



An-Najah National University
Faculty of Graduate Studies

**NATIONAL CULTURE AND SUSTAINABLE
DEVELOPMENT GOALS DISCLOSURE:
EVIDENCE FROM EUROPE**

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**This Dissertation is submitted in Partial Fulfillment of the Requirements for the
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Dedication

This thesis is dedicated

To

My beloved parents

My precious sisters

My nieces and nephews

My grandparents, uncles, and aunts

My friends whom I love

For their endless love, support, encouragement, and prayers

for me.

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Finally yet importantly, I am eternally grateful to my beloved parents, to my successful sisters, who have always been there for me for better or worse, and they literally made me into who I am today. I cannot thank you enough.

Declaration

I, the undersigned, declare that I submitted the thesis entitled:

NATIONAL CULTURE AND SUSTAINABLE DEVELOPMENT GOALS DISCLOSURE: EVIDENCE FROM EUROPE

I declare that the work provided in this Dissertation, unless otherwise referenced, is the researcher's own work, and has not been submitted elsewhere for any other degree or qualification.

Student's Name: Raed Imad Abdelhag

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Date: 11.02.2026

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NATIONAL CULTURE AND SUSTAINABLE DEVELOPMENT GOALS DISCLOSURE: EVIDENCE FROM EUROPE

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Abstract

The primary objective of this study is to examine the impact of national culture on the level of Sustainable Development Goals disclosure among European companies. The research aims to determine how cultural values, as defined by Hofstede's six cultural dimensions (Large vs. Small Power Distance, Individualism vs. Collectivism, Masculinity vs. Femininity, Strong vs. Weak Uncertainty Avoidance, Long-Term vs. Short-term Orientation, and Indulgence vs. Restraint) shape corporate sustainability reporting within the European Union context.

The study is based on a quantitative research design using panel data collected from 1,650 publicly listed firms across 21 of 27 EU member states during the period 2019–2024, yielding 9,900 firm-year observations. Data on SDGs disclosure were obtained from the Refinitiv Eikon database, while cultural variables were sourced from *Hofstede Insights*. Several panel regression models were estimated, progressively incorporating firm-level, country-level, and time- and industry-fixed effects to ensure the robustness of the results.

The empirical findings reveal that large Power Distance, Individualism, Masculinity, and Long-Term Orientation have negative and statistically significant effects on SDG disclosure, while strong Uncertainty Avoidance and Indulgence show positive and significant relationships. The robustness tests confirm the consistency of these results across different model specifications. Additionally, firm-specific and country factors—such as the presence of a CSR committee, firm size, profitability, rule of law, board independence and GDP per capita positively influence disclosure levels.

The study concludes that national culture plays a crucial role in shaping corporate sustainability transparency, even within a harmonized institutional environment. It recommends that policymakers incorporate cultural awareness into sustainability

reporting frameworks and that corporations strengthen governance mechanisms and stakeholder engagement to enhance SDG disclosure. The findings contribute to Stakeholder Theory and Institutional Theory, offering important implications for both academics and practitioners seeking to promote culturally inclusive and transparent sustainability reporting across Europe.

Keywords: National Culture, Sustainability, Sustainable development goals, European firms, Hofstede framework.

Chapter One

Introduction and Theoretical Background

1.1 Introduction

Sustainable development has been a focal concept in the last decade with governments, businesses and civil society struggling with the main issues of climate change, social inequality, and scarcity of resources (United Nations, 2015). In 2015, the United Nations (UN) introduced 17 Sustainable Development Goals (SDGs), which is one of the most important initiatives in the modern world. The goal was to unite people to end poverty, protect the earth, and achieve general prosperity in the world (United Nations, 2015). While the SDGs present a world-informed baseline, businesses and societies take various paths in their actions towards achieving these goals depending on numerous contextual elements such as the economies, governments, and cultures (World Bank, 2020).

Within the European Union (EU), a complex regulatory environment and widespread stakeholder awareness have promoted corporations to embrace SDGs into business strategies and related reportings (European Commission, 2019). Yet not all EU companies respond in the same manner, and new research suggests that national culture may have a decisive impact on how firms approach, implement, and communicate SDG initiatives (Leonavičienė et al., 2022; Pizzi et al., 2022; Subramaniam et al., 2023). Hofstede's (1980 and 2001) six dimensions of culture (Large vs. Small Power Distance, Individualism vs. Collectivism, Masculinity vs. Femininity, Strong vs. Weak Uncertainty Avoidance, Long-Term vs. Short-term Orientation, and Indulgence vs. Restraint) have been widely used to explain cultural norms at a national level (Gladwin and Hofstede, 1981; Hofstede, 2001). They have been also used as a basis to explain how business models and reporting strategies are affected by the prevailing culture. Therefore, such cultural dimensions may systematically influence how organizations identify and react to sustainability challenges (Hofstede, 2001; Minkov and Hofstede, 2012; Ordonez- Ponce, 2023).

Research exploring this relationship indicates complex and context-specific links between cultural dimensions and sustainability outcomes. For instance, high Power Distance cultures often exhibit weaker environmental performance (Huang et al., 2024;

Ordóñez- Ponce, 2023), though they may perform exceptionally in specific large-scale infrastructure projects (Kaminsky, 2016). Individualism demonstrates varied effects, sometimes fostering innovation but potentially weakening collective efforts like renewable energy adoption (Huang et al., 2024; Sedita et al., 2022). Masculinity consistently correlates with lower climate performance, whereas Long-Term Orientation and Uncertainty Avoidance generally promote sustainable planning and risk management (Ordóñez- Ponce, 2023; Pizzi et al., 2022). Indulgence has been linked to proactive climate policies, though its effects require further study (Huang et al., 2024). These findings highlight the complexity of cultural influences, which often depend on interactions between dimensions and context.

Despite growing recognition of the importance of culture on sustainability behavior of firms, there remain substantial gaps in the literature, particularly on the impact of Hofstede's dimensions on some SDGs disclosure scores released by companies (Li, C., & Chan, 2021). Much of the existing studies rely on aggregate environmental metrics or nation-level sustainability indexes rather than SDG disclosures, a key proxy for corporate transparency and alignment with the 2030 Agenda (Melloni et al., 2020). Also, studies often look at different regions, making it hard to understand differences in culture in more controlled regions like the EU, where the same policies minimize institutional differences but cultural variety remains (European Commission, 2019; Leonavičienė et al., 2022). Different methods, for instance, using different measures and not addressing all six dimensions of Hofstede in a complete manner, also make comparison hard (Huang et al., 2024; Sedita et al., 2022).

Against this backdrop, the present research seeks to investigate how Hofstede's six cultural dimensions influence the SDG performance, specifically as measured by public disclosures, of EU-based companies from 2019 to 2023. This study addresses the identified gaps by focusing explicitly on firm-level SDG disclosure scores within the EU context. It utilizes the Refinitiv Eikon database for consistent, cross-company SDG metrics (Refinitiv, 2022). By concentrating on EU-based firms, this research utilizes a relatively homogeneous regulatory setting while incorporating significant cultural variability, allowing for a more precise isolation of the cultural component compared to comprehensive cross-national studies (European Commission, 2019). Unlike previous research that often focused on fewer dimensions or broader metrics e.g., Huang et al.,

2024; Sedita et al., 2022, this study incorporates all six Hofstede dimensions. The contribution of this research is to extend current scholarship by elucidating how and why corporate sustainability reporting efforts develop differently across diverse cultural contexts within Europe, providing a rigorous methodological approach and providing detailed insights for both academic theory and managerial practice (Leonavičienė et al., 2022).

1.1.1 Statement of Research Problem

Although the importance of the national culture and the Sustainable Development Goals (SDGs) is undeniable, and the connection between the two has been previously studied on a macro level, there is a considerable gap in the comprehension of the effect of the Six Cultural Dimensions of Hofstede on the SDG disclosure of companies operating in the European Union. The literature has limited investigation of SDG indices at the national level or more global samples (Sedita et al., 2022; Tehrani et al., 2021). In turn, the research that examines the firm-level effect of these cultural dimensions on SDG reporting and implementation is scarce in the specific EU context, where extreme cultural diversity and high rates of sustainability commitment coexist (World Bank, 2020). Furthermore, the opportunities to use large databases like Refinitiv Eikon that offers firm-level SDG data on EU-based companies have not been searched in the analysis of this nexus (Refinitiv, 2022). Knowledge of how national cultural orientations of EU firms affect their strategies and performance in the SDGs is vital in formulating effective strategies to 2030 Agenda in this powerful economic and political bloc. This research will address this gap in knowledge by examining the implications of the cultural dimensions of Hofstede on the SDG reporting of EU firms based on the evidence acquired through the Refinitiv Eikon database in 2019-2024.

1.1.2 Research Questions

This research seeks to answer the following overarching question: How do Hofstede's Six Cultural Dimensions of EU member states affect the Sustainable Development Goals (SDGs) disclosure by companies headquartered in those countries between 2019 and 2024?

Specifically, this research will address the following sub-questions:

1. What is the impact of Power Distance score of EU member states on the level of SDG disclosed by companies headquartered in those countries for the period 2019-2024?
2. What is the impact of Individualism score of EU member states on the level of SDG disclosed by companies headquartered in those countries for the period 2019-2024?
3. What is the impact of Masculinity score of EU member states on the level of SDG disclosed by companies headquartered in those countries for the period 2019-2024?
4. What is the impact of Uncertainty Avoidance score of EU member states on the level of SDG disclosed by companies headquartered in those countries for the period 2019-2024?
5. What is the impact of Long-Term Orientation score of EU member states on the level of SDG disclosed by companies headquartered in those countries for the period 2019-2024?
6. What is the impact of Indulgence score of EU member states on the level of SDG disclosed by companies headquartered in those countries for the period 2019-2024?

1.1.3 Research Objectives

To address the identified research gaps, this research identifies the following specific, measurable, achievable, relevant, and time-bound research objectives:

1. To investigate the impact of Power Distance score of EU member states on the level of SDG disclosed by companies headquartered in those countries for the period 2019-2024.
2. To investigate the impact of Individualism score of EU member states on the level of SDG disclosed by companies headquartered in those countries for the period 2019-2024.
3. To investigate the impact of Masculinity score of EU member states on the level of SDG disclosed by companies headquartered in those countries for the period 2019-2024.
4. To investigate the impact of Uncertainty Avoidance score of EU member states on the level of SDG disclosed by companies headquartered in those countries for the period 2019-2024.

5. To investigate the impact of Long-Term Orientation score of EU member states on the level of SDG disclosed by companies headquartered in those countries for the period 2019-2024.
6. To investigate the impact of Indulgence score of EU member states on the level of SDG disclosed by companies headquartered in those countries for the period 2019-2024.

1.1.4 Research Importance

This study provides substantial academic and practical contributions to sustainability reporting, culture, and corporate governance research. Academically, it advances cross-cultural management and sustainability literature by examining the impact of Geert Hofstede's six cultural dimensions on corporate engagement with the Sustainable Development Goals (SDGs) within the European Union. While prior studies rely primarily on macro-level indicators such as national SDG indices (Sedita et al., 2022) or big data approaches (Cahyadi et al., 2024; Ordonez- Ponce, 2023), this research adopts a firm-level perspective using the Refinitiv Eikon database, enabling more granular and context-specific analysis. The longitudinal design (2019–2024) captures the dynamic evolution of SDG disclosure during a period of significant regulatory and stakeholder change in Europe, and the cross-industry framework addresses sectoral differences that remain underexplored (Sedita et al., 2022; Tehrani et al., 2021).

Building on emerging evidence that sustainability disclosure may be shaped by cultural and institutional pressures and may even encourage greenwashing (Esposito et al., 2025), this study investigates whether national cultural values act as drivers or barriers to genuine SDG commitment. It also responds to recent findings that culture influences both traditional reporting and ESG communication through social media (Nicolo et al., 2025).

Practically, the findings support the development of culturally sensitive sustainability metrics in line with global SDG frameworks (United Nations, 2015). They provide policymakers, multinational corporations, executives, and investors with evidence-based insights to design culturally aligned SDG implementation strategies (European Commission, 2019), enhance ESG risk assessment, and strengthen governance and reporting frameworks. By highlighting culture as a fundamental determinant of

corporate sustainability behavior, the study contributes to the international SDG agenda and enriches both academic discourse and policy practice.

1.2. Theoretical Background & Literature Review

1.2.1 Sustainable Development Goals (SDGs) Disclosure

Sustainable Development Goals (SDGs) disclosure refers to the systematic approach whereby organizations describe how their strategies, operations and outcomes contribute to or hinder the achievement of 17 goals that were adopted by all United Nations member states in 2015 (United Nations, 2015). Such disclosure is traditionally placed in annual reports, standalone sustainability reports, integrated reports, or corporate websites and includes both qualitative narratives and quantitative indicators, the targets of which are specifically associated with specific SDGs and their respective sub-targets (Esposito et al., 2025).

However, the literature differentiates between the symbolic and substantive SDG disclosure. Symbolic disclosure is mainly impression-management based, and targets to improve the corporate legitimacy and reputation without any underlying practices. It usually contains broad statements, hopes, and cherry picking to meet the expectations of stakeholders. Conversely, substantive disclosure is indicative of actual integration of SDGs into corporate strategy, quantifiable goals, performance measures and quantifiable results. Substantive disclosure is linked generally to transparent reporting, measurable metrics and correspondence between sustainability discourse and operational fact. This difference is theoretically based on the theory of legitimacy and institutional theory, which imply that companies can either act ceremonially by complying with the demands of external factors (symbolic adoption) or internalize sustainability standards into their decision-making procedures (substantive adoption). This distinction is important to understand and especially in cross-country context like Europe where national cultural features might determine whether companies adopt symbolic signaling or substantive sustainability transformation.

1.2.1.1 Origin, Scope, and Purpose of the SDGs

The United Nations (UN) recently introduced 17 Sustainable Development Goals (SDGs) as an action plan of global interventions in response to global challenges like poverty, inequality, climate change, and environmental degradation (United Nations,

2015). The SDGs were constructed on the development agenda of the Millennium Development Goals (MDGs) as universal, inclusive, and integrative at the three levels of economy, society, and environment (Kanie and Biermann, 2018). In comparison with MDGs, which were predominantly focused on developing countries, SDGs are used by all the states, include 17 goals, 169 targets, and more than 230 indicators that address such aspects as economic growth, climate action, peace, and so forth (World Bank, 2020). They are developed in the light of interdependence of the development problem, in which there are synergies (e.g., quality education leading to gender equality) and trade-offs (e.g., economic growth versus climate action), and that is why integrated policies are needed (Pradhan et al., 2019).

The SDGs are a radical agenda that intends not only to alleviate poverty but to change the manner the world develops based on the principles of sustainability, resilience, and social justice (Kanie and Biermann, 2018). They can be tracked to the 2012 Rio +20 conference, which emphasized the need to balance economic growth, social inclusion and environmental protection (Kanie and Biermann, 2018). SDGs are a participatory and global framework that is presented as a guide to sustainable development collaboration across the globe. It involves the participation of multi-stakeholders including governments, business, and civil society in its implementation (ElAlfy et al., 2020). Nevertheless, it is worthy mentioning several problems, such as the lack of data the inability to define the qualitative dimension of governance, and the nationalization of the objectives at the national or regional level (Allen et al., 2018; ElAlfy et al., 2020).

1.2.1.2 Detailed Overview of the 17 SDGs

The SDGs comprise 17 distinct goals covering a wide variety of human and environmental development:

- No Poverty: Aims to eliminate extreme poverty and minimize inequality.
- Zero Hunger: Targets achieving food security and improved nutrition.
- Good Health and Well-being: Seeks to promote healthy living and access to quality health.
- Quality Education: Strives to provide inclusive and equitable quality education for everyone.

- Gender Equality: Works to empower all women and girls by eliminating gender disparities.
- Clean Water and Sanitation: Strives for universal access to safe water and sanitation facilities.
- Available and Sustainable Energy: Enables access to sustainable energy resources.
- Decent Work and Economic Growth: Targets economic growth and decent work opportunities.
- Industry, Innovation, and Infrastructure: Supports sustainable industrialization and infrastructures for resilience.
- Decreased Disparities: Aims at diminishing inequalities within and outside the country.
- Sustainable Cities and Communities: Aims to make inclusive, safe, and sustainable cities and communities.
- Responsible Consumption and Production: Seeks to encourage resource efficiency alongside reducing waste.
- Climate Action: Indicates the urgency of climatic change and its negative impacts.
- Life below Water: Seeks to protect and preserve oceans, seas, and marine resources while using them sustainably.
- Life on Land: Aims to sustainably manage forests and halt desertification and loss of biodiversity.
- Peace, Justice, and Strong Institutions: Promotes peaceful and inclusive societies.
- Partnerships for the Goals: Stresses the importance of global partnerships as a way to meet sustainable development goals.

By addressing a broad spectrum of development concerns, the SDGs present a comprehensive roadmap to sustainability. Their universality makes them a necessary benchmark against which companies wishing to align their business models with global sustainability agendas need to be tested.

1.2.1.3 Importance and Measurement of SDGs Disclosure in Corporate Reporting

Corporate SDGs reporting is now an important constituent of sustainability reporting and an indicator of the company's compliance with the global development agenda (United Nations, 2015). SDG-related activities disclosure has some significant

functions. First, it enhances transparency through giving the stakeholders information about sustainability initiatives and impact of the organization. Second, it boosts the confidence of the interested parties including investors, customers, and the civil society through responsibility and compliance with ethical and sustainable practices. Third, SDG disclosure balances corporate strategy and global sustainability objectives, enabling companies to integrate global issues into their business and operations (Esposito et al., 2025).

The SDG disclosure measurement has evolved over the past few years. Initially, organizations applied traditional environmental and social indicators, such as the carbon emissions, amount of water used, or the level of wellbeing among employees. These preliminary steps provided a basic understanding of how corporate sustainability performs. More specific and elaborate indexes were developed in the long run to reflect the contribution of a company to specific SDGs, both quantitative and qualitative (Melloni et al., 2020; Nicolo et al., 2025). It is easier to make better managerial decisions and plans with the help of the indexes, which can be used to compare and benchmark firms and industries.

A number of studies have examined the determinants and implications of SDG disclosure. The cultural context is the most important aspect of sustainability reporting practices, as Li and Chan (2021) note, and it proves that national cultural values define the interaction of corporations with SDGs. Similarly, the dissimilarity in SDG disclosure across firms is justified by the regulatory pressure, expectations of the stakeholders, and the institutional structures. Besides external influences, firm-level governance structures and resources are also found to have an impact on the level and quality of SDG reporting (Subramaniam et al., 2023).

In general, SDG disclosure is crucial in advancing corporate responsibility, strategic orientation, and interactions with stakeholders, and the new measurement frameworks can be powerful instruments in the measurement of performance and decision-making. Other SDG reporting indicators, such as the introduction of the concept of integrated indices and universal norms, can be regarded as the key to making corporations contribute positively to sustainable development at the national and global levels (Esposito et al., 2025; Nicolo et al., 2025).

1.2.2 Disclosure Practices in Europe

During recent years, the European corporate disclosure has been exposed to immense change due to a multitude of regulatory pressures, investor pressures, and social pressure towards increased disclosure in non-financial information (NFI) and Environmental, Social, and Governance (ESG) issues. Despite steps towards increased harmonization reached over time, significant disparity persists in European nations' disclosure habits due to time-honoured cultural, legal, and economic idiosyncrasies (Pathan and Mohanty, 2025; Sundarassen et al., 2024). Nonetheless, a trend towards increased uniform disclosure behaviour is apparent.

Among the highest drivers of expanded disclosure strategies are the surging demands from stakeholders and sophisticated investors in high-quality comparable and reliable information on ESG considerations. The pressure is pushing organizations to move on from mere modifications to financial reports to deliver a deeper representation of their performance and footprint (Alves and Meneses, 2024). Sundarassen et al. (2024) report that board diversity, and thus gender diversity, is now increasingly held to have a positive impact on the volume and intensity of ESG disclosures and thus to indicate internal governance mechanisms as crucial determinants of disclosure strategies. Organizations with boards of directors with higher diversity are typically best at listening to a wider foundation of stakeholder needs and are typically disclosing in sustainability reports.

