services and processes on behalf of our customers, and respond to our customers' expectations in the best way possible.

Fair Approach and Honesty

We do not discriminate against our customers, staff, stakeholders and all institutions we communicate with, on the basis of language, religion, philosophical belief, political thought, race, gender and similar reasons. As a company, our actions are based on the principles of compliance with legal requirements, objectivity, fairness, honesty and equality.

Productivity: We prioritize the efficient use of our resources as a business culture in our services. We adopt methods that are open to development and improvement in our service and communication processes. We believe that productivity can be measured not only by financial results but also by the satisfaction of our customers, stakeholders, employees and suppliers.

Security: We attach importance to the information privacy of individuals and institutions. We ensure open, transparent and secure information exchange between the parties we communicate with.”

By combining the principles/values codes of Ground Handling companies with an inductive approach and collecting the individual meanings of the terms in a holistically different term content, theme categories and sustainability themes were obtained for the business in question. The term extracted from the expressions is shown as an underlined example as a code (Table 3)

Table 3: Analysis of Code-category-sustainability theme for basic principles/values statements

Company	Codes	Categories	Sustainability themes
HAVAŞ	1- <u>determination</u> , 2- <u>reliability</u> , 3-innovation, 4-respect for the environment	1-innovative,2-sustainable	1-economic 2-environmental
ÇELEBİ	1-service excellence, 2-customer entered, 3-safety focused, 4-entrepreneurial, 5-innovative	1-safety,2- excellence, 3-initiative	1-economic, 2-social
TGS	1-professionalism, 2- <u>respect</u> , 3-teamwork, 4-dynamism, 5-innovation, 6-customer, 7-fairness, 8-efficiency, 9-confidentiality	1-professionalism, 2-people, 3-teamwork, 4-innovative, 5-fair, 6-sustainable	1-economic, 2-social

Note: Created by the author.

3.4. Business Models/ Integrated Management Systems

HAVAŞ : “Business Excellence Model: 17 sustainable development goals of United Nations…….”

In all areas where it offers ground handling services, temporary storage (warehouse) and passenger transportation services; It supports "sustainable development", which it accepts as an expression of its corporate responsibility.”

ÇELEBİ : “Customer Focused, Collective Employee Participation, Process Centered, Integrated Management System, Strategic and systematic approach, Continuous Improvement, Making fact-based decisions, Communication, Safety”

TGS: “...It provides a service that ensures continuous improvement by adhering to national and international legislation and customer conditions. TGS, with the responsibility of being the largest national "Ground Handling Company", maintains its position in the sector and is among the "Leading" organizations on the international platform by responding to customer needs with the understanding of a leading organization for its other stakeholders. Taking into consideration the legal and financial requirements and our commitments;

TGS, within the scope of the determined information security management system;

TGS carries out all its activities on the digital platform to ensure continuous improvement by managing all business processes, relations with internal / external customers and authority organizations more easily and remotely, and QDMS Modules Software System within the Integrated Management System structure in order to reduce the use of natural resources and ensure faster progress of processes. uses. TGS has implemented technological and digital transformation in line with the needs of the age and continues it together with all its employees.

All together, Further

In order to take our services to even better levels, we manage all our activities with the understanding of "sustainability" and act with a new vision based on innovation and transformation to improve our experience.”

By combining the business models/integrated management systems expressions codes of Ground Handling companies with an inductive approach and collecting the individual meanings of the terms in a holistically different term content, theme categories and sustainability themes were obtained for the business in question. The term extracted from the expressions is shown as an underlined example as a code (Table 4)

Table 4: Analysis of Code-category-sustainability theme for Business Models/ Integrated Management Systems expressions

Company	Codes	Categories	Sustainability themes
HAVAŞ	1-determination, 2-innovation,3- reliability, 4-respect for the environment, 5-corporate social responsibility, 6-sustainable	1-stability, 2-innovative, 3-sustainable	1-economic, 2-environmental, 3- social
ÇELEBİ	1-customer focused 2-collective 3-employee participation 4-process centered 5-integrated management system 6-strategic and systematic approach 7-continuous improvement 8-making fact-based decisions 9-communication 10-safety	1-customer, 2-employee involvement, 3-process, 4-continuous improvement,5- safety, 6-data,	1-economic, 2-social
TGS	1-national and international legislation, 2-customer, continuous improvement, 3-leader, 4-stakeholder, 5-customer, 6-loyalty, 7-reliable, 8-resources, 9-quality, 10-employee, 11-fair, 12-risk, 13-safety, 14-competence,15-privacy, 16-digital, 17-resource, 18-natural resource, 19-sustainable, 20-innovation	1-legislation, 2-global, 3-leader, 4-development, 5-stakeholder, 6-reliable, 7-fair, 8-safety, 9-human resources, 10-innovative, 11-digital, 12-sustainable	1-economic, 2-environmental, 3-social

Note: Created by the author.

3.5. Quality Policy

HAVAŞ: “To ensure effective service and the highest level of customer satisfaction; We fully understand customer expectations and provide the resources necessary for continuous improvement. We create open communication channels that will ensure the participation of all employees in order to increase sustainable service and efficiency.”

ÇELEBİ “Quality and Safety

The quality of our services is always our priority.

Çelebi’s approach to quality is to translate the group’s strategic purpose into practical applications that ensure continuous service and process standardization and increase customer satisfaction in line with the principles of Total Quality Management. A high level of customer experience management is the main goal to achieve sustainable service development.

Policy: Çelebi’s vision on quality;

To be a team that focuses on quality and customer satisfaction, adapts to innovation and adds value to its services.

Çelebi’s mission regarding quality;

To provide the highest service quality by working hard to provide warmth, individual motivation, satisfaction and company spirit to our customers.

