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SDG-washing in the European Aviation
Industry A comparative analysis of five
selected airlines

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Abstract

Since the Sustainable Development Goals (SDGs) were introduced, companies have increasingly committed to and reported on them. Yet, this has given rise to a new phenomenon known as “SDG-washing”. This study focuses on the airline industry, which, due to its inherently polluting business model, has a complex relationship with sustainability. The primary objective of this thesis is to identify indicators of SDG-washing, evaluate whether airlines engage in such practices, and explore factors influencing their level of SDG engagement. Drawing on insights from the literature, five key indicators of SDG-washing are identified: superficial alignment, selective engagement, vague descriptions, lack of measurable impact, and limited integration. The sustainability reports of five European airlines – Lufthansa Group, Turkish Airlines, Norwegian, Wizz Air, and Ryanair – are analysed using these indicators. The results reveal significant variations in SDG commitment. Lufthansa Group and Turkish Airlines demonstrate genuine approaches, while Norwegian shows moderate engagement. Wizz Air and Ryanair demonstrate minimal commitment, raising concerns about SDG-washing. Findings from an expert interview further indicate a clear link between service type and SDG engagement, with full-service airlines demonstrating stronger and more genuine SDG commitment than low-cost carriers. For full-service airlines, SDG engagement positively correlates with revenue, whereas low-cost carriers show a negative correlation. This disparity is shaped by operational scale, geographical location, regulatory pressures, market focus, customer expectations, and national sustainability performance. Notably, ESG scores do not influence the level of SDG engagement. These findings partially align with the literature, underscoring the complexity of this issue.

Keywords: *Sustainable Development Goals, SDGs, 2030 Agenda, United Nations, SDG-washing, airline, aviation, greenwashing*

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Sumário

Desde a introdução dos Objetivos de Desenvolvimento Sustentável (ODS), as empresas têm se comprometido e reportado cada vez mais sobre eles. Contudo, isso deu origem a um fenômeno conhecido como “SDG-washing”. Este estudo foca na indústria aérea, que, devido ao seu modelo de negócio inerentemente poluente, apresenta uma relação complexa com a sustentabilidade. O objetivo principal desta tese é identificar indicadores de SDG-washing, avaliar se as companhias aéreas praticam essas ações e explorar os fatores que influenciam o nível de compromisso com os ODS. Com base na literatura, cinco indicadores principais de SDG-washing são identificados: alinhamento superficial, compromisso seletivo, descrições vagas, falta de impacto mensurável e integração limitada. Relatórios de sustentabilidade de cinco companhias aéreas europeias – Lufthansa Group, Turkish Airlines, Norwegian, Wizz Air e Ryanair – são analisados segundo esses critérios. Os resultados revelam grandes variações no compromisso com os ODS. Lufthansa Group e Turkish Airlines apresentam abordagens genuínas, enquanto a Norwegian demonstra compromisso moderado. Wizz Air e Ryanair mostram compromisso mínimo, levantando preocupações sobre SDG-washing. Entrevistas com especialistas indicam uma relação clara entre o tipo de serviço e o compromisso com os ODS: companhias full-service demonstram maior e mais genuíno compromisso do que as low-cost. Para as full-service, o grau de compromisso com os ODS está positivamente correlacionado com a receita, enquanto nas low-cost, essa correlação é negativa. Operações, localização, regulamentações, mercado, expectativas dos clientes e desempenho sustentável nacional influenciam essas diferenças. ESG scores, no entanto, não têm impacto. Estas conclusões refletem parcialmente a literatura, destacando a complexidade do tema.

Palavras-chave: *Objetivos de Desenvolvimento Sustentável, ODS, Agenda 2030, Nações Unidas, SDG-washing, companhias aéreas, aviação, greenwashing*

Título: *SDG-washing na Indústria da Aviação – Uma análise aomparativa de cinco companhias aéreas elecionadas*

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1. Introduction

Aviation has grown significantly over the past decades and currently it contributes 3.5% to global GDP. The sector is, however, a major polluter, and is now under increasing pressure to implement more sustainability practices, including the alignment with the SDGs (Nhamo, Odularu, & Mjimba, 2020). At the same time, concerns about SDG-washing are growing across industries. While many businesses have been actively contributing to the 2030 Agenda, their efforts are mostly driven by the aim of improving their brand image instead of achieving genuine change (Williams, Haack, & Haanaes, 2023).

Given the high risk of companies engaging in SDG-washing and the aviation industry's significant role in global sustainability efforts, it is essential to assess how airlines are truly responding to the SDGs. Therefore, this thesis seeks to answer the following research questions:

RQ 1: What key indicators can be used to identify SDG-washing practices among European airlines?

RQ 2: Do the selected European airlines engage in SDG-washing?

RQ 3: What factors and company characteristics influence airlines' level of SDG engagement?

RQ 3a: To what extent do these aspects influence airlines' level of SDG engagement?

The main objective of this master's thesis is to discover key indicators in sustainability reports that suggest potential SDG-washing. The research will subsequently explore whether the selected European airlines engage in un genuine SDG engagement which addresses a gap in academic literature where this issue has not yet been studied. Lastly, it also identifies aspects influencing airlines' level of SDG engagement. The findings will help assess the credibility of airlines' SDG commitments within Europe. These insights serve as a valuable resource for investors seeking to make socially responsible investment decisions, customers who prioritize sustainability when choosing airlines, and industry analysts interested in understanding aviation companies' SDG practices.

The study is structured as follows. Section 2 gives an overview of the SDGs based on a comprehensive literature review by focusing on corporate awareness of and commitment to the goals. It also introduces the presence of SDG-washing, with special attention to its relevance in the airline industry and existing findings on sustainable development efforts within the sector. After introducing the methodology used in Section 3, Section 4 presents the findings and results, analysing the selected airlines' performance across five SDG-washing indicators. Finally, Section 5 and Section 6 offer relevant discussions and conclusions while also identifying the limitations of the presented research.

2. Literature review

2.1. SDGs – an overview

2.1.1. Origins and goals

In 2015, the United Nations adopted the Sustainable Development Goals (SDGs). They include 17 goals and 169 targets, as illustrated in Figure 1, and serve as a primary framework to move the world towards a future that is more prosperous, equitable and sustainable. As part of the 2030 Agenda, they address the global challenges society faces today, encompassing social, economic and environmental pillars (United Nations, 2015). Although the goals and targets cover broad categories, they are interconnected, highlighting that one progress in one area can either benefit or hinder progress in another. This fact further underlines the importance of collaboration when it comes to achieving the SDGs: not only governments and international organizations, but also the business sector, non-state actors and individuals must commit and partner to create sustainable change (United Nations, 2015, 2019).

2.1.2. Progress and issues



Figure 1: The 17 Sustainable Development Goals

When the SDGs were implemented, widespread collaboration emerged among individuals, companies, and governments. The goals quickly became the common language of global sustainability initiatives, marking a significant milestone in the history of sustainable development (Williams et al., 2023). Although progress toward achieving the 2030 Agenda initially seemed promising, it later began to slow down. In 2022, the UN created a report on the achievements so far and called for urgent action to rescue the shared vision by 2030. While

unfortunate, this outcome was not entirely unexpected: several emergencies, including the COVID-19 pandemic, the war in Ukraine, and the climate crisis were hindering factors for the SDGs (Mhlanga, Gneiting, & Agarwal, 2018; Williams et al., 2023). Only the pandemic, for instance, reversed four years of progress on reducing poverty (Williams et al., 2023).

Despite the great start on the sustainable development path, there is a growing recognition of concerns and difficulties involved in maintaining this engagement. For example, while corporations initially supported the goals, there is no clear agreement on what role they play in contributing to the SDGs or on the real impact these efforts have on their business practices (Heras-Saizarbitoria, Urbieto, & Boiral, 2022). Although the SDGs rely on business contribution, companies do not necessarily need to engage with the goals for short-term gains, and while long-term incentives for businesses to align with the Agenda exist, they remain inconsistent (Gneiting, 2017). What is more, the SDGs themselves have received serious criticism. While very comprehensive and ambitious, the 17 goals are often considered as hard to quantify, implement and monitor. Furthermore, their broad formulation makes it challenging to translate the objectives into specific actions and assign clear responsibility for undertaking them (Easterly, 2015).

2.2. Corporate SDG commitment and reporting practices

Upon the adoption of the SDGs in 2015, it was initially unclear how businesses would respond to the call for an active engagement with the goals. Over the previous ten years, numerous academic articles and company reports assessed corporate attitudes, commitments and reporting practices related to the SDGs. Nevertheless, there is still a gap in research that analyses these aspects on a year-to-year basis. To provide an overview on the previous decade, the next section will shed light on how corporate mindset and engagement have evolved over time.

2.2.1. Evolution of corporate attitudes towards the SDGs

Shortly after their introduction, 71% of businesses planned on responding to the SDGs (PWC, 2015). Almost 90% of the CEOs interviewed by KPMG believed that their interaction with the SDGs would eventually lead to new opportunities regarding sustainable value creation. Furthermore, 70% argued that the goals would help provide a new framework for their corporate sustainability efforts (Lyon & Fenwick, 2016). These high levels of organizational interest remained constant in the subsequent years as well. In 2018, two-thirds of interview respondents in a study by Mhlanga et al. (2018) had publicly committed to the SDGs (Mhlanga et al., 2018). This number further increased until 2022, when corporate support was at 83% (Van de Wijs, 2022).

2.2.2. Evolution of corporate engagement with and reporting on the SDGs

When it comes to companies' claimed commitments to the goals and their actual involvement, there seemed to be a considerable difference in the early years of the SDG adoption. In 2016, only 17% of firms mentioned the SDGs in their sustainability reports (Rosati & Faria, 2019). By 2017, however, KPMG reported a noticeable increase in business engagement, with 40% of the 250 biggest organizations globally connecting the SDGs to their corporate activities (KPMG International, 2017). Over the following three years, SDG reporting increased further to 69% (KPMG Impact, 2020) and then skyrocketed in 2022, with 94% of the World Business Council for Sustainable Development's members referencing the SDGs in their reports (Williams et al., 2023).

While the growing number of companies engaging with the SDGs is promising, the genuineness of this involvement remains questionable. Over the past decade, several scholars and practitioners have analysed the level and detail of corporate SDG engagement, and they all

revealed similar patterns: organizations' engagement neither seems to be consistent nor reliable (Gusmão Caiado, Leal Filho, Quelhas, Luiz de Mattos Nascimento, & Ávila, 2018; Mhlanga et al., 2018). In many cases, companies are broadly describing their objectives, strategies and actions (van der Waal & Thijssens, 2020). For example, they may cherry-pick priority SDGs and explain the rationale behind them in one or two sentences (Mhlanga et al., 2018).

Another key issue is the lack of knowledge on how to measure the SDG impact. A 2018 study showed that only 25% of responding organizations had set key performance indicators (KPIs) and business performance targets (Scott & McGill, 2018). A KPMG study further underscores this issue, by revealing that 6% of businesses are reporting on their sustainable development impacts (KPMG International, 2022).

2.3. The concept of SDG-washing

The gap between companies' claims about the relevance of the SDGs and their actual practices has given rise to a new phenomenon known as "SDG-washing". Although this topic has received little attention in academic literature, the studies in section 2.2 indirectly address it by discussing the superficial nature of business engagement with the Sustainable Development Goals. Therefore, while there may be some overlaps on research findings between this and the previous chapter, the academic contributions referenced in this section focus specifically on papers mentioning the term SDG-washing or referring to any of its synonyms.

2.3.1. Definition and origins of SDG-washing

Academic literature shows clearly that researchers interpret the term "SDG-washing" in various ways and emphasize different aspects of it, which results in a lack of a coherent definition. Corporations involved in SDG-washing, for example, claim to align with the 2030 Agenda but provide little to no evidence to support such claims (Williams et al., 2023). At the same time, SDG-washing is also associated with focusing solely on positive contributions while ignoring or hiding negative outcomes (Ferrón Vílchez, Ortega Carrasco, & Serrano Bernardo, 2022; Heras-Saizarbitoria et al., 2022). Another element that was mentioned in this context was the re-labelling of existing activities in the name of the SDGs. This practice could also be perceived as SDG-washing as using existing initiatives without any modification may be just a cosmetic gesture rather than a genuine contribution to sustainability (Crabtree & Gasper, 2020).