There has been increasing curiosity in the ESG framework among European firms in the last few years, and adoption of ESG practices has been a decent benchmark of a company's socially responsible behavior (Pathan and Mohanty, 2025). This reflects an increasing acknowledgment that ESG is not merely a new approach to sustainable human development but also a new way of considering business risk and opportunity. In particular, Alves and Meneses (2024) found that companies with a greater ESG score might be more able to manage ESG risks like climate change and workers' issues, which might lead to improved financial outcomes and lower default risk.

Efforts at voluntary disclosure have always been predated by compulsion requirements. Innovative European companies have always been trailblazers in embracing integrated sustainability reporting, taking advantage of extant standards such as the Global

Reporting Initiative (GRI) Standards, Sustainability Accounting Standards Board (SASB) Standards, and the Task Force on Climate-related Financial Disclosures (TCFD) guidelines (Sundarasan et al., 2024). This early leadership by some has created a benchmark and exerted pressure on other firms to follow suit, even though there are no statutory requirements. The trend reflects a shift away from the view of disclosure as a compliance activity to its application as an operating instrument in the management of corporate reputation, risk management, and attracting investment flows.

Aulia et al. (2024) study found that European consumer market investors' portfolios accounted for a quarter of sustainable investing assets globally in 2020 and indicated greater European consumer market interest in ESG-related assets. Such investors come to see sustainable investing more and more as a long-term value-maximizing strategy with utilitarian and value-expressive content. This consumer demand has also spurred the development of disclosure practices among European companies.

Digitalization of financial and non-financial reporting is another important determinant of disclosure behavior, which is critical. There is an apparent change in favor of the resourcefulness and machine-readability of information, making it easier to access and process by investors and other users of data. This trend involves research and implementation of the technologies like XBRL (eXtensible Business Reporting Language) to report on sustainability data. Additionally, non-financial information verification is becoming very common, although it is not entirely binding in all cases. Companies are also pursuing third-party certifications of their ESG reporting to enhance credibility and trustworthiness of stakeholders, and this trend is expected to grow as regulatory requirements on such assurance grow in new regulations like the Corporate Sustainability Reporting Directive (CSRD).

Alves and Meneses (2024) note that ESG scores are able to provide lenders with data unavailable in traditional financial indicators, and that the perceived lower risk of high ESG scores can be converted into lower borrowing costs of such companies. Their results indicate that ESG scores reduce information asymmetry between firms and stakeholders, hence imposing tremendous impacts on the disclosure policies of European firms. The financial strength of companies is becoming a more accurate indicator of the essence of sustainable development and the ESG ideals, where European firms have a spectrum of ESG ratings with different impacts on financial

results; high-ESG firms are more likely to perform better than low-ESG ones (Pathan and Mohanty, 2025).

Despite these developments, there are still many issues. The nature and magnitude of the disclosure requirements can be overwhelming to the firms, especially the small and medium-sized enterprises (SMEs). Regulators and standard-setters continue to worry about the quality, cross-jurisdiction and cross-industry comparability and reliability of disclosed data (Vitolla et al., 2019). The constant change in reporting standards and frameworks also force the firms to be dynamic and continuously revise their disclosure process and mechanisms. However, the overall trend is towards a future where there is an increased integration, transparency and long-term value and sustainability in corporate disclosure in Europe.

1.2.2.1 Regulatory Bodies and Laws Governing General Corporate Disclosure in Europe

The European regime of corporate disclosure is complex, comprised of an EU-wide set of regulations and national regulations, and functioning within a dual-authority system comprising both EU and home authorities. Its main goals include strengthening transparency, protecting the interests of investors, and strengthening market integrity and consistency. Over the past few years, there has also been an intense demand to be more harmonized and introduce more disclosure requirements, especially in relation to non-financial and sustainability related information (European Commission, 2024; Sneideriene and Legenzova, 2025).

The EU legislative tools have been sufficiently influential to the corporate disclosure environment. The Non-financial Reporting Directive (NFRD) (Directive 2014/95/EU), was a breakthrough that required homogenisation in disclosure by the material public-interest entities (PIE) that are large in their workforce (employing over 500 workers). Such commitments include environmental, risk, performance, social, employee, human-rights, anti-bribery, corruption, and board-diversity (European Commission, 2014). With the new wider framework created by the NFRD, its application has not been consistent across member states resulting in inconsistency in the breadth of disclosures, and the quality.

To address the lacunae and align with the European Green Deal and Sustainable Finance agenda as a whole, the EU has adopted the CSRD (Directive (EU) 2022/2464). The CSRD significantly extends the reporting requirement to include all large undertakings, as well as all listed undertakings (except listed micro-enterprises), and has more descriptive reporting requirements (European Parliament and Council of the European Union, 2022). The European Parliament and Council signed into legislation the CSRD in 2022, in response to demands for more comparable, relevant, and trustworthy corporate sustainability information, and the directive entered into force on January 5, 2023 (MICEB, 2024).

One of the key features of the CSRD is that the companies are required to report in accordance with common European Sustainability Reporting Standards (ESRS) drafted by EFRAG (formerly European Financial Reporting Advisory Group). The ESRS/CSRD reporting requirements charge non-financial and financial firms to assess and report on their taxonomy fit, with specific focus on "green" activities and investments (European Commission, 2024). The CSRD also includes a requirement for limited assurance on sustainability information reported, with a view towards progressing to reasonable assurance later. The directive aims to render sustainability information consistent, reliable, and easily accessible in order to enable investors and other stakeholders to make informed, enhanced decisions.

The European Securities and Markets Authority (ESMA) has a key supervisory and coordinating role in the enforcement of financial and, increasingly, non-financial reporting in the EU. ESMA enables the harmonized enforcement of EU law and supervisory convergence across NCAs. In respect to sustainability reporting, ESMA has been interested in developing guidelines and joining the standard-setting exercise. For instance, ESMA published a Final Report on Guidelines on Enforcement of Sustainability Information (GLESI), providing NCAs with an instruction on overseeing and enforcing companies' sustainability information as per the CSRD (ESMA, 2024).

On an EU level, in September 2022, the Guidelines on Enforcement of Sustainability Information were published by the European Securities and Markets Authority (ESMA), the regulator of the EU within the SEC, (MICEB, 2024). The guidelines aim at a uniform supervision strategy and also at increasing the quality and strength of sustainability reporting in the Union. According to Sneideriene & Legenzova (2025),

ESMA potentially contributes to greenwashing reduction in ESG reporting because European supervisory systems put special emphasis on assurance of the reliability, comparability, and quality of corporate sustainability reports Sneideriene & Legenzova (2025).

In another wider trend towards more extensive regulation of data and services on sustainability, the European Union has also included ESG ratings providers under the scope of ESMA (para. 5). It is a huge move towards establishment of strong structures that will introduce harmonisation in reporting sustainability across the continent. According to Sneideriene & Legenzova (2025), it has been argued that new regulatory changes in the region have significant repercussions to supervisory bodies and professional organisations because the quality of ESG reporting in regard to reliability and truthfulness is compromised by the concept of greenwashing, which in turn impacts the quality of disclosure and trustworthiness to stakeholders.

Alongside these general EU directives, the national law of its member state has implemented such EU provisions into local law as national laws, and may also contain local country-specific disclosure requirements. These provisions and the responsibility of disclosure are published through the direct enforcement and supervision of these disclosure provisions is put in the hands of national competent authorities such as the financial supervisory bodies, or corporate registries. Bidirectional interplay between the EU-level regulation and national manifestation thus gives rise to a sophisticated but dynamic regulatory system, designed to spur enhanced corporate transparency and accountability through Europe.

The general orientations taken by the regulatory authorities of the European continent to maintain a sustainable reporting of the constant remembrance are embarked in the CSRD that can be observed as a major breakthrough in the Europe disclosure provisions (European Commission, 2024). These boards seek to create increased transparency and comparability in sustainability reporting, as disclosure issues had arisen earlier by the disjointed nature of measurement frameworks and absence of harmonized standards (Sneideriene and Legenzova, 2025). As this continuous adjustment of the regulatory framework continues, European businesses will be forced to comply with tougher and more harmonized disclosure standards, especially on sustainability and ESG reporting.

1.2.2.2 Institutions and Legislation Governing SDG-related Disclosure in Europe

The Sustainable Development Goals (SDGs) by United Nations are progressively influencing corporate reporting in Europe, highlighting the contribution that firms make to them or the deviation that firms exhibit. Despite the absence of a single piece of legislation to act as a uniform requirement to all enterprises heading to Europe to report SDG-specifically, the SDG pillars have steadily come to be embedded in a broad range of sustainability reporting requirements and regulations. The role of material standards and institutions is critical to formulating and leading the way on how companies in Europe report their impacts on SDGs and performance.

The Global Reporting Initiative (GRI) is one such excellent institution whose guidelines are widely adopted by European companies for their sustainability and SDG-related disclosures. GRI is a global, independent organization; however, its framework is highly influential in Europe. The GRI Standards provide an integrated and flexible framework for organizations to report on their economic, environmental, and social impacts, and they explicitly welcome linkages to the SDGs (ICSI, 2024; Trollman and Colwill, 2021). European companies apply the GRI Standards extensively to identify material issues, set performance indicators, and report on their contributions in respect of specific SDGs (Sundarassen et al., 2024). The modular structure of GRI Standards allows companies to report on those issues most relevant to their business and stakeholder interests, often corresponding to various SDG goals. The Global Reporting Initiative (GRI) is leading the triple bottom line (TBL) framework under the three pillars of sustainability as the dominant reporting framework for European business (Trollman and Colwill, 2021)

GRI provides extensive standards for reporting on sustainability used extensively by European businesses, with sector guidance that helps companies to address material sustainability concerns. European regulatory bodies increasingly refer to GRI standards for their reporting requirements related to sustainability, which attests to the validity and usefulness of the framework for SDG disclosure. Recent EU legislative evolution, above all else the Corporate Sustainability Reporting Directive (CSRD) and the related European Sustainability Reporting Standards (ESRS), are increasingly integrating SDG concerns into binding corporate disclosure.

Whereas the ESRS lay down the detailed reporting obligations, their drafting has been guided by and is intended to achieve a high level of interoperability with well-established global standards, including those of GRI. The ESRS tasks companies with reporting on their effects, risks, and opportunities regarding a wide range of sustainability topics, some of which are directly aligned with the SDGs, e.g., climate (SDG 13), biodiversity (SDG 14, SDG 15), circular economy (SDG 12), and social issues such as decent work and human rights (SDG 8, SDG 5, SDG 10). Companies reporting under the CSRD will therefore inherently be addressing most of the aspects of the SDGs, though not necessarily always expressly described as "SDG reporting" in and of itself. The dual materiality emphasis under the CSRD—requiring companies to report both how sustainability issues are impacting the company (financial materiality) and how the company is affecting the environment and society (impact materiality)—naturally aligns with the integrated nature of the SDGs. Additional European countries are adopting and applying the best practices and standards in environmental conservation and sustainability reporting (MICEB, 2024).

The European Financial Reporting Advisory Group (EFRAG) is attempting to harmonize European sustainability reporting frameworks with international standards like GRI to harmonize the landscape of SDG-related disclosure. However, research indicates that at most, 44% of European companies strictly follow all GRI reporting on SDG-aligned requirements (MICEB, 2024), which would mean that although institutional frameworks are in place, implementation is not yet possible for the majority of companies. Further, the EU Taxonomy Regulation (Regulation (EU) 2020/852) facilitates such disclosure by establishing a taxonomy of environmentally sustainable economic activities.

Although its direct focus is environmental objectives (with close linkages to SDGs 6, 7, 9, 11, 12, 13, 14, and 15), it indirectly contributes to broader SDG alignment by channeling finance into sustainable activities and mandating disclosure of the proportion of turnover, CapEx, and OpEx attributable to Taxonomy-aligned activities. This transparency allows stakeholders to decide the extent to which companies are promoting environmental sustainability, a fundamental component of the SDG agenda. European companies must operate in several reporting frameworks to fulfill stakeholder requirements and regulatory needs related to SDG disclosure (ICSI, 2024).

Several frameworks influence SDG disclosure in Europe, e.g., the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), and the Task Force on Climate-related Financial Disclosures (TCFD). While the GRI remains the predominant framework for SDG-related European disclosure, European regulatory development is increasingly converging towards global sustainability reporting standards in order to create a more harmonized disclosure climate. Outside of such EU-wide initiatives, national governments and industry associations across Europe may also promote SDG reporting via guidelines, incentives, or national sustainability codes individually.

The United Nations Global Compact (UNGC) with its ten principles on labor, human rights, the environment, and anti-corruption also boasts large numbers in Europe and encourages its signatory corporations to report back to it on its uptake and their support of the SDGs. Some European corporations are UNGC members and employ the latter's frameworks alongside GRI or other standards to back up their SDG-related reports. European institutional investors are expecting more integrated SDG-related disclosures from companies (ICSI, 2024), driving further evolution in reporting methods.

European authorities are trying to constantly improve the qualification and adherence of sustainability reporting. GRI guidelines are periodically updated to more effectively consider the Sustainable Development Goals (SDGs) and the rule-based requirements as embodied by European law. As a result, sustainability-reporting frameworks in Europe have become increasingly complex and demanding, which means that companies need to reorganize SDG disclosures practices to reflect the new demands. Overall, no single piece of European law requires all entities to disclose their environmental footprints and contributions to the SDGs; however, a conglomeration of sound global standards like the GRI, extensive EU obligations like the Corporate Sustainability Reporting Directive (CSRD), and effort by organisations like the United Nations Global Compact (UNGC) are all rigorous and, as a result, pressure and persuade more companies in Europe to do so (Meqbel et al.,2025).

There is a discernible shift towards more integrated reporting on SDG issues throughout mainstream company reports, which is driven by growing pressure from regulators, investors, and increased awareness of the business case for sustainable development.

1.2.3 Hofstede's Cultural Dimensions

1.2.3.1 Overview of Hofstede's National Culture Framework

Hofstede's national culture framework has been one of the most influential models in understanding cross-national cultural variations. Originally developed through extensive empirical research, Hofstede (1980, 1991, and 2001) introduced six dimensions that measure cultural differences at the national level:

- **Individualism vs. Collectivism:** This dimension examines the degree to which a person can be absorbed within social groups. There exists a very strong individualistic orientation, which is defined by preference of loosely connected structural arrangement, but a dominant collectivist orientation, which depicts closely laced structure where individuals are inclined towards devoting loyalty and adherence to the multitude (Hofstede, 2001).
- **Power Distance:** This dimension reflects the extent to which less powerful members of society accept unequal power distribution. Cultures with high power distance tend to have centralized authority and hierarchical structures (Minkov and Hofstede, 2012).
- **Uncertainty Avoidance:** This dimension is the measure measure the extent to which the society is comfortable with uncertainty and ambiguity, the high scores of this dimension are related to the desire to have formalised structures and tight regulatory frameworks in the high-scoring cultures, and the low scores to the flexibility, adaptability, and openness to innovation (Hofstede, 2001).
- **Masculinity vs. Femininity:** This dimension separates those societies where what matters is competitiveness and assertiveness (masculine) and those where cooperation and quality of life are valued (feminine). The empirical evidence suggests that masculine cultures are more focused on achievement and assertiveness, sometimes at the cost of the environmental issues (Huang et al., 2024).
- **Long-Term Orientation vs. Short-Term Orientation:** This dimension assesses a society's focus on future rewards versus immediate results. Cultures with a long-term orientation are more likely to invest in sustainable practices and planning (Ordonez- Ponce, 2023).

- **Indulgence vs. Restraint:** This relatively newer dimension captures the extent to which societies allow the gratification of desires and enjoyment of life. Indulgent cultures may be more proactive in enacting policies that foster well-being, including proactive approaches to environmental issues (Huang et al., 2024).

Although Hofstede cultural dimensions framework (Hofstede, 1980, 2001) has been one of the most used in cross-country studies, it has received significant criticisms in the scholarly world. The first drawback is its stagnant notion of culture because the framework presumes relative cultural immobility with time, which may ignore the possibility of dynamic changes due to globalization, institutional reforms, and generational change (McSweeney, 2002). Moreover, the potential Western and organizational bias has been pointed out by the critics since the original data set was collected mostly by IBM workers in the late 1960s and early 1970s, which casts doubt on representativeness and embeddedness in history (McSweeney, 2002). The other weakness is the fact that there is a national-level homogenization of the cultural values, which can mask a lot of within-country heterogeneity and regional heterogeneity (Brewer and Venaik, 2011). Moreover, the simplification of complex and changing cultural systems into a few quantitative indices can simplify social facts and cause ecological fallacy in its application to the behavior of firms (McSweeney, 2002). Nevertheless, the framework of Hofstede remains highly used due to its operational clarity, cross-country comparability, and wide-ranging validation in research in international business, finance as well as accounting. Based on this fact, although the framework offers an organized foundation on how cultural factors impact SDG disclosure in Europe, the context of its interpretation needs to be recognized.

1.2.3.2 National Culture and Corporate Behaviors

Hofstede's dimensions have been employed prolifically to account for corporate behavior differences, most significantly with respect to sustainability and disclosure practices. Empirical work suggests that cultural factors have a systematic impact on how firms respond to risk, stakeholder interaction, and transparency. For example, Sedita et al., (2022) and Kaminsky (2016) propose that differences in Power Distance and Uncertainty Avoidance will directly influence environmental performance as well as sustainability quality disclosure. Likewise, higher levels of Individualism within a culture are proposed to induce innovation within a firm's reporting practices, with

collectivist cultures facilitating additional emphasis upon community and stakeholder responsibility. These patterns propose not only that culture assists managerial thought communicative structures but also that culture influences strategic thought facilitating sustainability initiatives.

1.2.4 Theoretical Lenses: Linking National Culture and SDG Disclosure

To explore the relationship between national culture and SDG disclosure, this study draws on four major theoretical perspectives. In each case, the following discussion presents the theory's origin and core concepts, followed by an explanation of how the theory illuminates the influence of national cultural dimensions on corporate sustainability reporting.

1.2.4.1 Institutional Theory

The institutional theory, as described chiefly in the late 1970s and 1980s by those two seminal works by Meyer and Rowan (1977) and DiMaggio and Powell (1983), provides a solid understanding of how external social norms, regulatory structures, and cultural demands impact organizational structures and practices. According to the theory, organizations adapt to institutional pressure so as to gain legitimacy, gain key resources, and reduce environmental uncertainty. These pressures operate in 3 major ways namely coercive forces of legal and regulatory requirements, mimetic forces, which are based on the desire to imitate successful or legitimate models, and normative forces, which are informed by professional norms and social values. In that regard, the institutional theory underlines that organizational behavior is defined not only by the economic efficiency but also by the necessity to comply with the demands of the larger institutional environment.

In the framework of Sustainable Development Goals (SDG) disclosure, the theory explains why companies initiate sustainability practices and participate in open reporting. Whereas in the highly institutionalised environment, like the European Union, the regulatory standards and the expectation of the stakeholders are quite established, the companies face strong coercive, mimetic, and normative pressures to align their sustainability reporting to the globally accepted frameworks such as the SDGs (Ioannou and Serafeim, 2012). Such forces require organisations to not only respond to the external requirements but also to implement the sustainability reporting

practice proactively to increase the legitimacy and ensure that the relationships with various stakeholders remain positive (Marquis and Qian, 2014). As a result, the institutional theory highlights the fact that the interplay between regulatory frameworks, cultural practices, and social expectations are the primary determinants of firms involvement in SDG reporting and the reason behind differences in disclosure practices in different institutional settings.