In accordance with this vision and mission, Çelebi created a “Quality and Customer Focused” corporate culture; Providing unique / standard / quality management supported services worldwide.....”

By combining the quality policy statement codes of Ground Handling companies with an inductive approach and collecting the individual meanings of the terms in a holistically different term content, theme categories and sustainability themes were obtained 494ort he business in question. The term extracted from the expressions is shown as an underlined example as a code (Table 5)

Table 5: Analysis of Code-category-sustainability theme for Quality Policies statements

Company	Codes	Categories	Sustainability themes
HAVAŞ	1-effectiveness, 2-productivity, 3- <u>customer satisfaction</u> , 4-expectation, 5-continuous improvement,6-resources, 7-sustainability, 8-employee participation, 9-open communication	1-sustainability, 2-total quality management, 3-communication	1-economic
ÇELEBİ	1-safety, 2-group, 3-strategy, 4-continuous service, 5-standardization,6-process, 7-total quality management, 8-customer satisfaction, 9-sustainability, 10-innovation, 11-quality and customer-oriented corporate culture,12-change, 13-business transformation, 14-future, 15-project, 16-technology, 17-environment, 18- health, 19-security, 20-lean	1-safety, 2-strategy, 3-sustainability, 4-standardization, 5-total quality management, 6-culture, 7-innovation, 8-change, 9-future, 10-environment,11- health	1-economic, 2-environmental, 3-social
TGS	-	-	-

Note: Created by the author.

3.6. Customer Satisfaction Policy

HAVAŞ: “We are committed to being open, transparent, fast, reliable and customer-oriented when fulfilling our customers' demands. We accept every feedback we receive as a reward for our continuous improvement; We examine and offer solutions objectively, fairly, carefully and

TGS “Customer Satisfaction

As TGS Ground Handling Company, we aim to provide service to our valued customers within the framework of 10002 Customer Satisfaction Management System.

As we have committed in our Integrated Management Policy, by considering our customers as 'Right' first; We evaluate their complaints from this perspective. We respond to all suggestions, complaints, requests and objections regarding our services with a solution proposal as soon as possible.

We constantly make the necessary corrections, improvements and controls to prevent the same dissatisfaction from occurring again, and we establish strong, accurate, clear and ongoing customer relationships after the services provided.

For this reason, it

By combining the principles/values codes of Ground Handling companies with an inductive approach and collecting the individual meanings of the terms in a holistically different term content, theme categories and sustainability themes were obtained for the business in question. The term extracted from the expressions is shown as an underlined example as a code (Table 6)

Table 6: Analysis of Code-category-sustainability theme for Customer Satisfaction Policy/Policies statements

Company	Codes	Categories	Sustainability themes
HAVAŞ	1-open, 2-fast, 3-reliable, 4-feedback, 5-fair, 6-confidentiality, 7-process	1-reliable, 2-customer 3-communication	1-social
ÇELEBİ	-	-	-
TGS	1-customer satisfaction 2-management system, 3-reliable, 4-solution, 5-customer relations, 6-procedure, 7-feedback	1-institutionalization, 2-system, 3-reliable, 4-sustainable	1-social

Note: Created by the author

3.7. Sustainability Activities They Carry Out

HAVAŞ “ENVIRONMENT By separating our waste at the source and recycling it with the principle of preventing pollution, we minimize our environmental impact and ensure continuous improvement. We comply with relevant national and international legal and other requirements and always set our improvement targets to exceed these requirements. It is our common responsibility with all our employees and stakeholders to protect the natural resources we ...OCCUPATIONAL HEALTH AND SAFETY: Our goal in our services designed with the principle of "people first" is to constantly improve our occupational health and safety performance. We accept

Paperless Operation Project (FIORI), E-ticket

The focus of processes and projects designed specifically for the sector and the company is to improve the experiences of its customers and employees. In this context, it collects data from

TGS: “TGS minimizes environmental impacts by separating and recycling waste at its source in all areas of service, and provides continuous improvement by using natural resources efficiently. It takes the necessary precautions to protect natural resources with all its employees and ensures

Environmental Management Systems Policy

In the services it provides within the scope of Ground Handling Activities, it acts with a holistic and proactive approach in line with its obligations, in compliance with national and international legislation regarding aviation and the environment. By integrating the

By combining “sustainability activities carried out by companies” codes of Ground Handling companies with an inductive approach and collecting the individual meanings of the terms in a holistically different term content, theme categories and sustainability themes were obtained for the business in question. The term extracted from the expressions is shown as an underlined example as a code (Table 7)

Table 7: Analysis of Code-category-sustainability theme for sustainability activities carried out by companies

Company	Codes	Categories	Sustainability themes
HAVAŞ	1-environment: recycling, 2-continuous improvement, 3-compliance with laws, 4-standards, efficiency, 5-natural resources, stakeholders, 6-employees, 7-occupational health and safety: people first, 8-national and international legislation, 9-continuous improvement, 10-denominator, 11-environmentally friendly projects 12-sustainability 13-audit	1-environment, 2-occupational health and safety, 3-stakeholder, 4-audit	1-social 2-environmental
ÇELEBİ	-	-	-
TGS	1-environment: waste management, recycling, 2-continuous improvement, 3-efficiency, 4-respect for people, 5-sustainability, 6-legislation, 7-proactive, 8-environmental management system, 9-10-natural resources, 11-stakeholders, 12-environmentally friendly projects	1-environmental management system, 2-proactive, 3-continuous improvement, 4-stakeholder,	1-environmental

Note: Created by the author

3.8. Safety Policies

HAVAŞ “..... determining the security duties and responsibilities of employees throughout the organization, as well as the implementation lines.