These definitions clearly show that the aspects of SDG-washing are interconnected, making it a quite complex phenomenon. The complexity is further compounded by the fact that other terms, such as "rainbow-washing" and "bluwashing" have been coined in academic discussions and they are often used interchangeably with SDG-washing, making it even more difficult to settle on one interpretation.

Rainbow-washing refers to a situation in which organizations engage with the SDGs merely for reputational benefit. Their primary objective in this case is to benefit from being associated with the United Nations and its SDG framework (Beyne, 2020). Bluwashing has a very similar interpretation to rainbow-washing as they both explain superficial contributions to the UN's initiatives. Deriving its name from the colour of the institution's flag, bluwashing refers to organizations whose sole motivation for sustainable development engagement are public relation purposes (McClimon, 2022).

In some cases, greenwashing is also used as a synonym for SDG-washing, however the latter is more detrimental as it encompasses the governance domain alongside the original pillars of sustainability (environmental, social and economic) and it is therefore communicated to a wider range of stakeholders, such as NGOs and governments (Williams et al., 2023).

2.3.2. SDG-washing in business

When comparing the number of papers available in the academic literature, it is evident that business engagement with and reporting on the SDGs has been studied more in detail than the prevalence of SDG-washing in the corporate world. Yet, there are still some studies that either specifically assess whether organizations engage in SDG-washing (del Río, Gonzalez-Álvarez, & López-Arceiz, 2024; Heras-Saizarbitoria et al., 2022; Williams et al., 2023) or they write about its occurrence (Beyne, 2020; Johnsson, Karlsson, Rootzén, Ahlbäck, & Gustavsson, 2020; Munro, 2020).

Already in the previous sections it became clear that most companies contribute to the SDGs solely out of PR and reporting motivations. Some years ago, this activity started to be connected to SDG-washing (Williams et al., 2023). In 2023, even the UN called the world to pay attention to the increasing risk of firms overclaiming their SDG engagements (Independent Group of Scientists appointed by the Secretary-General, 2023). Furthermore, practitioners have also highlighted the ugly truth behind SDG involvement: *“I have not seen companies use [the SDGs] in any meaningful way, but simply cherry-pick what is interesting for what they already do”* (Siegel & Bastos Lima, 2020, p.6.).

To put the risk of SDG-washing in numbers: A 2018 survey found that 51% of respondents reported on their sustainability impacts in relation to the SDGs, but only 12% had fully integrated them across the entire corporation and used clear goals (Ethical Corporation, 2018), indicating that the presence of SDG-washing is high (Williams et al., 2023). Even more concerning is a 2021 analysis of 28 organizations' sustainability reports, which found that 80% of their negative impacts were not reported, creating the impression of bluewashing (Macellari, Yuriev, Testa, & Boiral, 2021). In conclusion, it is evident that SDG-washing in the corporate world is present (Munro, 2020).

2.3.3. Indicators for identifying SDG-washing

To analyse if the selected companies engage in SDG-washing, it is important to address what aspects indicate such practices. While the concept of SDG-washing has been elaborated on in the previous sections, its aspects will be summarized in the following in order to provide a structured overview of the indicators. Next to the previously discussed aspects, two additional sources will complement the list: Williams et al. (2023) discuss ways in which companies engage in SDG-washing while Mhlanga et al. (2018) analyse organizations' engagement with the 2030 Agenda.

- Cherry-picking the SDGs: Selectively focusing only on “convenient” SDGs that align with existing operations and explaining the rationale behind the chosen goals in one or two sentences (Mhlanga et al., 2018).
- Hiding core negative impacts: Reporting only on positive contributions to the SDGs while ignoring negative impacts (Ferrón Vélchez et al., 2022; Macellari et al., 2021).
- Re-labelling current efforts: Rebranding ongoing initiatives as SDG-related, with no new action taken (Crabtree & Gasper, 2020).
- Positive contribution to all SDGs: Claiming to positively contribute to all 17 SDGs without reflecting any trade-offs between them (Williams et al., 2023).
- No evidence provided: Not giving adequate evidence in support of SDG efforts (Williams et al., 2023).
- Vague explanation: Generally explaining SDG efforts without detailing how the goals were approached and tackled (Heras-Saizarbitoria et al., 2022; van der Waal & Thijssens, 2020).
- No clear SDG impact measurement: Failing to set measurable goals associated with SDG targets, which makes it difficult to track actual progress (KPMG International, 2022; Scott & McGill, 2018).
- No SDG reporting: Claiming to support the SDGs but failing to offer public reporting or transparent data on impact and progress (Mhlanga et al., 2018).
- No SDG integration: Not integrating the SDGs into the business strategy and sustainability practices, limiting the contributions to isolated projects (Ethical Corporation, 2018).

However, for further analysis the indicator “re-labelling existing efforts” will not be considered. Many organizations had initiatives that positively contributed to the SDGs even before the goals were introduced. Re-aligning these efforts should be accepted as a legitimate practice and not viewed as SDG-washing, as long as they genuinely support the agenda.

2.3.4. Best practices when committing to the SDGs

It is crucial to acknowledge that no organization will have a positive influence on all 17 SDGs. The goals are highly interlinked, which frequently leads to trade-offs: progress in one area can sometimes hinder development elsewhere. One of the greatest approaches to avoid cherry-picking the SDGs is to conduct a transparent SDG mapping process. This involves assessing the relevance of a company's activities to each SDG. As a result, businesses may offer a clear explanation for why certain goals were chosen as focus areas. Another crucial practice is to include SDG targets and develop SMART (specific, measurable, achievable, relevant, time-bound) KPIs, making it easier to measure impact and enabling all stakeholders to engage with the information effectively. Finally, it is exemplary when the SDGs are integrated into a company's purpose statement and across all of its divisions. To make sure that the entire organization moves in the same direction, each department should establish its own goals, KPIs, and action plans that are linked to the SDGs (Mhlanga et al., 2018; Williams et al., 2023).

2.4. Aviation and its connection to the SDGs

2.4.1. Importance of the aviation industry to sustainable development

Building on the insights from the previous sections, it is clear that business has a clear role in supporting or sometimes hindering the progress toward the 2030 Agenda. Aviation is one of the industries that have gained particular attention over the past years as it has a quite complicated relationship with sustainable development.

While air transport itself is not specifically included in the 17 Sustainable Development Goals, it is closely related to SDG 11 (sustainable cities and communities) as it highlights urban mobility within its 11.2 target (Tegizbekova, 2019). Despite the industry not being clearly part of the 2030 Agenda, it plays a role in advancing the SDG as it impacts 15 out of the 17 SDGs in varying levels of influence, ranging from minor to significant (Aviation Benefits Beyond Borders, n.d.) and positive to negative (Perryman, Besco, Suleiman, & Lucato, 2022). Only SDG 14 (life below water) and SDG 16 (peace, justice and strong institution) are not under the direct influence of the aviation industry (Nhamo et al., 2020).

Over the past decades, aviation has grown incredibly and turned into an enabling element of global connectivity. It bridges people, communities, and businesses, and enables trade and tourism, creating millions of jobs all over the world (Tegizbekova, 2019). In 2017, airlines carried 4.1 billion passengers and transported 56 million tonnes of freight across 37 million commercial flights (“Future of Aviation,” n.d.). The sector now accounts for 3.5% of the global GDP. However, at the same time, the industry is one of the biggest contributors to CO₂ emissions: aviation accounts for approximately 3% for the total GHG emissions within Europe and it will grow further unless effective measures are implemented to improve the sector’s footprint. Just over 15 years – between 2005 and 2020 – global aviation emissions grew by 70% and are forecasted to increase further to 300-700% by 2050 (Debyser, 2019). These figures are all evidence of an unsustainable mobility path that will have a negative influence on future generations (Tegizbekova, 2019). Therefore, aviation remains on the global radar to address its environmental impact and to transform the future of mobility (Nhamo et al., 2020).

2.4.2. Airlines’ SDG commitment

Aviation companies are well aware that their business models are damaging to the environment. However, their engagement with the Sustainable Development Goals shows that they are willing to act on it (Thomas Falk & Hagsten, 2024). While numerous scholars address this topic

and study how airlines engage with the 2030 Agenda (Amankwah-Amoah, 2020; Gambheera Arachchi, Dahanayaka, & Niles Perera, 2024; Johansson, 2024; Perryman et al., 2022), academic findings on airlines' SDG engagement are not entirely consistent. One of the few indicators is that in 2022, out of 14,000 companies, around 20 airlines were members of the United Nations Global Compact, highlighting their readiness to take action that advance societal goals. If this is the extent of engagement with the SDGs within the aviation sector, then it accounts for only 6%. This is worrisome especially considering the emphasis on aligning the industry with the 2030 Agenda. Another research indicates that only 28.8% of airlines support the Sustainable Development Goals. More specifically, 6% of these have a superficial engagement, 6.7% contribute moderately, and 16.1% work towards the goals at a high level. Promising, on the other hand, is that 46.8% of IATA airlines mention sustainability either in their reports or on their websites, suggesting a perhaps larger desire for the use of SDGs than it appears at a first glance (Perryman et al., 2022).

According to more recent and encouraging data, Johansson (2024) states that out of all airlines publishing a sustainability report, 64% claim to have their business activities linked to the SDGs (Johansson, 2024). Another important aspect, as put by Perryman et al. (2022), is that even though it is possible that airlines do engage with sustainability in ways not captured by their public reports, it seems that they are supporting the SDGs for the sake of making a positive impression (Perryman et al., 2022).

When considering these insights, it is clear that there is a clear relationship between aviation and the SDGs. However, taking into account both the increasing pressures airlines are facing as well as the environmental issues, a more serious commitment would have been assumed. Unfortunately, real commitment within aviation falls short, as indicated by the small number of airlines actively engaged with the SDGs. This is particularly the case, when aviation is being compared with other industry standards. Even though the lack of engagement cannot be justified, several aspects might explain this discrepancy. For example, incorporating green technologies and other sustainable practices into the every-day operations is quite challenging due to substantial financial investments. Moreover, any initiatives that have already been implemented and are expected to result in future technological breakthroughs have yet to materialize (Jia, Macário, & Buyle, 2024).

Given these dynamics, an important question arises: Does the growing pressure on aviation to contribute to the 2030 Agenda combined with the increasing concern about SDG-washing in

the business context suggest that companies within the industry exaggerate their SDG efforts? To answer this question, five selected airlines within Europe will be considered. The reason for this is the following. First, within the aviation industry, which involves manufacturing, airlines, airports, air traffic control, regulators and logistics (Satvinder Singh, Cheong, & Rahman, 2021), airlines are the most visible and consumer-facing entities (Wavetec, 2024) and thus, they are more likely to come under scrutiny from stakeholders. For instance, according to a McKinsey study, over half of the respondents were “really worried” about global warming, which puts significant pressure on airlines to implement green initiatives (Dichter, Henderson, Riedel, & Riefer, 2020). Furthermore, airlines headquartered in Europe are more involved with the Sustainable Development Goals than their peers located in other parts of the world. This is likely related to Europe's leadership position in sustainability (Perryman et al., 2022).

2.4.3. SDG-washing and greenwashing among European airlines

To investigate whether airlines engage in “washing” activities, it is essential to take a step back and analyse the full picture. As previously discussed, there has been a noticeable growth in eco-consciousness from the demand side within the business context. This shift is also reflected in the fact, that customers are starting to place a higher value on airlines’ sustainable performances than low travel prices (Alfaro & Chankov, 2022). Thus, as environmental concerns become increasingly central to customer preferences, firms have started to include environmental claims in all their products and services. However, as airlines are not able to easily change their operations and offer non-polluting flights, their “green” efforts have led to serious customer scepticism (Olk, 2021). This demonstrates an obvious gap: while consumers become more environmentally sensitive, airlines fail to change their fundamentally polluting operations. However, the pressure to look more sustainable is increasing.

To deal with this issue, airlines have showed modest attempts, including testing biofuels or sustainable aviation fuels (Hagmann, Semeijn, & Vellenga, 2015), experimenting with hydrogen and electric flights, as well as conducting technical studies in order to reduce their emissions (Gürçam, 2022). While these efforts might reflect a genuine commitment, airlines have been receiving harsh criticism for their sustainable initiatives, communication as well as advertising practices (Baumeister & Onkila, 2017). Although no paper was directly accusing the industry of greenwashing, several sources raise questions about the genuineness of these

actions and suggest that the initiatives were primarily designed for creating a green brand image.