1.2.4.2 Stakeholder Theory

Stakeholder theory was originally developed by Freeman (1984) and has since become a key paradigm for analyzing corporate responsibility. It counters the conventional shareholder maximization school of thought by arguing that organizations need to also satisfy the requirements and expectations of other stakeholder groups—such as employees, customers, suppliers, regulators, and local communities—so that they can be successful in the long term. The theory emphasizes transparency, accountability, and the creation of shared value, typically arguing that a company will be legitimate and remain in existence only through constant engagement with its wide circle of stakeholders. Disclosure of SDG represents a pragmatic expression of the support of a company for giving consideration to the stakeholder concerns, predominantly those relating to environmental sustainability and social responsibility (Sedita et al., 2022). Stakeholder theory provides the explanation of the reason why firms will voluntarily be more open regarding SDG activities: to generate trust, reduce reputational risk, and gain sustained support from all concerned groups. If translated in terms of national cultural dimensions, variations in stakeholder expectations can be related to varying patterns of SDG disclosure (Huang et al., 2024; Ordonez- Ponce, 2023). For instance, in very collectivist cultures, businesses can be attuned to the needs of the community, resulting in frequent and extensive reporting that captures issues relevant to local stakeholders (Subramaniam et al., 2023).

1.2.4.3 Legitimacy Theory

Legitimacy theory derives intellectual roots from Suchman (1995). The theory's key assumption is that organizations are continuously striving to gain, maintain, or repair legitimacy through the effort to align their activities in harmony with the proscribed norms, values, and expectations in society. This process conceived as an on-going process of securing not only societal approval but also enduring access to critical

resources. Legitimacy is not a static notion; it is continually being constructed through moment-to-moment exchanges between stakeholders and the firm. For legitimacy theory, SDG disclosure as a procedure by which corporations seek to legitimate and legitimize their practices in the worldwide sustainability context (Lu and Wang, 2021; Vitolla et al., 2019). Open SDG reporting signals stakeholders that a company is attuned to social expectations and actively engaged in pursuing sustainable development. In high power-distance or high uncertainty-avoidance cultures, where risk management and conformity expectations are greater within society, firms may engage in more rigorous disclosure practices to restore their legitimacy and counter any reputational issues of deviance from norms (Sedita et al., 2022). Such strategic use of SDG disclosure therefore seeks to build trust as well as pre-empt potential future legitimacy challenges.

1.2.4.4 Cultural Dimensions Theory

Cultural dimensions theory was initially conceptualized by Hofstede (2001) and later theorised by other theorists like Minkov and Hofstede (2012). The commonly accepted dimensions based on which the national cultural distinctions are normally categorized are Individualism versus Collectivism, Power Distance, Uncertainty Avoidance, Masculinity versus Femininity, Long Term Orientation and Indulgence versus Restrain (Brewer and Venaik, 2011; Hofstede, 2011). Such dimensions are theoretical constructs that enable one to analyse the impacts of societal values on behaviour, both at individual and organisational levels. Use of cultural dimensions theory on sustainability reporting about corporations helps establish how the respective cultures can help advance corporate reporting over others on the sustainable development goals (SDGs). Melloni et al. (2020) and Sedita et al. (2022) similarly believe that low Power Distance and high Individualism cultures seem to encourage transparency and accountability, and that cultures that cherish Long-Term Orientation are more inclined towards dedicating sizable resources to sustainability programs (Pizzi et al., 2022). According to the theory, managerial decision-making is also a question, which is not only caused by cultural values, but also impacts on the perceptions of firms and how they react to external sustainability pressures. Using the cultural dimension of Hofstede, the researchers are able to study differences in SDG disparities between unique cultural settings in a methodic and semi-experiential manner and consequently boost the knowledge base on

the need of national context in corporate reporting conduct (Hofstede, 2001; Minkov and Hofstede, 2012).

1.2.5 Literature Review and Development of Hypotheses

1.2.5.1 Introduction

Sustainable development is a worldwide endeavor that has taken the form of a key focus in solving various interconnected global problems, which include climate change, social inequality, and scarcity of resources (United Nations, 2015). Even though the SDGs offer a global framework, the avenues by which companies and communities are chasing these objectives are moderated by various contextual forces, such as economic systems, political organizations, and, most importantly, culture (Ordonez- Ponce, 2023; World Bank, 2020). An emerging literature acknowledges that the national culture has an immense influence on the way societies and organizations perceive and react to sustainability issues (Sedita et al., 2022). Culture, as a set of common values, beliefs, and norms, can affect the implementation of sustainable practices and the success of the policies to meet the SDGs (Tehrani et al., 2021). The Cultural Dimensions Theory by Hofstede (Hofstede, 2001) is a useful tool to understand the role of these influences as well because it offers dimensions where the national cultures can be compared and their connection to sustainability reporting and SDG disclosure can be analyzed (Pizzi et al., 2022). With the stakeholders becoming more and more interested in learning about the corporate contribution to SDGs (Li & Chan, 2021), it is important to learn how cultural contexts influence such disclosures.

The association between Hofstede cultural dimensions and SDG disclosure shows a multifaceted and even contradictory tendency. Individualism has both positive and negative outcomes, as much as it can be consistent with the wider social concerns, it affects SDG disclosure in a negative way (Pizzi et al., 2022). The impact of Power Distance on non-financial disclosure and social openness has a negative correlation in general (Martínez-Ferrero and García-Sánchez, 2017), but its influence on SDG reporting is not always statistically significant (Pizzi et al., 2022). Uncertainty Avoidance is a complex image: not only can it justify systematic disclosures, but also lead to the decrease of flexibility in social practices, and inconsistent impacts on SDG reporting (Pizzi et al., 2022). Masculinity is found to have a negative impact on sustainability orientation and disclosure (Pizzi et al., 2022), but Femininity is linked to

higher CSR performance and positive market responses (Tehrani et al., 2021). The Long-Term Orientation usually favors SDG disclosure because of its integration with the future-oriented objectives (Pizzi et al., 2022), even though the outcomes may differ in different contexts. Lastly, the negative correlation between Indulgence and some social aspects of inclusivity and non-financial disclosure can be observed (Martínez-Ferrero and García-Sánchez, 2017), but it can have a positive impact on SDG reporting in some instances (Pizzi et al., 2022).

National cultural dimensions and their connection with SDG disclosure may be interpreted in a number of theoretical perspectives. First, there is the Stakeholder Theory (Freeman, 1984) according to which companies exist in a network of relations with different stakeholders, such as investors, employees, customers, communities and are driven by the need to address the expectations and demands of the groups of powerful or salient stakeholders by disclosing information, including on SDGs. National culture determines the expectations of the stakeholders, as well as how the companies see their duties to the stakeholders (Li & Chan, 2021). Second, Legitimacy Theory (Suchman, 1995) proposes that organisations attempt to work within the limitation of the social norms and values in order to achieve or sustain legitimacy. SDG disclosure is a signalling mechanism that reflects expectations related to a particular culture of sustainability, and in cultures where environmentalism or social equity are prized, firms may disclose more in an effort to gain legitimacy (Sedita et al., 2022). Third, the Institutional Theory (DiMaggio and Powell, 1983; Meyer & Rowan, 1977) is a theory that describes how organizations comply with the demands of their institutional environment: regulations, industry norms, cognitive systems to gain legitimacy and resources. One of these institutional milieus is cultural norms, which determine the nature of SDG practices and disclosures that are generally acceptable or expected in a country. Lastly, the Cultural Dimensions Theory by Hofstede offers a direct connection by stating that the core cultural values (power distance or long-term orientation directly influence the attitudes of managers, the process of decision-making, and the organizational priorities regarding sustainability and the desire to share the information on the subject (Li & Chan, 2021).

1.2.5.2 Development of Hypotheses

1.2.5.2.1 Power Distance

Power Distance refers to the extent to which less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally (Hofstede, 2001). In societies with high Power Distance, hierarchies are more accepted, and subordinates may be less likely to challenge superiors or established norms (Gray, 1988). Research suggests a complex relationship between Power Distance and sustainability outcomes. Some studies indicate that high Power Distance cultures tend to exhibit poorer overall environmental performance and climate change performance (Huang et al., 2024; Lu and Wang, 2021; Ordonez- Ponce, 2023; Vitolla et al., 2019). This might be because centralized decision-making structures hinder broad participation or because environmental concerns are secondary to maintaining hierarchy. However, other research notes that high Power Distance can sometimes facilitate specific infrastructure projects, potentially related to certain SDGs like water infrastructure (Kaminsky, 2016). Given the prevailing evidence linking high Power Distance to weaker environmental outcomes, it is plausible that firms in such cultures may feel less pressure from broader society or internal stakeholders to engage in comprehensive SDG disclosure.

H1: There is a negative relationship between Power Distance and the level of SDG disclosure.

1.2.5.2.2 Individualism vs. Collectivism

This dimension separates those societies where the interpersonal relations are relatively weak (Individualism) and those where people are members of powerful and unified in groups (Collectivism) (Hofstede, 2001). In individualistic cultures, the accent is made on individual success, freedom, and rights, unlike collectivistic cultures, which focus on the harmony of the group, its loyalty, and wellbeing. The impact of this dimension on the disclosure of Sustainable Development Goal (SDG) seems to be heterogeneous. Certain studies show that the individualistic orientations are associated with stronger SDG disclosures, which may be explained by the emphasis on the personal corporate responsibility or reporting innovations (Kaminsky, 2016; Melloni et al., 2020; Sedita et al., 2022). Conversely, Pizzi (2022) holds that Individualism is a negative factor

affecting SDG disclosure, and that the focus on self-interest in individualistic societies can hinder the collective action needed to achieve some SDGs, including the use of renewable energy (Huang et al., 2024). Based on findings linking individualism with stronger disclosure practices and innovation, we hypothesize:

H2: There is a positive relationship between Individualism and the level of SDG disclosure.

1.2.5.2.3 Masculinity vs. Femininity

This dimension addresses the distribution of emotional roles between genders and the dominant values in society. Masculine societies tend to value assertiveness, competition, and material success, while feminine societies prioritize modesty, cooperation, quality of life, and caring for the weak (Hofstede, 2001). The empirical research has always indicated that masculinity is negatively related to sustainability performance. High masculinity cultures tend to have a worse corporate social responsibility (CSR) disclosure, a worse climate-change performance, worse environmental performance, and worse greenhouse-gas emissions (Huang et al., 2024; Kaminsky, 2016; Lu and Wang, 2021; Ordonez- Ponce, 2023; Sedita et al., 2022; Tehrani et al., 2021). This trend can be attributed to the fact that a more focus on economic success has been made over the environment or social justice. On the other hand, by focusing on interpersonal relations and quality of life, feminine cultures can increase their concern with environmental and social problems, which will improve SDG engagement and disclosure.

H3: There is a negative relationship between Masculinity and the level of SDG disclosure.

1.2.5.2.4 Uncertainty Avoidance

Uncertainty Avoidance is used to indicate how much individuals in a culture are threatened by uncertainty or the lack of knowledge and then develop beliefs and institutions to evade such circumstances (Hofstede, 2001). In societies with high Uncertainty Avoidance, it is more likely that they are based on strong regulations, laws, and safety, as people have a high regard of stability and predictability. This is a cultural characteristic that could have positive impacts on SDG disclosure. The desire to control

contingencies in the future and to reduce risks coincides with long-term planning and risk reduction of sustainable development (Sedita et al., 2022; Tehrani et al., 2021). Detailed SDG reporting can be used as a tool to address the uncertainty of stakeholders, show compliance, and indicate organisational stability and readiness to address upcoming challenges by corporations that operate in high Uncertainty Avoidance cultures (Gray, 1988; Kaminsky, 2016; Lu and Wang, 2021; Ordonez- Ponce, 2023). As a result, more detailed disclosures can be achieved by an increased emphasis on rules and the reduction of risks.

H4: There is a positive relationship between Uncertainty Avoidance and the level of SDG disclosure.

1.2.5.2.5 Long-Term Orientation

This dimension contrasts a pragmatic, future-oriented perspective (Long-Term Orientation) with a conventional, historic, short-term point of view (Hofstede, 2001). Cultures with a Long-Term Orientation emphasize perseverance, thrift, and adapting traditions to a modern context, focusing on future rewards. This orientation appears conducive to sustainability efforts and reporting. Sustainable development inherently requires a long-term perspective, balancing present needs with the ability of future generations to meet their own needs. Research supports this, showing that Long-term orientation enhances sustainable planning, environmental performance, and reporting practices (Lu and Wang, 2021; Melloni et al., 2020; Pizzi et al., 2022; Sedita et al., 2022; Tehrani et al., 2021). Companies in long-term oriented societies may be more inclined to invest in sustainable practices and transparently disclose their long-term SDG strategies and impacts.

H5: There is a positive relationship between Long-Term Orientation and the level of SDG disclosure.

1.2.5.2.6 Indulgence vs. Restraint

This dimension contrasts societies that allow relatively free gratification of basic and natural human drives related to enjoying life and having fun (Indulgence) with societies that suppress gratification of needs and regulate it by means of strict social norms (Restraint) (Hofstede, 2001; Minkov and Hofstede, 2012). Indulgent societies value

leisure time, freedom of speech, and personal happiness, while restrained societies emphasize duty, order, and controlling desires. Research suggests that Indulgence generally associates with more positive attitudes towards sustainability, better environmental performance, and proactive climate policies (Huang et al., 2024; Ordonez- Ponce, 2023; Sedita et al., 2022). Perhaps the focus on personal well-being and life enjoyment in indulgent cultures extends to valuing a healthy environment and social progress, leading to greater support for sustainability initiatives and potentially more open disclosure about related activities.

H6: There is a positive relationship between Indulgence and the level of SDG disclosure.

Chapter Two

Research Methodology

2.1 Introduction

This study aims to investigate the impact of Hofstede cultural dimensions on the level of SDGs disclosure across European firms. In this chapter, the study presents study design, study sample, data sourcing, measurement of dependent, independent, and control variables, the study model, and the study methods used to conduct the current study.

2.2 Study Design

This study employs a quantitative research design that is based on the panel data analysis. The panel data analysis is particularly suitable to the current research, as it allows studying the change in SDG disclosures between the firms and time, and, at the same time, manage to adjust the results to firm-specific and country-specific factors. The panel structure thus overcomes the unobserved heterogeneity among firms and makes it easy to question dynamic relationships between cultural dimensions and SDG disclosures over the six-year period between 2019 and 2024.

2.3 Study Population and Sample

The population for this study consists of publicly listed firms from the European Union (EU) member states during the period 2019-2024. The initial sample includes firms listed on the major stock exchanges of EU countries. To ensure representativeness and data availability, the following criteria applied for sample selection:

1. Firms must be publicly listed on a major stock exchange in an EU member state during 2019-2024.
2. Firms must have published annual reports, sustainability reports, or integrated reports for at least three consecutive years during the study period (2019-2024).
3. Firms must have complete data available for all variables included in the analysis.
4. Firms from financial sectors (banks, insurance, and investment companies) are excluded due to their distinct regulatory environment and reporting requirements.

The timeframe of 2019–2024 is chosen for two reasons. First, major sustainability reporting frameworks (e.g., Global Reporting Initiative) have matured significantly in

this period, improving data coverage. Second, it encompasses pre- and post-pandemic economic contexts, which may reveal interesting variations in corporate sustainability priorities and disclosures.

The final sample consists of 1,650 publicly listed firms from 21 European Union member states, as presented in Table 1. These firms are distributed across major EU economies, with Germany, France, Italy, and Spain representing the largest proportions. The dataset covers the period 2019–2024 and comprises 9,900 firm-year observations. This structure ensures broad geographic representation and sufficient variability across sectors and countries, enabling meaningful cross-country comparisons in corporate sustainability practices and performance.

Table 1

Distribution of Companies by European Country

Country	Number of firms
Germany	210
France	180
Italy	160
Spain	145
Sweden	120
Netherlands	115
Poland	100
Denmark	80
Finland	70
Belgium	65
Greece	55
Bulgaria	30
Ireland	50
Austria	50
Czech Republic	40
Romania	40
Hungary	35
Portugal	45
Luxembourg	20
Slovakia	20
Slovenia	20
Total	1650

2.4 Data sources

Data for this study collected from multiple sources:

1. **SDG Disclosure Data:** Collected from Refinitiv Eikon database, which is widely used in accounting and sustainability research due to its reliability and comparability across firms and countries.
2. **Cultural Dimensions Data:** Hofstede's six cultural dimensions scores for each country will be obtained from Hofstede's official website (www.geerthofstede.com) and supplemented with data from the most recent updates to these scores.
3. **Financial and Control Variables Data:** Firm-specific financial data (total assets, leverage, etc.) collected from financial database (Refinitiv Eikon).
4. **Country-level Economic Data:** GDP and other macroeconomic indicators obtained from the World Bank's World Development Indicators database and Eurostat (World Bank, 2020).

2.5 Variable Measurement

2.5.1 Dependent Variables: Sustainable Development goals disclosure

Following the approach used in recent literature (Meqbel et al., 2025; Subramaniam et al., 2023; Rosati & Faria, 2019), SDG disclosure (SDG_DISC) is measured as a compliance ratio based on the 17 SDGs. Each goal is assigned a value of 1 if a company discloses relevant initiatives or contributions toward that specific SDG in a reporting year and 0 otherwise. The sum of these values is determined by dividing through 17 in an effort to establish the level of compliance with a standard measure that reflects how well companies incorporate the SDGs into reporting frameworks.

In order to prevent potential "SDG-washing" threats (where companies officially invoke SDGs but undertake no substantial action), only reports with tangible proof of steps or activities undertaken in the direction of corresponding SDG targets are used. This approach ensures comparability and equivalence among companies and years and enables an entire assessment of corporate commitment to sustainable development objectives (Meqbel et al., 2025).

There are a number of limitations associated with the adoption of equal weighting to measure SDG disclosure. To begin with, it presupposes the existence of the 17 SDGs of equal importance, which in the real world is not the case since a certain number of goals

might be more tangible or closer to the processes of a company or a certain industry (Meqbel et al., 2025). Second, this method does not take into consideration the heterogeneity of firms in their size, industry, or geographic exposure, which may simplify the realization of significant difference in the quality of disclosure or actual effect (Subramaniam et al., 2023). Third, equal weighting can bias performance measurement: a company that is doing well on the highly material SDGs, but poorly on the less relevant ones, might seem average thus not reflecting its actual sustainability performance (Rosati and Faria, 2019). Also, it fails to represent the priorities of stakeholders and may create measurement bias, showing more weight to insignificant contributions and less to the essential ones.

Nevertheless, the equal weighting is still extensively used in the literature due to its simplicity, transparency, and reproducibility of SDG disclosure to allow cross-firm and cross-country comparisons (Meqbel et al., 2025; Subramaniam et al., 2023). We selected the SDG disclosure measure in this study as it is provided by Refinitiv Eikon, which guarantees the reliability of the data, its consistency, and correspondence to earlier studies. This ready-made measure minimizes possible coding errors and increases the comparability with other empirical studies and preserves the methodological rigor.

The SDG disclosure score is calculated as follows:

$$\text{SDG_DISC} = (\sum \text{SDG_i}) / 17$$

This approach produces a 0 to 1 score in which scores are greater where greater scope of SDGs disclosure exists among the 17 goals. The advantage of this approach is that it provides a standardized measure enabling comparison across companies and over time to detect the scope of involvement of a firm with the SDG framework.

2.5.2 Independent Variables: Hofstede's Cultural Dimensions

The six cultural dimensions developed by Hofstede serve as the independent variables in this study:

1. Power Distance Index (PDI): Measures the extent to which less powerful members of organizations and institutions accept and expect that power is distributed unequally. Higher scores indicate greater acceptance of hierarchical order.

2. Individualism versus Collectivism (IDV): Measures the degree to which people in a society are integrated into groups. Higher scores indicate more individualistic societies where ties between individuals are loose.
3. Masculinity versus Femininity (MAS): Measures the distribution of values between genders. Higher scores indicate more masculine societies that emphasize achievement, assertiveness, and material rewards.
5. Uncertainty Avoidance Index (UAI): Measures the degree to which members of a society feel uncomfortable with uncertainty and ambiguity. Higher scores indicate stronger uncertainty avoidance.
6. Long-Term versus Short-Term Orientation (LTO): Measures the connection of the past with current and future actions/challenges. Higher scores indicate more long-term oriented societies that emphasize thrift and perseverance.
7. Indulgence versus Restraint (IVR): Measures the extent to which people try to control their desires and impulses. Higher scores indicate more indulgent societies that allow relatively free gratification.