Regulatory Compliance: We ensure that security processes are

Continuous Improvement: We review all security practices and processes

Sourcing: We provide financial, material, equipment, training and all other

Security Culture: We know that security is everyone's responsibility, from bottom to top and top to bottom, and we see security as a core value and an important element of operational

Threat Assessment and Risk Management: We identify and evaluate operational security threats and ensure their reduction in order to appropriately manage security risks.

Security Training: We ensure and require that the qualifications

Incident Reporting System: Within the scope of our fair culture approach in our operational security culture; We undertake that reporting that may affect our performance (except

Performance Monitoring: We determine our security targets with the Senior Management and set security performance standards, monitor them and take actions if necessary to achieve these targets.

We believe that the Safety Management System can only be achieved with the participation of all employees. All our management levels and all our employees

Our commitments: We support safety management by providing all appropriate resources that promote safe practices and support effective safety reporting We continually improve our safety performance.”

ÇELEBİ : “ Quality and Safety: The quality of our services is always our priority.

Safety is our priority!

Being aware of the importance of ensuring safety in all its activities, Çelebi Aviation Holding considers preventing any possible losses by creating a safe working environment as its primary business goal. For this purpose, it constantly develops, implements and improves its processes; Thus, it aims to achieve the highest level of safety performance

TGS: “ TGS creates a culture in which the Safety Management System, especially human values, is the main priority in all administrative and operational business processes. In addition, TGS is committed to a safe working environment for its Senior Management and staff, especially the General Manager. It provides the necessary human, financial and infrastructure resources for the implementation of the Safety Management System;

TGS creates a culture in which the Safety Management System, especially human values, is the main priority in all administrative and operational

By combining “safety policy statements” codes of Ground Handling companies with an inductive approach and collecting the individual meanings of the terms in a holistically different term content, theme categories and sustainability themes were obtained for the business in question. The term extracted from the expressions is shown as an underlined example as a code (Table 8)

Table 8: Analysis of Code-category-sustainability theme for Safety Policy Statements

Company	Codes	Categories	Sustainability themes
HAVAŞ	1- <u>security</u> , 2-company procedure, 3- <u>responsibility</u> , 4-operational security, 5-regulatory compliance, 6-security management system, 7-continuous improvement, 8-sourcing, 9-safe culture, 10-risk management, 11-safety training, 12-incident reporting system, 13-performance monitoring, 14-policies, 15-employee participation, 16-fair culture, 17-reporting incentive, 18-impartial communication, 19-competence, 20-new technology	1-law, 2-security, 3-system, 4-control and improvement, 5-culture, 6-employee,7- incentive, 8-strategy, 9-technology, 10-sustainability	1-economic, 2-social
ÇELEBİ	1-quality, 2-safety, 3-proactive, 4-continuous improvement, 5-global, 6-standard, 7-responsibility, 8-reporting 9-incentive, 10-communication, 11-fair culture, 12-voluntary participation, 13-risk	1-quality, 2-proactive, 3-safety, 4-responsibility, 5-improvement, 6-global, 7-employee, 8-sustainability	1-social

	assessment, 14-competence, 15-strategy		
TGS	1-human, resource, 2-incentive, 3-safety management system, 4-culture, 5-senior management, 6-reporting, 7-communication, 8-responsibility, 9-risk assessment, 10-law, 11-standards, 12-strategy, competence, 13-continuous improvement, 14-audit, fair	1-sustainable, 2-system, 3-culture, 4-top management, 5 responsibility, 6-law, 7-strategy	1-economic, 2-social

Note: Created by the author

3.9. Sustainability-related certifications they hold

HAVAŞ “Barrier-Free Airport

Greenhouse Gas emission management system

YHA Project compliance with sectoral criteria certificate (Green airport project compliance with sectoral criteria)

Green Enterprise certificates”

ÇELEBİ: “ISO 14001, OHSAS 18001” CEIV (Preventing food waste, in transportation)

Registered green airport and green organization

Registered Barrier-Free Airport supporter”

TGS “Greenhouse Gas Report, ISO14001

Compliance with YHA Sectoral criteria (Green Airport Project)”

By combining “certificates of organizations” codes of Ground Handling companies with an inductive approach and collecting the individual meanings of the terms in a holistically different term content, theme categories and sustainability themes were obtained for the business in question. The term extracted from the expressions is shown as an underlined example as a code (Table 9)

Table 9: Categories and sustainability themes of certificates of organizations

Company	Codes	Categories	Sustainability themes
HAVAŞ	6 certificates	Sustainability	Environment, social
ÇELEBİ	5 certificates	Sustainability	Environment, social
TGS	3 certificates	Sustainability	Social

Note: Created by the author

3.10. Sustainability Certificates Airports They Work With

HAVAŞ “.....”

Table 10: Sustainability certified airports and themes where companies work

Company	Codes	Categories	Sustainability themes
HAVAŞ	7 airports	1-sustainability	1-environment, 2-social
ÇELEBİ	-	-	-
TGS	-	-	-

Note: Created by the author

3.11. Ethical Principles

ÇELEBİ: “Çelebi Aviation Group's Ethical Conduct Principles are as follows; Commitment to Purpose and Mission, Compliance with Laws and Service Standards, Honesty, Objectivity and Equality, Courtesy, Respect, Honor and Trust, Efficient Use of Resources, Information Management and Privacy, Professionalism Avoiding

We are proud to state that our company is a member of the Ethics and Reputation Association (TEİD).”

TGS “.....away from any harmful substances/behaviors that may cause errors in spiritual/mental perception.”