When it comes to SDG-washing, no academic studies have assessed the extent to which airlines engage in such activities. However, the substantial proof of greenwashing raises valid concerns that similar practices may be applied to SDG-related claims. It is therefore reasonable to hypothesize that airlines engage in SDG-washing in the same way that they appear to engage in greenwashing activities.

2.4.4. Factors impacting airlines' level of sustainability engagement and reporting

In order to better comprehend the SDG-washing concept in the airline industry, examining the elements that influence airlines' degrees of SDG commitment is crucial. First, revenue plays a crucial yet contradictory role. On the one hand, higher revenues indicate better ESG performance, as substantial resources enable firms to invest more in sustainability (Waddock, Graves, & Carroll, 1997). On the other hand, different authors suggest a negative relationship, indicating that sustainability agendas receive low priority when airlines make excess returns (Abdi, Li, & Càmara-Turull, 2022).

Studies have also shown airlines have varying levels of sustainability engagement due to their different locations. Countries with strong governance frameworks and high sustainability standards influence companies positively within their environmental-friendly practices (Karamahmutoglu, Uyar, & Kuzey, 2022). Moreover, location-specific governmental regulations have a high influence, especially since the global regulatory environment for airlines' sustainability reporting is extremely fragmented. While some countries have high norms and regulations, airlines in other regions are not exposed to social and regulatory pressure which reduces their incentives to embrace sustainability initiatives (Zieba & Johansson, 2022).

Service type further complicates how airlines engage with green practices. A comparative study has shown that full-service carriers often introduce more robust sustainability strategies compared to carriers having a low-cost business model (Yilmaz, 2021).

Scale and size are equally relevant to an airline's sustainability performance. Larger companies typically have more available resources to allocate to ESG projects (Abdi et al., 2022), indicating that firm size is positively correlated with sustainability engagement. Producing CSR

reports, for instance, requires significant effort and resources and is therefore one of the main barriers to successful ESG implementation (Zieba & Johansson, 2022).

Lastly, ESG performance and SDG implementation are positively correlated. In most cases, organizations with high ESG ratings have well-established internal structures and proven track record in sustainability and non-financial performance, especially when compared with their peers with lower scores. However, it is important to note that ESG ratings are mostly valued by investors and other stakeholders (Bose, Khan, & Bakshi, 2024).

These findings suggest that the results of this thesis, whether the chosen airlines engage in ungenune SDG practices, will likely be influenced by their revenue, geographical location, service type, size and ESG rating.

3. Methodology

The empirical section of this thesis focuses primarily on a content analysis of publicly available sustainability or annual reports and other disclosures from five selected airlines. The main goal is to assess if, and how, the chosen airlines engage in SDG-washing through own data collection (RQ 2). To provide additional context, a qualitative interview was conducted to help interpret the findings, explaining the reasons behind the airlines' current level of SDG engagement and any aspects that may influence their reporting and transparency (RQ 3 and 3a). Additionally, this chapter expands on the question "What indicators suggest the presence of SDG-washing?" (RQ 1). Even though it has been already answered in section 2.3.3, the following part further develops previous findings to provide a comprehensive framework for assessing European airlines' engagement with the SDGs.

3.1. Main methodology: Comparative content analysis of sustainability reports

This section explains the selection procedure and justification for the airlines analysed as well as the finalized version of the SDG-washing indicators which provided the basis for the analysis. It also describes how airlines' reports were analysed as well as how the findings were utilized. Specifically, the results ranked the selected airlines on a scale from 1 to 5. The scores were then visually represented through a radar chart to illustrate the companies' respective performances.

Selection process and justification for the airlines

In the preliminary selection, ten airlines were analysed across seven different categories derived from the literature review: location, service type, fleet size, passenger traffic, revenue, ESG score, and SDG engagement at a first glance. This first round of selection ranked the airlines by passenger traffic, from highest to lowest, as shown in Table 1.

In the next step, the list got narrowed down to five airlines for a more in-depth analysis. To analyse SDG-washing tendencies among selected European airlines, the following companies were chosen: Ryanair, Lufthansa Group, Turkish Airlines, Wizz Air and Norwegian. This selection reflects a diverse range of geographical locations, business models, operational scales, ESG scores and SDG engagement levels.

AIRLINE ²	LOCATION	SERVICE TYPE	FLEET SIZE	PASSENGER TRAFFIC	REVENUE ³	ESG SCORE ⁴	SDG ENGAGEMENT
RYANAIR	Ireland	Low-cost	590	183.7 m	€13.4 bn	23.6 (medium)	Minimal
LUFTHANSA GROUP	Germany	Full service	721	122.5 m	€35.4 bn	27.3 (medium)	Comprehensive
IAG	Spain	Mix	582	115.6 m	€29.4 bn	24.8 (medium)	Minimal
AIR FRANCE-KLM	France	Full service	551	93.6 m	€30 bn	24.2 (medium)	Moderate
TURKISH AIRLINES	Türkiye	Full service	440	83.4 m	€19.3 bn	22 (medium)	Extensive
EASYJET	UK	Low-cost	336	82.8 m	€9.8 bn	24.5 (medium)	Minimal
WIZZ AIR	Hungary	Low-cost	179	60.3 m	€3.8 bn	27.7 (medium)	Minimal
PEGASUS AIRLINES	Türkiye	Low-cost	110	31.9 m	€2.7 bn	26.8 (medium)	Comprehensive
SAS	Sweden	Low-cost	134	23.7 m	€3.7 bn	30.2 (high)	Moderate
NORWEGIAN	Norway	Low-cost	87	20.6 m	€2.15 bn	35.8 (high)	Comprehensive

Table 1: Preliminary selection of ten airlines ranked by passenger traffic with additional details across six categories¹

Location

Each airline is headquartered in a different country and thus, the selection ensures a geographically diverse perspective. The locations covered are Ireland (Ryanair), Germany (Lufthansa Group), Türkiye (Turkish Airlines), Hungary (Wizz Air) and Norway (Norwegian).

Service type

The selection also includes both full-service and low-cost airlines, which helps to analyse if the business model influences SDG efforts. Lufthansa Group and Turkish Airlines are full-service providers, while Ryanair, Wizz Air and Norwegian are low-cost carriers.

¹ References (Air France-KLM Group, 2024; easyJet pls, 2023a, 2023b; IAG, 2024a, 2024b; Lufthansa Group, 2023a, 2023b, 2024; Norwegian, 2024; Pegasus, 2024a, 2024b; Ryanair Group, 2024b, 2024c; SAS, 2024; Turkish Airlines, 2024b, 2024c; Wizz Air, 2023, n.d.)

² Data is drawn from each company's 2023 annual report or other public materials.

³ Foreign currencies were converted to euros using the exchange rate as of October 27, 2024.

⁴ ESG scores from Sustainalytics were retrieved on October 27, 2024.

Scale

The companies vary significantly in scale as well, ranging from large (Lufthansa Group, Ryanair) to medium (Turkish Airlines) and small (Wizz Air, Norwegian) airlines. This variety ensures that the analysis captures SDG practices across different capacities and highlights whether and how size influences SDG engagement.

Revenue

These five airlines showcase a wide range of financial resources, from the highest revenue (Lufthansa Group at €35.4bn), to mid-range (Turkish Airlines and Ryanair at €19.3bn and €13.4bn, respectively), and to low-range (Wizz Air and Norwegian at €3.8bn and €2.15bn, respectively). Due to this financial variety, it is possible to explore how revenues may impact SDG engagement.

ESG score

Including airlines with both high and low ESG scores ensures a balanced analysis in terms of sustainability performance. Norwegian, for instance, has a relatively high ESG score (35.8). Lufthansa Group, Wizz Air and Ryanair fall into the medium ESG risk category (27.3, 27.7 and 23.6). Even though Turkish Airlines is also in the medium risk segment, it has the lowest score among the selected airlines (22). Through this selection it will be possible to analyse whether lower ESG scores correspond to better SDG engagement or indicate potential SDG-washing.

SDG engagement

The SDG engagement assessment adds another layer of insight. The main purpose of this quick examination was to ensure that all airlines engage with the SDGs at some level, as it would be irrelevant to analyse SDG-washing if airlines do not contribute to the goals. Ryanair and Wizz Air mention the SDGs briefly. In contrast, Lufthansa Group and Norwegian show a more detailed SDG engagement at first glance, while Turkish Airlines seem to have very detailed SDG engagement.

SDG-washing indicators

To assess SDG-washing among the selected European airlines based on their publicly available reports, a structured analytical framework was established. Five key indicators were identified, drawing on insights from Section 2.3.3 of the literature review. These indicators were developed by grouping together several criteria that reflect similar practices. The final SDG-washing indicators are superficial alignment, selective engagement, vague descriptions, lack of

measurable impact, and limited SDG integration. Each of these indicators is further specified in Table 2.

INDICATORS	ASPECTS
Superficial alignment	<p>Scope: Is the company targeting many SDGs or focusing on key areas to create meaningful impact?</p> <p>Authenticity of claims: Are there specific initiatives linked to each SDG, or is the alignment broad?</p> <p>Interconnectedness and trade-offs: Does the company acknowledge the interconnected nature of the SDGs?</p>
Selective engagement	<p>Convenience of SDG choices: Are the chosen SDGs aligned with the company’s strengths, potentially overlooking more challenging or material ones?</p> <p>Negative impact acknowledgment: Does the company consider both positive and negative contributions?</p> <p>Justification for engagement: Is there a clear explanation for prioritizing certain SDGs over others?</p>
Vague descriptions	<p>Lack of evidence: Are SDG claims supported with specific examples, or only vaguely referenced?</p> <p>Broad descriptions: Are SDG objectives and approaches described broadly, without specific actions or outcomes?</p>
Lack of measurable impact	<p>Lack of KPIs or measurable goals: Does the company set specific, measurable KPIs or goals aligned with the SDGs?</p> <p>Lack of progress tracking: Is there a system in place to monitor, track, and report progress on SDG commitments?</p>
Limited integration	<p>Absence in core strategy: Are the SDGs embedded into the overall business strategy and across different functions?</p> <p>Limited to philanthropy: Are SDG efforts mainly philanthropic, with minimal relevance to core business practices?</p>

Table 2: Five SDG-washing indicators identified based on the literature review

Content analysis of airlines’ reports

With the five indicators for implying ungenune SDG engagement in hand, the five airlines were analysed based on their latest sustainability and annual reports. Lufthansa Group’s 2023 annual report was utilised as it is the only organization in the sample that integrates its sustainability initiatives into the annual report without a separate sustainability communication. The most recent sustainability reports for Norwegian and Turkish Airlines date back to 2023, whereas Ryanair and Wizz Air have already released their 2024 reports because their fiscal year ends on March 31.

Ranking process

After data collection on the five airlines for each of the five SDG-washing indicators, the companies will be ranked from 1 to 5 for each criterion, based on their relative performance among their peers. 5 indicates the highest level of SDG engagement within the group and 1 represents the lowest engagement. Thus, companies receiving a score of 5 are far from SDG-washing, while a score of 1 means that an organization is close to such practice. It should be noted that this rating is not an absolute measure of SDG alignment, but rather a comparative assessment of which airlines appear to be the most or least devoted to actual SDG practices.

Visual representation

After ranking each airline on all indicators, the results will be visually represented using radar charts to compare the companies' overall performance. This will offer a clear overview of how each airline addresses the SDGs relative to its peers.

3.2. Supplementary methodology: Interview with an industry professional

An online interview was conducted with a sustainability and aviation professional who has eight years of industry experience, including previous roles as a CSR executive and project manager within aviation organizations and airport management. Potential participants were contacted if they satisfied the following criteria: having a minimum of one year of experience in the aviation sector, as well as demonstrating a high degree of knowledge of the sustainable development area. In total, 15 specialists were contacted for the purpose of the interview.

