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Exploring Cultural and Institutional Factors to the Adoption and Communication of Sustainable Strategies in Airline Industry

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ABSTRACT:
Sustainable development and corporate sustainability practices have been prominent topics for some time. Companies are facing pressure to acknowledge their environmental impact, and consumers are becoming more aware of sustainability issues and therefore demand more commitment to joint sustainability goals. The pressures and drivers for sustainability practices have been researched widely. However, there is a gap in research of the informal and formal pressures on corporate sustainability. The purpose of this study is to examine how cultural and institutional factors influences adoption and communication of sustainable strategies in airline industry. This study focuses specifically on aviation industry, due to its significant environmental impact and its contribution to greenhouse gas emissions. While sustainability initiatives in aviation are guided by global frameworks and institutional standards, their adoption vary across national context.

The literature review of this study combines two theories: Hofstede's cultural dimension framework and institutional theory, to examine how regulative, normative and cognitive pressures interact with national cultural values in influencing aviation sustainability practices. The industry is under pressure to adopt sustainable practices with regulatory frameworks and meet stakeholder demands for more transparent and committed CSR adaptation. Therefore, researching how culture, as an informal element influence these demands, can help to identify unexplored topics in this field of research. The thesis focuses on the aviation industry at a general level, without engaging in country-specific case comparisons or primary empirical data.

The findings of this study suggest that institutional environment impacts compliance-oriented sustainability factors, while cultural values influence how sustainability is communicated and prioritized. Cultural values, as explained through Hofstede's dimensions, influence how sustainability is interpreted and communicated in the organization. Together, cultural and institutional contexts explain why airlines respond differently to global sustainability pressures. As the study states, global sustainability strategies are adapted to local contexts, therefore airlines do not adopt these strategies uniformly.

The findings of this thesis can be utilized to explain policymakers and airline managers that designing effective sustainability strategies in aviation industry, are in key role when aligning global sustainability expectations. These findings state that sustainability in aviation is not solely environmental issue, but constantly evolving process defined by policies, regulations and cultural values.

KEYWORDS: institutional theory, cultural dimensions, sustainable aviation, corporate sustainability, institutional environment

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Tiivistelmä:
Kestävä kehitys ja yritysten vastuullisuuskäytännöt ovat olleet keskeisessä roolissa jo pitkään. Ulkoiset paineet velvoittavat yrityksiä ottamaan yhä enemmän vastuuta ympäristövaikutuksistaan ja samalla kuluttajien lisääntynyt ympäristötietoisuus kasvattaa vaatimuksia sitoutumisesta yhteisiin ilmastotavoitteisiin. Vaikka kestävän kehityksen käytäntöjä on tutkittu laajasti, tutkimuksissa on edelleen aukko siinä, kuinka viralliset ja epäviralliset tekijät vaikuttavat yritysten vastuullisuuskäytäntöihin. Tämän tutkimuksen tarkoituksena on tarkastella, kuinka kulttuuriset ja institutionaaliset tekijät vaikuttavat kestävän kehityksen strategioiden omaksumiseen ja kommunikointiin ilmailualalla. Tämä tutkimus keskittyy ilmailualaan, koska sen vaikutukset ympäristöön ovat tällä hetkellä erittäin merkittävät. Vastuullisuuskäytännöt vaihtelevat riippuen niiden kansallisesta kontekstista, vaikka niiden pääpiirteet luovatkin kansainväliset viitekehykset ja institutionaaliset standardit.

Tämän tutkimuksen kirjallisuuskatsaus yhdistää kaksi teoriaa: Hofsteden kulttuurien ulottuvuudet sekä institutionaalinen teoria, jotka yhdessä tarkastelevat, kuinka regulatiiviset, normatiiviset ja kognitiiviset paineet vaikuttavat lentoalan vastuullisuuskäytäntöihin. Ilmailuala kokee painetta omaksua kestävän kehityksen käytäntöjä sääntelykehysten puitteissa sekä vastata sidosryhmien vaatimuksiin entistä läpinäkyvämmästä ja sitoutuneemmasta yritysvastuun omaksumisesta. Tästä syystä on tärkeää tutkia, miten kulttuuri epävirallisena tekijänä vaikuttaa näihin vaatimuksiin sekä myös auttaa tunnistamaan aiheita tältä alalta, joita ei ole vielä tutkittu. Tämä tutkimus keskittyy ilmailualaan yleisellä tasolla, eikä se vertaile tapaustutkimuksia tai käytä ensisijaista dataa.

Tämän tutkimuksen löydökset näyttävät, että institutionaalinen ympäristö vaikuttaa sääntelyn ohjaamiin kestävän kehityksen tekijöihin, kun taas kulttuuri vaikuttaa siihen, kuinka kestävyys kommunikoidaan ja priorisoidaan. Hofsteden kulttuuristen ulottuvuuksien avulla tämä tutkimus näyttää, että kulttuuriset arvot vaikuttavat siihen, kuinka kestävä kehitys tulkitaan ja kommunikoidaan organisaation sisällä. Kulttuuriset ja institutionaaliset tekijät yhdessä auttavat selittämään, miksi lentoyhtiöt reagoivat eri tavalla globaaleihin kestävän kehityksen haasteisiin.

Tutkimuksen tuloksia voidaan hyödyntää selittämään ja havainnollistamaan päättäjille ja lentoyhtiöiden johdon edustajille, että toimivilla kestävän kehityksen strategioilla on keskeinen rooli alan kestävyyteen liittyvien tavoitteiden saavuttamisessa. Tulokset osoittavat, että kestävyys ei ole vain ympäristökysymys alalla, vaan monimuotoinen prosessi, jota muovaavat myös kulttuuriset ja institutionaaliset tekijät.

Avainsanat: institutional theory, cultural dimensions, sustainable aviation, corporate sustainability, institutional environment

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Abbreviations

ICAO	International Civil Aviation Organization
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation
CSR	Corporate Social Responsibility
AAPA	Association of Asia Pacific Airlines
EASA	European Union Aviation Safety Agency
EU ETS	EU Emissions Trading System
SAF	Sustainable Aviation Fuel
ASAFA	Asia Sustainable Aviation Fuel Association
IATA	International Air Transport Association
CRM	Crew Resource Management
ESG	Environmental, Social, and Governance
RPK	Revenue Passenger Kilometers

1 Introduction

1.1 Background of the study

Aviation industry has been one of the key drivers in global connectivity, economic development and international trade (Wandelt et al., 2024). Air transportation remains critically important for mobility due to its speed, connectivity and wide reach (Wandelt et al., 2024). However, the aviation industry is also associated with certain shortcomings. For example, the aviation industry alone is responsible for approximately 2,5% of global carbon dioxide emissions in 2023 (European Union Aviation Safety Agency, 2023). Compared with any other sector, the aviation industry faces unique challenges in reducing its carbon footprint due to the high energy density requirements of flights (Wandelt et al., 2024). The industry is experiencing pressure from both global and local organizations due to its huge environmental impact and its contribution to greenhouse gas emissions as well as climate change (Wandelt et al., 2024).

Sustainable development and corporate sustainability practices have been a rising topic for a long time. Since consumers are increasingly interested in ethical consumption, they want to see companies act on issues such as climate change and greenhouse emissions. Airlines are facing pressure from both the public and policymakers to align with global climate objectives (Köves & Bajmócy, 2022). Different sets of actions have been introduced to meet the International Civil Aviation Organization’s (ICAO’s) environmental sustainability goal. ICAO is committed to move towards net-zero carbon emissions from international civil aviation by 2050 (ICAO n.d.). In the recent years, more research has been conducted to highlight the differences in air transport demand between nations and individuals, emphasizing the need to consider the role of specific regions (Gössling & Lyle, 2021).