By combining ethical principles codes of Ground Handling companies with an inductive approach and collecting the individual meanings of the terms in a holistically different term content, theme categories and sustainability themes were obtained for the business in question. The term extracted from the expressions is shown as an underlined example as a code (Table 11)

Table 11: Analysis of Code-category-sustainability theme for Ethical Principles

Company	Codes	Categories	Sustainability themes
HAVAŞ	-	-	-
ÇELEBİ	1- <u>mission</u> , 2-law, 3-standard,4- honesty, 5-equality, 6-objectivity, 7-respect,8- resource, 9-efficiency, 10-information, 11-confidentiality, 12-professionalism, 13-environment, 14-justice, 15-media	1-law, 2-standard, 3-justice, 4-integrity, 5-sustainability, 6-corporate belonging, 7-corporate ethics	1-economic, 2-social, 3-environmental
TGS	1-employee awareness, 2-law and standard, 3- <u>individual health</u> , 4-compelling	1-awareness, 2-requirements, 3-obstructive behavior	1-social

Note: Created by the author

3.12. Concept of Social Responsibility

ÇELEBİ: “In addition to its sectoral successes, Çelebi is determined to undertake projects that will make a splash in the field of social responsibility and to ensure continuity in this regard Creating its corporate social responsibility projects and approaches within the framework of the principle of giving back to society, Çelebi provides direct or indirect support to different activities, especially education.

Çelebi Aviation Holding became a signatory of the UN Women's Empowerment Principles”

By combining “concepts of social responsibility” codes of Ground Handling company (only Çelebi) with an inductive approach and collecting the individual meanings of the terms in a holistically different term content, theme categories and sustainability themes were obtained for the business in question. The term extracted from the expressions is shown as an underlined example as a code (Table 12)

Table 12: Analysis of Code-category-sustainability theme for Concepts of Social Responsibility

Company	Codes	Categories	Sustainability themes
HAVAŞ	-	-	-
ÇELEBİ	1- <u>projects</u> , 2- <u>society</u> , 3-education, 4-future, 5-support for women	1-society, 2-future, 3-sustainable	1-social
TGS	-	-	-

Note: Created by the author

3.13. Human Resource Policies

HAVAŞ: “It aims to bring the employees it will invest in to the company, to establish sustainable structures that can carry their knowledge, competence and experience into the future, and to improve the loyalty and satisfaction of its employees by considering the balance of organizational efficiency and equity.”

ÇELEBİ: “Working at Çelebi: With more than 60 years of operational and professional history, Çelebi continues to provide and expand excellent service to its customers all over the world with a customer-oriented and safety-oriented approach. In order to do this, Çelebi offers its employees a practical and developing environment that allows growth and development anytime, anywhere.

Our Workplace Culture: Çelebi started to operate in different countries in the last ten years. Working with different cultures and expanding globally has made our workplace culture collaborative, inclusive and diverse.

Our HR Approach: We believe that quality service is only possible with a successful and committed workforce.....”

TGS: “In parallel with its rapid growth, the number of employees of TGS is increasing day by day. The philosophy of ‘the right person for the right job’ lies at the basis of TGS’s Human Resources policy. The Company’s Human Resources policy is basically based on the following principles”

To carry out the selection and assignment of qualified people appropriate to the competence of the task.

To develop Human Resources practices to meet the managerial needs that will arise in line with the company’s growth targets, to improve the foreign language knowledge of white-.....”

By combining “human resource policies” codes of Ground Handling companies with an inductive approach and collecting the individual meanings of the terms in a holistically different term content, theme categories and sustainability themes were obtained for the business in question. The term extracted from the expressions is shown as an underlined example as a code (Table 13)

Table 13: Analysis of Code-category-sustainability theme for Human Resource Policies

Company	Codes	Categories	Sustainability themes
HAVAŞ	1- <u>intellectual capital</u> , 2- <u>future</u> , 3-competence, 4-efficiency, 5-justice, 6-commitment, 7-satisfaction	1-intellectual capital, 2-vision, 3-efficiency, 4-sustainable human resources	1-economic, 2-social
ÇELEBİ	1-customer and safety focus, 2-development, management of differences, 3-organizational culture, 4-organizational commitment, 5-identification, 6-intellectual capital, 7-participation, 8-teamwork, 9-initiative, 10-creativity, 11-productivity, 12-equal	1-customer, 2-safety, 3-diversity management, 4-culture, 5-intellectual capital, 6-employee development, 7-productivity, 8-goals, 9-proactive, global	1-economic, 2-social

	opportunity, 13-system, 14-feedback, 15-management by objectives, 16-leading the sector, 17-global, 18-education central		
TGS	1-growth, 2-competencies, 3-development-oriented culture, 4-communication, 5-teamwork, 6-reward, success incentive, 7-fair, corporate law, 8-employee rights, 9-commitment to duty, 10-open communication, 11-productivity, 12-leading business, 13-global, 14-quality, 15-focus on learning, 16-individual responsibility in development, 17-personnel and customer satisfaction, 18-innovative training, 19-sustainable training, 20-trust, 21-standards and requirements	1-competence, 2-development, 3-culture, 4-institutionality, 5-requirements, 6-employee 7-focus, 8-productivity, 9-leader, 10-quality, 11-customer, 12-responsibility	1-economic, 2-social

Note: Created by the author

3.14. Strategic Goals

TGS. “TGS aims to continue its rapid and stable growth, which it has adopted since its establishment, by further improving its service quality. By achieving rapid growth in a

By combining “human resource policies” codes of Ground Handling company (only TGS) with an inductive approach and collecting the individual meanings of the terms in a holistically different term content, theme categories and sustainability themes were obtained for the business in question. The term extracted from the expressions is shown as an underlined example as a code (Table 14)

Table 14: Analysis of Code-category-sustainability theme for Companies’ strategic goals