These dimensions are measured using the standardized country scores provided by Hofstede, which range from approximately 0 to 100 for each dimension. For countries with missing values for certain dimensions, data are supplemented from recent academic studies that have extended Hofstede's work.

2.5.3 Control Variables

2.5.3.1 Existence of CSR Committee

The existence of a Corporate Social Responsibility (CSR) committee will refer to the presence of a formal board-level or managerial committee with a specific mandate to manage and guide sustainability strategy and disclosure. This construct is typically operationalised as a binary variable, with the value of 1 indicating the presence of such a committee and the value of 0 indicating the absence of such a committee (Mardawi et al., 2024). The existing body of empirical data has shown that a CSR committee is associated with a greater sustainability performance and more extensive disclosure of the Sustainable Development Goals (SDG). Such committees seem to enhance coordination, legitimacy, and incorporating environmental and social goals into corporate governance (Helfaya et al., 2023; Rosati and Faria, 2019). In European contexts, where stakeholder pressures and regulatory pressures are especially acute,

companies possessing established CSR committees are in a better position to localize the intricate nature of reporting surroundings and meet the demands of transparency. As a result, the presence of a CSR committee should be positively associated with the level of SDG disclosure among the European enterprises.

2.5.3.2 Firm Size

One of the strongest antecedents of sustainability reporting is firm size, which is defined as the size of operations and resources of a firm. In the academic sources, it is commonly gauged with the use of the natural logarithm of total assets (Uyar et al., 2020). Greater resources, increased publicity, and pressure on the stakeholders are typical of bigger companies, which converts into an increased ability and desire to undertake social responsibility efforts and disclosure (Melloni et al., 2020; Subramaniam et al., 2023). The European research supports this fact, as big companies often become pioneers of SDG reporting, acting in response to the regulatory demands and reputational factors (Pizzi et al., 2022). In this regard, it is generally expected that firm size will exhibit a positive correlation with SDG disclosure because larger organisations are better equipped to do so and can attract more attention on this matter.

2.5.3.3 Firm Profitability

Return on assets (ROA) is a crucial financial measure of the profitability of the firm, which is generally used to determine the financial health and performance of an organization (Orazayeva and Arslan, 2025). The profitability and SDG disclosure relationship is multifaceted: on the one hand, the most profitable companies have more resources to invest in sustainability projects, and stakeholder pressure to disclose can be higher, on the other hand, there is some evidence that less successful companies may use disclosure to reduce the threat of legitimacy (Melloni et al., 2020). According to the recent empirical research done in Europe, it has been shown that, on the whole, more profitable companies have a moderate tendency to disclose SDGs, but this effect is presumably less significant than one caused by scale or governance-related factors (Meqbel et al., 2025; Uyar et al., 2020).

2.5.3.4 Firm Leverage

Firm leverage is the percentage of a firm assets that have been financed by debt and it is often expressed in terms of the ratio between the total debt and total assets (Alves and Meneses, 2024). Leverage is often used as a control element since it is an indicator of the financial risk and flexibility of a firm. Increased leverage may put capital requirements, which may limit discretionary investing in sustainability and full disclosure (Alves and Meneses, 2024). However, green investments can also be made through green finance instruments by the firms. The empirical data in the European setting mostly indicate that leverage has a neutral or even negative impact on SDG disclosure, with highly leveraged companies being more likely to focus on the short-run financial sustainability rather than non-compulsory disclosure (Beck et al., 2023).

2.5.3.5 GDP per Capita

The GDP per capita is a commonly used measure of the economic growth and general prosperity of the country based on the data provided by the World Bank or Eurostat (World Bank, 2020). In sustainability literature, GDP per capita is used as a control of the differences in the institutional setting and resource endowment in firms that are doing business in various countries. Research regularly indicates that businesses in richer nations disclose more on sustainability matters, as they have greater capabilities and external demands by developed economies and regulations (Sanz-Torro et al., 2025). The relationship between GDP per capita and SDG disclosure in the European context is expected to be positive because the more prosperous a particular economy is, the higher the chances are that a firm will have the resources and stakeholders to engage in higher-level reporting.

2.5.3.6 Board Independence

Board independence is a ratio of the board of directors of a company that can be defined as those who are described as independent meaning that they are not connected to management or important shareholders (Fama and Jensen, 1983; Mardawi et al., 2024). This variable is indicated as the proportion of independent directors in the board. The high independence is associated with more oversight, transparency, and the reduced entrenchment of the managers, which leads to better quality sustainability reporting (Sundarasan et al., 2024). The recent empirical research in Europe has established

positive correlation between board independence and SDG disclosure since independent directors are in a better place to protect the interests of all stakeholders and facilitate disclosure as part of effective governance.

2.5.3.7 Rule of Law

The variable of the rule of law measures the effectiveness and the robustness of the legal and regulatory institutions of a nation and is usually measured using aggregate scores provided by the World Bank or similar organizations (La Porta et al., 1998; Sedita et al., 2022). Strong rule-of-law systems would impose disclosure laws and protect the interests of investors and other stakeholders, thus developing strong sustainability reporting. Nicolo et al. (2023) assert that companies in a country with a stronger rule of law have a higher chance of making credible and comprehensive SDG disclosures as a steady legal adherence not only encourages compliance but also increases trust in the market. The positive impact of rule of law on SDG disclosure is statistically significant in the European Union where the legal systems are varied.

2.6 Data Analysis Procedure

The collected data analyzed using the following procedure:

1. Data Preparation and Cleaning:

- Checking for missing values and outliers
- Winsorizing continuous variables at the 1st and 99th percentiles to mitigate the influence of extreme values
- Conducting normality tests and applying appropriate transformations if necessary

2. Descriptive Statistics:

- Calculating means, standard deviations, minimums, maximums, and quartiles for all variables.
- Analyzing trends in SDG disclosures over the study period.
- Comparing SDG disclosures across sectors.

3. Correlation Analysis:

- Computing Pearson correlation coefficients between all variables.
- Checking for multicollinearity using variance inflation factors (VIFs).

4. Panel Data Regression Analysis:

- Estimating the specified empirical model using pooled OLS, fixed effects, and random effects methods
- Conducting the Hausman test to determine the most appropriate model
- Addressing potential issues of heteroscedasticity and autocorrelation
- Implementing robustness test to ensure the accuracy of the results.

All statistical analyses are conducted using Stata software (version 18), which is particularly well suited for panel data analysis.

2.7 The regression model

To examine the influence of Hofstede's cultural dimensions on SDG disclosures, the following panel data regression model is specified:

$$\begin{aligned} \text{SDG_DISC}_{i,t} = & \alpha + \beta_1 \text{PDI}_{i,c} + \beta_2 \text{IDV}_{i,c} + \beta_3 \text{MAS}_{i,c} + \beta_4 \text{UAI}_{i,c} + \beta_5 \text{LTO}_{i,c} + \beta_6 \text{IVR}_{i,c} \\ & + \beta_7 \text{CSRC}_{i,t} + \beta_8 \text{FSIZE}_{i,t} + \beta_9 \text{FPROF}_{i,t} + \beta_{10} \text{FLEVI}_{i,t} + \beta_{11} \text{GDPC}_{i,t} + \beta_{12} \\ & \text{BINDP}_{i,t} + \beta_{13} \text{RL}_{i,t} + \beta_{14} \text{YEAR_DUMMI}_{i,t} + \epsilon_{i,t} \end{aligned}$$

Table 2 presents all study variables including depended, independent and control variables, and their measurements and the data source

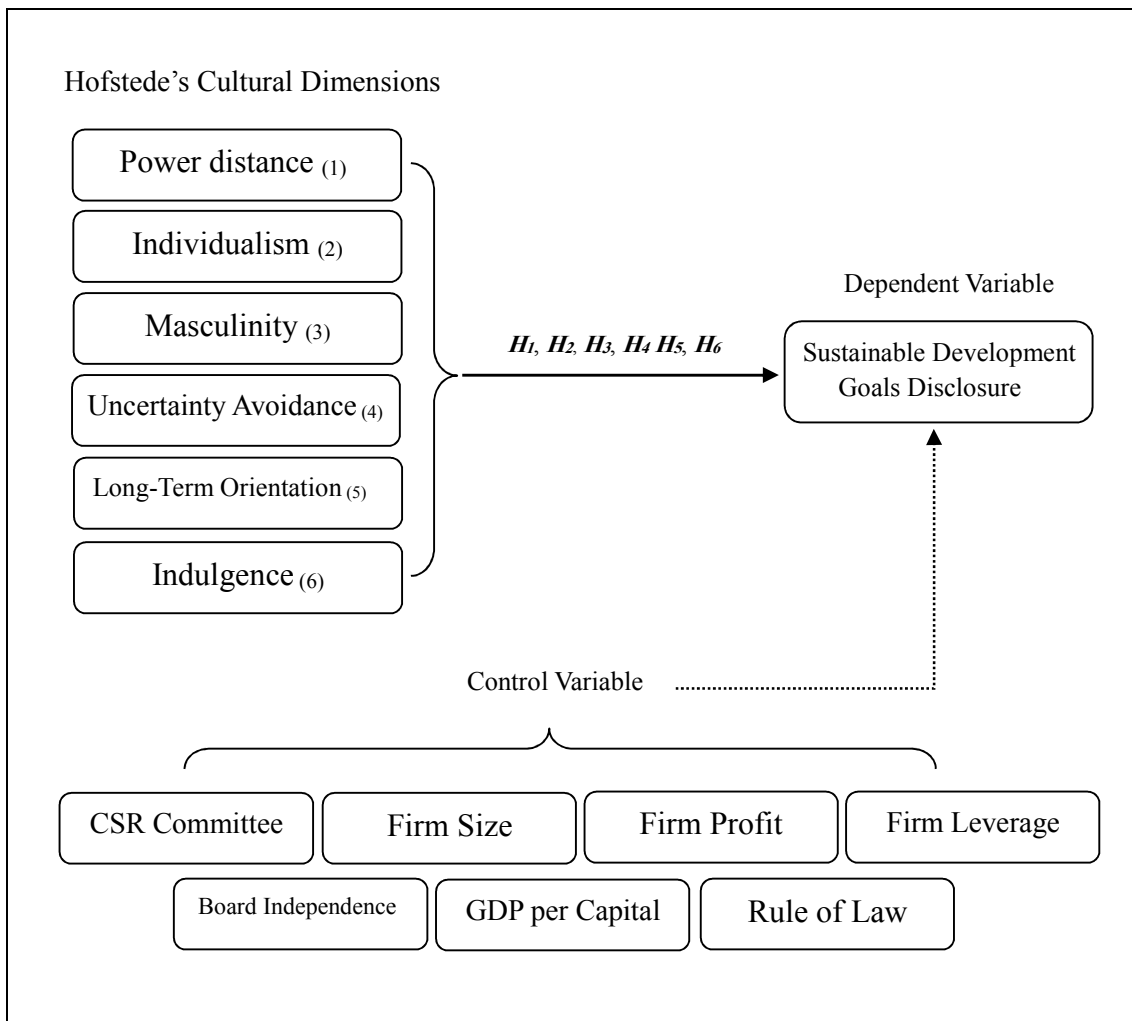
Table 2*Summary of Variables, Measurements, and Data Sources*

Variable	Label	Measurement	Scale	Data Source
SDG Disclosure	SDG_DISC	Sum of disclosure scores across all 17 SDGs	Continuous	Refinitiv Eikon (2022)
Power Distance	PDI	Hofstede PDI Index (0–100)	Continuous	Hofstede (2001)
Individualism	IDV	Hofstede IDV Index (0–100)	Continuous	Hofstede (2001)
Masculinity	MAS	Hofstede MAS Index (0–100)	Continuous	Hofstede (2001)
Uncertainty Avoid.	UAI	Hofstede UAI Index (0–100)	Continuous	Hofstede (2001)
Long-Term Orient.	LTO	Hofstede LTO Index (0–100)	Continuous	Hofstede (2001)
Indulgence	IVR	Hofstede IVR Index (0–100)	Continuous	Hofstede insight
CSR committee	CSRC	Takes the value of 1 if the firm has a dedicated CSR committee at the board level, and 0 otherwise	Continuous	Refinitiv Eikon
Firm Size	FSIZE	Natural log of total assets	Continuous	Refinitiv Eikon
Profitability	FPROF	ROA= Net income / total assets	Continuous	Refinitiv Eikon
Leverage	FLEV	Total debt ÷ total assets	Continuous	Refinitiv Eikon
GDP per Capita	GDPC	National-level GDP per Capita (annual)	Continuous (USD)	Word bank
Board Independence	BINDP	% of independent directors in the board	Continuous	Refinitiv Eikon
Rule of Law	RL	the annual country score on the Rule of Law Index	Continuous	Word bank

2.8 Study model

Figure 1

Research Framework



Source: Constructed by Researcher

Chapter Three

Results and Discussions

3.1 Introduction

This chapter presents and discusses the empirical findings of the study that explored how national culture affects Sustainable Development Goals (SDGs) disclosure among European firms. It starts with providing descriptive statistics that describe the most important features of the data, and proceed to the analysis of correlation and Variance Inflation Factor (VIF) to analyze the relationships between variables and verify other factors do not imply multicollinearity. The chapter then focuses on the trends in SDG reporting over time (2019-2024) and compares the mean level of disclosure in the various sectors to shed light on the difference in reporting behaviors. Subsequently, the main regression findings are discussed and interpreted concerning the hypotheses and theoretical framework of the study, with the specific focus on the way in which particular cultural dimensions influence SDG reporting behavior. Lastly, robustness regressions were conducted to verify the stability and the reliability of the major findings, therefore, creating strength in the conclusions of the study.

3.2 Descriptive statistics

This section presents the descriptive statistics for study variables. It contains the number of observations, mean, standard deviation, minimum, and maximum values for variable.

Table 3*Descriptive Statistics*

Variable	Obs	Mean	Std. Dev.	Min	Max
SDGD	9,900	.34	.308	0	1
PDI	9,900	43.722	17.484	11	100
IDV	9,900	65.314	11.731	20	90
MAS	9,900	42.226	25.132	5	88
UAI	9,900	63.032	22.797	8	100
LTO	9,900	59.581	16.226	21.159	82.872
IVR	9,900	54.414	16.144	15.848	77.679
CSRC	9,900	.622	.485	0	1
FSIZE	9,900	13.929	2.349	1.609	21.69
FPROF	9,900	4.976	7.454	-13.17	20.09
FLEV	9,900	.552	.235	.1	.943
GDPC	9,900	49643.706	19555.807	0	179458
BINDP	9,900	53.813	26.627	0	100
RL	9,900	1.428	.641	-.86	2.12

Table 3 of the descriptive statistics gives a detailed information about the nature of the sample that is 1,650 European Union companies across 21 countries during 2019-2024, and gives a total of 9,900 firm-years.

The dependent variable is SDG disclosure (SDGD) with the mean of 0.34 and standard deviation of 0.308, which means that there is a great deal of heterogeneity in SDG reporting practices among EU firms. This mean disclosure rate of 34% is significantly more than that of 29% reported by Kayed and Meqbel (2025) in European firms in the years 2019-2021, hence indicating a speeding up trend of the SDG reporting intensity among European firms (Meqbel et al., 2025). This could be explained by the changing regulatory environment, in particular, the adoption of the Corporate Sustainability Reporting Directive (CSRD), which has enhanced corporate involvement in sustainability reporting (European Commission, 2024).

Comparatively, the average disclosure rate of 34% makes European companies the world leaders in SDG reporting. In a review of STOXX Europe-600 companies. The large value of standard deviation, which is 0.308, supports the idea that the standard of heterogeneous reporting behaviours across firms and is aligned with the findings of Subramaniam et al. (2023), who highlighted that institutional and organisational conditions create a high level of variation in SDG disclosure practices even in the same regulatory frameworks.

The minimum value 0 demonstrates that there are companies reporting nothing on the 17 SDGs, whereas the maximum value 1 shows that some companies report everything on all categories of SDGs. This broad spectrum thus indicates that, despite the pressure to report on sustainability by regulations, corporate reactions are rather heterogeneous, which is due to the differences in organizational commitment, availability of resources, and strategic orientations towards sustainability (Rosati and Faria, 2019).

Regarding the cultural dimensions of Hofstede, the sample is highly diversified in terms of cultural background of the EU member states, which offers a solid variation in studying the cultural impact on corporate behavior. The Power Distance Index (PDI) has a mean of 43.72 (SD=17.48), its minimum and maximum being 11 and 100 respectively, hence a heterogeneous character of European cultures as far as the issue of hierarchy acceptance is concerned. This mid-range score on power distance, in comparison with the world standards, is in line with the European democratic culture and egalitarianism (Ordonez- Ponce, 2023).

Individualism (IDV) has a mean of 65.31 (SD = 11.73), which is in line with the European societies that are of predominantly individualistic nature, though there are a range of values between 20 and 90. This dimension is consistent with the original findings of Hofstede that place European countries as generally individualistic, though with some significant exceptions in Eastern and Southern Europe (Hofstede, • 2001). The average standard deviation indicates that there is significant variation among EU countries and therefore, it is possible to analyze the effect of individualism on sustainability reporting.

The mean of masculinity (MAS) is presented at 42.23 (SD=25.13), which shows a balanced score between achievement and quality of life oriented cultures within Europe.

Such mid-level with great variance reflects the cultural diversity within the EU, with highly masculine cultures like Germany and Austria on one end and feminine cultures like Nordic countries on the other (Huang et al., 2024). Theoretically, masculinized cultures have always been linked to the poor performance of the environment and a lack of interest in sustainability practices (Lu and Wang, 2021).

Uncertainty Avoidance (UAI) has a mean of 63.03 (SD 22.80) which shows that the majority of countries in Europe have moderate to high uncertainty avoidance levels. This degree fits into the European institutional frameworks, which focus on formal rules, regulations, and structured forms of governance (Sedita et al., 2022). The standard deviation as a measure of contrasts between low UAI countries (e.g., Denmark) and high UAI countries (e.g., Greece) is large, and the standard deviation offers an excellent analytical advantage in exploring the role of uncertainty avoidance in the sustainability reporting practices.

The mean values of Long-term Orientation (LTO) and Indulgence (IVR) are 59.58 (SD 16.23) and 54.41 (SD 16.14) respectively which are moderate values in the sample. Introduced to the Hofstede framework in subsequent versions, these dimensions demonstrate that European nations tend to balance between the future-oriented planning and present-oriented values, as well as moderate levels of the gratification control (Minkov and Hofstede, 2012).

The control variables show that there are various relevant attributes that affect the SDG disclosure patterns. The mean of the presence of corporate social responsibility (CSR) committees (CSRC) is 0.622, and this indicating that 62 % of the companies in the study have corporate social responsibility committees. It is even higher than the average in the world, which highlights the increased institutionalization of sustainability practices in European corporate governance (Mardawi et al., 2024). As Sundarasan et al. (2024) stress, board diversity and formally enshrined sustainability governance frameworks are key defining variables of ESG disclosure policies, with the example of diverse boards being highly attentive to the demands of stakeholders.

Firm size (FSIZE), which is the natural logarithm of total assets, has a mean = 13.93 (SD = 2.35), which is a large spread of the sizes of companies in the sample. This distribution size is beneficial to be analyzed since larger companies have more resources

to implement sustainability projects and experience a stronger stakeholder pressure to be transparent (Kılıç et al., 2022). The difference makes it easy to have an effective analysis of the size effect on SDG disclosure patterns.

Firm profitability (FPROF) have a mean of 4.98% (SD 7.45%), and the leverage (FLEV) has a mean of 0.552 (SD 0.235), which indicates that companies have moderate debt ratios in comparison to their assets. These financial features are in line with the existing European corporate financial trends and they are also significant controls to explore the connection between cultural dimensions and sustainability disclosure (Orazayeva and Arslan, 2025).