Aviation industry faces a lot of pressure from formal and informal institutions on both global and national level. Examining these effects from cultural and regulatory perspectives on aviation corporate sustainability practices can help prioritize actions both globally and locally. While the existing research has paid some attention to this issue and actively investigated how formal institutions including political and judicial factors influence sustainability (Miska et al., 2018), there is a clear lack of knowledge on the impact of informal institutional influence (e.g., culture) on the adoption of sustainable strategies (Peng et al., 2012). The role of culture can be interpreted differently depending on multiple factors including but not limited to the country, region, language and customs (Miska et al., 2018). However, a little is known about culture's influence in shaping corporate sustainability practices, especially in the aviation industry. Focusing on aviation industry and researching how both informal and formal factors affect the industry's corporate sustainability practices could help to translate responsible practices to long-term advantages and gain more knowledge about the environment they operate in. Corporate sustainability in the aviation industry has gained significance due to its environmental and social impacts (Sorsa & Bona-Sanchez, 2024). The industry is under pressure to adopt sustainable practices with regulatory frameworks including Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) (Graver et al., 2019). Stakeholders and consumers demand more transparency and commitment to CSR, therefore researching how culture, as an informal factor influence these elements, can help to identify unexplored topics in this field of research.

1.2 Research question and objectives of the study

The preceding discussion on the research gap on sustainable practices in aviation sector research steer the direction of this study. The purpose of this research is to investigate how cultural and institutional determinants influence airlines' adoption and communication of sustainability strategies in different national and regional contexts.

The research question is supported by the sub-objectives:

Sub-objective 1: To analyze the impact of national cultural dimensions on airline sustainability strategy formulation and implementation.

Sub-objective 2: To examine how institutional environments/factors (regulatory, normative, and cognitive) influence airline sustainability practices.

Sub-objective 3: To investigate the role of cultural elements in implementation of sustainable communication strategies in airline sector.

Sub-objective 4: To identify patterns of adaptation in global sustainability strategies across different cultural and institutional contexts.

1.3 Delimitations of the study

The focus point of this study is on the airline industry and to explore how cultural and institutional factors shape the adoption and communication of global sustainability strategies. The scope is theoretical rather than empirical and combines both institutional theory and cultural dimensions to examine sustainability approaches in a global aviation context. The focus is primarily on sustainability and the adaptation of strategies in the context of the airline industry.

Being a literature-based study that uses secondary data as the source of information, this study does not include detailed case studies of individual airlines, nor does it analyse financial data or any operational performance. Technical aspects of aviation, such as sustainable fuel technologies are not included in this study. These delimitations keep the analysis focused and understandable while aligning with the study’s primary objective to explore airline industry’s sustainability practices and how informal and formal factors effect on it.

1.4 Definition of key terms

Sustainable aviation stands for development and implementation of different strategies, technologies and policies aimed to reduce the environmental impact of air travel (Raihan, 2025). This includes actions to lower carbon emissions, enhance fuel efficiency and use alternative energy sources, while maintaining the economic viability of the aviation industry (Raihan, 2025).

Corporate social responsibility (CSR) is a management concept where companies integrate social and environmental practices into their core business operations and interactions with their stakeholders (UNESCO, n.d.). In the airline industry, CSR initiatives may include implementing environmentally friendly technologies, reducing carbon emissions and ensuring fair labor practices (World Bank, 2004).

Cultural dimensions are aspects that consists of shared beliefs, values and goals that create guidelines for human activity (Hofstede, 2001). Cultural dimensions are part of the theory established by Hofstede (2001) that defines work-related values in different cultures. It provides a framework for understanding how cultural dimensions influence behavior in different societies (Lin & Lou, 2024).

Institutional context refers to the settings of created and shared rules and conditions under which companies operate (Ordonez-Ponce, 2021). It establishes set of boundaries of interaction between the environment and organizations (Ordonez-Ponce, 2021). Institutional context affects the approach of companies to corporate social responsibility into their operations (Ferri, 2017).

Sustainability strategies are long-term goals where organizations integrate environmental, social and governance into their business models (Gössling & Lyle, 2021). In aviation, sustainability strategy is essential for balancing stakeholder legitimacy and integrating long-term environmental goals into all processes (Gössling & Lyle, 2021). Therefore, sustainability strategy is part of the firm’s core business.

1.5 Previous studies

Studies	Sample characteristic	Theoretical roots	Methodology	Findings
Kilic, Uyar, and Karaman (2019).	Data collection with aviation industry participants that published GRI-based sustainability reports.	Institutional theory, Stakeholder theory	Quantitative	Governance quality has significant influence on the extent of sustainability reporting.
Miska, Szőcs, and Schiffinger (2018).	Data collection with 1924 firms from 36 countries across nine cultural clusters.	Institutional theory, Project GLOBE	Secondary cross-national dataset	Culture affects corporate sustainability practices through values, beliefs and normative pressures within global context.
Zieba and Johansson (2022).	The sample consists of published and peer-reviewed articles on sustainability reporting.	Legitimacy theory, Stakeholder theory	Qualitative	The aviation industry lacks unified policies and common definition of sustainability, which has led to inconsistent SR practices.

Table 1. Previous studies.

Kilic et al. (2019) examined through institutional theory and stakeholder theory that governance quality has significant positive effect on sustainability reporting and level of the aviation industry. They also found that social and environmental performance of a country are crucial in undertaking sustainability reporting in aviation (Kilic et al., 2019).

In the study conducted by Miska et al. (2018), they examined how culture effects corporate sustainability practices by collecting data from 1924 firms. They concluded that culture, as an informal factor, impacts sustainability practices and plays a significant role in explaining CSR variation across firms (Miska et al., 2018). They found that in the context of consumer attitudes to corporate responsibility, other studies also suggest culture-related differences across countries (Miska et al., 2018).

Lastly, Zieba and Johansson (2022) studied sustainability reporting in the airline industry through peer-reviewed articles and found that there are still much inconsistency and ambiguity in reporting practices. One of the key findings they discovered was that the aviation industry lacks unified policies, which increases inconsistency in sustainability reports across countries (Zieba & Johansson, 2022). They found that there remains much flexibility in interpretations of how sustainability reporting is operationalized (Zieba & Johansson, 2022).

1.6 Structure of the thesis

The thesis consists of three main chapters. First chapter, introduction, presents the subject, research questions and the key terms used in this thesis. The next chapter introduces the main theory parts of the thesis, and it is divided in three sections. The first part of the theory chapter discusses sustainability in aviation industry and defines what sustainability means in this context. The chapter discusses global challenges and responses in aviation industry and corporate sustainability strategies related to this topic.

The second part of the chapter examines how culture and organizational behavior influences business strategy and communication in aviation industry. The theory chapter uses Hofstede’s cultural dimensions theory to examine cultural effects on sustainability. The third part of the chapter is focusing on institutional perspective of the study and utilizes institutional theory. The third chapter concludes the theory parts and covers the findings made from the literature review.

2 Literature review

This chapter introduces the global importance of sustainability and why it has become a strategic priority to airlines. The chapter begins by examining the concept of sustainability in aviation and explores corporate sustainability strategies in the industry. Next, the cultural influence in aviation is going to be reviewed by using Hofstede's cultural dimensions theory. The final part of the chapter is going to be exploring the relationship of institutional influence and sustainability practices.

2.1 Sustainability in the aviation industry

Sustainability has become a crucial concern across industries and aviation is no exception. As one of the biggest sectors contributing to global carbon emissions, the industry faces increasing pressure from regulators, stakeholders and consumers to adopt sustainable practices (Gössling & Lyle, 2021). In the World Commission on Environment and Development's report *Our Common Future* (1987) sustainability is defined as "meeting the needs of the present without compromising the ability of future generations to meet their own need" (p.43). Sustainability includes three interdependent pillars: environmental, social and economic (European Commission, n.d.). This study focuses on two of the three pillars: environmental and social.