For this part of the research, a semi-structured questionnaire was developed. The interview was conducted in English, with the guideline and transcript available in the appendix. The primary goal was to gain a holistic understanding of sustainability and greenwashing in the airline industry and to explore whether the sector has unique characteristics affecting companies' SDG commitment, let it be genuine or not truly impactful.

3.3. Advantages and disadvantages of the chosen methodology

Since airlines primarily communicate their ESG initiatives, results and goals through their sustainability reports, analysing these sources is both practical and logical as they are easily accessible and publicly available. Examining these reports also enables easier comparisons

across the selected companies. Additionally, these publications provide relatively objective data, which supports an unbiased assessment of the authenticity of their sustainability efforts.

However, the negative aspects of the main research method cannot be disregarded. While companies disclose most of their sustainability efforts, some important details might not be available to the public. This might reduce the accuracy of the findings since incomplete information on the SDG engagement of the organisations limits comprehensive assessment of their commitment. In order to overcome this challenge annual reports and other disclosures supplement the analysis. In addition, the expert interview provided direct insights which filled the gaps not covered in the reports.

Another issue is that there is no standardized framework for sustainability and annual reports, leading to highly different structure and content. This inconsistency makes their comparisons challenging, especially when information is spread across different documents. Moreover, assessing and ranking airlines in terms of their SDG engagement cannot be done fully objectively. To address this, five SDG-washing indicators have been identified, which provides a structured and consistent tool for evaluating each airline's reports.

4. Findings and Results

To clearly understand the SDG engagement level demonstrated by each company, the airlines are presented in order of their performance for each SDG-washing indicator, beginning with the airline that shows the strongest engagement and concluding with the one that performs the weakest. Where applicable, some indicators include a best practice example, to showcase exemplary initiatives. It is important to note that, due to the interconnected nature of the SDG-washing indicators, some examples from the airlines’ reports may overlap across multiple categories. This highlights both the complexity of the analysis and the varied strategies companies employ to align with the SDGs.

4.1. Analysis results: Evaluating the selected airlines based on the SDG-washing indicators

4.1.1. Superficial alignment

When comparing how many SDGs airlines align with as well as the depth of their engagement, the companies demonstrate differing levels of commitment. Lufthansa Group focuses primarily on ten SDGs, which are SDG 3, SDG 4, SDG 7, SDG 8, SDG 9, SDG 10, SDG 12, SDG 13, SDG 16 and SDG 17. For each of these selected goals, the company further explains which SDG targets it aims to address and mentions tangible initiatives to support its commitments, as showcased in Figure 2. For example, to align with SDG 3 (good health and well-being), the company addresses target 3.3 (infectious diseases) through vaccination campaigns. Yet, while Lufthansa Group provides targeted activities to support the 2030 Agenda, it does not acknowledge that the SDGs are interlinked and possible trade-offs may occur between them (Lufthansa Group, 2024, n.d.).


TZ01 SUSTAINABLE DEVELOPMENT GOALS (SDG)				
SDG	Sub-target	Aspect/issue	Lufthansa Group's contribution to achieving the global SDGs as defined in the 2030 Agenda of the United Nations	Page
	3.3	Employee concerns/Health and safety at work	Preventive vaccination campaigns are being carried out. The Lufthansa Group offers its employees the chance to get vaccinated to protect them against a serious bout of influenza. The Group's Medical Services provided 4,395 vaccinations in 2023.	→ p.108
	3.4	Employee concerns/Health and safety at work	Psychosocial counselling provides stability in difficult situations Health-promoting services are established	→ p.107
			Managers and employees receive support covering the challenges of hybrid working Processes have been established to provide for transparency and standardised mandatory training on occupational health and safety	→ p.107 → p.108
	3.8	Employee concerns/Health and safety at work	The Medical Centres in Hamburg, Frankfurt and Munich provide a holistic range of healthcare services spanning occupational and aviation medicine, infectious diseases, tropical medicine and travel medicine, outpatient and emergency care and socio-medical counselling.	→ p.108

Figure 2: Lufthansa Group's focus on the SDG targets with practical examples

One notable aspect of Lufthansa Group’s approach is its SDG-focused organization, which can also be seen as a best practice among its peers. The company prioritizes each SDG individually,

then aligns relevant initiatives under each goal, rather than starting with initiatives and linking them to multiple SDGs. For example, when it comes to SDG 12 (responsible consumption and production), Lufthansa Group mentions its efforts in sustainable in-flight products. This includes a resource-conserving food production and environmentally friendly packaging. In addition, the company provides hyperlinks to additional information. This method ensures that each SDG receives targeted and meaningful attention and prevents superficial claims (Lufthansa Group, 2024, n.d.).

Turkish Airlines adopts a very similar approach by focusing on eight SDGs: SDG 5, SDG 7, SDG 8, SDG 9, SDG 12, SDG 13, SDG 16, and SDG 17. Although the company considers that the goals are linked together by highlighting that its influence and value chain go beyond these eight, it does not address possible trade-offs that may arise from its activities. For example, increased flight operations may have a negative influence on SDG 13 (climate action), however, it is not addressed in the report. Furthermore, Turkish Airlines provides only broad and high-level examples of its contributions to each SDG, as shown in Figure 3, including statements like “we ensure the detection and prevention of situations that violate ethical principles” (Turkish Airlines, 2024a, p.48.). The company lists material issues alongside the relevant SDGs but lacks clear, detailed explanations that demonstrate how each material issue directly supports specific SDGs and SDG targets (Turkish Airlines, 2024a, n.d., n.d.).



2023 Material Issues	How Turkish Airlines Manages the Material Issue	Related Topic	Supported SDGs
To the Top with Corporate Values			
Business Ethics, Legal Compliance and Fair Competition	We promote ethical culture by making our Code of Business Conduct and Ethics Manual binding for all our employees, and we ensure the detection and prevention of situations that violate ethical principles through the Ethics Hotline. We fully comply with the laws and regulations we are subject to, increase the knowledge and awareness of our employees on these issues through ethics, legal compliance and fair competition trainings, and integrate ethical principles and codes of conduct into our employee performance evaluation systems.	Business Ethics, Legal Compliance and Fair Competition, pages 77-80	
Proactive Risk and Crisis Management	We identify and manage various risks such as security, information security and financial risks with a proactive approach through comprehensive risk management strategies. We use various analysis methods to ensure operational continuity by continuously assessing threats and determining risk mitigation and management strategies.	Sustainability Risks, Trends and Opportunities Management, pages 52-68 Proactive Risk and Crisis Management, pages 83-88	

Figure 3: Broad examples of Turkish Airlines’ SDG contributions

When taking a closer look at Norwegian’s approach, there seems to be a discrepancy. While the report focuses on SDG 3, SDG 5, SDG 7, SDG 8, SDG 9, SDG 13, and SDG 17, the company’s website lists only SDG 1, SDG 8, SDG 13, and SDG 17 as focus areas (Norwegian, 2024, n.d.). This implies two key issues. On the one hand, the SDG prioritization process appears to lack a clear and consistent approach. On the other hand, since one of the sources are not updated, there seems to be a gap in communication. Regardless of the reason, such inconsistencies point to a lack of commitment and highlight the need for improved clarity and

attention. Furthermore, the airline does not disclose how these goals and material issues might influence one another. Similar to Turkish Airlines, Norwegian uses visuals to communicate how the SDGs and material issues align, as illustrated in Figure 4. However, just as its competitor, the company lacks specific examples of initiatives to support each SDG (Norwegian, 2024).

	High Impact Material Issue	Internal Governance Document	Action/ Resource	International Standard and References	SDG Alignment
E	Direct GHG emissions	Environmental Policy	Environmental Targets ESG Partnerships (Skybreath, Avtech, Norsk e-fuel and CHOOOSE)	Paris Agreement CORSA EUETS EASA Eco-label Re-Fuel EU Aviation	
	Climate Risk Air Pollution	Environmental Policy	Environmental Targets ESG Partnerships (Skybreath, Avtech, Norsk e-fuel and CHOOOSE)	Paris Agreement CORSA EUETS EASA Eco-label Re-Fuel EU Aviation	

Figure 4: Visual representation of the SDGs in the case of Norwegian

Wizz Air claims to contribute positively to ten out of the 17 SDGs: SDG 3, SDG 4, SDG 5, SDG 7, SDG 8, SDG 9, SDG 10, SDG 12, SDG 13, and SDG 17. However, the company neither addresses the inherent trade-offs between these goals nor their interconnectedness. For instance, while its investment in sustainable aviation fuel supports SDG 7 (affordable and clean energy), the airline’s carbon emissions continue to have a negative impact on SDG 13 (climate action). Additionally, the company does not explain in detail how specific initiatives are linked to the SDGs (Wizz Air, 2024, n.d.). This can be seen in Figure 5.

ENVIRONMENT

- Our goal is to make air travel with Wizz Air the most carbon-efficient choice.
- We actively work on reducing our environmental footprint and carbon intensity.




Figure 5: Lack of clear connections between Wizz Air's initiatives and the SDGs

As illustrated in Figure 6, Ryanair claims to “[...] align to the 17 UN Sustainable Development Goals” (Ryanair, n.d.). However, the airline does not define which sustainability initiatives are related to which SDGs. While the corporation does not clarify whether each impact is positive or negative, simply the term “align” indicates a positive contribution. However, by claiming to positively contribute to all SDGs, Ryanair ignores the inherent trade-offs between the goals.

This lack of specificity and consideration of trade-offs raises questions about the depth of the airline’s commitment (Ryanair Group, 2024a).



Figure 6: Ryanair’s claim of alignment with all 17 SDGs

In summary, Lufthansa Group, Turkish Airlines, Norwegian and Wizz Air focus on a selected number of SDGs, which allows the companies to channel efforts into specific areas where they can achieve true impact. Ryanair is the only airline that claims alignment with all 17 SDGs. However, it is impossible that any company can meaningfully contribute to all SDGs without compromising some. Lufthansa Group shows exemplary initiatives by specifying each SDG target it contributes to, as well as by providing clear examples of initiatives and explanations of how each SDG is addressed. The other carriers emphasize their alignment only in general terms. This reduces transparency since there is no information on concrete actions taken and goals achieved. Turning to the interconnectedness of the goals, only Turkish Airlines refers to this important aspect. Explaining how the goals and activities affect each other is crucial because it provides a more complete picture of the complexity of achieving balanced progress across multiple SDGs. In case the reporting on the trade-offs is missing, stakeholders' capacity to fully grasp a company's entire effect is also restricted.

4.1.2. Selective engagement

When examining selective engagement, the focus was on airlines’ transparency in SDG choices and acknowledgment of both positive and negative impacts. Lufthansa Group provides a clear and well-defined rationale for focusing on its ten selected SDGs by identifying them as most aligned with the company’s material aspects and core business model. This prioritization is the

result of Lufthansa Group's materiality assessment which ensures that all high-impact material topics are included. By concentrating solely on these SDGs, the airline's main goal is to decrease negative impacts and increase positive contributions in areas where it has the most power. Uniquely, only Lufthansa Group acknowledges the negative impacts next to the positive influences of its operations on these selected SDGs. It is true that the company does not go into detailed specifics regarding the nature of these negative contributions, such an acknowledgment alone is a step towards transparency and a balanced SDG engagement (Lufthansa Group, 2024).

Another best practice falls under this SDG-washing category. Turkish Airlines implemented an extremely transparent process for identifying and prioritizing material topics. The company created a clear and well-structured materiality matrix that outlines 28 material issues. The matrix, which is shown in Figure 7, is complemented with additional information that helps stakeholders understand the rationale for the prioritization. Furthermore, each material issue is directly linked to relevant SDGs in a table for easy navigation and clarity on why certain SDGs receive focus. However, despite the company's effort in conducting such an exemplary materiality assessment, it still reports solely on the positive contributions of its initiatives and does not disclose any negative impacts associated with its operations (Turkish Airlines, 2024a).



Figure 7: Turkish Airlines' materiality matrix as a benchmark for best practices

Norwegian’s materiality assessment effectively links all high-impact material issues to relevant SDGs, which demonstrates a consistent and comprehensive approach without overlooking critical areas. However, as mentioned previously, the inconsistencies between the report and the website raise serious questions about how these SDGs were chosen and the rationale behind them. Furthermore, while it is true that high-impact issues are mapped to the SDGs, Norwegian does not specify if the impacts are positive or negative (Norwegian, 2024).