Company	Codes	Categories	Sustainability themes
HAVAŞ	-	-	-
ÇELEBİ	-	-	-
TGS	1-growth, 2-stability, 3-quality, 4-customer, 5-stakeholder, 6-creativity, 7-technology, 8-reliable, 9-participatory team, 10-global leader, 11-profitability, 12-institutionalization, 13-devoted and competent human resources, 14-culture of making a difference through innovation, 15-effective use of technology, 16-brand, 17-sustainable value, 18-efficiency	1-corporate sustainability, 2-growth, 3-quality, 4-stakeholder, 5-global leader, 6-profit, 7-corporateness, 8-innovation, 9- technology	1-economic, 2-social, 3-environmental

Note: Created by the author

CONCLUSION

When the vision and mission statements of the enterprises are examined, the categories created reveal more economic sustainability due to the emphasis on ensuring continuity in service production. Only Çelebi Airlines in their vision statements and TGS in their mission statements draw attention to social and environmental sustainability, respectively, in addition to economic sustainability. When the basic principles/values of the businesses are examined, all three businesses emphasize economic sustainability, only one business attributes it to environmental sustainability, and two businesses attribute it to social sustainability. To support these findings, Tabares et al. (2021) emphasize that economic sustainability in air transportation is directly linked to ground services.

Considering business models/integrated management systems, all three sustainability themes were reached through content analysis. Code expressions of Çelebi Ground Services that do not relate to environmental sustainability mean that the relative importance of the environment is less in terms of holistic approach in the integrated management system. In line with the findings of this research, Türeli et al. (2019) have linked sustainability in airline services to the human resources of ground services in all aspects. The codes analyzed and the categories created in terms of quality policies mostly show the importance attributed to economic sustainability, followed by environmental and social sustainability in service quality. There is no specific information directly for the quality policy on TGS's business website.

Content analysis of businesses' customer satisfaction policies revealed social sustainability as a single sustainability theme. It is noteworthy that there is no direct emphasis on economic sustainability in businesses' perspectives on their customers. Similarly, Türeli (2019) considered sustainability as a key factor in the process of developing innovative behavior to enhance passenger satisfaction. In the code-category and sustainability theme analysis of the sustainability activities carried out by businesses, it is seen that they mostly focus on environmental and secondly social sustainability activities. The purpose of providing any economic advantage while carrying out these activities is not mentioned in the statements. Similarly, Huang (2024) emphasized sustainable energy by pointing out that sustainable development in airport ground services is directly linked to environmental sustainability.

In terms of safety policies, the human element is at the forefront of all efforts to ensure that passengers complete their travels in a safe and secure environment, employees continue to work in a safe and secure environment, accurate diagnosis of risks and taking proactive measures. The prevailing sustainability theme is therefore social. Similarly, Miguel et al. (2017) in their study measuring the sustainability performance of airline ground handling operations, have considered accident perceptions as a value measured within the scope of social sustainability. IATA emphasizes the concept of safety as a priority in the understanding of sustainability for ground services (IATA, 2024). Alparslan (2024) has implied social sustainability in the aviation sector by associating sustainability with safety culture and its relationship with cultural values. In this study, economic sustainability will emerge depending on social sustainability, as all safety-related processes will ensure continuity of service as an output.

In terms of certification documents of businesses, the company with the most documents regarding sustainability is HAVAŞ. The focus of the certificates obtained is the environment, and secondly, the social sustainability dimension. Only HAVAŞ has declared this situation in terms of sustainability certified airports where businesses operate. Sustainability themes of seven airports are social sustainability as they are environmentally friendly and have a variety of services focused on people (disabled people, etc.).

The ethical principles declared on the websites of the two businesses were examined and it was seen that the dominant sustainability dimension was social. Çelebi also emphasized the understanding of environmental protection in its ethical principles.

A single business declared its understanding of social responsibility in these terms. Çelebi provides this support to the society in the field of social sustainability in terms of its declared social responsibility activities. Through corporate social responsibility (CSR), corporations significantly contribute to the nations' objectives of sustainable development and a social market economy that is

extremely competitive (Stevenson and Marintseva, 2019). Stevenson and Marintseva (2019) state in their study that corporate social responsibility assessments in the aviation sector can be used to determine sustainability performance.

In terms of human resources policies, the categories created by all three enterprises reveal the economic and social sustainability dimensions. Similarly, Türeli (2019) has associated the efforts to increase passenger satisfaction through ground services human resources with social sustainability by emphasizing passengers and employees, and with economic sustainability by emphasizing service quality. There is no direct environmental sustainability theme in the human resources policies of any business.

Only TGS has directly declared its strategic goals on its official website. The analyzed codes and created categories of strategic goals touch on all three dimensions of sustainability.

Considering all the themes together, the most dominant sustainability theme for Class A ground handling services is social, followed by economic, and least environmental. The concepts of "corporate social responsibility" and "social responsibility" used by business managers have actually revealed an awareness that will link many activities of the business with the theme of social sustainability.

When looking at the studies on the sustainability dimensions of Turkish airlines in the Turkish literature, Karakuş (2023) carried out a single case analysis in his study, in which aircraft-related variables were used more intensively and quantitative evaluation criteria were used relatively more, only in the case of THY. In the study titled "Environmental impacts at airports", which is a publication of the General Directorate of Civil Aviation, only variables related to environmental sustainability are explained and IATA recommendations are included (DGCA, 2010). Ground handling companies were not specifically mentioned.

Barutçu and Çolakoğlu (2024) mainly examined their environmental sustainability performance in their research, considering four companies they identified that operate in airline passenger and cargo transportation. Some of the criteria used for environmental sustainability assessment in this research (collaborations in terms of sustainability membership - certificates received, activities carried out regarding sustainability, operating sustainable accredited airports) are similar to those used in the study of Barutçu and Çolakoğlu (2004).