Some industries have been the subject of sustainability research due to their influence on the environment and human life. The aviation industry also has this influence due to its destructive impact with the use of fossil fuels and hazardous emissions (Karaman et al., 2018). The rising demand for passenger transportation and tourism has deepened these concerns due to continued growth, which has resulted in enhanced fuel consumption and emissions (Karaman et al., 2018). As awareness of corporate responsibility and business ethics have increased, Abdi et al. (2020) found that the integration of long-term sustainability practices and investments positively influences firm's value from the perspective of both investors and consumers.

2.1.1 Definition and characteristics of sustainability in aviation

Global air transport demand was expected to triple between 2020 and 2050, prior to the COVID-19 (Gössling & Humpe, 2020). COVID-19 caused a significant temporary decline in air transport, yet the post pandemic traffic continues to recover (IATA, 2023). According to International Civil Aviation Organization (2020), by mid-2020, revenue passenger kilometres (RPK) had declined significantly. In year 2023, global traffic reached about 94,1% of 2019 levels in revenue passenger kilometres (IATA, 2023). If air transport returns to this level of growth again, the industry will conflict with global sustainability goals (Gössling & Humpe, 2020).

Sustainable aviation is defined as the process of creating the air transport system that maintains connectivity and mobility of people, goods and services, while minimizing negative impacts to health, environment and natural resources (Waddington & Ansell, 2024). These sustainable aviation objectives are presented by several national, regional and international organizations, that will be introduced later.

In aviation, sustainability is defined as three interrelated dimensions. The environmental dimension covers greenhouse gas emissions, carbon emission reductions and alternative fuels (Guan et al., 2022). The social dimension entails broad scope of stakeholders, regulators and consumers (Guan et al., 2022). Finally, the economic dimension focuses on profitability while ensuring resource efficiency with sustainable business practices (Gössling, 2020).

Developing policies that balance the environmental, economic and social dimensions of aviation sustainability presents a major challenge in the existing research. The definition of such policy alternatives is complex for legal, distributional and economic reasons (Gössling & Humper, 2020). For example, a large share of radiative forcing from air transport is not addressed by existing frameworks such as CORSIA, highlighting a gap in current policy measures (Gössling & Lyle, 2021). Gössling (2020) states that international mitigation agreements such as the Kyoto Protocol and the Paris Agreement are founded on ‘fairness’ principles, meaning that averaged per capita contributions to greenhouse gas emissions vary broadly. Therefore, aviation emissions are highly unevenly distributed across countries and individuals, as 1% of world population emits 50% of CO_2 from only commercial aviation (Gössling & Humpe, 2020).

2.1.2 Global aviation environmental challenges and responses

The aviation sector is among the most fastest expanding contributors to greenhouse gas emissions, as the sector is responsible for approximately 2.5% of global CO_2 emissions (Ritchie, 2024). The overall contribution to climate change is even higher, as aviation accounts for around 4% of global warming to date (Ritchie, 2024). In this context, the transition toward sustainable aviation holds even greater significance.

Global policies for sustainable aviation are primarily guided by international organizations, such as International Civil Aviation Organization (ICAO) with their most significant initiative Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) (ICAO, n.d.). CORSIA aims to stabilize net carbon emissions by requiring airlines to compensate their emissions by purchasing carbon offsets to reduce net impact of aviation (Raihan, 2025). While CORSIA represents an important milestone in the sustainable aviation, it has faced criticism for its limited ambition and effectiveness. CORSIA focuses on carbon neutral growth, meaning that only the number of emissions exceeding an average annual CO_2 baseline will be considered (Gössling & Lyle, 2021). While ICAO provides a wide framework for global aviation sustainability, regional actors such as European Union and the Association of Asia-Pacific Airlines (AAPA) implement these objectives more locally (Gössling & Lyle, 2021).

The EU is taking action to achieve overall emissions reductions in Europe alongside with the international community (European Commission, n.d.). Since 2012, the EU Emissions Trading System (ETS) has covered the aviation sector in Europe, where under the EU ETS, all airlines operating in Europe, European and non-European alike are required to have emissions allowances covering their annual emissions (European Union, n.d.). The

European Union Aviation Safety Agency (EASA) is also taking action to ensure safety and environmental protection in aviation in Europe (European Union, n.d.). The U.S. also stated their sustainable aviation goals, as the Federal Aviation Administration (FAA) published its Aviation Climate Action Plan for a long-term commitment to an economy-wide target of net-zero greenhouse gas emissions by 2050 (FAA, 2024).

While Europe has developed a unified regional framework through the EU ETS, Asia's approach to aviation sustainability remains more scattered. In contrast to the regulatory driven European model, Asia's approach to sustainable aviation is more hybrid governance structure where ICAO'S principles are localized through national policies and public-private partnerships (Raihan, 2025). Association of Asia Pacific Airlines (AAPA) promotes global market-based measures of ICAO, which is the Carbon Offsetting and Reduction Scheme for International Aviation (AAPA, n.d.). Regional associations like AAPA and Asia Sustainable Aviation Fuel Association (ASAFA) provide a coordinating but non-regulatory role, reflecting a cooperative rather than compulsory institutional environment.

Although international frameworks such as ICAO's CORSIA provide global guidance for aviation sustainability, regional and national objects influence how these goals are implemented. For instance, China adopts a state-led approach that aligns environmental objectives with economic growth priorities (Mai & Yan, 2023). While CORSIA is being implemented across countries, other carbon reduction initiatives are in operation in other countries such as the European Green Deal, the Sustainable Aviation Fuel (SAF) act in the United States and Asia Sustainable Aviation Fuel Association (ASAFA) in Asia (Guan et al., 2022).

These frameworks highlight how global sustainability governance in aviation is multi-layered. Airlines operating across regions must adjust their sustainability strategies to local regulatory, cultural and institutional contexts. There is an urgent issue concerning how air transport decarbonisation policies should be designed to address the demand distribution and growth, technology change and policy support (Gössling & Lyle, 2021). Implementing effective sustainability policies is challenging because they need global scale, consider behavioral and economic responses and balance between fairness and effectiveness (Gössling & Lyle, 2021).

2.1.3 Corporate sustainability strategies in aviation industry

Governments and municipalities are tailoring aviation sustainability policies at the national and local levels to align with specific environmental and social contexts (Jia et al., 2024). Such initiatives present the growing institutionalization of sustainability within the aviation sector, where formal regulations, social norms and values shape corporate behavior (Gössling & Lyle, 2021). As awareness of corporate responsibility and business ethics have increased, the development of long-term sustainability strategies has become central to the future competitiveness and legitimacy of air transport (Gössling & Lyle, 2021). Accordingly, airlines are starting to launch environmental, social and governance initiatives into their corporate strategies to align with both global frameworks and customer’s expectations (Abdi et al., 2020).

Corporate sustainability and corporate social responsibility (CSR) are usually confused with each other and can be used to mean the same thing, but research argues that they should be distinguished depending on the context (Bansal & Song, 2017). In their work, Bansal and Song (2017) suggest that these two concepts should be kept separated because the blurring between responsibility and sustainability has caused confusion. Both corporate social responsibility and corporate sustainability strive to balance economic prosperity, social integrity and environmental responsibility, regardless of whether they define environmental issues as part of social issues or as the third element of sustainability (Bansal & Song, 2017).

Over the past decade, corporate sustainability has evolved from a value-driven responsibility approach toward a framework that integrates sustainability into the core business strategy, such as environmental, social and governance (ESG) principles (Passas, 2024).

This evolution reflects growing stakeholder demand, where regulatory pressures, investor demand, and societal expectations play a key role for the demand for transparency, accountability and measurable progress in sustainability (Passas, 2024). ESG frameworks enable firms in the aviation industry to include sustainability commitments into concrete strategies and risk management practices (Sorsa & Bona-Sánchez, 2024). It focuses on utilizing internal resources and balancing financial, social and environmental performance into strategic management which can foster sustainable competitive advantage (Yildiz et al., 2024).