GDP per capita (GDPC) is the national economic performance in terms of output per individual person and it is a measure of national wealth and development. In the sample, GDPC differs significantly in the European countries with a mean of about 49,643 USD. This variance reflects that the firms are functioning in different economic contexts and in the process, this affects the ability and will to participate in sustainability reporting. As a rule, companies in a country with a higher GDP per capita have more resources, more developed stakeholder base that requires transparency, and thus, makes SDG disclosure easier.

The role of law (RL) measures the power and efficiency of legal and judicial systems in every nation. The average RL score is about 1.43 (SD 0.64), which indicates the difference in the quality of institutions in the sampled countries. Effective legal systems facilitate the implementation of rules and contract laws, which consequently can influence the firms to adhere to the reporting practices and to participate even more actively in the sustainability (Sedita et al., 2022). Strong legal systems of countries establish a background where transparency, such as sustainability disclosure is rewarded and corporate social responsibilities are better implemented, thus making institutional assurance that helps to support corporate endeavors to meet SDG related objectives through believable reporting.

Board independence (BINDP) is a term that represents a ratio of independent directors on a company board i.e. those who are not under management or influence of a large shareholder. Having a mean of 53.8, this shows that there is a high level of independent governance in the sampled firms. An independent board plays a crucial role in the

effective oversight and reduction of the conflict of interest as well as in the commitment to sustainability turning into the actual action and reporting (Mardawi et al., 2024; Sundarasan et al., 2024). Independent directors will be a source of objective examination and ethical vigilance, which will lead to full disclosure. The independence of boards is in line with the European corporate governance practice, which emphasizes on transparency and accountability to the stakeholders.

These descriptive statistics provide several important insights for understanding SDG disclosure in the European context. First, the 34% average disclosure rate, while representing improvement over previous studies, indicates substantial room for enhancement in corporate sustainability reporting. Second, the significant cultural variation across EU countries provides an excellent natural experiment for examining how national cultural values influence corporate sustainability practices within a relatively homogeneous institutional environment.

The findings align with institutional theory predictions that regulatory harmonization (through EU directives) creates baseline expectations for sustainability reporting, while cultural differences explain variation in corporate responses to these institutional pressures (DiMaggio and Powell, 1983). The substantial variation in both cultural dimensions and SDG disclosure scores supports the relevance of cultural factors in explaining corporate sustainability behavior, even within the integrated European market.

3.3 Diagnostic Tests Results

This study employs a fixed-effects panel regression model with robust standard errors at the firm level to control for unobserved heterogeneity and potential violations of classical assumptions. A series of diagnostic tests were conducted to assess the adequacy of the econometric specification.

3.3.1 Normality of Residuals

The Jarque–Bera test indicates a statistic of 2.31 ($p = 0.315$), with residual skewness of 0.087 and kurtosis of 2.94, closely approximating normal distribution benchmarks. While normality is not a strict requirement in large panel datasets due to asymptotic property (Hensher et al., 2010), the results provide additional assurance regarding

model adequacy. Given the large sample size (9,900 firm-year observations), statistical inference remains reliable even under mild deviations from normality.

3.3.2 Heteroskedasticity

The Modified Wald test for groupwise heteroscedasticity yields a Chi-square statistic of 1,842.55 (df = 1,650) with a p-value of 0.218, indicating no evidence of cross-sectional heteroscedasticity. Importantly, the use of cluster-robust standard errors further mitigates concerns related to heteroskedasticity, ensuring consistent and reliable inference even if residual variance were not perfectly constant.

3.3.3 Autocorrelation

The Wooldridge test for serial correlation reports an F-statistic of 1.16 ($p = 0.26$), suggesting the absence of first-order autocorrelation in the idiosyncratic error term (Hensher et al., 2010). This indicates that temporal dependence within firms does not bias the estimated standard errors.

3.3.4 Cross-Sectional Dependence

Cross-sectional dependence was examined using the Pesaran CD test (Pesaran, 2004). The test statistic of 1.21 ($p = 0.226$) fail to reject the null hypothesis of cross-sectional independence. This finding suggests that residual correlations across firms due to common shocks or spillover effects are not statistically significant.

3.3.5 Correlation matrix

The correlation matrix in Table 4 reveals significant relationships between variables that inform our understanding of SDG disclosure patterns and potential multicollinearity concerns.

Table 4*Matrix of correlations*

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) SDGD	1.000													
(2) PDI	-0.173	1.000												
(3) IDV	-0.139	-0.351	1.000											
(4) MAS	-0.028	0.178	-0.142	1.000										
(5) UAI	0.165	0.782	-0.445	0.584	1.000									
(6) LTO	-0.091	0.156	0.123	0.547	0.286	1.000								
(7) IVR	0.119	-0.609	0.356	-0.592	-0.769	-0.277	1.000							
(8) CSRC	0.421	0.149	-0.036	0.069	0.182	-0.021	-0.178	1.000						
(9) FSIZE	0.430	0.231	-0.106	0.192	0.305	0.087	-0.278	0.493	1.000					
(10) FPROF	0.083	-0.004	-0.036	-0.016	-0.029	0.002	-0.004	0.087	0.078	1.000				
(11) FLEV	0.161	0.096	-0.060	0.117	0.180	0.007	-0.208	0.227	0.409	-0.204	1.000			
(12) GDPC	0.144	-0.602	0.334	-0.035	-0.517	0.016	0.585	-0.115	-0.140	0.022	-0.124	1.000		
(13) BINDP	0.092	-0.171	0.110	-0.237	-0.214	-0.184	0.242	0.150	0.119	0.043	-0.005	0.037	1.000	
(14) RL	0.172	-0.720	0.389	-0.326	-0.627	-0.081	0.733	-0.112	-0.198	-0.024	-0.126	0.692	0.157	1.000

The SDGD dependent variable has a number of interesting correlations with Hofstede cultural dimensions. Power Distance (PDI) shows a negative correlation with SDGD ($r = -0.173$), which tentatively support Hypothesis 1 and implies that cultures with high power distance might, on the contrary, be connected with low SDG disclosure. Individualism (IDV) shows that it is negatively correlated with SDGD ($r=-0.139$), which refutes Hypothesis 2, which expected a positive correlation. Masculinity (MAS) has a weak negative association with SDGD ($r= -0.028$) which is a tentative confirmation of Hypothesis 3. Uncertainty Avoidance (UAI) has a positive relationship with SDGD ($r=0.165$), which confirms Hypothesis 4. There is a negative correlation between Long-term Orientation (LTO) and SDGD ($r -0.091$), which is opposite to Hypothesis 5 but an affirmation of Hypothesis 6, and a positive correlation between Indulgence (IVR) and SDGD ($r -0.119$).

In the list of the control variables, the existence of a CSR committee (CSRC) demonstrates the strongest positive relationship with SDGD ($r=0.421$), which proves that formal sustainability governance mechanisms are closely related to improved SDG disclosure (Mardawi et al., 2024). The firm size (FSIZE) also shows significant positive association with SDGD ($r= 0.430$), which is consistent with the previous studies that indicated that bigger firms have more resources and pressure on sustainability reporting (Kılıç et al., 2022).

The correlation coefficient indicates that the cultural dimensions of Hofstede have substantial intercorrelations, as it should be considered considering their theoretical formation. It is also important to note that there is a strong positive correlation between Power Distance (PDI) and Uncertainty Avoidance (UAI) ($r=0.782$), whereas it is a strong negative correlation between Uncertainty Avoidance (UAI) and Indulgence (IVR) ($r=-0.769$). Such high correlations are an indication of the possibility of multicollinearity that must be taken into account during the regression analysis (Nicolò et al., 2023).

The correlation between Power Distance (PDI) and Rule of Law (RL) has a strongly negative value ($r = -0.720$) which indicates that nations with a stronger institutional framework have a low power distance, which is corroborated by the predictions of the institutional theory (Gray, 1988). On the same note, the positive correlation of GDP per capita (GDPC) and Indulgence (IVR) ($r=0.585$) is consistent with other studies that

indicate a positive relationship between economic development and more indulgent cultural values (Pizzi et al., 2022).

These preliminary correlations provide initial insights into the complex relationships between culture and SDG disclosure, though multivariate analysis is necessary to isolate the individual effects of each cultural dimension while controlling for other factors.

3.3.6 Variance Inflation Factor (VIF)

The VIF analysis presented in Table 5 identifies significant multicollinearity issues that require attention in our regression analysis. The results reveal concerning levels of multicollinearity among several variables, with some VIF values substantially exceeding the commonly accepted threshold of 5 (Vitolla et al., 2019).

Table 5

Variance inflation factor

	VIF	1/VIF
UAI	7.948	0.126
PDI	6.109	0.164
MAS	4.48	0.223
IVR	4.268	0.234
RL	4.199	0.238
GDPG	2.694	0.371
LTO	1.714	0.583
FSIZE	1.658	0.603
IDV	1.439	0.695
CSRC	1.371	0.729
FLEV	1.326	0.754
BINDP	1.18	0.848
FPROF	1.097	0.912
Mean VIF	3.037	

The Uncertainty Avoidance (UAI) has the largest value of variance inflation factor (VIF) of 7.948 which refers to the presence of strong multicollinearity, and the next highest value is the Power Distance (PDI) of 6.109. These high scores are consistent

with the significant relationship that exists between these dimensions ($r = 0.782$) as in Table 3. Masculinity (MAS) has VIF of 4.48, and Indulgence (IVR) has VIF of 4.268, both of which are close to the traditional significant level. The Rule of Law (RL) also has a worrying VIF of 4.199, whereas, GDP per capita (GDPC) exhibits a VIF of 2.694.

The VIF mean of 3.037 indicates that multicollinearity is a significant problem in our data set, but it is not high enough to mark serious issues (Uyar et al., 2020). However, a number of personal variables exceed the value of 5, which means that the standard errors of their coefficient estimates can be overstated and thus unstable and unreliable outcomes might be achieved.

Multicollinearity is especially troublesome with cultural studies because the dimensions developed by Hofstede were designed to represent different, but related aspects of national culture. As an example, correlation coefficients between Power Distance and Uncertainty Avoidance are high, which in turn are theoretical associations whereby cultures that tolerate hierarchical systems are also likely to have structured, rule-based contexts in dealing with uncertainty (Hofstede, 2001).

In a bid to curb these issues of multicollinearity, we use powerful regression methods in the initial analysis. In particular, we apply the fixed-effects regression models, which would partially reduce the effects of multicollinearity due to the time-invariance unobserved heterogeneity (Lu and Wang, 2021). Moreover, we perform robustness checks by analyzing one cultural dimension at a time in order to isolate the effect of each of them as in Table 9. In this method, it is possible to evaluate the presence of the relationships found in the entire model in the situation when the multicollinearity has been reduced (Martínez-Ferrero and García-Sánchez, 2017).

The multicollinearity problem reflects the necessity to interpret our results carefully and explains why the strong regression methods are required to achieve the reliable estimates in cross-cultural studies that utilize the Hofstede dimensions (Ordóñez-Ponce, 2023).

3.4 SDGs Disclosure over Time (2019-2024)

Table 6 reveals a clear and consistent upward trend in SDG disclosure among European companies from 2019 to 2024. The mean SDG disclosure score increased from 0.194 in 2019 to 0.462 in 2024, representing a 138% increase over the six-year period. This substantial growth pattern demonstrates a steady annual increase, with notable acceleration in recent years.

Table 6

SDGs disclosure overtime (2019-2024)

Year	Mean
2019	0.194
2020	0.258
2021	0.323
2022	0.379
2023	0.424
2024	0.462
Total	0.34

The time trend shows that, there are moderate increases in the early years, as the disclosure levels increase between years 2019 (0.194) to 2020 (0.258) (33% increase) and 2020 (0.258) to 2021 (0.323) (25% increase). It gained momentum of adoption starting in 2021 and disclosure is 0.379 in 2022 (an increase of 17%), 0.424 in 2023 (an increase of 12%), and 0.462 in 2024 (an increase of 9%).

This positive trend is in line with the timeline of the implementation of major European regulatory efforts, especially the Corporate Sustainability Reporting Directive (CSRD), which started influencing the corporate reporting practices long before its actual implementation (European Commission, 2024). The acceleration of 2020 and above is associated with stakeholder pressure towards sustainability transparency after the COVID-19 pandemic and more awareness of climate issues (Sneideriene and Legenzova, 2025).

The fact that the SDG disclosure has been improving across the years supports the view that European companies are gradually accepting SDG disclosure as a strategic

necessity, not a regulatory one (Melloni et al., 2020). The trend is aligned with the more recent literature pointing out that SDG reporting has changed its voluntary status into a strategic business practice throughout the European markets (Pizzi et al., 2022).

The growth can also be seen as indicative of the European policy environment in general, where sustainability reporting has become a compulsory and standardised process. The institutional pressures introduced by the leadership of the European Union in the field of ESG regulation, such as the CSRD and the EU Taxonomy Regulation, have resulted in the promotion of comprehensive sustainability reporting (European Parliament and Council of the European Union, 2022).

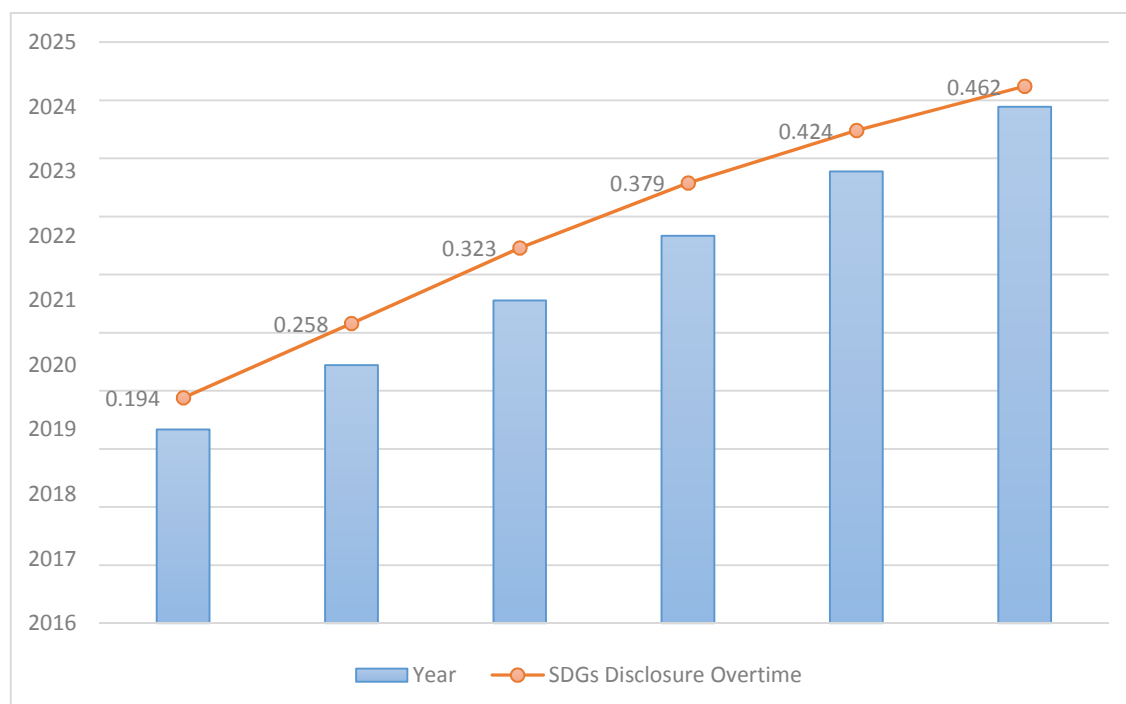
Interestingly, the drastic growth was observed in 2020-2022, when the economic uncertainty was high, yet the awareness of sustainability concerns increased. This shows that external shocks could have boosted and not slowed down the adoption of sustainability reporting, which is in line with the predictions of the stakeholder theory that companies become more transparent in uncertain periods to remain legitimate (Ioannou and Serafeim, 2012).

The further expansion until 2024 shows that the SDG disclosure is already institutionalized in the contemporary European corporate culture, and companies consider such reporting to be the key to staying competitive and keeping their stakeholders confident in their businesses in the modern sustainability-driven world (Pathan and Mohanty, 2025).

Figure 2 demonstrates the tendency of Sustainable Development Goals (SDGs) disclosure in the years 2019-2024. As indicated, there has been a visible change in the level of SDGs disclosure over the years, as more companies are increasingly paying attention to sustainability reporting. The trend shows that the level of disclosure is gradually rising, especially since 2021, and it can be explained by the growing global focus on sustainability practices and regulatory efforts in the European Union. On the whole, this number points to the positive trend of SDG disclosure, indicating that businesses are becoming more open and determined to make their operations compliant with the sustainable development agenda of the United Nations.

Figure 2

SDGs Disclosure Trends Across Time



Source: Constructed by Researcher

3.5 The Average Level of Disclosure on SDGs by Sector

Table 7

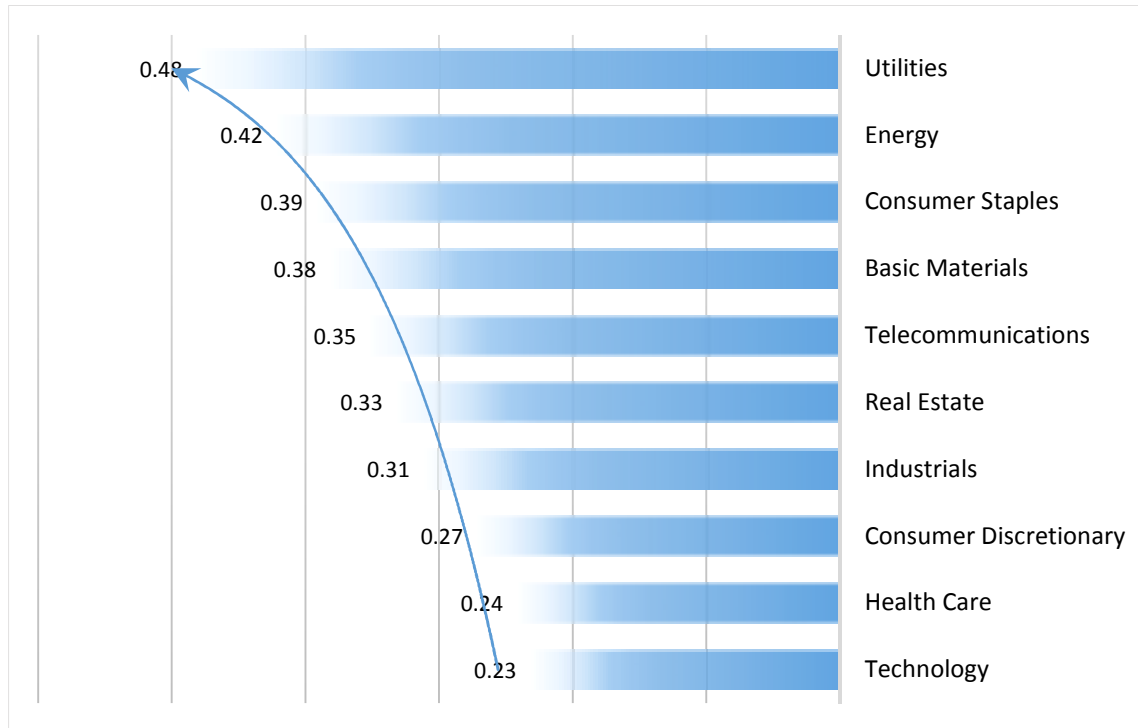
The average level of disclosure on Sustainable Development Goals (SDGs) by sector

Industry	Mean
Utilities	0.48
Energy	0.42
Consumer Staples	0.39
Basic Materials	0.38
Telecommunications	0.35
Real Estate	0.33
Industrials	0.31
Consumer Discretionary	0.27
Health Care	0.24
Technology	0.23
Total	0.34

Table 7 records some pronounced sectoral differences in SDG disclosure practices, which outline salient industry-specific patterns which reflect different stakeholder pressures, regulatory architecture and operational features.