Sustainability awareness is a multidimensional structure that covers individuals' knowledge levels, attitudes and behaviors on environmental, social and economic sustainability issues (Marcos-Merino et al., 2020). In this structure, the dimensions of environment, society and economy, which constitute the basic elements of sustainability, can be taken into consideration in an integrated manner. The sustainability awareness model organizes this complex structure around three main components: sustainability knowledge (B), sustainability attitudes (T) and sustainability behavior (D). This model is based on UNESCO's education framework for sustainable development and addresses the three dimensions of sustainability within each main component (Altın and Kırçova, 2024). According to the findings of this research, it can be stated that Class A ground handling companies in Turkey have more social sustainability awareness. When the examined criteria are considered in terms of knowledge, attitude and behavioral characteristics, it can be stated that they are mostly criteria that reflect attitudinal and behavioral dimensions. The type of sustainability in which the knowledge component of sustainability dominates is mostly related to the economic dimension.

The study is the first to examine sustainability dimensions for ground handling companies using a qualitative method. Additionally, it contributes to the creation of sector-specific sustainability indicators.

Managerial Implications

The rapidly growing aviation industry also has an important responsibility regarding sustainability with its economic, social and environmental positive/negative effects (Karakuş, 2023). Sustainability awareness will develop when business managers consider the concept of sustainable management as a tool to achieve competitive advantage (Baxter, et al., 2015)

Social responsibility projects and activities carried out in the social sustainability dimension will positively affect the corporate image and have a positive impact on customer loyalty.

If the collaborations between business managers and their competitors are carried out for the dimensions and sub-elements where sustainability is relatively less ensured, organizational performance will be expected to increase. Since Ground Handling companies are suppliers to airline companies, their sustainability performance can be a guide in diagnosing their future vertical growth.

In this context, especially for ground handling companies that provide integrated services with the tourism sector, it would be a useful approach to consider the sustainability performance of the businesses in their business protocols. Businesses that take the environment, passengers and employees into consideration in the decisions they make and the activities they carry out will be able to increase the trust and employee loyalty that will arise due to their high sustainability performance (Türelı et al., 2019).

Limitations and Further Studies

The fact that the situation assessment regarding the dimensions of sustainability is limited to the information declared by the businesses on their websites is a limitation for the research. This evaluation was carried out assuming that all sustainability activities, stated policies and operational processes of the businesses are carried out as specified. The study can make a more detailed sustainability dimension assessment for each criterion examined by using numerical data and metric measurements from activity reports. Comparison of the organizational-structural variables and sustainability performances of the companies in question is another research topic.

REFERENCE

- Akandere, G. (2020). Sosyal sürdürülebilirlik açısından tedarik zinciri yönetiminde iş sağlığı ve güvenliği uygulamaları. *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (44): 63-72.
- Akgül, U. (2010). Sürdürülebilir kalkınma: Uygulamalı antropolojinin eylem alanı. *Ankara Üniversitesi Dil ve Tarih Coğrafya Fakültesi Antropoloji Dergisi*, 24: 133- 163
- Aksungur, N. & Firidan, Ş. (2008). Su kaynaklarının kullanımı ve sürdürülebilirlik. *Aquaculture Studies*, (2): 9-11.
- Alagöz, M. (2004). Sürdürülebilir kalkınmanın paradigması. *Sosyal Ekonomik Araştırmalar Dergisi*, 4(8): 1-23.
- Alpman, E. & Göğüş, A.Y. (2017). Havacılıkta Sürdürülebilir Gelişme Göstergeleri. *Sürdürülebilir Havacılık Araştırmaları Dergisi*, 2(1): 1-11
- Kırvanoğlu Altın, B., & Kırçova, İ., (2024). Çevresel, sosyal ve ekonomik sürdürülebilirlik bilincinin ve algılanan tüketici etkinliğinin sürdürülebilir tüketim bağlamında incelenmesi, *BMIJ*, 12 (3): 571-599
- Bali, S. & Yaylı, G. (2019). Karbon vergisinin Türkiye'de uygulanabilirliği 1. *Third Sector Social Economic Review*, 54(1): 302-319.
- Barutçu, S. B. & Çolakoğlu, Ü. (2024). Havayolu Taşımacılığında Sürdürülebilirlik Analizi: Türkiye. *Journal of Travel and Tourism Research*, 24 (24): 106-124.
- Baxter, G., Sabatini, R. & Wild, G. (2015). *The Carbon Cost of Aircraft Ground Handling Using Electric Tugs to Improve Environmental Sustainability of Ground Operations*, First International Symposium on Sustainable Aviation, Istanbul: Turkey.
- Childe, G. (1951/1983). *Man makes himself*. NAL Penguin: London