Wizz Air’s SDG reporting, by contrast, suggests a selective approach. In its “Priority Programmes in Wizz Air’s Environmental Strategy” section, four initiatives are listed: carbon intensity, SAF, noise reduction, and industry collaboration. However, only two of these initiatives (SAF and industry collaboration) are linked to SDG logos, namely to SDG 7, SDG 9, and SDG 17. This selective labelling overlooks other contributions, such as carbon intensity reduction’s relevance to SDG 13 (climate action) and noise reduction’ alignment with SDG 3 (good health and well-being), which would provide a fuller view of Wizz Air’s contribution. Furthermore, the airline fails to address its negative impacts and does not explain clearly how it has chosen the ten supported SDGs. Although the company claims that the selected SDGs align with its business areas, it provides no detailed rationale for their selection. Although Wizz Air completed a materiality assessment, it fails to establish a connection between material concerns and the SDGs. This is underlined even further by inconsistencies in its report, as several highly material subjects are not linked to any SDGs. Figure 8 and Figure 9 highlight this issue by showcasing an example. Such an approach not only decreases transparency but also raises questions about how Wizz Air's priorities correspond with its SDG commitment (Wizz Air, 2024).

1. FOCUS ON CARBON INTENSITY (CO₂/RPK) REDUCTION AND RESOURCE EFFICIENCY

As we strive for more sustainable operations, it is crucial to continuously improve our carbon efficiency. Currently, no aviation fuel sources exist that are entirely devoid of environmental impact throughout their lifecycle. For Wizz Air, the primary environmental indicator is the intensity of carbon emissions, as the most substantial portion of our carbon footprint comes from Scope 1 CO₂ emissions during flight operations. This intensity metric, such as CO₂ emissions per passenger kilometre, quantifies emissions from a specific amount of activity, allowing for an objective comparison between companies of various sizes and business models. Changes in emissions intensity indicate shifts in the Company’s resource efficiency, while total emissions reflect changes in economic performance. Therefore, a decrease in total emissions could merely be due to a reduction in economic activity, without any improvements in efficiency or related processes. For passengers seeking to minimise their CO₂ emissions, this metric offers a comparative measure among various options. Carbon efficiency reflects the energy efficiency of aviation operations, as CO₂ emissions are directly derived from the quantity of fuel consumed during flights. According to international conversion standards, burning one tonne of fuel results in the emission of 3.15 tonnes of CO₂.

HIGH MATERIALITY TOPIC

Figure 8: High materiality topic not connected to the SDGs at Wizz Air

2. RECRUIT AND DEVELOP OUR EMPLOYEES – WIZZ AIR'S HUMAN CAPITAL DEVELOPMENT



At Wizz Air we are dedicated to recruiting top talent and providing them with essential tools, offering dynamic development opportunities through a specially tailored programme for all levels within the organisation, while promoting diversity and inclusion throughout the entire employee journey.

Since 2010, Wizz Air's employee base has grown from 1,184 to 8,044 by the end of March 2024. Despite facing operational challenges during F24 due to the Pratt & Whitney engine issues and ongoing conflicts in Ukraine and Israel, Wizz Air recruited 2,357 employees.

As part of the ongoing Crew to Office Programme, Wizz Air transferred 13 employees from crew to office positions during F24. This initiative aims to provide active flight and cabin crew employees with opportunities to transition their careers and gain experience in the office environment.

HIGH MATERIALITY TOPIC

Figure 9: High materiality topic connected to the SDGs at Wizz Air

Ryanair claims to support all the 17 SDGs, but it lacks a transparent approach to its engagement. The firm fails to clarify how its projects and initiatives relate to individual SDGs, and it gives no indication of which SDG targets are prioritized. What is more, the Irish airline fails to reveal any potential negative impacts related with its operations, leaving its SDG engagement incomplete and lacking critical context. Without a transparent SDG mapping or prioritization, it is difficult to understand how the company's activities genuinely align with the Sustainable Development Goals (Ryanair, n.d.; Ryanair Group, 2024a).

After examining whether companies have a rationale for prioritizing specific SDGs, the five airlines can be classified into two groups. The first category consists of Lufthansa Group, Turkish Airlines and Norwegian as they align their selected SDGs with their materiality assessment results. Even though all five companies conducted a materiality assessment, only these three used the findings to guide their SDG selection. By addressing the most significant high-impact material issues, this approach allows airlines to focus on areas where they can drive the greatest positive impact. Wizz Air and Ryanair fall short in this category since they fail to utilize their materiality assessment results to guide their SDG reporting. This leaves stakeholders unclear about the rationale behind these companies' SDG focus. When it comes to the importance of highlighting both positive and negative contributions to the SDGs, only Lufthansa Group makes some effort to address this, but its approach is still limited. The other companies do not recognize or explain their SDG commitments' negative implications. This lack of acknowledgment of potential adverse effects presents an incomplete picture of the companies' overall SDG engagement. For instance, all five airlines' operations negatively impact SDG 13 (climate action) with substantial CO₂ emissions and SDG 15 (life on land) by disrupting habitats around airports.

4.1.3. Vague descriptions

When comparing how extensively airlines convey their SDG involvement, substantial differences emerge. Lufthansa Group distinguishes itself by identifying SDG targets and tying them to relevant initiatives. For example, under SDG 12 (responsible consumption and production), the organization describes its use of sustainable in-flight items and includes hyperlinks to access more information. Furthermore, SDG logos are prominently featured throughout the key sections of its report, addressing topics such as environmental or employee concerns, as well as responsible supply chain management (Lufthansa Group, 2024).

In contrast, Turkish Airlines references the SDGs only by using general statement. Communications, such as offering employees "a safe and fair work life open to development" under SDG 8 (decent work and economic growth) lack details on specific programs or actions and thus, the reader cannot estimate the scope of these contributions. Similarly, Turkish Airlines emphasizes SDG 17 (partnerships for the goals) by mentioning its collaborations but does not specify neither the partner organizations nor the nature of these partnerships. On the positive side, the company incorporates SDG logos throughout the entire report and therefore, connects its sustainability topics to the SDGs (Turkish Airlines, 2024a, n.d.).

Both Norwegian and Wizz Air take a similar approach within this category, as neither of them consider specific SDG targets in their reporting. Positively, just as their competitors, they display SDG logos beside their material issues or sustainability initiatives. However, they provide no detailed explanation of how these actions contribute to each SDG (Norwegian, 2024; Wizz Air, 2024). For example, in the case of Wizz Air, although initiatives like "economic growth" and "job creation" are referenced under SDG 8 (decent work and economic growth), these mentions lack detailed descriptions or specific examples (Wizz Air, 2024).

Ryanair's descriptions of its SDG commitments are notably vague. This is, however, not surprising given the company's performance in the previous indicators. Ryanair provides no evidence of contributions to each SDG: there are no clear objectives, no explanation of the specific actions taken to support each goal and no SDG logos are used. This lack of clarity makes it challenging for stakeholders to assess Ryanair's SDG engagement meaningfully (Ryanair, n.d.; Ryanair Group, 2024a).

In conclusion, regarding the SDG-washing indicator "vague descriptions", Lufthansa Group stands out as the only business providing detailed explanations for its claims. This approach

minimizes vagueness and allows stakeholders to better understand the company’s commitments. With concrete examples and accessible resources, the airline makes its SDG engagement more transparent. In contrast, the claims of Turkish Airlines, Norwegian, Wizz Air and Ryanair are only vaguely supported, with limited evidence underpinning their SDG commitments. This lack of detail may leave stakeholders with questions regarding the concrete actions, measurable impact as well as the depth of commitment behind these companies’ SDG efforts.

Additionally, referencing SDG targets shows a deeper commitment to the 2030 Agenda. Yet only Lufthansa Group and Turkish Airlines incorporate them in their strategy. When it comes to the SDG logos, they are displayed throughout every company’s report, apart from Ryanair. While it is promising to see four out of five airlines aligning their report sections with the SDGs, this symbolic connection lacks the strategic depth for a credible SDG reporting and therefore it does not convey a substantive engagement.

4.1.4. Lack of measurable impact

In terms of impact measurement, Turkish Airlines is the only company that has linked the SDGs to specific performance measures and future sustainability goals. For example, the airline exceeded its 2023 objective of saving 60,000 tons of fuel, and thus, it established a new aim of 63,000 tons for 2024. These efforts align with SDG 7, SDG 9, SDG 12, and SDG 13, as showcased in Figure 10. However, not all targets are accompanied by quantifiable metrics, which makes effective monitoring difficult. For example, the initiative of removing plastic cups and promoting sustainable products and services onboard in 2024 does not have measurable indicators that would allow proper tracking of the performance of such a practice (Turkish Airlines, 2024a). This example can be seen in Figure 11.

OUR FUTURE GOALS

2023 Target	Related SDGs	2023 Performance	Realization Level	2024 Target
No environmental accidents		100%		No environmental accidents
Reducing water consumption per employee by 5% compared to the previous year		6.87 m ³ /person		By the end of 2023, a reduction of 49% compared to 2022 and 71% compared to 2021 was realized with the actions taken to reduce water consumption per person. A numerical target for 2024 has not been set, and improvements will continue in this area.
60,000 tons of fuel savings		71,830 tons		63,000 tons
Prevention of 189,000 tons of CO ₂ emissions		226,265 tons of CO ₂		198,000 tons of CO ₂

Figure 10: Turkish Airlines’ outstanding approach to SDG impact measurement

OUR FUTURE GOALS

2023 Target	Related SDGs	2023 Performance	Realization Level	2024 Target
NEW TARGET		NEW TARGET	NEW TARGET	Conducting a Climate Risk Adaptation Study
NEW TARGET		NEW TARGET	NEW TARGET	Completing the necessary infrastructure works as part of Türkiye Sustainability Reporting Standards (TSRS) S1 and S2
NEW TARGET	 	NEW TARGET	NEW TARGET	Determining short, medium and long-term sustainability goals by analyzing the current situation of our suppliers in sustainability issues
NEW TARGET	  	NEW TARGET	NEW TARGET	Removing plastic cups by increasing sustainable products and services offered on board

Figure 11: Occasional lack of quantifiable metrics at Turkish Airlines

Norwegian and Lufthansa Group perform very similarly within this category. The Scandinavian company, for instance, sets clear, trackable targets for certain initiatives, such as improving carbon efficiency by 45 percent per revenue passenger kilometre by 2030 compared to 2010 levels. This approach is an example for the effective use of SMART KPIs (specific, measurable, achievable, relevant, and time-bound). The inclusion of an annual comparison chart in the company’s report further enhances transparency as illustrated in Figure 12. However, a significant drawback is that these KPIs are not explicitly connected to the SDGs, and thus Norwegian’s progress regarding the 2030 Agenda cannot be effectively tracked (Norwegian, 2024).

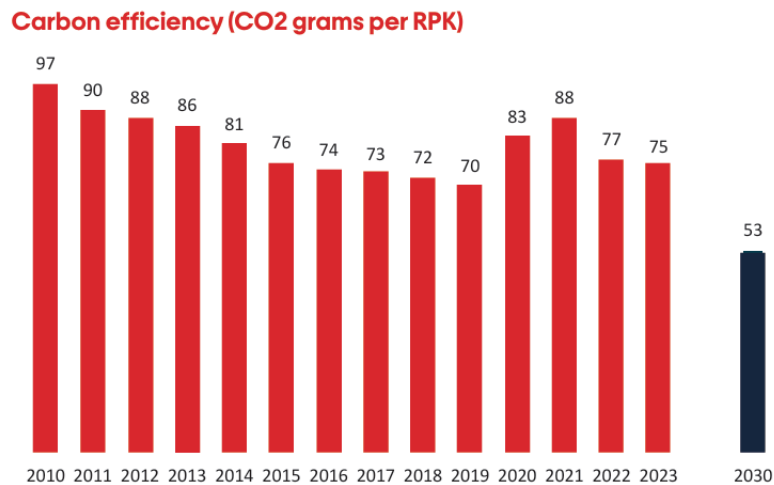


Figure 12: Transparency in impact measurement through Norwegian’s annual chart

For instance, Lufthansa Group has set a number of KPIs, such as measuring employee engagement through its "involve me!" survey. This is relevant for SDG 8 (decent work and economic growth), target 8.5 (full employment and decent work with equal pay) and allows for year-on-year monitoring. Whereas certain KPIs exist, the goals themselves are not specific. For instance, the goal of becoming more attractive as an employer is very ambitious yet broad and

does not give any time frame for which one could measure progress. Even though past data points are available and can be compared, there are no specific future goals set for improvement. Furthermore, while hyperlinks in the report provide access to additional details, finding precise KPI information and related goal data is challenging, which limits transparency (Lufthansa Group, 2024). Figure 13 illustrates this example.