The airline industry, known for its substantial environmental impact, also bears significant responsibilities in areas beyond environmental concerns, encompassing social and governance responsibilities as well (Yildiz et al., 2024). The broadening scope of ESG frameworks has introduced new complexities in balancing economic, social and governance objectives, challenging airlines to demonstrate transparency and accountability in their operations (Sorsa & Bona-Sánchez, 2024). ESG has emerged as a strategic tool that integrates sustainability into corporate governance structures. Airlines are now expected to communicate their performance through initiatives related to employee welfare, diversity and community engagement (Yildiz et al., 2024). A leading example of this reporting is Singapore Airlines' sustainability report (2025), which provides an example of ESG implementation with detailed breakdown of environmental, social and governance initiatives (Singapore Airlines, 2025). The report identifies priority ESG areas, such as carbon emissions, resource management, employee welfare and governance transparency (Singapore Airlines, 2025). As a major Asian airline, Singapore Airlines' sustainability report serves as a regional example of how ESG frameworks are operationalized in aviation, reflecting regional institutional norms and cultural emphasis on reputation and service quality. Furthermore, the report includes stages towards achieving targets, such as supporting International Air Transport Association's climate goals to achieve net zero carbon emissions and ICAO'S CORSIA and openly addresses challenges in execution, which demonstrates the complex realities of transferring ESG strategies into performance (Singapore Airlines, 2025).

Strategic sustainability in airlines involves embedding ESG principles into core corporate strategy, such as environmental objectives and governance practices which can positively impact risk management, investment decisions and long-term competitive positioning (Yildiz et al., 2024). Furthermore, sustainability has increasingly become a strategic priority for firms, leading organizations to adopt more proactive measures to manage their environmental impact (Heyes et al., 2023).

2.2 Cultural dimensions and organizational behavior

Several studies identify culture as an important explanatory factor in terms of sustainability-related variations (Miska et al., 2018). In multinational industries such as aviation, cultural factors shape organizational management in internal behaviour and frame external communications (Bogale & Debala, 2023). For instance, Ioannou and Serafeim (2012) have found that cultural traits are in key role in explaining CSR variation across organizations. While national and institutional cultures provide the broader context that shapes how organizations interpret sustainability, cultural values are translated into firm's decision-making process and communication styles through organizational culture (Yildiz et al., 2024). Understanding organizational culture is therefore essential for analysing how airlines interpret sustainability norms and implement corporate responsibility strategies (Miska et al., 2018).

As studies have examined the relationship between culture and sustainability, there is found to be a strong connection between the cultural aspects of a country, CSR and performance of the firms in the country (Tehrani et al., 2021). Culture influences stakeholder expectations, ethical norms and corporate legitimacy, which determinate how sustainability strategies are implemented in multinational companies (Miska et al., 2018). Additionally, Thanetsunthorn (2015), found that firms in a cultural atmosphere with a higher power distance and more collectivist tendencies are less socially responsible, whereas uncertainty avoidance increases CSR among firms. Zhang (2021) found that consumers who have a higher education or income would pay more attention to CSR of an airline.

In summary, national culture plays an essential role in the performance of the firms and CSR implementation under market pressures.

The term “national culture” was introduced by Hofstede (1982) in his original four culture dimensions (individualism, masculinity/femininity, power distance and uncertainty avoidance). National culture shapes societal expectations, while institutional theory explains how these expectations can be transformed into regulations and norms (Tran & Beddewela, 2020). An airline from a high-power distance culture might centralize sustainability decisions, while one from an individualistic culture might encourage managers to innovate. Even in countries where regulative authority is strong, informal institutions are found to have a significant impact on corporations’ responsibility practices (Tran & Beddewela, 2020). The concept of national culture influences the basic values of both individuals and firms, which leads to variations in expectations across societies (Tran & Beddewela, 2020). Hofstede’s cultural dimensions provide a structured way to explain these differences and to show how these traits influence sustainability attitudes.

As corporate sustainability is recognised as being context-specific, country’s institutional environment, consisting multiple actors and motives has been known to be a key driver of implementing sustainable practices in aviation industry (Tran & Beddewela, 2020). However, there are marked differences in the institutional environments across developed, developing and emerging countries (Tran & Beddewela, 2020). Husted (2005) argues that in wealthy countries the issues surrounding basic survival have been resolved for most of the population, therefore there are resources to care for the environment.

While European Union is a relevant formal institution in Eastern and Western Europe and affects laws and regulations in each member country, differences between these areas exist in terms of attitudes toward corporate responsibilities (Raihan, 2025). These variations demonstrate that policy effectiveness is shaped by national cultural values, making it essential to understand whether sustainability practices developed in one country can be transferred effectively to another. This is essential especially in aviation industry, where airlines operate across multiple cultural and regulatory environments and must align global sustainability commitments with regionally specific expectations (Raihan, 2025). Cultural attributes are relevant to aviation as they influence directly or indirectly to sustainability related behaviors. Recognizing these cultural differences provide a foundation for understanding how internal organizational cultures develop and why airlines adopt distinct approaches to sustainability, which is introduced in the following section through Hofstede's cultural dimensions theory.

2.2.1 Hofstede's cultural dimensions theory

In this chapter the concept of culture is analysed more deeply from the point of view of Geert Hofstede, whose theories are the most widely used as a basis for cultural research and cultural values. Hofstede (1991, p.5) described culture as programming of minds on a collective level, recognising members of a group from another. Hofstede's framework provides a systematic way to compare cultural values across countries, showing how dozens of countries encounter the same issues, such as pressures for sustainability, but with different set of solutions (Hofstede, 2005). Hofstede (1980) first introduced four cultural dimensions: power distance, individualism-collectivism, masculinity-femininity and uncertainty avoidance. The last two dimensions were discovered later: long-term orientation and indulgence (Hofstede, 2010). Hofstede's cultural dimension theory has already been applied to aviation context, as Helmreich (2000) directly applies it on how national culture affects team dynamics and decision-making. While this study focuses on safety, rather than sustainability, it illustrates the broader relevance of Hofstede's framework for applying cultural aspects to organizational priorities and communication of sustainable strategies in aviation.

The first dimension is called power distance and according to Hofstede (1997) it refers to "the extent to which the less powerful members of the institutions and organizations within a country expect and accept that power is distributed unequally". In high power distance countries, the subordinates are highly dependent on their superiors and prefer consultation in decision-making (Husted, 2005). In addition, in high power distanceoriented nations, power and decision-making is centralised and companies are more interested in formal methods of analysing external information (Lee & Herold, 2016).

The individualism-collectivism dimension refers that the decisions are made by the individual or in group (Husted, 2005). Collectivistic cultures place a high value on officially recognised groups rather than individual initiative (Husted, 2005). Yet, individualism can be defined as a preference for independence and autonomy (Lee & Herold, 2016).

The third dimension is called femininity versus masculinity (Hofstede & Hofstede, 2005, p. 37) and it refers to society's preference for masculine or feminine gender roles (Hofstede & Hofstede, 2005 p. 130). A society is called masculine when emotional gender roles are clearly separated, where men are supposed to be focused more on material success, whereas women are supposed to be more concerned with the quality of life (Hung et al., 2022). Husted (2005) argues that one would expect that a value for material success would result in reduced interest in environmental sustainability, while an interest in quality of life would be related to higher levels of environmental sustainability.

The uncertainty avoidance dimension is based on the idea that people from different countries tolerate ambiguity and unknown situations in different ways and can feel varied levels of threat (Hofstede & Hofstede, 2005, p. 180). High uncertainty avoidance cultures tend to reject protest and accept citizen dependence on the government (Husted, 2005). The greater the uncertainty avoidance, the lower the social capacity of a country for environmental sustainability.