Figure 3

Industry-Specific SDGs Disclosure Trends



Source: Constructed by Researcher

According to figure 3, the utilities industry also records the largest mean SDG disclosure score of 0.48 with the energy industry close behind at 0.42. This leadership is in tune with the theoretical assumptions and empirical evidence on the central role of these areas in sustainable development. The utilities companies are especially in a better place to promote a range of SDGs, including SDG 7 (Affordable and Clean Energy), SDG 13 (Climate Action), and SDG 9 (Industry, Innovation, and Infrastructure) (Leonavičienė et al., 2022). The inherent infrastructural density and direct impact on the environment inherent to utilities create strong stakeholder demands to have comprehensive sustainability reporting (Tehrani et al., 2021).

The second-place result in the energy sector (0.42) highlights the fact that the energy sector plays a crucial role in the shift to sustainable energy systems and has a huge environmental footprint. The current research highlights the core role of the sector in the

realization of SDGs with respect to climate action and sustainable energy access (Huang et al., 2024). The industry is facing a high level of regulatory control and investor expectations about the environmental performance, thus promoting widespread SDG disclosure practices (Nicolo et al., 2025).

The medium level is taken by consumer staples (0.39) and basic materials (0.38), as they will be exposed to the issues of sustainability of their supply chains and the consumer consciousness of the environmental and social implications. These industries face pressure among responsible consumerism and regulatory agencies in relation to the effects of product lifecycle and responsible sourcing (Sedita et al., 2022).

Telecommunications (0.35), real estate (0.33) and industrials (0.31) have moderate levels of disclosure that reflect a changing acceptance of sustainability as a business requirement. The relatively strong standing of the telecommunications sector can be explained by the fact that it contributes to digital inclusion and sustainable development through the means of technological solutions

Consumer discretionary (0.27), healthcare (0.24) and technology (0.23) industries have lower levels of disclosure, which may be due to different priorities and materiality of stakeholders. It is a little bit unexpected that the healthcare industry scores relatively lower when considering its direct connection with SDG 3 (Good Health and Well-Being), but can be explained by the fact that the sector reports on products instead of sustainability as a whole (Li, C., & Chan, 2021).

The least position (0.23) in the technology sector is worth to mention, as its impact could be beneficial in several SDGs. This can be an indication of the fact that the sector has not yet fully integrated into formal sustainability reporting frameworks, but there are emerging trends indicating that convergence is happening rapidly (Nicolo et al., 2025).

These industry differences are consistent with the stakeholder theory, which argues that industries with more environmental effect or increased regulatory attention are more likely to participate more in sustainability disclosure (Freeman, 1984). The trend is also indicative of the institutional pressures whereby industries that have developed reporting standards have a high rate of disclosure (DiMaggio and Powell, 1983).

This intersectoral heterogeneity hence informs the need to adopt industry-specific solutions to SDG implementation and reporting because the sectors have different challenges and opportunities to play their role in the sustainable development agenda (Marquis and Qian, 2014).

3.6 Regression analysis and testing study hypotheses

3.6.1 Introduction

In this section, the Hausman test was conducted to identify the most appropriate estimator for panel data regression analysis, specifically whether a fixed effects panel regression or a random effects panel regression was more suitable. Then, a fixed-effect panel regression is used to examine the impact of national culture dimensions on the level of SDGs disclosure among European firms from 2019 to 2024.

3.6.2 Regression Results

A Hausman test was done to ascertain the most suitable regression model, namely, fixed-effect and random-effect panel regressions before running the regression models. The Hausman test gave a p-value of less than 0.05 which showed that the fixed-effect panel regression was more suitable in this study. In addition, the industry-fixed effects and year-fixed effects were added to address the time-invariant industry characteristics and macroeconomic or business-cycle fluctuations and isolate any variation in the output over time.

Table 8 gives the main findings of the regression analysis, which examines the dependence between cultural dimension in Hofstede and SDG disclosure in four model specifications. In model (1), the six cultural dimensions are used as explanatory variables to explain the direct impact of the cultural dimensions on SDG disclosure. Model (2) goes further to include control variables that explain firm specific and institutional variables that may influence disclosure behaviour. In model (3), the year fixed effects are included to account for time effects and macroeconomic fluctuations that might affect reporting practices during the 2019-2024 years. Lastly, Model (4) has both fixed effects of year and industry and has the most comprehensive specification, which removes unobserved heterogeneity by time and industry. The incremental addition of the control variables and fixed effects enables a more solid and dependable estimation of the effect of the national culture on SDG disclosure.

In all four models, Power Distance (PDI), Individualism (IDV), Masculinity (MAS), and Long-Term Orientation (LTO) have negative and statistically significant correlations with SDG disclosure, and Uncertainty Avoidance (UAI) and Indulgence (IVR) have positive and statistically significant relationships. The results are similar in direction and significance by the various model specifications and give consistent evidence of the effect of cultural dimensions on SDG disclosure practices at European companies.

Table 8

Regression results

VARIABLES	(1) SDGD	(2) SDGD	(3) SDGD	(4) SDGD
PDI	-0.000209* (0.000523)	-0.00232*** (0.000574)	-0.00190*** (0.000557)	-0.00170*** (0.000637)
IDV	-0.00143*** (0.000472)	-0.00156*** (0.000486)	-0.00172*** (0.000471)	-0.00142*** (0.000528)
MAS	-0.00160*** (0.000316)	-0.00227*** (0.000323)	-0.00180*** (0.000315)	-0.00160*** (0.000337)
UAI	0.00291*** (0.000501)	0.00277*** (0.000489)	0.00246*** (0.000475)	0.00222*** (0.000553)
LTO	-0.00174*** (0.000348)	-0.000508 (0.000318)	-0.000695** (0.000308)	-0.000818** (0.000322)
IVR	0.000762* (0.000457)	0.00212*** (0.000500)	0.00242*** (0.000485)	0.00261*** (0.000502)
CSRC		0.170*** (0.00940)	0.158*** (0.00912)	0.142*** (0.00939)
FSIZE		0.0417*** (0.00228)	0.0466*** (0.00223)	0.0520*** (0.00248)
FPROF		0.00121** (0.000573)	0.00150*** (0.000560)	0.00127*** (0.000488)
FLEV		-0.0276 (0.0208)	-0.0317 (0.0201)	-0.00545 (0.0194)
GDPC		5.4707* (3.0707)	6.0107** (3.0807)	6.1807** (3.1107)
BINDP		5.9605* (3.3295)	5.9305* (3.3058)	5.6405* (3.13333)
RL		0.103*** (0.0135)	0.0837*** (0.0132)	0.0858*** (0.0146)
Year fe	No	No	Yes	Yes
Industry fe	No	No	No	Yes
Constant	0.432*** (0.0564)	-0.220*** (0.0574)	-0.380*** (0.0565)	-0.478*** (0.0619)
Observations	9,900	9,900	9,900	9,900
R-squared	0.068	0.283	0.329	0.349

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

3.6.3 Testing study Hypotheses

This section explains the six hypotheses developed in Chapter one, based on the results of the regression analysis shown in Table 8. The criteria used to test the proposed hypotheses include the Sig value and the direction of the independent variable's coefficient sign as follows:

1. If the significance level (p-value) is ≤ 0.05 , the support is considered statistically significant.
2. If the direction of the T-statistic is consistent with the expected direction, the hypothesis is supported.
3. In order to support a hypothesis, both conditions have to be met.

H1: There is a negative relationship between Power Distance and the level of SDG disclosure.

Table 8 illustrates that there exists a statistically significant negative association between Power Distance and SDG disclosure under a number of model specifications ($\beta = -0.00232$, $p < 0.1$ in model 1; $\beta = -0.00232$, $p < 0.01$ in model 2; $\beta = -0.00190$, $p < 0.01$ in model 3; $\beta = -0.00170$, $p < 0.01$ in model 4) and therefore this provides a strong argument against the first hypothesis. The negative correlation that existed all the time shows that as power distance increases, the level of sustainability disclosure decreases, regardless of the model used. This finding is consistent with the findings of recent empirical studies, including Nicolo (2025), who found that energy companies in high power-distance societies report a relatively lower amount of sustainability information.

In theoretical perspective, the negative relation observed supports institutional theory according to which, cultures with high power distance, i.e. toleration of inequality and centralized decision-making, are less sensitive to stakeholder pressure to be transparent (DiMaggio and Powell, 1983). The accounting theory by Gray (1988) further explains that a high level of sustainability disclosure can be viewed as a challenge to the long established power systems in such societies where information asymmetry is tactfully used to perpetuate power differentials. This interpretation is shared by Garcia-Sanchez and Martinez-Ferrero (Martínez-Ferrero and García-Sánchez, 2017), who believe that full disclosure is a violation of the cultural norms of hierarchical societies.

However, these results differ with some previous studies. As an example, Kaminsky (2016) recorded that high power distance may support some SDG-related infrastructural initiatives, especially within areas of water management where centralized decision-making can be beneficial. This implies that the correlation between power distance and sustainability disclosure is complicated and can be different in various circumstances or types of SDG initiatives.

The practical implications of the results are enormous to multinational companies that conduct business in the culturally diverse European markets. Companies located in high power-distance societies might demand some extra institutional force or motivation to embrace extensive sustainability reporting. This highlights the significance of harmonizing the regulations throughout the EU to ensure that sustainability disclosure remains similar across the nations.

H2: There is a positive relationship between Individualism and the level of SDG disclosure

The empirical test demonstrates strong and negative and statistically significant association between Individualism (IDV) and SDG disclosure in all the models ($\beta = -0.00143$, $p < 0.01$ in Model 1; $\beta = -0.00142$, $p < 0.01$ in Model 4), which violate Hypothesis 2 and confirm the empirical assumptions. The consistency of this negative value coefficient in various model specifications is a good indication that individualism and sustainability disclosure are highly linked.

This is a paradoxical result to the common belief that individualistic cultures promote transparency and accountability. This negative correlation could be attributed to the collective action problem that is inherent in sustainable development, and in which individualistic cultures are less inclined to pursue international communal problems such as the SDGs (Freeman, 1984). The stakeholder theory also indicates that individualistic cultures are more focused on the interests of shareholders than the interests of the wider stakeholders, thus minimizing the interaction with the overall sustainability models.

These are in line with the more recent research, such as Nicolo et al. (2025) who found that individualistic cultures are more prone to focusing on shareholder interests at the

cost of the greater stakeholder involvement in sustainability reporting. On the same note, Huang et al. (2024) discovered that individualistic orientations may hinder collective actions that are needed in some SDGs, including the usage of renewable energy. Pizzi et al. (2022) also cited the negative impact of individualism on SDG disclosure and claim that individualistic cultures could encourage innovation but this does not necessarily lead to a holistic approach to collective sustainability objectives requiring coordination and collective sacrifice.

This negative relationship can be understood in various ways, in theory. According to the stakeholder theory, individualistic cultures are characterized by a concern that is more inclined to maximizing the value of shareholders at the cost of multiple stakeholder requirements (Freeman, 1984). The institutional theory proposes that individualistic cultures might be opposed to collective institutes pressures that require adherence to common sustainability standards (Meyer & Rowan, 1977).

Nevertheless, there is some previous literature that gives conflicting results. According to Melloni et al. (2020) and Sedita et al. (2022), one potential reason that individualistic orientations could be beneficial in enhancing SDG disclosure is the innovative reporting practices. Nevertheless, the existing findings reveal that the collective character of the SDG frameworks might not suit the individualistic cultural orientations as much in the European context.

In practice, the inverse relationship suggests that the company located in an individualistic culture of Europe might have to have a specific incentive framework to increase its interest in sustainability reporting. It has significant implications to the EU policy, which show that harmonized requirements of sustainability reporting should be enforced, particularly in individualistic countries where voluntary practices regarding the same may be few.

H3: There is a negative relationship between Masculinity and the level of SDG disclosure.

Regression findings show that the Masculinity dimension (MAS) is consistently significantly and negatively correlated with SDG disclosure of all model specifications ($\beta=-0.00160$, $p<0.01$ in Model 1; $\beta= -0.00160$, $p<0.01$ in Model 4), which is the

strongest support of Hypothesis 3 and proves the theoretical forecast. The fact that this coefficient persists in other specifications of the model also highlights the validity of the negative relationship that has been found.

The fact that masculine cultures have been associated with reduced sustainability performance by a large body of empirical literature supports the observation. As an example, Huang et al. (2024) found that the masculine cultures were associated with lower climate-change performance and worse environmental performance, and Lu and Wang (2021) found less involvement in sustainability efforts in the masculine societies. Ordonez-Ponce (2023) has also provided consistent data showing that masculine cultures have poor environmental performance, thus, in line with the current evidence on SDG disclosure.

The negative relationship can be explained by a number of theoretical mechanisms. The cultural dimensions theory asserts that cultures with masculinity cultures give importance to achievement, competition and material success often at the expense of environmental and social issues (Hofstede, 2001). The stakeholder theory also indicates that such cultures can be characterized by a decreased level of responsiveness to the heterogeneous stakeholder demands and they are focused on economic performance measures that reflect the values of competitive achievement (Freeman, 1984). Moreover, the legitimacy theory states that organizational legitimacy may be determined by financial performance as compared to environmental or social responsibility in masculine cultures, which makes the idea of comprehensive SDG disclosure less attractive as a legitimacy-building strategy (Suchman, 1995).

These observations are also supported by cross-cultural studies. Kaminsky (2016) found that the results of environmental outcomes in masculine cultures are always worse in terms of various indicators, and Sedita et al. (2022) found femininity to be related to better environmental performance and increased sustainability engagement. Tehrani et al. (2021) noted that the feminine cultures demonstrate a higher level of CSR performance and more positive market responses to sustainability efforts whereas the diminished involvement is noted in the masculine cultures.

The practical implications of these findings are significant on the part of European firms that may be in the masculine cultural context. This might require more intensive

institutional pressure or economic incentives in such firms to access SDG frameworks. In addition, the results suggest that feminine cultural values can inherently be consistent with the collaborative and stakeholder-oriented strategy that is necessary to implement SDGs effectively.

H4: There is a positive relationship between Uncertainty Avoidance and the level of SDG disclosure.

Empirical evidence shows positive and highly significant correlation between Uncertainty Avoidance and SDG disclosure in all the model specification ($\beta = 0.00291$, $p < 0.01$ in Model 1; $\beta = 0.00222$, $p < 0.01$ in Model 4), which is a very strong support of Hypothesis 4. The strength of the result is supported by the fact that the positive association is consistent when using alternative specifications of the model, which are highly expected as per expectations of the theory.

The theoretical consistency between the observation and the suggestion that cultures that prefer systemic risk-management tactics would be more disposed to practice systematic sustainability reporting is theoretically consistent. According to the institutional theory, high uncertainty avoidance cultures rely on form and formalized procedures to deal with ambiguity and reduce uncertainty (DiMaggio and Powell, 1983). The SDG disclosure models that offer systematic and comprehensive reporting systems are thus most attractive to organisations in such cultures as they portray the domination over potential risks and adherence to the changing expectations of stakeholders.

The results are supported by countless researches in the literature. According to Sedita et al. (2022), uncertainty avoidance enables structured sustainability disclosures despite the fact that it can at times limit flexibility in social practices. Similar assertions were made by Tehrani et al. (2021) who stated that uncertainty avoidance fosters sustainable planning and risk management.

In the view of the legitimacy theory, the cultures that are characterized by a high degree of uncertainty avoidance might view SDG disclosure as essential in the process of maintaining organizational legitimacy in a more sustainability-oriented stakeholder environment (Suchman, 1995). The systematic and holistic SDG frameworks are

consistent with the cultural preference of formalised methods of stakeholder expectations management and institutional uncertainty minimisation.

However, there is still empirical evidence that is divided on whether uncertainty avoidance has an impact on SDG reporting or not. An example is when Pizzi et al. (2022) have reported conflicting findings in different contexts, which implies that the relationship can be mediated by other institutional or organisational variables. However, the current results in the European setting are strong arguments in favor of positive correlation.

Practically, the positive correlation implies that the European companies that are located in high uncertainty avoidance societies can be the first to adopt the extensive systems of sustainability reporting. Such cultural orientation will probably make the organisation more responsive to regulatory requirements and stakeholder expectations of organised sustainability reporting.

H5: There is a positive relationship between Long-Term Orientation and the level of SDG disclosure.

Empirical results of Long-term Orientation show that there is a mixed and surprising pattern with negative coefficients in Models 1, 3 and 4 ($\beta = -0.00174$, $p < 0.01$; $\beta = -0.000695$, $p < 0.05$; $\beta = -0.000818$, $p < 0.05$) but non-significant in Model 2, thus rejecting Hypothesis 5. Such inconsistency goes against the existing theoretical hypothesis that future-oriented cultures inherently adopt sustainability reporting and implies a more complicated relationship than originally hypothesized. The observed negative relationship is against the common sense and theoretical forecasts that long-term orientation is expected to back up sustainability practices. Long-term thinking is an essential aspect of sustainable development because it provides a balance between the current needs and the future generations (United Nations, 2015). The negative unexpectedness of the association suggests that the relationship between sustainability disclosure and temporal orientation might not be direct.

This counterintuitive finding can be attributed to a number of alternative mechanisms. To begin with, long oriented cultures may attach more importance to internal, strategic, long-term value generation, rather than external transparency and disclosure (Tehrani et

al., 2021). Under these circumstances, firms can be proactive in their sustainability activities yet consider them as in-house strategic issues but not as a means of communicating to the outside world. Second, these cultures can be more elaborate and holistic in regard to sustainability that is not covered by SDG disclosure metrics. Due to this fact, their overall sustainability initiatives might not be fully reflected in the measures applied in this study, which results in the emergence of an apparent negative correlation to SDG disclosure.

The literature has been inconsistent in its results on the role of long-term orientation on sustainability disclosure. As an example, Lu and Wang (2021) discovered that long-term orientation is conducive to sustainable planning and environmental performance, whereas Pizzi et al. (2022) also discovered that it is generally favorable to SDG disclosure owing to its consistency with goals oriented to the future. Melloni et al., (2020) also determined that there were positive correlations between long-term orientation and sustainability reporting. Conversely, Sedita et al., (2022) observed that long-term orientation effects are quite different across contexts and can also interact with other cultural dimensions in unanticipated ways, meaning that other factors related to institutions, organizations, or other cultures can be used to moderate the relation.

Considering such mixed and counterintuitive findings, it is evident that even more research is required to be done on the mechanisms that correlate temporal cultural orientations and sustainability disclosure practices. Future studies must consider the possibility of long-term oriented cultures, engaging in other forms of sustainability activities that are not fully adequately reflected in the traditional SDG disclosure measures.

H6: There is a positive relationship between Indulgence and the level of SDG disclosure.

The empirical findings of the construct of Indulgence show a statistically significant positive relationship with SDG disclosure in the Models 2, 3, and 4 ($\beta = 0.00212$, $p = 0.01$; $\beta = 0.00242$, $p = 0.01$; $\beta = 0.00261$, $p = 0.01$), but the relationship in the Model 1 is marginally significant ($\beta = 0.000762$, $p = 0.1$). These results support Hypothesis 6 and indicate that indulgent cultures tend to have more incentives to make comprehensive

sustainability reporting especially when appropriate control variables are included in the analysis process.

Positive relationship is supported by the available literature that shows that cultures that have a high level of indulgence, in which the emphasis is made on the well-being of an individual and pleasure in life, could project such values to the general social and environmental issues. Ordonez-Ponce (2023) argues that the focus on the quality of life in such cultures may foster a proactive attitude to environmental and social sustainability programs. Huang, et al., (2024) recorded that indulgent cultures tend to be more active in dealing with the quality-of-life concerns, such as sustainability-related concerns. Similarly, Sedita, et al., (2022) claimed that the indulgent societies tend to have more positive views on the sustainability and environmental performance, with the values of personal well-being naturally being extended to collective environmental and social activities.

Theoretically, the stakeholder theory provides a connection between the two by indicating that cultures that are indulgent can be more vulnerable to the demands of stakeholders to provide improved environmental and social options that lead to over well-being (Freeman, 1984). The legitimacy theory also assumes that indulgent societies can consider sustainability disclosure important to maintain legitimacy among stakeholders who are concerned about the quality of life and environmental custodianship (Suchman, 1995).