8.5	Employee concerns/ Attractiveness as an employer	Uniform performance and potential assessment enable that talent is retained.	→ p.100
		Key remuneration components and additional benefits are offered.	→ p.99
		Employer value proposition (EVP) is introduced to enhance the Group's attractiveness as an employer. In the context of the EVP, the updated employer brand "Lufthansa Group careers" was launched. This was accompanied by three major marketing campaigns, which supported the successful recruitment of more than 14,890 employees in 2023.	→ p.100
		Working and employment conditions for employees and managers are flexible and are adapted continually	→ p.99f.
		The Engagement Index provides information about the Company's attractiveness as an employer and has been tracked by the voluntary annual employee survey involve me! since 2015. In 2023, the Engagement Index value was 2.2 and increased by 0.2 compared with the previous year's level of 2.4.	→ p.101

Figure 13: Setting unspecific goals for SDG targets at Lufthansa Group

The only well-defined target is Lufthansa Group’s goal to achieve a 30.6% reduction in CO2 intensity by 2030 compared to 2019. In 2023, they improved by 2.7% from 2019 levels (measured in grams of CO2 per revenue tonne-kilometer). However, this target remains broad, and the company could benefit from setting more specific goals for its sustainability initiatives to enhance accountability.

When it comes to Wizz Air, the company’s SDG efforts lack measurable targets or KPIs, making it challenging to evaluate the impact of its initiatives. For example, within the “Economy Pillar” in connection with SDG 8 (decent work and economic growth), metrics like passenger numbers and taxes paid are included. These, however, are insufficient to represent economic impact fully. Other relevant metrics, such as the number of jobs created, would provide a better understanding of how Wizz Air supports economic growth. Without specific KPIs, stakeholders cannot accurately measure the company's progress. "To power 10 per cent of its flights with sustainable aviation fuel (SAF) by 2030" (Wizz Air, 2024, p.22.), however, is a positive example, despite the fact that this target is also not explicitly linked to any SDG (Wizz Air, 2024).

Ryanair’s approach to KPIs is similar to Wizz Air’s, as it sets some trackable targets, such as an ambitious industry goal of 12.5% sustainable aviation fuel usage by 2030. However, the company neither connects these targets to specific SDGs nor provides updates on its progress. This lack of measurable SDG alignment and transparency makes it challenging for stakeholders to assess Ryanair’s contributions to the SDGs, leaving the company’s actual impact unclear (Ryanair Group, 2024a).

This category shows clearly that companies tend to focus on tracking individual initiatives rather than directly measuring progress toward the SDGs, which limits transparency and makes it difficult to evaluate how effectively their actions contribute to the overarching goals. The absence of SDG-aligned KPIs leaves stakeholders without a clear means to assess measurable impact on these goals. Furthermore, the organizations reviewed generally lack strong, measurable KPIs. Turkish Airlines, however, shows a marginally better approach by connecting the SDGs to certain performance metrics and future sustainability targets. While this method is not without its limitations, it offers a more structured way to monitor progress.

4.1.5. Limited integration

When assessing how successfully corporations have integrated the SDGs into their organizational structures, Turkish Airlines performs strong. The airline has implemented a "Corporate Sustainability Training" program to educate its employees on a variety of sustainability issues and the SDGs. Additionally, the goals are mentioned throughout Turkish Airlines' reports and website, which shows that they are incorporated into various aspects of corporate communication. Notably, the SDGs are mentioned in the introductory part of the sustainability report. The business reinforces the importance of the goals by stating, "*We take the Sustainable Development Goals as a basis when setting our goals regarding sustainability issues.*" (Turkish Airlines, 2024a, p.46.). This statement highlights that the SDGs are central to Turkish Airlines' sustainability strategy (Turkish Airlines, 2024a, n.d., n.d.).

Similar to its competitor, Lufthansa Group has integrated the SDGs into its corporate framework. This is evidenced by the fact that the company's business activities are guided by internationally recognized standards, including the SDGs. Sustainability is a key part of the airline's identity, according to the "Values and Guidelines" section of its report, which emphasizes Lufthansa Group's dedication to aligning its operations with global goals. However, its integration of the SDGs is not without shortcomings as it is unclear whether the SDGs are fully embedded throughout the company culture (Lufthansa Group, 2024).

As with previous categories, Norwegian and Wizz Air take similar approaches within this indicator as well. Despite the fact that both airlines reference the SDGs within their reports, their integration into the core business strategies is limited. The SDGs are not included in leadership statements, nor are they incorporated across different business divisions (Norwegian, 2024; Wizz Air, 2024). In the case of Norwegian, the organization's three-year environmental sustainability strategy states, "*We will make sustainability an integrated part of our business.*

That involves integrating sustainability into our business plans, corporate governance and management, as well as our culture and leadership functions.” (Norwegian, 2020, p.4.). While this demonstrates a significant commitment to implementing sustainability throughout all elements of the organization, it does not provide clarity on the integration of the SDGs (Norwegian, 2020).

Ryanair lacks evidence of integrating the SDGs into its core business strategy. There is no indication of the SDGs being embedded across the company’s divisions or receiving visible support from its leadership, as neither the CEO nor the sustainability director explicitly ties the SDGs to Ryanair’s broader strategy. Without integration or isolated projects connected to specific SDGs, the company’s SDG commitment appears superficial and disconnected from its business operations (Ryanair Group, 2024a).

Among the airlines analysed, only Turkish Airlines shows outstanding initiatives. A notable example is the company’s implementation of SDG training as it reflects an effort to embed SDG awareness and sustainability principles within the organization’s culture. Furthermore, mentioning the SDGs in the introduction of its sustainability report further emphasizes the importance of these goals to the company’s overall strategy and commitment to sustainable practices. Similarly, Lufthansa Group also highlights the SDGs in the values and guidelines section, underscoring the goals’ significance within the company’s strategic framework. In contrast, weaker integration can be seen at Norwegian, Wizz Air, and Ryanair. While Norwegian and Wizz Air reference the SDGs throughout their reports, the lack of clear integration into the overall strategy suggests that the 2030 Agenda may be treated more as external commitments than core components of the companies’ operations. If companies aim to fully embrace the SDGs, they need to incorporate them more fully into their operations. Again, Ryanair is at the bottom of the scale since there is no evidence that the company has tried to embed the SDGs into its culture and strategy.

4.2. Comparative ranking of the airlines with radar chart visualization

Following the analysis in the previous section, each airline was given a score for its performance in each SDG-washing metric. The highest score (5) was assigned to an airline that demonstrated the best performance in a category. Thus, a larger area covered by the radar chart means better performance with a low probability of engaging in SDG-washing.

In cases where two or more airlines performed similarly, they received the same score. This occurred in the categories “vague descriptions” and “limited integration”, where both Norwegian and Wizz Air received a score of 2. Due to the identical ranking in these categories, one rank was omitted. The omitted score was determined based on the performance gap between the airlines. For instance, in the category “vague descriptions”, none of the organizations was assigned a score of 4, as Lufthansa Group, which achieved a score of 5, performed significantly stronger than its peers. The results of the analysis are illustrated in Figure 14.

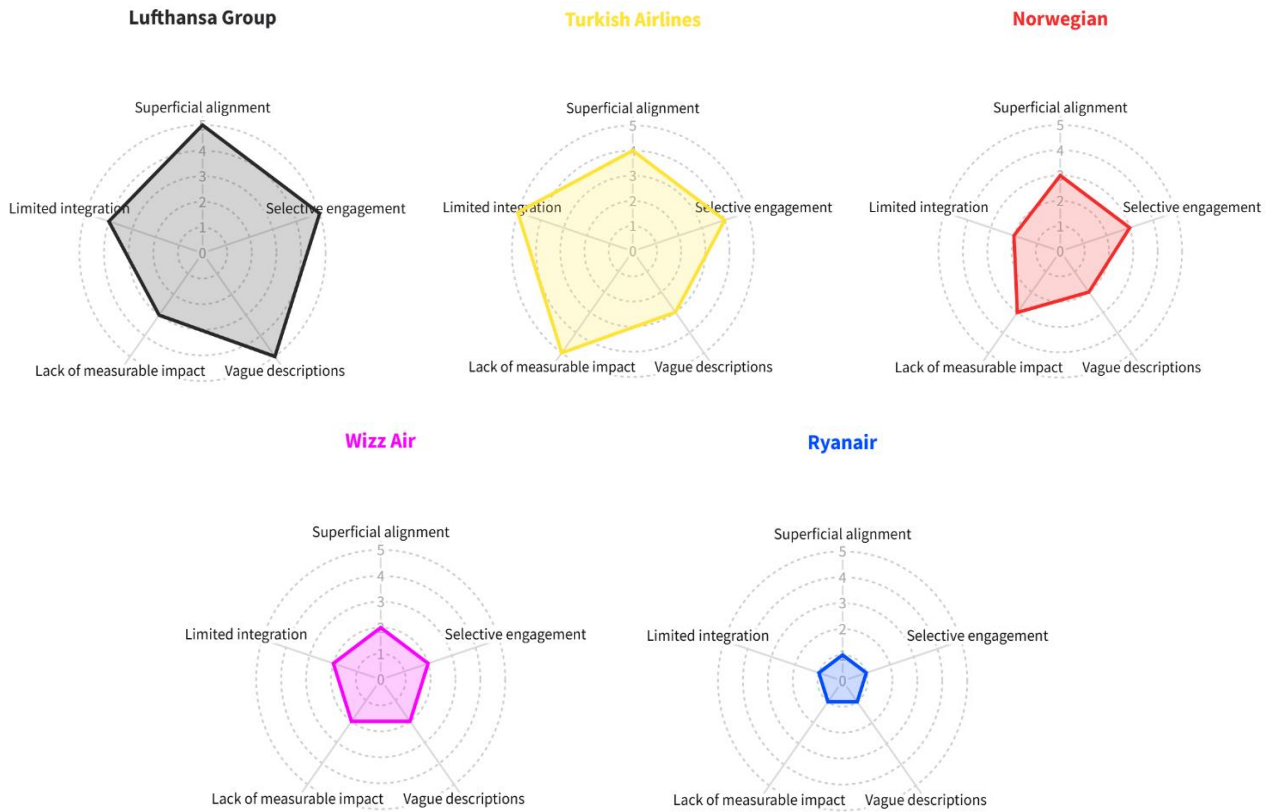


Figure 14: Comparative content analysis results: Radar charts highlighting airline SDG engagement and SDG-washing probability

The radar charts clearly show that Lufthansa Group and Turkish Airlines outperformed their competitors. Notably, in categories where the German airline scored higher, its Turkish peer performed worse, and vice versa. This underscores the contrasting strengths and weaknesses of the two airlines. On the other hand, Wizz Air and Ryanair consistently underperformed, with Ryanair scoring 1 and Wizz Air scoring 2 across all five categories. These results place both airlines firmly in the lower tier of the ranking. With ratings ranging from 2 to 3 across all categories, Norwegian demonstrated a modest level of engagement and ranked as a mid-level competitor. This shows clearly a stronger commitment than Wizz Air and Ryanair but a lower involvement than Lufthansa Group and Turkish Airlines.