The fifth dimension is called short-term versus long-term orientation, where long-term orientation aims to facilitate virtue that is connected for the future moment (Hofstede & Hofstede, 2005, p. 226). Short-term orientation is fostering virtues related to the past or present, such as more respect for tradition and preservation (Hung et al., 2022). For example, in sustainability related factors, a long-term orientation country might be more interested in utilising new innovative technologies, which can enhance long-term environmental performance (Lee & Herold, 2016).

The last dimension is about indulgence and restraint, where indulgence refers to societies that allow free gratification of natural human desires related to enjoying life (Hung et al., 2022). In indulgent societies, people might be more likely to appreciate personal happiness and immediate gratification more (Hung et al., 2022). Whereas, in restrained societies, social norm and self-restraint may encourage more long-term thinking which can result in commitment to sustainability goals (Husted, 2005).

Hofstede (1997) acknowledges that the level of economic development interacts with these cultural dimension variables in different ways, such as wealthy countries tend to be lower in power distance and higher in individualism (Husted, 2005). High or low scores in each dimension influence how societies interpret responsibility, regulate behavior and prioritize environmental goals. Research shows that these cultural values can affect sustainability in different ways across developed and developing countries, as economic development moderates how cultural traits transform into policy support (Husted, 2005).

In addition, the ability to implement global environmental programs and standards depend upon local culture (Husted, 2005). They also influence critical organizational behaviors such as leadership and decision-making (Hsios, et al., 2024). For instance, in a cultural atmosphere where power distance index is high, organizational management becomes more gravitated toward a centralized structure (Hsios, et al., 2024). Under such a structure, financial decisions and sustainability strategies are made from top to bottom by the management of the company, which can lead to asymmetry in information communication process and thereby affect firm's performance (Hsios, et al., 2024). Research also shows that environmental interest activity appears to be more widespread in individualistic cultures than in collectivistic cultures (Husted, 2005). Moreover, uncertainty avoidance and indulgence influence how organizations commit to long-term sustainability and demonstrate how resilient organizations are when encountering risks (Hsiao, et al., 2024).

Hofstede's dimensions provide a useful tool for understanding why sustainability strategies differ between regions and why airlines respond differently to environmental pressures. Airlines in high long-term orientation (e.g., Japan, South Korea) often take a long-term view of sustainability, as they invest in fuel-efficient fleets and engage in long-term climate adaptation goals (Lee & Herold, 2016). High uncertainty avoidance influences more strict regulations and adopts more structured sustainability practices, such as the EU (Lee & Herold, 2016). This cultural dimension indicates that companies will seek to avoid risk and will undertake a high level of preparation when the country they are dealing with has a high score in uncertainty avoidance (Lee & Herold, 2016). Peng et al. (2012) found that dimensions of individualism and uncertainty avoidance had positive effects on companies' CSR engagement, whereas power distance and masculinity had negative effects on companies' CSR engagement.

Hofstede's dimensions can be used to assess how decisions are made in different cultures regarding sustainability strategies. These dimensions affect how sustainability goals are set and how sustainability practices expand internally. Ioannou and Serafeim (2012) argue that in countries with low levels of individualism, the members of society have expectations that decision-making processes will be broader and more participatory. Collectivist cultures focus on social harmony and mutual decision-making processes that emphasize equity, which affect ESG reporting and transparency (Ioannou & Serafeim, 2012). These factors demonstrate how highly specialized and highly regulated industries such as aviation, and national culture still apply a meaningful influence on behaviors in this context. Differences in power distance, individualism and uncertainty avoidance help explain why sustainability strategies vary across countries and why airlines respond differently to global environmental frameworks.

2.2.2 Cultural influence on business strategy and communication

Companies face unique challenges and opportunities when operating across national borders, where they are embedded in different context with different structure networks (Bondy & Starkey, 2012). In his book Hofstede (2001), reviewed that national culture influences corporate behavior and cultural dimensions affect individuals' perception of quality management and strategic priorities, such as sustainability and innovation. For example, people in cultures with high uncertainty avoidance are more attached to corporations and are more likely to evaluate their corporations favourably (Bondy & Starkey, 2012).

Perception of environmental uncertainty and organizational control influence strategic behavior and as national culture influences these perceptions, cultural differences can be found in interpretation and response to strategic issues (Schneider & De Meyer, 1991). Schneider and De Meyer (1991) argue that strategic decision-making is not culturally neutral. Managers' perceptions are profoundly shaped by cultural norm and mental model, and these factors are embedded in organizational responses (Schneider & De Meyer, 1991). With regards of cultural dimensions and power distance, Ringov and Zollo (2007) indicated that social and environmental initiatives are more likely to emerge if power distance is low. They also argue that higher levels of masculinity will have a negative impact on corporate social and environmental responsiveness (Ringov & Zollo, 2007).

Nowadays, business organizations adopt and implement a wide range of CSR activities, and they have fundamentally shifted the way people think and understand the relationships between corporations and the institutional environment in which they operate (Ioannou & Serafeim, 2012). Whether the country comes from collectivist culture or an individualistic culture, it has been observed that there is a global uptrend in CSR reporting (Wang et al., 2017). Chapple and Moon (2005) found that multinational corporations adjust their CSR activities according to specific national context in which they operate.

Ringov and Zollo (2007) found that companies from high uncertainty avoidance societies tend to be more attached to CSR-related rules, leading to higher quality of CSR disclosure.

The way firms disclose sustainability information is connected to internal cultural dynamics that affect managerial priorities and strategic decisions, making it important to examine how culture influences organizational behavior itself. As previous research (Ioannou & Serafeim, 2012) suggests, cultural traits also impact on managerial decision-making related to sustainability practices. Culture affects whether issues are seen as treats or opportunities depending on the context (Schneider & De Meyer, 1991). For example, in the United States managers might frame strategic issues with high controllability and opportunity, preferring short-term results and individual agency (Schneider & De Meyer, 1991). Schneider and De Meyer (1991) concluded that Japanese managers interpreted strategic issues with greater perceived threat and lower individual control, reflecting a cultural preference for group harmony and uncertainty avoidance.

While cultural values shape internal organizational behavior, the same cultural factors also extend outward into how corporations communicate with different stakeholders (Lin & Lou, 2024). As organizational behavior explains what happens inside organizations, corporate communication shows how organizations present themselves. In a multinational industry such as aviation, where airlines are communicating broadly to a large global public, these cultural values provide a guideline of transparency and framing of sustainability communication. Cross-cultural business communication is vital for overcoming challenges when expanding across borders (Lin & Lou, 2024). Cross-cultural business communication includes the concepts of high-context and low-context cultures, which gives insights into the relationship between communication style and cultural values (Lin & Lou, 2024). High-context cultures rely more on the context in which communication occurs (e.g., many Asian countries), whereas low-context cultures depend more on explicit verbal communication (e.g., Western Europe and the US) (Lin & Lou, 2024). Cross-cultural business communication is often described as multifaceted, involving not only language but also non-verbal cues and communication channels (Zhang, 2021).

In today's global aviation industry, cross-cultural business communication plays a central role in how airlines present their sustainability commitments. The way sustainability is communicated cannot be uniform, because airlines operate across borders and the industry involves culturally diverse stakeholders (Lin & Lou, 2024). Therefore, environmental messages, CSR reporting styles and sustainability strategies are shaped by cultural expectations of different regions. These cultural expectations are visible when comparing airlines from Asia and Europe. Zhang (2021) found that Asian airlines reported less extensively on employee involvement and sustainable development compared with European counterparts. European airlines operating in institutional environments with stronger stakeholder expectations and transparency, emphasises more on social responsibility and labor rights (Zhang, 2021).