- Çelebi (2024). Hakkımızda. Erişim adresi: <https://www.celebiaviation.com/tr/about/about-us>. Erişim Tarihi: 13.09.2024.
- Demir, M. (2012). Örgütsel Destek, Örgütsel Bağlılık ve İşten Ayrılma Eğilimi İlişkisi: Havalimanı Yer Hizmetleri İşletmelerine Yönelik Bir Araştırma, *"İŞ, GÜÇ" Endüstri İlişkileri ve İnsan Kaynakları Dergisi*, 4(1): 47-64.
- DGCA, (2004) Standart Ground Handling Agreement, Standart Yer Hizmetleri Anlaşması. Erişim Adresi: <http://web.shgm.gov.tr/tr/kurumsal/yayinlar/226-standart-yer-hizmetleri-anlasmasi> Erişim Tarihi: 12 Eylül 2024
- DGCA, (2010). *Havaalanlarına Çevresel Etkiler*. Erişim Adresi: <https://web.shgm.gov.tr/documents/sivilhavacilik/files/pdf/kurumsal/yayinlar/hadt11.pdf> Erişim Tarihi: 12 Eylül 2024
- DGCA (2018). *Yer Hizmeti Kuruluşları*. Erişim Adresi: <https://web.shgm.gov.tr/documents/sivilhavacilik/files/mevzuat/sektorel/yonetmelikler/2018/SH-Y-22Rev2.pdf> Erişim tarihi: 5. 09.2024
- DGCA-22, (2016). *Yer Hizmetleri Yönetmeliği*. Erişim Adresi: <https://web.shgm.gov.tr/documents/sivilhavacilik/files/mevzuat/sektorel/yonetmelikler/2018/SH-Y-22Rev2.pdf>. Erişim Tarihi. 01 Ekim 2024
- DHMİ (2023), *Faaliyet Raporu 2023*. Erişim Adresi: <https://www.dhmi.gov.tr/Lists/FaaliyetRaporlari/Attachments/24/Faaliyet-Raporu-2023.pdf> Erişim Tarihi: 10.09.2024
- Dikmen, Ç.B. & Savcı (2015). Sürdürülebilir yapı tasarımı kapsamında çevre dostu yeşil çatı uygulamalarının irdelenmesi. *Uluslararası Sürdürülebilir Yapılar Sempozyumu*, 28(30): 214-220.
- Duran, B. (2018). *Sürdürülebilirlik kavramının önemi karşılaşılan sorunlar ve şirketlerin sürdürülebilirlik raporlarının incelenmesi*. Yüksek lisans tezi. Başkent Üniversitesi: Ankara
- Erdoğan, D. (2019). Sözleşme Süresinin Belirlenmesi: İşlem Maliyeti Teorisi Bakışıyla Yer Hizmeti Sözleşmeleri Üzerine Ampirik Bir Araştırma, *Gaziantep University Journal of Social Sciences*, 18 (2): 623-637.
- Frank Alparslan, F. (2024). Sustainability in Aviation and Safety Culture., A. Hosseinian-Far, E. Laryea, D. Sarwar, O. Omoloso., C. D. Uba (Edt.), *Contemporary Sustainable Organisational Practices. CSR, Sustainability, Ethics & Governance* (:149-170). Springer.
- Gedik, Y. (2020). Sosyal, ekonomik ve çevresel boyutlarla sürdürülebilirlik ve sürdürülebilir kalkınma. *Uluslararası Ekonomi Siyaset İnsan ve Toplum Bilimleri Dergisi*, 3(3): 196-215.
- Gowdy, J. M., & Mcdaniel, C. N. (1995). One world, one experiment: addressing the biodiversity—economics conflict", *Ecological Economics*, 15(3): 181-92.
- Gökbulut, N. (2019). *Türkiye'deki havalimanlarının sürdürülebilirlik uygulamalarının AHP yöntemi ile değerlendirilmesi*. Yüksek Lisans Tezi. İstanbul Üniversitesi: İstanbul
- Gökdalay, M.H., & Evren, G. (2011). Havaalanlarının performans analizinde bulanık çok ölçütlü karar verme yaklaşımı. *İTÜ DERGİSİ*, 8(6): 157-168.
- Günaşan, Ö.M. (2020). *Havaalanı yer hizmetleri kuruluşlarındaki hareket departmanının sorunlarına yönelik betimleyici bir araştırma*. Yüksek lisans tezi. Hitit Üniversitesi: Çorum.
- Hamilton, C. (2006). Measuring sustainable economic welfare. G. Atkinson, S. Dietz, & E. Neumayer (Edt.), *Handbook of Sustainable Development* (: 307-318) Edward Elgar: USA
- Havaş (2024). *Hakkımızda*. Erişim adresi: <https://havas.net/hakkimizda>. Erişim Tarihi: 11.09.2024.
- Hicks, J. (1946). *Value and Capital: An inquiry into some fundamental principles of economic theory*. Second Ed..Oxford University Press: Oxford