4.3. Interview results: Aspects influencing airlines' level of SDG engagement

The expert interview provided valuable insights for understanding the reasons for airlines' current level of SDG engagement. Since the SDGs are government-oriented, airlines operating in different markets face varying levels of pressure and regulatory demands. For instance,

governments enforce sustainability regulations differently, putting more or less pressure on industries. While certain nations may prioritize regulating the textile or agricultural sectors, others may impose stricter requirements on transportation industries. Additionally, the maturity of a country and its citizens' awareness of sustainability concerns is important. Passengers who are more eco-conscious can drive demand for environmentally responsible practices. Therefore, when it comes to an airline's SDG commitment, geographical location plays a crucial factor. However, other aspects, such as airlines' service type and financial performance have a significant influence as well. Since full-service carriers typically have higher revenues, they are better positioned to invest in resource-intensive sustainability projects. In contrast, low-cost airlines usually have limited budgets, and therefore, they face financial constraints in adopting sustainability practices. Interestingly, the number of airplanes and passengers does not directly influence the level of SDG engagement. Instead, key indicators in this context are revenue and the number of employees. Usually, stricter regulations apply to companies with high numbers in these areas. Furthermore, ESG ratings, while crucial for investors, have no impact on SDG commitment.

Nevertheless, sustainability cannot be disregarded, as it has become a priority across all industries, including aviation. Implementing sustainability initiatives and shifting to an environmentally conscious mindset is often challenging. Instances of greenwashing may arise, especially when airlines face increasing pressure from governments, peers, or the United Nations, to showcase their commitment to sustainability. Notably, these "washing" practices rarely happen on purpose. Instead, they showcase the difficulties of changing long-standing habits and meeting new regulations promptly. For years, marketing departments were responsible for sustainability communications, which often included – previously legal – exaggerated claims. Although the new EU Green Deal forbids greenwashing, changing old practices and embracing new standards take time.

There are also speculations that SDG-washing may lose its prominence as attention shifts to other areas, as has happened in the past with other sustainability hot topics. For now, however, companies are extremely cautious on what they report, especially airlines, as they serve in an industry known for its high level of confidentiality. As a result, greenwashing concerns can have a significant influence on airlines' SDG reporting practices.

5. Discussion

The results of this master's thesis support previous research about companies' levels of SDG engagement and the prevalence of SDG-washing in the corporate world. Scholars frequently observe a clear gap between what organizations claim about the importance of the SDGs and what they actually do to address them. This discrepancy is noticeable among the analysed airlines as well. While all of them reference the SDGs in their communications, some demonstrate commitments that seem more symbolic than genuine, which calls into doubt their sincerity.

The analysis of SDG-washing among the five selected airlines revealed significant variations in their engagement with the 2030 Agenda. This thesis came to the conclusion that Turkish Airlines and Lufthansa Group do not engage in SDG-washing because of their credible, transparent, and measurable practices. However, Wizz Air and Ryanair's sustainability disclosures lack specificity on their SDG commitment, and therefore, they are likely demonstrating unengenuine engagement with the global goals. This suggests that the SDGs are used more for branding than for meaningful action. Norwegian occupies a middle ground, showing more sincere dedication than the other two budget airlines, but still requiring improvement in engagement and reporting practices.

With two of the five airlines clearly underperforming compared to their peers, these findings partially support the hypothesis, namely that the selected European airlines engage in SDG-washing. However, even the remaining three companies do not demonstrate exemplary practices. This is not surprising, given the increasing amount of evidence of SDG-washing in the corporate sector and considering that airlines are frequently involved in greenwashing scandals.

Since the aviation industry's business model is fundamentally polluting and harmful for the environment, achieving sustainability within the sector poses unique challenges. Additionally, the SDGs themselves have drawn a lot of criticism for being hard to implement, measure, and monitor, which makes it challenging for any company to demonstrate a genuine, and fully transparent commitment. These factors help explain why even the better-performing airlines are unable to establish the industry's highest standards for SDG involvement.

Additionally, the sector faces distinct pressures and possesses unique characteristics that influence its approach to sustainable practices and SDG alignment. Two key insights could be drawn from the evaluation:

- I. There is a clear connection between an airline's service type and its level of SDG engagement. Full-service airlines outperform their peers with low-cost business models in terms of their commitment to and reporting on the SDGs.
- II. For full-service airlines, SDG engagement positively correlates with revenue, since financially strong companies are better positioned to implement costly sustainability initiatives. In contrast, low-cost carriers show a negative correlation. This disparity is influenced by additional factors such as operational scale, geographical location, regulatory pressures, market focus, customer expectations, and national sustainability performance.

Full-service airlines, such as Lufthansa Group and Turkish Airlines, generally demonstrate a higher level of SDG alignment compared to the selected low-cost carriers, including Norwegian, Wizz Air and Ryanair. This difference is closely tied to revenue, as full-service providers in the sample generate higher returns. In general, airlines with greater financial resources are able to allocate more toward sustainability initiatives, which are normally costly practices. In contrast, low-cost airlines focus on minimizing costs to maintain their competitive edge, which in turn leaves only a limited room for green efforts.

Interestingly, for low-cost airlines, the relationship between revenue and SDG engagement is negative. For instance, while Ryanair has six times higher revenue than Norwegian, it performs worse in terms of the SDGs. However, the Irish company's larger fleet and higher passenger volumes may explain this negative correlation, as it adds significant operational complexity. Compared to smaller airlines, implementing comprehensive SDG activities over such a vast network may pose more challenges. However, full-service providers do not adhere to this tendency. While having a larger fleet and clientele, Lufthansa Group outperforms Turkish Airlines which may suggest that other significant factors come into play. This contrasting relationship between income and SDG involvement also reflects the variety of viewpoints found in the literature. Some scholars argue that rising financial success allows companies to devote more resources to ESG projects. Others contend that businesses with large surplus cash may deprioritize sustainability activities in order to focus on other areas.

The location of airlines and the markets they serve play a crucial role in shaping their SDG engagement due to national sustainability practices and varying regulatory pressure, as supported by both the literature and this research's findings. Norway, for example, is recognized as a highly sustainable country, with the Scandinavian region leading in green practices globally. Norwegian benefits from this encouraging environment, but the airline's performance is still mediocre, which can be a result of the limitations of its low-cost business strategy. Similarly, Germany leads the world in sustainability and regulatory requirements. As a result, Lufthansa Group also gains from its home country being supportive of sustainability initiatives, which decreases the need for the company to take additional measures to demonstrate its commitment. For Turkish Airlines this is not the case. It is commonly known that Türkiye has higher emissions and less stringent sustainability standards. Despite this, the airline has adapted by shaping its sustainability strategy based on global standards rather than domestic directives. With this strategy, Turkish Airlines is better positioned to compete with Lufthansa and other full-service airlines in this competitive setting. The other two low-cost airlines in the analysis, Ryanair and Wizz Air, mostly operate in markets with less stringent laws and regulations. This is consistent with their relatively low level of SDG engagement and implies that less governmental pressure contributes to their focus on cost-efficiency over SDG alignment. Nevertheless, these airlines are still required to comply with higher European standards and local regulations of the countries they serve. However, since low-cost airlines prioritize minimizing costs over pursuing ambitious sustainability efforts, they often focus on meeting only the minimum requirements for regulations.

Another important aspect is that airlines operating across borders must meet the demands of diverse markets. Lufthansa Group and Turkish Airlines serve business travellers and higher-income leisure passengers and operate on an international scale. This requires them to navigate a variety of market expectations and cultural attitudes. Conversely, Wizz Air, Ryanair, and to a lesser degree, Norwegian, cater to budget-conscious leisure travellers who prioritize cost over sustainability. However, as customer awareness and demand for sustainable practices grow, even low-cost airlines are finding themselves under more and more pressure to demonstrate some degree of "green" commitment, whether via real actions or symbolic gestures.

These other important factors show that an airline's operational scale, including its fleet size and passenger volume, does not explain alone its SDG engagement. Interestingly, these findings contradict previous academic contributions, which emphasize the relevance of scale and size. While these factors clearly have an impact, they alone do not fully account for airlines' SDG

engagement. More critical are aspects such as service type, geographical location, and national sustainability performance, as well as market focus, which includes various regulatory demands and consumer expectations. Revenue and employee count also play a significant role since the application of regulations are determined by these indicators. This means that the higher the figures are in these areas, the more stringent the requirements are.

Interestingly, the analysis reveals no clear connection between an airline's ESG score and its SDG commitment, challenging again literature findings. One reason for this is the varying standards and criteria used in ESG ratings. Depending on the specific ESG metric applied – such as Sustainalytics, CDP or MSCI – a company's ranking can differ significantly, as different methodologies require different criteria to excel. Additionally, an organization's reporting capacity strongly affects its ESG rating. Airlines with fewer resources, such as Wizz Air and Norwegian, tend to score lower due to their smaller fleet and passenger volumes, which indicate having fewer employees. This smaller workforce, compared to their peers in the evaluation, may limit their capacity to produce comprehensive sustainability reports. What is more, ESG ratings only consider a company's exposure to ESG risks and its financial implications, without taking into account its contribution to a more sustainable world. As a result, these ratings are primarily important to investors. This fact further underscores why there is no direct correlation between airlines' ESG scores and their alignment with the Sustainable Development Goals.

Wizz Air and Ryanair in general are considered as sustainable airlines. However, the fact that they performed so low in SDG commitment compared to the other analysed airlines raises another important consideration, namely the role of greenwashing concerns. Investigations and fear of misrepresentation may lead companies to suppress detailed disclosures. This caution is accentuated among airlines, because the industry is generally marked by a high degree of secrecy due to safety and operational concerns. Wizz Air and Ryanair, therefore, may intentionally publish less in order to avoid any criticism or accusations of greenwashing based on the content of their disclosures.

Furthermore, while the EU Green Deal explicitly forbids greenwashing, which includes SDG-washing as well, it does not eliminate the occurrence of such practices. For years, marketing departments were responsible for sustainability communications and often made exaggerated claims, as these were not previously illegal. With new regulations now in place, greenwashing

often happens unintentionally, as compliance takes time, and companies need to change their long-standing habits which is rarely an immediate procedure.

Even though the thesis met its main objective of detecting ungenune SDG practices among airlines, a number of limitations remain. As discussed in section 3.3, some SDG initiatives may not be publicly disclosed, and this might affect the results. Additionally, the analysis was conducted by a single researcher. While a structured methodology was employed to reduce bias, complete objectivity cannot be assured. Another important element to consider is the sensitivity of the topic of SDG commitment and, more specifically, SDG-washing. While the original goal of the thesis was to conduct interviews with sustainability experts from the five airlines to better understand their motivations and reasons for their level of SDG engagement, this proved unfeasible. Airlines do not share more information about their reporting practices beyond what is already disclosed in their reports. This notion, though not beneficial for research, is understandable, as companies are not likely to openly admit that their engagement with sustainability practices is insufficient or ungenune. Lastly, and perhaps most importantly, the results depend on the selection of airlines. If different companies had been analysed, the findings, and thus the relative scores of low-performing airlines could have differed significantly.

6. Conclusion

This master's thesis analyses whether five selected European airlines - Ryanair, Lufthansa Group, Turkish Airlines, Wizz Air and Norwegian - engage in SDG-washing practices based on indicators, including superficial alignment, selective engagement, vague descriptions, lack of measurable impact, and limited integration. It also identifies aspects influencing airlines' level of SDG engagement. While previous studies have primarily focused on the general business context, this study explores the aviation sector, a critical yet underexplored industry in this context. Studies consistently show that while corporate awareness of the SDGs is at an all-time high, actual engagement often remains symbolic, giving rise to a new phenomenon called "SDG-washing". This issue is particularly relevant in the aviation industry, which, as a significant contributor to CO₂ emissions, faces growing pressure to act. Combined with widespread evidence of greenwashing in the sector and increasing concerns about SDG-washing, this suggests that airlines may be exaggerating their SDG efforts.

Findings show that Lufthansa Group and Turkish Airlines are genuinely committed to the 2030 Agenda, while Wizz Air and Ryanair engage in SDG-washing practices. Norwegian displays partial engagement and requires further improvement. Furthermore, a clear link can be seen between service type and SDG engagement, with full-service airlines showing more genuine SDG commitment and stronger reporting practices compared to low-cost carriers. For full-service airlines, SDG engagement positively correlates with revenue, while low-cost airlines show a negative correlation. This discrepancy is determined by many factors, including operational scale, geographical location, regulatory pressures, market focus, customer expectations, and national sustainability performance. Notably, ESG score does not influence the level of SDG engagement, which shows differing results with literature.