Research also shows that in terms of CSR reporting in Asia-Pacific airlines, there is minimal attention given to economic and social issues (Lin & Lou, 2024). This reflects broader cultural determinants, high-power distance and collectivist context where the focus is prioritizing harmony and company reputation over detailed disclosure (Lin & Lou, 2024). Whereas, in Europe, transparency and stakeholder engagement is more culturally expected (Lin & Lou, 2024). Through CSR communication, airlines can avoid reputational and financial risks, especially around employee welfare and governance transparency and enhance sustainability messaging and firm's value (Zhang, 2021). Cultural differences reflect broader findings that national cultural values shape how different organizations interpret corporate responsibility and translate this into detailed strategic priorities (Ringov & Zollo, 2007). Therefore, the next section examines cross-cultural communication strategies to understand how airlines tailor sustainability messaging across diverse cultural and institutional contexts.

2.2.3 Cross-cultural management in international aviation

Cross-cultural management has become a central challenge in aviation industry, as airlines operates across multiple national contexts, employ multinational crews and communicate sustainability goals to stakeholders with different cultural expectations

(Pratama & Caponecchia, 2025). Multi-cultural work environments such as the aviation industry require specific management and leadership approaches to accommodate the needs of culturally diverse workforce (De Brito Neto, 2014). As shown in previous sections, national culture shapes organizational behavior and influences how companies interpret sustainability, governance and social responsibility. Cultural environment is one of the most important factors affecting organizations in terms of management (Tutar et al., 2014). Cultural differences involve factors such as language, religion, values and attitudes and politics (Tutar et al., 2014). Therefore, organizations need to take these differences into consideration in their managerial activities.

Being a truly global system, the industry requires the input of a culturally diverse workforce in order to operate within its many supporting subsystems (De Brito Neto, 2024). Managers in multicultural environment need to have a certain level of awareness of their employees' cultural differences and recognize that they must be sensitive to the local cultural differences in the countries where they operate (Tutar et al., 2014). Multinational crews, culturally diverse passengers and globally integrated operations make cultural differences a key factor of organization performance (Helmreich & Merritt, 1998).

To respond, airlines have adapted formal organizational tools such as Crew Resource Management (CRM) training and intercultural communication programs to reduce ambiguity and strengthen shared understanding across cultures (Helmreich & Merritt, 1998). These initiatives demonstrate that cross-cultural management is strategic planning and corporate communication to achieve effective methods for sustainability goals. Aviation industry has witnessed an increase in cultural interactions over the years, due to the globalization of trade and commerce (Pratama & Caponecchia, 2025). Most features of the aviation system have been developed from a Western perspective (North America/Western Europe), which might make them less well adapted to Asian cultures (Pratama & Caponecchia, 2025). Pratama and Caponecchia (2025) examine how national culture influences aviation safety from global perspective. They found that despite the development of international standards and protocols, safety performance varies largely among countries (Pratama & Caponecchia, 2025). Many safety issues historically have stemmed from cultural misunderstandings (Helmreich & Merritt, 2020). Pratama and Caponecchia (2025) recommend that future safety interventions (training, CRM), should be culturally considered, meaning that safety management and communication should consider national-culture factors when being applied internationally. This requires that cross-cultural management is a strategic dimension of operations, not merely a human-resources or compliance matter.

As global aviation has become significantly multicultural, the need for leadership approaches tailored to cultural diversity increases. De Brito Neto (2014) argues that transformational and positive leadership styles that emphasize motivation and adaptability are needed to accommodate the needs of employees from different cultural backgrounds. Therefore, cross-cultural management is not a side-issue but central operational effectiveness in global airlines. Additionally, managers from different cultural backgrounds need to have an awareness of differences in order to develop a successful management style suitable for multicultural structures (Tutar et al., 2014).

Although international aviation is shaped by global standards, particularly through ICAO’s regulations on safety, communication and environmental reporting, the implementation of these standards is made through culturally diverse organizational settings (Miska et al., 2018). ICAO procedures assume that communication and decision-making is uniform, yet research show that safety culture and hierarchy vary across national cultures (Helmreich & Merritt, 1998). Therefore, cross-cultural management functions as the bridge between global standards and culturally diverse workforces.

2.3 Institutional theory and organizational practices

Institutional theory is described as a sociological perspective that examines the ways institutions influence organizational behavior and practices (Ferri, 2017). Institutional theory argues that organizations adopt similar behavior over time driven by a different pressure in the surrounding environment (Ferri, 2017). While cross-cultural management explains how organizations navigate within global environment, institutional theory examines how this perspective shape wider societal and regulatory systems. Institutional theory has been widely used to examine how the institutional environment where companies operate in influences the company's behavior (North, 1990). This chapter addresses how industry norms and regulatory frameworks influence organizational practices in aviation. Ordonez-Ponce (2021) found that sustainable partnerships are not just about internal organizations, but their success depends on the surrounding institutional environment. Both formal and informal institutions influence organizations' policies and attitudes towards the implementation of sustainability strategies.

In global industries such as aviation, where regulatory frameworks and societal expectations interact, the organizational practices cannot be understood without institutional forces. For instance, Zięba and Johansson (2022) found that institutional theory can explain some concerns associated with airlines' sustainability reporting. Additionally, the inconsistent levels of sustainability reporting adoption by airlines can be explained by the differences in the global policy context, where some regulatory regimes pose direct pressure on companies, and some only endorse voluntary disclosure (Zięba & Johansson, 2022). Therefore, Zięba & Johansson (2022) argue that sustainability reporting in the airline industry remains highly inconsistent across regions. These findings demonstrate that airlines do not only respond to market forces but also to broader institutional structures and operations. As institutional contexts influence the way organizations operate, the three pillars of institutions proposed by Scott (1995) have been used in order to understand institutional pressures in the next chapter.

2.3.1 Three pillars of institutional theory (regulative, normative, cognitive)

Richard Scott's institutional theory examines how institutions shape social behavior through established structures and norms and emphasizes their resilience and the interaction of cultural-cognitive, normative and regulative elements (Scott, 2004). In the context of sustainability in aviation industry, the institutional theory is highly relevant because it explains why airlines adopt certain environmental and social practices in response to regulatory pressures, stakeholder expectations and societal norms. It includes the regulatory organisations, industry associations and cultural values that shape airlines' sustainability practices. These institutional factors shape how airlines interpret ESG strategies, comply with international frameworks and communicate sustainability responsibilities to stakeholders (Ferri, 2017). Therefore, the theory helps to understand variations in sustainability practices across global aviation organizations.

Scott's "three pillars of institutional theory" explains how the three different pillars influence organizations' practices in different ways (Scott, 1995). The regulative pillar is formal and consists of legislation, policies and standards that define behavior and create boundaries by using coercive measures in order to ensure compliance (Scott, 1995, p. 35). These include global and regional practices for example, ICAO's environmental standards, CORSIA, EU ETS and national carbon taxes. Normative rules consist of certain role expectations and obligations related to industry by enforcing values and norms within the organization (Scott, 1995, p. 38). These might include CSR and sustainability expectations within the aviation industry, such as IATA sustainability commitments and stakeholder expectations for compliance and transparency. The cultural-cognitive pillar includes shared beliefs, values and symbolism attributed to objects and traditions (Scott, 1995). Cultural values and norms shape the environmental responsibility and influences firms' sustainability goals. According to Scott (1995) cognitive factors are learned from social surroundings and they create a social identity where there is a pressure to imitate actions that are perceived appropriate. Scott's three institutional pillars demonstrate how various external pressures shape organizational decision-making and influence the adaptation and design of sustainability practices.