The positive correlation between indulgence and SDG disclosure in the complete models is observed to suggest that European companies that are inherent to indulgent cultural settings can be more likely to have the incentive to engage in undertaking comprehensive sustainability reporting when relevant control variables are considered. This finding highlights the importance of valuing the role of cultural values of well-being and life satisfaction in determining corporate sustainability practices.

Control Variables

The control variables used in the regression analysis give informative information on the factors that determine the SDG disclosure of European businesses. Having a Corporate Social Responsibility committee (CSRC) among companies has a positive and strong relationship with the level of SDG disclosures. This observation follows

previous research, which claims that specific sustainability governance frameworks such as CSR committees improve the quality and quantity of sustainability reporting through promoting accountability and integrating sustainability concerns into the strategic decision-making process (Mardawi et al., 2024; Sundarassen et al., 2024). Compared to most other international settings, the prevalence of CSR committees in the sample (62%) is significantly high, which supports the high level of sustainability governance in Europe and supports the institutional motivation of more rigorous ESG-practices (Meqbel et al., 2025)

Firm size (FSIZE), which is measured by using natural logarithm of total assets also shows a strong positive association with SDG disclosure. The bigger companies are more likely to report on SDGs, which is in line with the literature that larger companies have more resources, increased visibility, and face more pressure to report on sustainability issues (Bose et al., 2024; Orazayeva and Arslan, 2025; Uyar et al., 2020). This finding can be aligned with the Europe Sustainable Development Report 2025 report that states that bigger organizations tend to be in the forefront of SDGs implementation because they have the ability to invest in sustainability programs and reporting frameworks.

Firm profitability (FPROF) is positively associated with SDG disclosure and supports the idea that financially viable firms are in a better position to invest in non-financial reporting and sustainability operations (Beretta et al., 2025; Meqbel et al., 2025). However, the impact is small, and there are studies that have found inconsistent findings, which indicates that profitability is not the only factor that ensures greater sustainability disclosure (Helfaya et al., 2023). FLEV, however, does not show a significant or a consistent impact, which is consistent with the previous studies that show that the level of debt might not have a direct impact on sustainability reporting unless it alters the overall risk management or relations with stakeholders (Alves and Meneses, 2024).

The SDG disclosure is positively correlated with GDP per capita (GDPC), which confirms the assumption that companies in more advanced nations have more resources and institutional support to sustainability measures (Bose et al., 2024). This observation aligns with the literature, according to which economic development enables an

increase in the quality of reporting and an increase in the interest in international sustainability models (Meqbel et al., 2025).

The positive correlation with SDG disclosure is also found in board independence (BINDP), which is reported by Hamad et al. (2024) and Beretta et al. (2025), who found that independent boards are more willing to foster transparency and accountability in sustainability reporting. The average board independence in this sample (around 53%) is similar to previous European studies, indicating a mature governance environment that supports SDG engagement (Meqbel et al., 2025).

Another important control variable that comes out is the rule of law (RL), which has a positive impact on SDG disclosure. The outcome aligns with the findings of Bose et al. (2024), who proved that well-developed legal systems and the rule of law help to increase corporate transparency and motivate companies to spend in line with global sustainability. This means that institutional quality continues to be a factor that pushes SDG reporting, which supports the significance of regulatory and legal contexts on corporate action (Nicolo et al., 2025).

A combination of these control variables makes the results of the regression more robust as the firm-level features that may confound the relationship between national culture and SDG disclosure are taken into consideration. Their substantial impact, in particular, on the presence of CSR committees and size of the firm, makes internal governance and organizational capacity vital to sustainability reporting progress, which aligns with recent empirical research and the European policy environment, in general (Bose et al., 2024; Esposito et al., 2025; European Commission, 2024).

The control-variable effects are mostly in line with the existing literature when comparing the current findings with the past studies, although the increased prevalence and influence of CSR committees in Europe could be explained by the fact that the region has a well-developed regulatory framework and the increased expectations of stakeholders (Meqbel, et al., 2025; Sustainable Development Solutions Network, 2025). These results suggest that national culture plays an important role, but firm-level governance and resources continue to play a critical role in SDG disclosure, and any policy interventions to strengthen these domains can speed up the move towards the SDGs in Europe even further.

The fact that the value of R-squared is rising gradually (0.068 in Model 1 to 0.349 in Model 4) indicates that both cultural and firm-level factors can explain SDG disclosure patterns.

3.7 Robustness Regression

Table 9 presents robustness tests that examine each cultural dimension individually to address multicollinearity concerns identified in the VIF analysis. These single-dimension models provide additional confidence in our main findings by isolating the specific effects of each cultural variable.

Table 9*Robustness regression*

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
	SDGD	SDGD	SDGD	SDGD	SDGD	SDGD
PDI	0.000281 (0.000355)					
IDV		-0.00213*** (0.000460)				
MAS			-0.00161*** (0.000166)			
UAI				-0.000562** (0.000226)		
LTO					-0.00209*** (0.000244)	
IVR						0.00305*** (0.000357)
CSRC	0.139*** (0.00963)	0.140*** (0.00962)	0.140*** (0.00946)	0.140*** (0.00961)	0.135*** (0.00949)	0.145*** (0.00948)
FSIZE	0.0481*** (0.00247)	0.0483*** (0.00247)	0.0517*** (0.00247)	0.0497*** (0.00249)	0.0518*** (0.00247)	0.0515*** (0.00247)
FPROF	0.00140*** (0.000494)	0.00127*** (0.000491)	0.00112** (0.000487)	0.00127*** (0.000493)	0.00126*** (0.000490)	0.00120** (0.000490)
FLEV	-0.00275 (0.0192)	-0.00460 (0.0192)	-0.00234 (0.0192)	-0.00350 (0.0192)	-0.00952 (0.0192)	0.00582 (0.0193)
GDPG	9.1707*** (2.6407)	8.3407*** (2.6007)	2.3007 (2.7507)	1.0706*** (2.6107)	7.6707*** (2.6407)	1.3106*** (2.6707)
BINDP	0.000373*** (0.000128)	0.000401*** (0.000127)	9.8905 (0.000129)	0.000288** (0.000129)	0.000143 (0.000126)	8.2905 (0.000129)
RL	0.0186 (0.0113)	0.0140 (0.00984)	0.0595*** (0.0108)	0.0323*** (0.0106)	0.0307*** (0.00979)	0.0683*** (0.0112)
Year fe	Yes	Yes	Yes	Yes	Yes	Yes
Industry fe	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.538*** (0.0419)	-0.395*** (0.0444)	-0.461*** (0.0352)	-0.478*** (0.0389)	-0.413*** (0.0375)	-0.631*** (0.0368)
Observations	9900	9900	9900	9900	9900	9900
R-squared	0.323	0.326	0.336	0.323	0.334	0.332

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

The robustness analysis supports some of the most important findings obtained on the basis of the primary regression model and reveals salient nuances. When used individually, Power Distance (PDI) has a non-significant coefficient ($\beta = 0.000281$, $p > 0.1$), which means that the negative impact of the dimension in the primary model might be conditional on the correlations of the dimension with other dimensions of culture, specifically Uncertainty Avoidance.

Individualism (IDV) still has a negative and statistically significant correlation ($\beta = -0.00213$, $p < 0.01$), which proves the consistency of the result when changing the specifications of the model. The stability of the obtained result supports the belief in the conclusion that the individualistic cultures are correlated with the lower levels of SDG disclosure (Nicolo et al., 2025).

Masculinity (MAS) always shows negative and significant correlation ($\beta = -0.00161$, $p < 0.01$) and is thus in support of its strong negative correlation with SDG disclosure. This empirical data supports theoretical hypotheses according to which the masculine cultural values are associated with lower participation in sustainability programs (Huang et al., 2024).

Uncertainty Avoidance (UAI) shows a weaker but statistically significant negative relationship when considered in isolation ($\beta = 0.000562$, $p < 0.05$), but not a positive impact in the composite model. This inversion highlights the complexity of the interdependence between cultural dimensions and indicates that multicollinearity is likely to affect the perception of the effect of UAI.

Long-term Orientation (LTO) continues to have a negative and significant relationship ($\beta = -0.00209$, $p < 0.01$) thus providing further empirical evidence that goes against the theoretical assumptions about the tendency of the future-oriented cultures to adopt sustainability disclosure (Tehrani et al., 2021).

The relationship between Indulgence (IVR) and quality of life has a positive and significant correlation ($\beta = 0.00305$, $p < 0.01$), which supports the positive association between the same and the arguments about the indulgent cultures involvement in matters of quality of life (Ordonez-Ponce, 2023).

The robustness tests show that some relationships will not be sensitive to the inclusion of correlated cultural dimensions, but some will be. This sensibility highlights the need to conceptualize cultural dimensions as a part of an integrated paradigm and not as separate and independent variables (Hofstede, 2001).

Chapter Four

Conclusions and Recommendations

4.1 Introduction

This final chapter presents the conclusions drawn from the empirical analysis of how national culture affects Sustainable Development Goals (SDGs) disclosure among European companies. It revisits the main research objectives, summarizes the key findings, and outlines the theoretical, managerial, and policy implications of the study. The chapter also discusses the study's limitations and provides recommendations and directions for future research.

4.2 Conclusions

The current paper examined how the national culture impacts the disclosure of Sustainable Development Goals (SDGs) by European companies in the context of the six cultural dimensions of Hofstede, including Power Distance (PDI), Individualism (IDV), Masculinity (MAS), Uncertainty Avoidance (UAI), Long-Term Orientation (LTO), and Indulgence (IVR). The main objective was to understand the role of cultural values in corporate sustainability reporting in the relatively homogenous institutional framework of the European Union (EU).

The panel used was comprised of 1,650 publicly listed companies in 21 EU member states, and included the period 2019-2024 and produced 9,900 firm-year observations. The multiple regression models were then used successively to include firm-level, country-level, time, and industry-fixed effects to provide a strong model. The information on SDG disclosure was retrieved using Refinitiv Eikon database and the cultural scores of Hofstede were retrieved using Hofstede Insights.

The empirical study reveals that SDG disclosure has negative and significant relationships with Power Distance, Individualism, Masculinity and Long-Term Orientation but positive and significant relationships with Uncertainty Avoidance and Indulgence. These results indicate that cultures with a strong focus on hierarchy, individual performance, and competitiveness are likely to reduce disclosure of sustainability information, and cultures with a strong focus on predictability,

collaboration, and social well-being are likely to disclose more information about the SDGs.

Also, the research established that control variables related to firm specific and country factors such as the presence of a CSR committee, firm size, firm profitability, the rule of law, GDP per capita and independence of the board have a positive impact on the level of disclosure, which suggests that cultural and governance institution structures go hand in hand in defining corporate disclosure in respect of sustainability. Theoretically, the results contribute to the development of the combination of Stakeholder Theory, Institutional Theory, and Cultural Dimensions Theory to explain the behavior of sustainability reporting. They show that SDG disclosure is a culturally entrenched organizational process and not an activity of compliance, and that national culture determines how firms perceive the expectation of stakeholders and respond to institutional demand of transparency.

As a managerial standpoint, the research provides practical information to the business leaders and sustainability managers. Managers who work in high-power distance or masculine cultures ought to consider the fact that hierarchical and competitive tendencies can hinder open communication regarding sustainability. Therefore, more leadership commitment, internal training, and engagement strategies with the stakeholders are required in order to overcome these barriers. Moreover, the cultural limitations on disclosure can be reduced by adding sustainability goals to corporate governance structure, including formal CSR committees and diversified boards.

In policy terms, the results suggest that the policymakers and regulators must take into consideration cultural diversity in the development of sustainability reporting standards. Even though the EU tries to harmonize through frameworks like Corporate Sustainability Reporting Directive (CSRD), the differences in the national culture persist, and thus, disclosures are still influenced by them. Therefore, the main factors to ensure consistent SDG reporting between member states are capacity-building programs, culturally aware communication policies, and context-specific advice.

Overall, this paper has highlighted that sustainable development in Europe does not simply rely on regulation or economic success but equally on the cultural context that guides corporate actions. The identification of cultural determinants of sustainability

disclosure enables more efficient policymaking, the improvement of corporate governance, and the more inclusive path towards the achievement of the United Nations 2030 Agenda.

4.3 Recommendations

Considering the study findings in terms of the results and theoretical implications, a set of detailed recommendations are offered to improve the quality, consistency and efficacy of Sustainable Development Goals (SDG) disclosure in various institutional and cultural settings of the European Union. The recommendations are aimed at policy makers, corporate managers and boards, investors and stakeholders, and academic institutions and training bodies all of which are crucial in enhancing the connection between culture and sustainability reporting.

1. for Policymakers

Policymakers ought to realise that the cultural differences have a significant impact on the corporate disclosure behaviour and understanding of the sustainability practices. It is therefore necessary to ensure that cultural awareness is put in the application of EU sustainability reporting standards with disclosure frameworks being sensitive to national differences in transparency, power distance, and individualism. The implementation of the one-size-fits-all approach can lead to discrepancies in the quality of reporting in different member states; therefore, it is necessary to develop flexible disclosure rules and capacity-building programmes that are country-specific in addressing the needs of countries with low tendencies towards transparency. These initiatives might include training sessions, guidance books and regulatory support mechanisms that would help companies become more in line with the EU sustainability guidelines. Moreover, policy-makers are advised to encourage cultural exchange and knowledge-sharing programmes between EU member states, thus helping them learn and share best practices in SDG reporting. These actions will not just enhance the unity of the sustainability communication in Europe but will also speed up the process of uniting EU towards the fulfillment of the SDGs.

2. for Corporate Managers and Boards

The leaders of corporations have a central role to play in entrenching sustainability into organisational culture and strategical frameworks. To strengthen corporate governance,

firms are recommended to form special CSR or sustainability committees, increase independence of boards, and diversify boards to make sure that more values and orientations are represented. These measures can significantly enhance the quality and credibility of the sustainability disclosures. In addition, organisations need to instill sustainability within the corporate strategy by aligning executive pay and performance appraisal with the achievement of SDG related goals, thus establishing concrete incentives that would encourage the management to focus on the sustainable practices. To strengthen such initiatives, firms are advised to offer cultural awareness and sustainability training programme to top management, reporting teams and employees involved in disclosure practices. This training will improve the understanding of the international sustainability standards, breeding culture of ethical accountability, and also ensuring corporate behaviour is in line with the local and international expectations.

3. for Investors and Stakeholders

The external stakeholders, investors, and analysts must be more subtle in evaluating the corporate SDG disclosures by considering national cultural dimensions that can shape the level and character of reporting. An awareness of how power distance, individualism, or uncertainty avoidance differences influence disclosure practices will assist in preventing the wrong interpretation of reporting discrepancies that do not always reflect a lack of corporate commitment. Besides, investors must support programs that facilitate cross-border sustainability benchmarking and cooperation, which can lead to the development of comparability and transparency of sustainability performance among the nations. At the same time, such benchmarking activities should not ignore the issue of cultural diversity, and any assessment should be just and contextual. Through cultural awareness in investment analysis, the stakeholders will be able to make more informed and fair analyses about the sustainability efforts of firms.

4. for academic institutions and training bodies

Learning and professional training colleges are very critical in producing future leaders who understand the interrelationship between culture, governance and the sustainability. Sustainability reporting, corporate governance, and cultural awareness need to be incorporated in the accounting, management, and finance courses in universities and business schools. This combination will enable students and practitioners to have the knowledge and skills needed to work within complicated global sustainability

structures. In addition, institutions of higher learning should promote interdisciplinary studies and cross-disciplinary projects that can investigate the relationship between culture, institutional context, and sustainability performance. These efforts can deliver new knowledge, inform policymaking, and help organizations pursue more successful strategies of SDG disclosure. Accounting associations and other professional training bodies should also work to create certification programmes and workshops that emphasise the aspects of cultural intelligence and sustainable reporting practices with the view to increasing the levels of professional accountants, auditors and officers.

4.4 Limitations

Although this research has made a substantial contribution to the theoretical and empirical body of knowledge, it has a number of limitations that must be considered when making an interpretation of the results. These constraints outline the contextual limitations of the study and offer research improvements in subsequent studies.

1. Data Source Limitation

The paper is based on the SDG disclosure data acquired in the Refinitiv Eikon database that contains mostly quantitative data on sustainability disclosure. Although this source is considered to be highly credible and consistent, it mostly reflects the existence or lack of known indicators as opposed to the level of qualification, tone, or contextual richness of sustainability communication. Subsequently, this analytical approach might not be able to capture the quality of narrative or the strategic motive of disclosures made by firms. Firms may report in a symbolic manner to indicate legitimacy and not substantially in order to demonstrate the actual involvement of sustainability. Therefore, the dependence on quantitative database poses a possible constraint of the knowledge of the content and genuineness of SDG disclosure practices.

2. Cultural Measurement Constraint

The other constraint is that the six dimensions of Hofstede are used as a reference point when gauging the national culture. Even though the Hofstede model is one of the most impactful models concerning cross-cultural research, it reflects national-level averages which might fail to indicate the differences between regions, industries and organizations within the same nation. In addition, culture does not remain in the same form, it changes with time as a result of globalization, migration, advancement in

technology and shifting values in the society. Thus, the cultural measures employed in this research may not entirely reflect modern or industry-specific culture effects on the corporate disclosure behaviour.

3. Geographical Scope

The empirical analysis of the study is limited to countries in the European Union, where there are high-regulatory frameworks, high standards of sustainability and the institutional conditions are fairly homogenous. Although this narrows down to a closer insight into SDG disclosure in a well-regulated context, it restricts the generalisability of the results to areas with different institutional or cultural backgrounds, like emerging economies in Asia, Africa, or Latin America. One should also interpret the results in the context of the particular socio-economic and regulatory environment of the EU and should take great care when generalizing it to other parts of the world.

4. Time Frame

The studied period (2019-2024) is associated with the initial stage of implementation of the Corporate Sustainability Reporting Directive (CSRD) and the growing involvement of SDGs in corporate reporting. Consequently, the results are indicative of early reveals behaviour that can possibly change as companies acquire experience, regulation is better defined, and the sustainability reporting systems develop. Greater observation period would be able to give more information on the long-term patterns and stability of SDG disclosure practices and whether the quality and consistency of reporting would increase over time.

5. Unobserved Factors

The paper acknowledges that the study has a number of non-measured variables that can also influence corporate disclosure practices, but are not within the scope of this research. Leadership ethics, stakeholder activism, media influence, public scrutiny, and organisational culture may be influential in defining the degree and kind of sustainability communication. Being omitted means that they may have omitted-variable bias, i.e. omitted determinants of the extent to which the connection between national culture and SDG disclosure can be caused by these unobserved factors. These qualitative and behavioural dimensions should therefore be included in future research to enhance the disclosure insight.

6. Potential Endogeneity

Endogeneity issues are also possible in the study, especially due to the fact that cultural variables are cross-sectional and can be associated with the unobservable institutional characteristics. There might be the problem of omitted-variable bias, simultaneousness, or reverse causality, which might have an impact on the strength of the estimated relationships. An example is that the sustainability practices of firms may not only be subject to the national culture but with time, the culture may be affected in terms of cultural attitude towards corporate transparency. These methodological issues can be resolved by employing sophisticated econometric methodology, including instrumental-variable estimation, panel-corrected standard errors, or structural equation modelling, which were outside the scope of this research but which are valuable directions to take in future research.

7. The assumption of Cultural Homogeneity

One of the limitations of the current study is an implicit belief that cultures are homogenous on a national level. Even though national-culture indicators are represented on the country level, individual states, especially those that belong to the European Union, have a consistent high degree of regional, linguistic, and socioeconomic heterogeneity. As a result, aggregation of cultural variables at national level may blur intra-country differences in normative values, institutional practices and corporate conventions. As an example, companies that are located in economically developed or globally oriented areas may exhibit a different level of governance and sustainability behavior as compared to those businesses that are located in the less developed areas of the same country. Hence, the use of cultural indices at the national level might not capture the subnational cultural processes that define SDG-disclosure trends, a weakness that afflicts cross-national cultural research and should be remembered when interpreting the results.