Since the proposed research only focused on five selected airlines, it provides an in-depth but narrow approach. Indeed, to generalize findings about the European aviation industry, future research could examine wider samples of airlines using the developed SDG-washing indicators in order to gain broader insights into sector-wide commitment with the Sustainable Development Agenda. Another interesting direction for future research would be to investigate other aspects that influence airlines' SDG commitments. Specifically, governmental factors such as national policies, international regulations, and compliance requirements in countries of origin and destination, since these significantly shape the sustainability and SDG reporting practices of companies. Further exploration into this area might yield valuable insights into the relationship between policy and corporate sustainability.

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Appendix

A. Interview guideline

1. Could you tell me a bit about yourself, your professional experience, and how you connect to the topic of SDGs, sustainability and the aviation sector?
2. What motivates airlines to focus on the SDGs? And what pressures them?
3. Do you believe that SDG-washing is an increasing concern in the airline industry? Why?
4. In your opinion, what leads companies to engage in SDG-washing? Is this any different in the airline industry?
5. Do you believe that there is any connection between the level of SDG engagement and any of these airline characteristics: geographical location, service type (low-cost or full-service provider), revenue, scale (fleet size or passenger traffic), sustainability ratings, etc. Please explain your answer.
6. How do you think concerns around greenwashing have influenced airlines' approach to SDG commitments and reporting?
7. Before we end the interview, is there anything else you would like to add to what we have discussed so far?

B. Interview transcript

Interview

14th of November 2024, 11:00 on Teams

A: Interviewer

B: Interviewee

- B:** So yes, the first remark Laura would be for the list of the five airlines that you choose for your thesis between Ryanair, Lufthansa, Turkish and Norwegian and Wizz Air. What you need to keep in mind is that European regulation on which you have a lot of environmental topics and alignment with sustainable development goals, would be applicable to airlines which headquarters are located within European countries, which is not the case for Turkey. This is something that you need to keep in mind, but it's also very interesting to see how airlines being in very close countries are facing different regulation and different compliance obligations, obligations which are applicable for some airlines and not for some others. And then for you to have a good understanding of why we talk about SDGs: It's something that you should mention in your test as well. When you talk about sustainable development goals, please keep in mind that this notion is very new, it has only been articulated this way and being called this way with such names since 2015, before 2015 and nothing there was no SDGs there were targets and. Yeah, achievements to be that. So, there were targets, but it was not called Sustainable Development Goals. It's one thing that you should keep in mind as well, but we had former targets in terms of reducing environmental footprint and so in terms of SDG washing is very UN oriented and what you need to know is that United Nations, they work with governments. You will never have someone from the UN knocking at the door of the CEO of an airline and telling him why you are not compliant with this target. Because the UN's first goal is to preserve peace at the worldwide level. The United Nations work with the governments of a country and the government of the country will say yes, we agree with the goals that has been set by the United Nations and we will do everything in our power we can to comply with this goal and what the country will do, the government of the country will write laws to ensure. Said it can't comply with the target. So, if we take the easiest one, let's talk about CO2 emissions reduction. So, we agree that we need to stay below 2°. So, every country said yes, we will do so. So, the representative of every government came back to their country. And they started working on laws to reduce the CO2 emissions and those laws are applicable to every industry. They are applicable to every citizen of the country. So as a government of the country started, nothing started because they were working on this topic topics before. But they will write several laws that will be saying if you as a company are owning, let's say 50 buildings where your employees working, you need to make sure that by 2000 let's say it's 30, this is building energy consumption has been reduced by 50% and this is a real law. And so, the company will be like, OK, so now I know that I need to comply with this law. So, I will change my investment strategy to ensure that my buildings are consuming by 50% less of energy and this is a company choice to say we will use a solar instead of gas or we will work on insulation of the building, or we will reduce the size of the buildings or whatever as this is the company choice. And this is not the government saying to the company you should work on isolation, or you should work on the sides of the building, or you should work on the type of energy you're consuming.
- A:** So basically, you are saying that the first target comes from each country from the government, and they are communicating this to the to the companies and then the companies decide how they want to achieve it. If I understood it correctly?
- B:** This is almost exactly this way, but the government is not communicating this to the country, to their companies, they are just writing laws and so are published. And it's this is the company responsibility to be aware of which laws are being set. And if the company is not complying with the target, it will be fined. And then, it is a country who decides what is the fine: Is it financial? Is the country forbidding the company

for working or is it like public name and shame? Every harm, like punishment, is doable. It's the government who decides. And so, at a European level, when Europe is deciding, then every country choose who are they fining? What are the laws they're passing and what is the consequences if you do not comply with them? This is a country responsibility is this is not the UN responsibility; it's not done at done at international level. It's done at a local level. This is important for you because when you have SDG compliance, every country like Ireland or Germany or Turkey or Norway can have very different targets for each industry. A country can say we will have very significant fines for the transport industry because this is what emits the most in our portfolio of emissions. And so, we will fine them very much. It can also say you know what for us the issue is textile or it's agriculture. And so, for the airlines, our targets will be very low. Often transport is very emitting, but I think because it might not be the case, and this is something that is very important in for the perimeter of your thesis is that you have different countries, and you have different laws in different countries.

A: Now basically in the next section we will then jump to the SDG engagement and SDG washing topic focusing on the airline industry specifically. So, my first question would be what do you think, what motivates airlines focusing on the SDGs and on the other side also, what pressures them, why are they engaging with the UN goals?

B: Regulation is always the key. So, the term SDGs it's as a global understanding of environmental performance. So, you know the pressure will not come from the SDGs and you will not have the link as I told you will not have the government saying this is SDGs compliant. Government will just say this is a law named by one minister and you will need to comply with this law and actually this law is aligned with one of the SDGs topics so you will not have pressure coming from the United Nations, other than through the government.

A: All right, so you see this more as a pressure, but do you also think that there are maybe some motivating factors?

B: Definitely. Because what companies start to understand is that being engaged in sustainability is actually sustainable. And the term is very relevant. You know, like consuming less, consuming better, not throwing money on the very tangible assets, having a change of the mindset. Is necessary for every industry and for the airlines as well. And actually, the airlines industry has always been sustainable because it's so expensive to fly then finding way for consuming less for an airline. And I'm not talking about passengers. I'm really talking about the airline. The improvements, the technology improvement of aeroplanes is phenomenal. It's incredible how much they consume now compared to their consumption like 30 or 40 years ago, it has gone through an incredible. Two-month in terms of consumption and this is something to be proud about and this industry has been sustainable for a long time and has a sustainable way of thinking for quite a while now.

A: And when we are talking about the SDGs, do you think that this concept of SDG washing is increasing in the airline industry?

B: As the concept of greenwashing is increasing and you know there are always terms, because people need to put names on stuff and we like in 2017, if I remember correctly, with the rise of Greta Sundberg in Sweden, Fluke scam, which was the shame of flying, and it had so the name had gone viral. But it knows no one is talking about it anymore. Or maybe because I'm not in the industry anymore, so I don't hear it. When you talk about something like SDG washing, keep in mind that in Europe, the terms greenwashing is actually a law now, and there is a law. At European level, which is forbidding green washing, so green washing when you say SDGs green in terms of sustainability is part of it. As the SDGs is also covering everything related to social and to like gender equality and. There is no such term now for such as like gender equality washing and it's just lying. It's just, you know, nothing's truth. So green washing there is a law, and you can find it about it within the Green Deal, which is one of the European laws which is forbidding green washings.

- A:** So, you were mentioning this law against greenwashing, but do you think that because of this law, then airlines really don't engage in green washing practises anymore? Or do you think that they still do some green washing practises?
- B:** So, it's for every law. It's not like instant. And this is normal for companies to change their marketing habits from it. It doesn't happen instantly. So, it will happen, but often it happens by mistake, and it happened as marketing had the power in the companies for a very long time and the choice is often led by telling more and selling. Yeah, by selling more. So, it's mostly done by mistake and not intentionally so. What I have seen from my experiences is this. They don't usually intend to. Greenwashing mostly happens by mistake. I will not say they never do it, because most certainly it happens also. But if now that the law is. Now is that it's forbidden, is there? It will be more looked at and it will be checked better thanks to this.
- A:** And again, if then we are talking about green washing or more specifically the SDG washing practises, why do you think airlines are engaging in it. Maybe if you could name or if you can think of any other reasons apart from doing it unintentionally. Is there anything else behind it in your opinion?
- B:** Because if you don't, you will have pressure from the peers. And it's also proof of your engagement. It's a willingness to do better. And there is a lot of things behind a lot of proof that you are following what is done at the international level. There is a lot of strategy behind this and aligning with expectations of the United Nations, it's the proof. It's a proof of good quality and of responsibility and awareness of people, of passengers. People are more and more aware, and people are willing to work and to spend money on responsible things more and more. So, it's a good strategy to prove that what you have done to have actually and the return on investment for your money. When you invest in sustainable aviation fuels, for example, it's not cheap, it's really strategic choice to be working on this, but it can also enable you to have better passengers who are willing to be flying. So, it's all actually a marketing strategy, you know, to be sustainable.
- A:** Then my next question would be more about some airline characteristics. Do you think that there is any connection between an airlines level of SDG engagement and some specific characteristics. So, for example, revenue, service type, geographical location or sustainability rating. So do you see maybe any connection here or maybe you can also name some other factors if you can think of any?
- B:** So, when you fly low cost, your goal is to be the cheapest possible. And as an airline also to prove to your passengers that you are spending your money wisely. So, for an airline, you have two clients. You have the passengers, but you also have the airports. If an airport is telling you cannot land because you are not flying South. You will lose an airport and passengers, so you need to keep a good balance. Like the airlines who have the most money and if we talk about like Emirates. They're flying for free because it's coming from the government and the government is paying. But they're very sustainable because they can invest the money and being sustainable is actually not cheap because you need to be investing money at a long term. You have long term investments. The relevance of sustainability comes from long term. We're living now in a society where people need to have return on investment back tomorrow. So mostly the speed at which we leave and the speeds, the capacity of long-term investment, which is driving an airline capacity of investing in sustainability.
- A:** And when it comes to maybe to the geographical location of the of the airline, so where they are headquartered, do you think that it influences how much they are engaging with sustainability?
- B:** Of course, it depends on the country maturity and the maturity passengers understanding of things it comes for the geographical location is a key factor.
- A:** And what about some sustainability ratings?
- B:** No, actually all those ratings are not for the passengers or the airports. You will never be in a situation where before choosing your ticket or before choosing the airline you are working with, be checking the sustainability report of the companies. So, you will not be making your decision based on the score of the CDP. We are not at this stage yet of comparing between the companies. It will come and it will come very soon because in Europe you have the CSRD. The CSRD it's not done for regular passenger; it's done for investors and in else they need investment because an aeroplane is quite expensive. So, it's really on an investor side and not on the passenger side. Passenger is really the last consideration.

- A:** And do you see any connection between the sustainability or SDG engagement and the scale of the airline? So, for example, how many aeroplanes they have or how many passengers in a year they have?
- B:** Definitely, because depending on the size of the company at the global level, the regulation is not the same. And the revenue is key. You can be a small airline like if you check your LA company, it's a private airline which is flying only business. They are small, they have like just a few planes, but the revenue is very huge because they're flying only business and they're flying mostly Paris, NY so it's mostly for businessmen or very rich people. So, 1 ticket costs like 100 times what you find on their regular airlines such as Air France. What you mostly find in regulations for applicability thresholds is either the amount of people working for the company or the revenue.
- A:** And as my last question, I also wanted to discuss the general concern of green washing, and I wanted to know how you think this concern around greenwashing influences how airlines approach the SDG topic in general and how they report on them?
- B:** So, it's considered. Companies are more and more cautious on what they report, what they declare, what they make public, and airlines are a very secret industry. Because there is so much safety around it. Because you're flying and you're flying people. So, there is a lot of double checking and it's an industry where you double check, triple check everything before making anything public or. So, it's double consciousness, not only on the risk of being blamed for greenwashing, but also because it is the industry habits.
- A:** We have come to the end of my questionnaire. I don't know if you might have any other questions or insights that you want to share. If you think anything would be important for my side and please feel free to shoot ahead.
- B:** I think what is important is really to keep in mind that Europe is the leader for sustainability. We are very far, very far on understanding very far in terms of means, who are allocated to sustainability and to sustainable projects. We're best in class for everything related to sustainability, so it's difficult, but it's a proof that others can also reach such a level of involvement until we reduce our global environmental footprint.