Global aviation policies have been essential to developing foundational frameworks for addressing emissions and promoting sustainable practices (Raihan, 2025). As aviation is highly institutionalized globally as well as regionally, there is strong influence from all these three pillars. Therefore, these pillars explain regional differences for example in EU, Asia and the United States (Raihan, 2025). The institutional environment where international regulations, regional laws and industry norms shape the environment, it applies directly to the three pillars of institutional theory. The regulative pillar affects in emissions regulations; the normative pillar shapes industry standards and the cognitive pillar encompass shared beliefs of sustainability responsibility. Institutional theory can help to explain why those strategies differ across contexts. Additionally, international regulatory organizations such as ICAO and IATA play a crucial role alongside regional policies in shaping the industry (Raihan, 2025). The next chapter will explain how institutions shape sustainability behavior and how these three pillars affect directly to corporate sustainability practices in aviation.

2.3.2 Institutional environment and sustainability practices

While firms may develop voluntary environmental and social initiatives, their sustainability practices are largely influenced by the broader system of regulations, industry norms and shared societal expectations (Ordonez-Ponce, 2021). Research shows that organizational sustainability practices are developed in response to institutional pressures from governments, international associations and investors (Scott, 2014). Although sustainability reporting is largely a voluntary activity in different parts of the world, it still has become a mainstream practice for many organisations to gain competitive advantage (Zieba & Johansson, 2022). There is also a growing interest in examining sustainability reporting from the institutional theory perspective, where organizations are influenced by their institutional environment and try to adapt their operations to such influence (Zieba & Johansson, 2022). Since airlines must navigate complex regulatory framework, such as international aviation standards and sustainability reporting requirements, and at the same time normative pressures from stakeholders, there is a clear need for structured environmental strategies and communication models (Zieba & Johansson, 2022).

Recent research shows that the airline industry’s approach to CSR and sustainability has matured significantly (Sorsa & Bona-Sanchez, 2024). Sorsa & Bona-Sanchez (2024) argue through their research that CSR research in airlines has increased since 2008, with recent years shifting toward integrated ESG reporting rather than just separated environmental initiatives. Their analysis shows the key themes from operational efficiency and employee welfare to governance and due to that, CSR in airlines is more than mere compliance.

Regarding the topic of CSR practices, studies highlight the fact that due to the effective promotion of cross-sectoral CSR practices of governments in Europe; by setting guidelines and regulations, it enables local corporations to follow and participate (Zhang, 2021). The CSR practices of the companies are viewed through the context of the institutional framework of countries, including national contexts, values and the norms of the society (Kiliç et al., 2019). Firms are more likely to participate in voluntary CSR reporting activities if the country values governance and corporate transparency (Kiliç et al., 2019). In Europe, the authorities play an important role in providing frameworks and standards in areas like safety, labor laws and environmental responsibility and therefore CSR reporting is a way to acquire legitimacy (Zhang, 2021). In contrary, in environments with weak governance structure, companies are less likely to participate in ethical business practices to reduce their costs (Kiliç et al., 2019). Therefore, the quality of the legal environment is a key determinant of the decision of the companies to produce sustainability reports and improve their CSR communications.

2.3.3 Institutional pressures in aviation industry

To understand why airlines, adopt specific sustainability strategies, it is important to examine the institutional environment that affects organizational behavior in aviation. Airlines are continually shaped by external demands, EU regulations, ICAO standards, stakeholder expectations to public demand over climate impacts. The industry faces unique pressures at the same time from regulatory, normative and cognitive perspective (Raihan, 2025).

Global policies for sustainability aviation are primarily guided by ICAO, which has created long-term goals for sustainability (Raihan, 2025). Additionally, regional policies have been created for the diversity of political, economic and technological contexts across different regions (Raihan, 2025). EU ETS offers more regional policy initiative, that has led to a renewed interest in climate policies (Gössling & Lyle, 2020). At the national and local levels, several countries have established aviation climate strategies that fund technological innovation and supports the development for more sustainable strategies (Raihan, 2025). Airports are implementing sustainability programs targeting emissions by including renewable energy systems and from ground operations (Raihan, 2025). Although international frameworks provide global guidelines for aviation sustainability, regional and national objects influence how these goals are met.

Normative pressures arise from professional standards and in aviation, these pressures are particularly strong due to the global nature of the industry and shared professional norms. IATA has committed to the achievement of net-zero carbon emissions by 2050, a goal that requires substantial investments in environmentally friendly technologies and practices (IATA, 2021). IATA plays a key normative role by establishing voluntary, primarily industry-driven commitments (Kumar et al., 2025). While this target is ambitious, its voluntary nature means it depend heavily on technological achievements, market forces and political will and this raises questions whether there is a possibility to meet the 2050 deadline (Kumar et al., 2025). Many sustainability strategies are characterized by trade-offs, such as balancing cost and feasibility or choosing between competing technological and infrastructural priorities (Sun et al., 2025). These challenges combined with the long-time horizons involved, pose difficulties for creating unified sustainability strategies (Sun et al., 2025). As aviation industry operates in several jurisdictions, regulatory and policy barriers provide an additional level of challenges (Kumar et al., 2025). Changes in policy could have a significant impact on the economics, making airlines cautious to commit to these strategies (Kumar et al., 2025). These challenges establish expectation for consistent disclosure of environmental performance. As a result, airlines face strong institutional pressure to track emissions, form decarbonisation pathways and demonstrate continuous improvement.

Cognitive pressures influence how airlines perceive their role in environmental responsibility and shape how they react to the pressure to minimise their environmental impact (Kiliç et al., 2019). The business culture of a country is a significant factor impacting the sustainability practices of companies (Kiliç et al., 2019). Kiliç et al. (2019) found that national environment with higher pressure for corporate sustainability impacted significantly with environmental disclosures and therefore can be culturally expected. Hence, these findings support the fact that cultural-cognitive factors have a driving role in the environmental commitments of aviation. Institutional frameworks of countries, including national contexts, the culture, values and norms of society are influential for airlines to take part in sustainability initiatives (Kiliç et al., 2019). Therefore, environmental responsibility can be viewed as an integrated part of what it means to operate a modern airline.

Institutional pressures vary across regions, shaping distinct sustainability responses among airlines and the industry. Certain regions, for example European Union, have implemented severe rules and incentives for sustainability, while other regions might lack complete frameworks, which make it difficult for airlines to implement consistent strategies (Raihan, 2025). Research states that Europe is among the strongest combination of regulatory and normative pressures, with climate regulations, reporting requirements and high public awareness for sustainability (Kiliç et al., 2019). In contrast, in the United States, institutional pressures tend to be more market-driven, with investor expectations in a key role (Kumar et al., 2025).

The aviation industry is at a critical stage with complex institutional environment in which airlines must adapt their strategies to maintain legitimacy while implementing various sustainability practices (Kiliç et al., 2019). Regulative forces, regional emissions regulations and local commitments create formal expectations that airlines must comply with. Normative pressures from investors, stakeholders and standards demand more transparent and unified sustainability reporting (Raihan, 2025). Overall, institutional theory offers a tool for understanding why airlines adopt specific sustainability practices beyond economic motives. Scott's (1995) three institutional pillars show how norms, regulations and beliefs shape organizational decision-making in an industry as global and regulated as aviation. The review of institutional environmental pressures highlights that airlines are embedded in a system that requires transparent and future-oriented sustainability commitments.

2.4 Theoretical framework of the study

This chapter presents a theoretical framework of the study. The theoretical framework (Figure 1) integrates cultural factors and institutional factors in the context of sustainability practices. To support the aim of this study, the research focuses on examining the connection between cultural factors and institutional factors, and the adaptation of these elements to sustainable strategies. The concept of sustainability in aviation emphasizes the importance of examining these factors in order to create long-term sustainability strategies for organizations. This framework provides a foundation for analysing how airlines navigate regulatory and cultural context while adapting sustainability strategies. Furthermore, both institutional factors and cultural factors have been found essential in the process of developing successful strategies for sustainable aviation.