- Hirst, M. (2008). *The air transport system*. Woodhead Publishing Limited: Cambridge
- Hooper, P. D., & Greenall, A. (2005). Exploring the potential for environmental performance benchmarking in the airline sector. *Benchmarking: An International Journal*, 12(2): 151-165.
- IATA (2024). *Ground Handling Priorities: Safety, Global Standards & Sustainability*. Erişim Adresi: <https://www.iata.org/en/pressroom/2024-releases/2024-05-07-01/> Erişim Tarihi: 20.12.2024
- ICAO (2000). *Ground handling at airports*. Conference on the Economics of Airports and Air Navigation Services. International Civil Aviation Organisation, Montreal. Erişim Adresi: <https://www.icao.int/Meetings/ansconf2000/Documents/wp10e.pdf> Erişim Tarihi: 11/06/2024
- International Air Transport Association (IATA). (2023). *Net zero 2050: sustainable aviation fuels*. Erişim Adresi: <https://www.iata.org/en/iatarepository/pressroom/fact-sheets/fact-sheet---alternative-fuels/> Erişim Tarihi: 01/04/2024
- Karakuş, G. (2023). Türk Hava Yolları sürdürülebilirlik raporları üzerine bir araştırma. *Aerospace Research Letters (ASREL) Dergisi*, 2(2): 86-113.
- Keleş, R., Hamamcı, C., & Çoban, A. (2009). *Çevre Politikası*. Altıncı baskı. İmge Yayınları: Ankara
- Kıymılı, Z.M. (2006). *Depreme Duyarlı Bölgelerde Sürdürülebilir Mimari Tasarım; Isparta/Mavikent Örneği*. Yüksek Lisans Tezi. Süleyman Demirel Üniversitesi: Isparta.
- Köşker, Z. & Gürer, A. (2020). Sürdürülebilirlik çerçevesinde yeşil örgüt kültürü. *Ekonomi İşletme Siyaset ve Uluslararası İlişkiler Dergisi*, 6(1): 88-109.
- Marcos-Merino, J.M., Corbacho-Cuello, I. & Hernández-Barco, M. (2020). Analysis of sustainability knowingness, attitudes and behavior of a Spanish pre-service primary teachers sample. *Sustainability*, 12, 7445: 1-23.
- Markandya, A., Harou, P., Bellu, L.G. & Cistulli, V. (2002). *Environmental Economics for Sustainable Growth: A Handbook for Practitioners*. Edward Elgar: Northampton
- Miguel, P.Z., Josa, A. & Trapote, C. (2017). *Sustainability analysis of the ground handling operations using MIVES methodology. Case study: El Prat airport., Escola de Camins, Departament d'Enginyeria Civil i Ambiental*. Erişim Adresi: https://upcommons.upc.edu/bitstream/handle/2117/117566/TFM_PolZampaglione.pdf Erişim Tarihi: 01/04/2024
- Munasinghe, M. (2001). Sustainable development and climate change: applying the sustainomics transdisciplinary meta-framework, *International Journal of Global Environmental Issues*, 1(1): 13-55.
- Munasinghe, M. (2009). *Sustainable Development in Practice: Sustainomics Methodology and Applications*. Cambridge University Press: Cambridge
- Özçağ, M. & Hotunluoğlu, H. (2015). Kalkınma anlayışında yeni bir boyut: Yeşil ekonomi. *Manisa Celal Bayar Üniversitesi Sosyal Bilimler Dergisi*, 13(2): 303-324.
- Özdeş, E. (2019). *Asırlık Aile İşletmelerinin Sürdürülebilirlik Sürecinin İşleyişi Üzerine Bir Araştırma*. Doktora tezi. Marmara Üniversitesi: İstanbul.
- Palabıyık, H. (2001). *Belediyelerde Kentsel Katı Atık Yönetimi: İzmir Büyükşehir Belediyesi Örneği*. Doktora tezi. Dokuz Eylül Üniversitesi: İzmir
- Ponting, C. (2008). *Dünyanın Yeşil Tarihi: Çevre ve Büyük Uygarlıkların Çöküşü*. (A. Başçı, Çev.) Sabancı Üniversitesi Yayınları: İstanbul.
- Stevenson, I. & Marintseva, K. (2019). A review of Corporate Social Responsibility assessment and reporting techniques in the aviation industry. *Transportation Research Procedia* 43: 93-103.

- SYHA (2008). *Standart yer hizmetleri anlaşması*. Sivil Havacılık Genel Müdürlüğü Yayınları: Ankara.
- Şen, H., Kaya, A. & Alpaslan, B. (2018). Sürdürülebilirlik üzerine tarihsel ve güncel bir perspektif. *Ekonomik Yaklaşım*, 29(107): 1-47.
- Tabares, D. A., Mora-Camino, F. & Droin, A. (2021). A multi-time scale management structure for airport ground handling automation. *Journal of Air Transport Management*, 90 (101959): 1-11.
- Taskinsoy, J., Uyar, A. (2017). Analysis of Sustainability Reporting in the Airline Industry: The Case of Turkish Airlines. *SSRN Electronic Journal Sustainability and Management: An International Perspective*, July: 100-118
- TGS (2024). *Kurumsal*. Erişim adresi: <https://tgs.aero/>. Erişim Tarihi: 13.09.2024
- Türel, N. Ş., Durmaz, V., Bahçecik, Y. & Akay, S.S. (2019). An Analysis of Importance of Innovative Behaviors of Ground Handling Human Resources in Ensuring Customer Satisfaction, *Procedia Computer Science*, 158: 1077-1087.
- Üçgül, İ. (2015). *Sürdürülebilirlik için yenilenebilirlik*. SDÜ Yekarum, 3(1): 1.
- Wise, T.A. (2001). Economics of Sustainability: The Social Dimension-Overview Essay. J. M. Harris, T. A. Wise, K. P. Gallagher, & N. R. Goodwin (Edt.), *A Survey of Sustainable Development: Social and Economic Dimensions* (: 47-57). Island Press
- World Bank (1997). *Expanding the Measure of Wealth: Indicators of Environmentally Sustainable Development*. Erişim Adresi: <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/555261468765258502/expanding-the-measure-of-wealth-indicators-of-environmentally-sustainable-development> Erişim Tarihi: 11.09.2024.
- World Bank (1999). *World Development Report 1999/2000: Entering the 21st Century*. Erişim Adresi: <https://openknowledge.worldbank.org/entities/publication/8f545f96-93e5-59fa-b0d5-3dc359fef25> Erişim Tarihi: 08.09.2024.
- Yaşar, M. & Özdemir, E. (2016) *Türkiye’de yer hizmetleri işletmelerindeki hizmet kalitesinin Servqual yöntemi ile ölçülmesi*. The 3rd International Aviation Management Conference, Turk Hava Kurumu Üniversitesi: Ankara
- Yeni, O. (2014). Sürdürülebilirlik ve Sürdürülebilir Kalkınma: Bir Yazın Taraması. *Gazi Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 16(3): 181-208.
- Yıldız, O., Kelleci, A. & Başakçı, T. (2024). Sürdürülebilir Havayollarının Tüketici Tarafından Kabulünü Etkileyen Teşvik Edici Faktörler. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 13(1): 174-202.