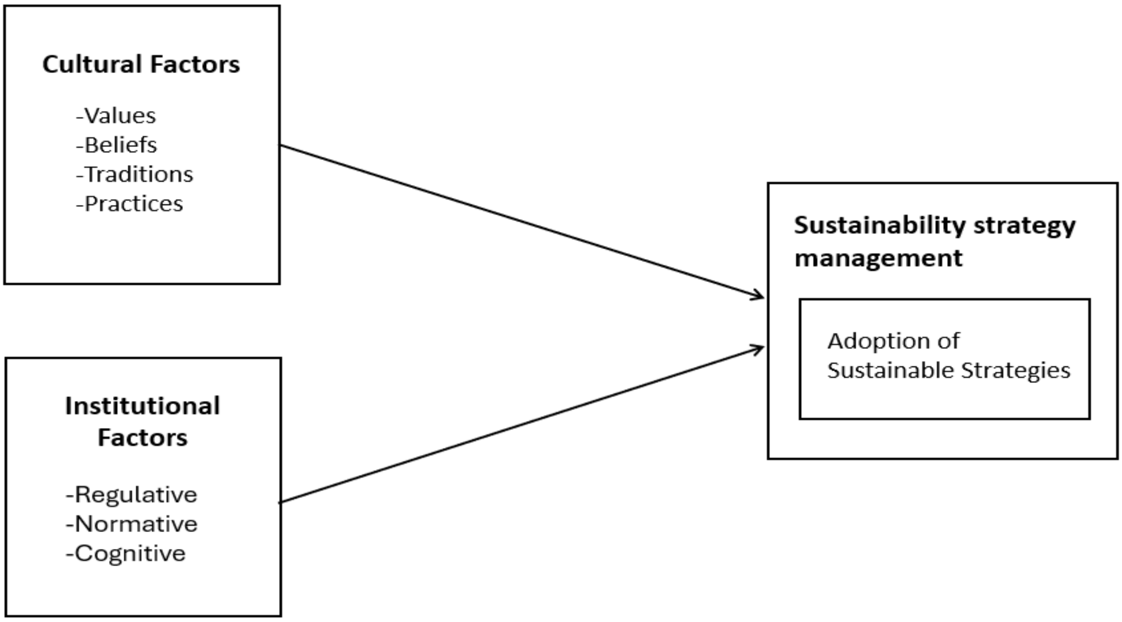

Figure 1. Conceptual model of the study.

3 Conclusion

In this chapter, the conclusions are presented. First, the summary of the key findings of the study are revised in the context of the overall research. Next, suggestions for future research are provided based on insight from this thesis. Finally, the limitations of this thesis are presented.

3.1 Summary of the key findings

The purpose of this thesis was to research how do cultural and institutional factors influence adoption and communication of sustainability strategies in aviation. Furthermore, the impact of national cultural dimensions and institutional environment on airline sustainability strategy formulation is additionally researched. This research provided interesting aspects of aviation as airlines are influenced by wide level of regulations and cultural viewpoints. It is clear, that culture and institutional environments jointly shape how global aviation implement sustainability strategies and meet regulatory expectations. Most aviation companies operate beyond their home-country's borders which expose them to other regulative institutions. Based on the institutional theory, regulative, normative and cognitive aspects form the institutional environment and define sustainability practices also providing a structural explanation.

Institutional contexts play a key role in shaping aviation industry's strategies through its political, financial and cultural systems, driving sustainability reporting and influencing how effective corporate governance structures are in adopting sustainability. Institutional context explains why airlines in different regions adopt different sustainability practices and why sustainability adaptation varies across diverse geographical contexts. The institutional pillars proposed by Scott (1995) provide a structural explanation how the shifting global regulatory landscape from voluntary to mandatory influences global sustainability expectations. By integrating national cultural values and institutional pressures, cross-regional differences in sustainability strategy can be understood.

Culture plays a significant role, as national cultural values influence strategic priorities, organization behavior and sustainability commitments. With Hofstede's cultural dimensions theory, cross-cultural differences can be explained. As research shows, aviation is culturally sensitive due to the international operations with culturally different norms and expectations with crew member, passengers and CSR norms (Miska et al., 2018). Global airlines face unique pressures balancing cultural diversity while pursuing sustainability goals. Institutional and industry standards (ICAO, IATA) shape frameworks that must be inspected through cultural lenses in order to respond to increasing environmental demands. The research is in support of previous studies which have found that culture as an informal institutional pressure has a strong influence on corporate sustainability (Tran & Beddewela, 2020).

The literature shows that both formal and informal institutions influence the industry's sustainability practices. Strong regulative pressures (ICAO, EU) force environmental compliance, and normative pressures influence transparency and alignment with ESG standards. Organizational culture acts as the internal tool translating national cultural values to daily operation practices to reach sustainability goals. Overall, these perspectives combined demonstrate that sustainability in aviation is not merely environmental issue, but a process defined by global cultural diversity and multilayered institutional environments. This thesis provides the foundation for analysing how airlines navigate complex cultural contexts while adapting to evolving sustainability standards and stakeholder requirements.

3.2 Suggestions for future research

There are several future research directions to investigate. This thesis addresses a research gap of current studies by combining institutional theory and cultural dimensions in the aviation industry. This thesis is based on existing research, and the data relies on secondary sources. Future research would benefit from comparative studies examining how consumers respond differently to sustainability communication across different cultural market contexts. Further, case studies and interviews from different airlines across markets would be beneficial to provide more up to date information. Zieba and Johansson (2022) suggest that future research on airline sustainability reporting should consider the changing trend in requirements by individual countries and international organisations. This could help to detect developments and changes in reporting, while understanding how the shifting regulatory landscape from voluntary to mandatory changes the industry. Moreover, the future research regarding the tensions between international standards and local cultures could expand to whether sustainability guidelines can be successfully standardized across cultures.

Furthermore, there are many possibilities when it comes to researching specific contents of sustainability in aviation. Its rapid expansion over the decades has brought economic benefits but the transition toward sustainable aviation is more pressing than ever (Raihan, 2025). One avenue of research can be found in addressing this transition, as understanding the dissimilarities in sustainability issues across aviation sectors emphasizes the need for sector-specific reporting guidance. Examining these reporting differences in aviation context could be beneficial for unifying the reporting guidance and help the industry better align its reporting with societal expectations. Future research on the subject is encouraged, as the industry is facing pressure to adopt strategies to reduce its environmental impact. Additionally, the field would benefit from conducting longitudinal studies on airline ESG performance. This would help to understand how institutional pressure evolves and whether international frameworks (IATA, ICAO) reduce differences.

3.3 Limitations

This thesis provides valuable insights into how culture, institutional pressures and organizational behavior shape sustainability strategies in aviation industry but there are still several limitations to be acknowledged. These limitations relate to the scope of the frameworks chosen, the availability of sustainability reporting across airlines and the developing regulatory environment surrounding aviation sustainability. Recognizing these limitations is important for contextualizing the research and findings in order to guide future research that seeks to build even more comprehensive understanding of culture and institutional factors influencing aviation sustainability.

This thesis depends on secondary data, such as sustainability reports and public documents. There are variations on CSR and ESG disclosure across regions, which may form bias comparisons. Definitions of sustainability varies across countries and regulators which makes comparative analysis challenging. Additionally, representing the whole population of the country is difficult, therefore this thesis cannot cover every cultural or institutional factor affecting aviation. Cultural and institutional factors vary widely between regions, therefore findings based on selected countries and regions may not represent the entire global aviation industry.

Possible limitations can also be found in swiftly changing regulatory environment. Research findings may become outdated as new policies and standards are introduced, and technological changes affect the industry. CORSIA has faced critical appraisal in various publications and has been described as unlikely to contribute significantly (Gössling & Lyle, 2021). The aviation industry is influenced by additional forces (geopolitical issues, technology) that are not included in this thesis. These constraints highlight the inherent complexity of examining sustainability in a global, culturally diverse and highly regulated industry such as aviation. Acknowledging these limitations provide a foundation for more targeted and context-dependent future research.

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