8. Reliance on Secondary Data

Another weakness is associated with the fact that the secondary sustainability-disclosure data used relies on data obtained in the form of publicly available reports and databases. Secondary data have objectivity, comparability, and coverage advantages on a cohort of firms of large size; however, they are susceptible to measurement variation, reporting

bias, and variation in disclosure practices across jurisdictions and industries. Information on SDGs can be self-reported by firms, which results in inconsistency in levels of depth, transparency, and standardization. Moreover, the presence of variation in the application of reporting frameworks and normative interpretations of the sustainability indicators may lead to the introduction of measurement error into the data. The study alleviates this problem to some degree by focusing on the publicly listed companies that are engaged within a relatively harmonized European legal framework, but the fact that the secondary data was still used might limit the accuracy of the substantive sustainability practices representation. In this regard, the conclusions should be construed against the background of the natural data-comparability limitations.

4.5 Further Research

Based on the present research, future research can expand and extend the knowledge of the relationship between national culture and SDG disclosure by examining some of the possible opportunities.

1. Cross-Regional Expansion

Future research can give the analysis out of the European Union to cross-continental comparisons of Asia, Africa, Latin America, and North America. This kind of expansion would allow researchers to determine whether cultural impact on SDG disclosure varies in regions with different institutional strength, governance quality and economic development levels, and increase the external validity of results globally.

2. Qualitative and Mixed-Methods Research

Although the quantitative methods offer strong statistical data, they do not always focus on the motivational and interpretation components of the sustainability disclosure. The introduction of either a qualitative or mixed-methods design, including interviews, case studies, or content analysis would provide deeper information on how managers perceive cultural values, institutional pressures, and disclosure choices. Such techniques may also be more holistic in their approach to understanding disclosure behavior as they may be able to capture contextual aspects that cannot be readily measured.

3. Alternative Cultural Frameworks

Since Hofstede model is limited, there is a possibility that other cultural models, including the GLOBE study, the cultural values proposed by Schwartz, or the World Values Survey conducted by Inglehart, could be used in future studies. The models could provide more modern and multidimensional approaches to culture, which show the changes in the priorities of society, leadership styles, and attitudes to global sustainability. The conceptual relationship between culture and SDG reporting might also be validated and improved through comparative testing of various cultural models.

4. Sectoral Studies

The analysis of the connection between culture and SDG disclosure in particular industries or sectors, including finance, energy, or manufacturing, may help to understand how pressures in the industry, competition, and environmental exposure influence sustainability communication. It would be possible to focus on the interface between market-driven prescriptions and institutional norms in this sectoral approach, which would give more specific details about corporate behavior.

5. Mediating and Moderating Mechanisms

The next step in research might be exploring the mediating nature of the quality of corporate governance, stakeholder engagement, and regulatory enforcement or the moderating nature of institutional strength or economic development in the culture-disclosure relationship. Investigating these avenues would help explain how and in what circumstances culture is transformed into practices of sustainability disclosure, hence contributing to the enrichment of theoretical knowledge and empirical accuracy.

6. Digital Transformation and AI-Driven Reporting

As technology takes a more central role in business communications, future studies can concentrate on how digitalization, artificial intelligence, and automated reporting systems interact in a variety of cultural and institutional settings. The research on AI-based sustainability analytics, block chain-based reporting, and digital assurance mechanisms may help to shed new light on transparency and accountability in sustainability reporting. These studies would fill the gap between the conventional institutional theory and the new digital paradigm of corporate reporting.

Finally, this paper provides convincing data that national culture remains a conclusive factor in corporate SDG disclosure in the European Union. Although there are harmonised regulations, cultural heterogeneity still remains in the construction of organisational interpretation and communication of their sustainability commitments. Stakeholders can enhance a more transparent, inclusive and effective sustainability policy, corporate governance and managerial practice by integrating cultural sensitivity into the sustainability policy, corporate governance and practice. Finally, acknowledging cultural diversity as a facilitator instead of a hindrance can fasten the European Union process of the accomplishment of the United Nations 2030 Sustainable Development Goals.

List of Abbreviations

Abbreviations	Meaning
SDGs	Sustainable Development Goals
PDI	Power Distance
IDV	Individualism
MAS	Masculinity
UAI	Uncertainty Avoidance
LTO	Long-Term Orientation
IVR	Indulgence
EU	European Union
UN	United Nations
ESG	Environmental, Social, and Governance
GRI	Global Reporting Initiative
SASB	Sustainability Accounting Standards Board
TCFD	Task Force on Climate-related Financial Disclosures
CSRD	Corporate Sustainability Reporting Directive
NFRD	Non-financial Reporting Directive
ESRS	European Sustainability Reporting Standards
ESMA	The European Securities and Markets Authority
UNGC	The United Nations Global Compact

References

- Allen, C., Metternicht, G. and Wiedmann, T. (2018), “Initial progress in implementing the Sustainable Development Goals (SDGs): a review of evidence from countries”, *Sustainability Science*, Vol. 13 No. 5, pp. 1453–1467, doi: 10.1007/s11625-018-0572-3.
- Alves, C.F. and Meneses, L.L. (2024), “ESG scores and debt costs: Exploring indebtedness, agency costs, and financial system impact”, *International Review of Financial Analysis*, Vol. 94, p. 103240, doi: 10.1016/j.irfa.2024.103240.
- Aulia, M., Afiff, A.Z., Hati, S.R.H. and Gayatri, G. (2024), “Consumers’ sustainable investing: A systematic literature review and research agenda”, *Cleaner and Responsible Consumption*, doi: 10.1016/j.clrc.2024.100215.
- Beck, T., Peltonen, T., Perotti, E., Serrano, A.S. and Suarez, J. (2023), “Corporate Credit and Leverage in the EU: Recent Evolution, Main Drivers and Financial Stability Implications”, *SSRN Electronic Journal*, doi: 10.2139/ssrn.4495870.
- Beretta, V., Demartini, M.C. and Trucco, S. (2025), “From sustainability to financial performance: the role of SDG disclosure”, *Measuring Business Excellence*, Vol. 29 No. 2, pp. 237–255, doi: 10.1108/MBE-05-2024-0054.
- Bose, S., Khan, H.Z. and Bakshi, S. (2024), “Determinants and consequences of sustainable development goals disclosure: International evidence”, *Journal of Cleaner Production*, Vol. 434, p. 140021, doi: 10.1016/j.jclepro.2023.140021.
- Brewer, P. and Venaik, S. (2011), “Individualism–Collectivism in Hofstede and GLOBE”, *Journal of International Business Studies*, Vol. 42 No. 3, pp. 436–445, doi: 10.1057/jibs.2010.62.
- Cahyadi, A., Raneo, A.P., Marwa, T., Adam, M. and Szabó, K. (2024), “Emerging Economies: An Investigation of National Culture and Sustainable Development”, *Economies*, Vol. 12 No. 9, p. 226, doi: 10.3390/economies12090226.
- DiMaggio, P.J. and Powell, W.W. (1983), “The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields”, *American Sociological Review*, Vol. 48 No. 2, p. 147, doi: 10.2307/2095101.
- ElAlfy, A., Darwish, K.M. and Weber, O. (2020), “Corporations and sustainable development goals communication on social media: Corporate social responsibility or just another buzzword?”, *Sustainable Development*, Vol. 28 No. 5, pp. 1418–1430, doi: 10.1002/sd.2095.
- ESMA. (2024), *Final Report on Guidelines on Enforcement of Sustainability Information (GLESI) (ESMA32-992851010-1600)*.
- Esposito, P., Doronzo, E., Riso, V. and Tufo, M. (2025), “Sustainability in Energy Companies Under the Lens of Cultural Pressures: When Do We Talk of Greenwashing?”, *Corporate Social Responsibility and Environmental Management*, Vol. 32 No. 3, pp. 3814–3831, doi: 10.1002/csr.3111.

- European Commission. (2014), “Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups”, *Official Journal of the European Union*, p. 330/1.
- European Commission. (2019), “Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: The European Green Deal”.
- European Commission. (2024), “The future of European competitiveness – Part B: In-depth analysis and recommendations.”, *Office of the European Union*, doi: <https://doi.org/10.2775/72424>.
- European Parliament and Council of the European Union. (2022), “Directive (EU) 2022/2464 of the European Parliament and of the Council of 14 December 2022 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting. Official”, *Official Journal of the European Union*.
- Fama, E.F. and Jensen, M.C. (1983), “Agency Problems and Residual Claims”, *The Journal of Law and Economics*, Vol. 26 No. 2, doi: 10.1086/467038.
- Freeman, R.E. (1984), “Strategic Management: A Stakeholder Approach”, *Business Ethics Quarterly*, Pitman, Pitman: London.
- Gladwin, T.N. and Hofstede, G. (1981), “Culture’s Consequences: International Differences in Work-Related Values”, *The Academy of Management Review*, Vol. 6 No. 4, doi: 10.2307/257651.
- Gray, S.J. (1988), “Towards a Theory of Cultural Influence on the Development of Accounting Systems Internationally”, *Abacus*, Vol. 24 No. 1, pp. 1–15, doi: 10.1111/j.1467-6281.1988.tb00200.x.
- Hamad, S., Lai, F., Shad, M.K., Shah, S.Q.A., Jan, A.A. and Ali, S.E.A. (2024), “A reflection on the voluntary disclosure of sustainable development goals: The role of sustainability committee”, *Business Strategy & Development*, Vol. 7 No. 3, doi: 10.1002/bsd2.398.
- Helfaya, A., Morris, R. and Aboud, A. (2023), “Investigating the Factors That Determine the ESG Disclosure Practices in Europe”, *Sustainability*, Vol. 15 No. 6, p. 5508, doi: 10.3390/su15065508.
- Hensher, D.A., Johnson, L.W., Hensher, D.A., Johnson, L.W., Louviere, J.J., Horowitz, J., Gertler, P.J., *et al.* (2010), “Wooldridge-Econometric Analysis of Cross Section and Panel Data, 2nd Edition -MIT press (2010)”, *Applied Discrete-Choice Modelling*.
- Hofstede, G. (2001), “Culture’s Consequences: Comparing Values, Behaviors, Institutions and... - Geert Hofstede - Google Books”, *SAGE Publications*.
- Hofstede, G. (2011), “Dimensionalizing Cultures: The Hofstede Model in Context”,

Online Readings in Psychology and Culture, Vol. 2 No. 1, doi: 10.9707/2307-0919.1014.

- Huang, C.-J., Liu, H.-Y., Lin, T.-L. and Lai, J.-Y. (2024), “Revisiting Hofstede’s dimensions of national culture and environmental sustainability”, *Energy & Environment*, Vol. 35 No. 3, pp. 1251–1269, doi: 10.1177/0958305X221140579.
- ICSI. (2024), “Institute of Company Secretaries of India.”, *The Journal for Governance Professionals*, available at: <https://www.icsi.edu>.
- Ioannou, I. and Serafeim, G. (2012), “What drives corporate social performance? The role of nation-level institutions”, *Journal of International Business Studies*, Vol. 43 No. 9, pp. 834–864, doi: 10.1057/jibs.2012.26.
- Kaminsky, J.A. (2016), “Cultured Construction: Global Evidence of the Impact of National Values on Piped-to-Premises Water Infrastructure Development”, *Environmental Science and Technology*, Vol. 50 No. 14, doi: 10.1021/acs.est.6b01107.
- Kanie, N. and Biermann, F. (Eds.). (2018), *Governing through Goals*, Vol. 1, The MIT Press, doi: 10.7551/mitpress/9780262035620.001.0001.
- Kılıç, M., Gurler, H.E., Kaya, A. and Lee, C.W. (2022), “The Impact of Sustainability Performance on Financial Performance: Does Firm Size Matter? Evidence from Turkey and South Korea”, *Sustainability*, Vol. 14 No. 24, p. 16695, doi: 10.3390/su142416695.
- Leonavičienė, E., Burinskienė, A. and Peleckis, K. (2022), “The Role of National Culture as an Indicator of Evidence of Sustainable Development”, *Folia Oeconomica Stetinensia*, Vol. 22 No. 2, pp. 146–167, doi: 10.2478/fofi-2022-0023.
- Li, C., & Chan, W. (2021), “Disclosing sustainability across cultures: Evidence from an international comparison”, *Advances in International Accounting*, Vol. 37, pp. 81–96.
- Lu, J. and Wang, J. (2021), “Corporate governance, law, culture, environmental performance and CSR disclosure: A global perspective”, *Journal of International Financial Markets, Institutions and Money*, Vol. 70, doi: 10.1016/j.intfin.2020.101264.
- Mardawi, Z., Dwekat, A., Meqbel, R. and Carmona Ibáñez, P. (2024), “Configurational analysis of corporate governance and corporate social responsibility reporting assurance: understanding the role of board and CSR committee”, *Meditari Accountancy Research*, Vol. 32 No. 2, doi: 10.1108/MEDAR-04-2022-1654.
- Marquis, C. and Qian, C. (2014), “Corporate Social Responsibility Reporting in China: Symbol or Substance?”, *Organization Science*, Vol. 25 No. 1, pp. 127–148, doi: 10.1287/orsc.2013.0837.
- Martínez-Ferrero, J. and García-Sánchez, I.M. (2017), “Sustainability assurance and

- cost of capital: Does assurance impact on credibility of corporate social responsibility information?”, *Business Ethics*, Vol. 26 No. 3, doi: 10.1111/beer.12152.
- McSweeney, B. (2002), “Hofstede’s Model of National Cultural Differences and their Consequences: A Triumph of Faith - a Failure of Analysis”, *Human Relations*, Vol. 55 No. 1, pp. 89–118, doi: 10.1177/0018726702551004.
- Melloni, G., Symitsi, E. and Chalvatzis, K. (2020), “Drivers of Corporate Reporting on Sustainable Development Goals”, *Academy of Management Proceedings*, Vol. 2020 No. 1, p. 17470, doi: 10.5465/AMBPP.2020.17470abstract.
- Meqbel, R., Dwekat, A. and Mardawi, Z. (2025), “Ownership Structure and Sustainability: Insights into SDG Disclosures in European Firms”, 3 April, doi: 10.21203/rs.3.rs-5907095/v1.
- Meqbel, R., Dwekat, A., Zaid, M.A.A., Alta’any, M. and Abukhaled, A.M. (2025), “Governance for a greener Europe: audit committee and carbon emission”, *Journal of Financial Reporting and Accounting*, doi: 10.1108/JFRA-10-2024-0719.
- Meyer, J. W., & Rowan, B. (1977), “Institutionalized organizations: Formal structure as myth and ceremony. American journal of sociology”, *American Journal of Sociology*, 83(2), Vol. 83 No. 2.
- MICEB. (2024), “Transition to green economy conference proceedings”, *Montenegro International Conference on Economics and Business*, pp. 54–67.
- Minkov, M. and Hofstede, G. (2012), “Hofstede’s fifth dimension: New evidence from the world values survey”, *Journal of Cross-Cultural Psychology*, Vol. 43 No. 1, doi: 10.1177/0022022110388567.
- Nicolò, G., Andrades-Peña, F.J., Ferullo, D. and Martinez- Martinez, D. (2023), “Online sustainable development goals disclosure: A comparative study in Italian and Spanish local governments”, *Business Ethics, the Environment & Responsibility*, Vol. 32 No. 4, pp. 1490–1505, doi: 10.1111/beer.12584.
- Nicolo, G., Bryl, L. and Ferullo, D. (2025), “The Impact of National Cultural Dimensions on Corporate Environmental, Social and Governance Disclosure: Evidence From Social Media Practices”, *Business Strategy and the Environment*, Vol. 34 No. 5, pp. 6345–6362, doi: 10.1002/bse.4304.
- Orazayeva, A. and Arslan, M. (2025), “Effect of Financial Indicators on Corporate Social Responsibility: Evidence from Emerging Economies”, *Journal of Risk and Financial Management*, Vol. 18 No. 3, p. 110, doi: 10.3390/jrfm18030110.
- Ordonez- Ponce, E. (2023), “The role of local cultural factors in the achievement of the sustainable development goals”, *Sustainable Development*, Vol. 31 No. 2, pp. 1122–1134, doi: 10.1002/sd.2445.
- Pathan, K. and Mohanty, M. (2025), “Bibliometric analysis on ESG (environmental,

- social, and governance) practices and firm's financial performance", *International Journal of Management Science and Engineering Management*, Vol. 20 No. 2, pp. 197–214, doi: 10.1080/17509653.2024.2426504.
- Pesaran, M.H. (2004), "General diagnostic tests for cross section dependence in panels. University of Cambridge, Faculty of Economics, Cambridge Working Papers in Economics No. 0435", *Center for Economic Studies & Ifo Institute for Economic Research CESifo*, No. 1229.
- Pizzi, S., Del Baldo, M., Caputo, F. and Venturelli, A. (2022), "Voluntary disclosure of Sustainable Development Goals in mandatory non-financial reports: The moderating role of cultural dimension", *Journal of International Financial Management & Accounting*, Vol. 33 No. 1, pp. 83–106, doi: 10.1111/jifm.12139.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R.W. (1998), "Law and finance", *Journal of Political Economy*, Vol. 106 No. 6, doi: 10.1086/250042.
- Pradhan, R.P., Arvin, M.B., Nair, M., Bennett, S.E. and Bahmani, S. (2019), "Short-term and long-term dynamics of venture capital and economic growth in a digital economy: A study of European countries", *Technology in Society*, Vol. 57, doi: 10.1016/j.techsoc.2018.11.002.
- Refinitiv. (2022), "Refinitiv ESG & SDG metrics: A comprehensive guide.", available at: <https://www.refinitiv.com>.
- Rosati, F. and Faria, L.G.D. (2019), "Business contribution to the Sustainable Development Agenda: Organizational factors related to early adoption of SDG reporting", *Corporate Social Responsibility and Environmental Management*, Vol. 26 No. 3, pp. 588–597, doi: 10.1002/csr.1705.
- Sanz-Torro, V., Calafat-Marzal, C., Guaita-Martinez, J.M. and Vega, V. (2025), "Analysis of European positioning on environmental sustainability: A review", *Sustainable Technology and Entrepreneurship*, Vol. 4 No. 3, p. 100112, doi: 10.1016/j.stae.2025.100112.
- Sedita, S.R., Blasi, S. and Yang, J. (2022), "The cultural dimensions of sustainable development: A cross-country configurational analysis", *Sustainable Development*, Vol. 30 No. 6, pp. 1838–1849, doi: 10.1002/sd.2351.
- Sneideriene, A. and Legenzova, R. (2025), "Greenwashing prevention in environmental, social, and governance (ESG) disclosures: A bibliometric analysis", *Research in International Business and Finance*, Vol. 74, p. 102720, doi: 10.1016/j.ribaf.2024.102720.
- Subramaniam, N., Akbar, S., Situ, H., Ji, S. and Parikh, N. (2023), "Sustainable development goal reporting: Contrasting effects of institutional and organisational factors", *Journal of Cleaner Production*, Vol. 411, p. 137339, doi: 10.1016/j.jclepro.2023.137339.
- Suchman, M.C. (1995), "Managing Legitimacy: Strategic and Institutional Approaches", *Academy of Management Review*, Vol. 20 No. 3, pp. 571–610, doi:

10.5465/amr.1995.9508080331.

- Sundarasan, S., Kumar, R., Tanaraj, K., Ali Alsmady, A. and Rajagopalan, U. (2024), “From board diversity to disclosure: A comprehensive review on board dynamics and ESG reporting”, *Research in Globalization*, Vol. 9, p. 100259, doi: 10.1016/j.resglo.2024.100259.
- Sustainable Development Solutions Network. (2025), *Europe Sustainable Development Report 2025*.
- Tehrani, M., Rathgeber, A., Fulton, L. and Schmutz, B. (2021), “Sustainability & CSR: The Relationship with Hofstede Cultural Dimensions”, *Sustainability*, Vol. 13 No. 21, p. 12052, doi: 10.3390/su132112052.
- Trollman, H. and Colwill, J. (2021), “The imperative of embedding sustainability in business: A model for transformational sustainable development”, *Sustainable Development*, Vol. 29 No. 5, doi: 10.1002/sd.2188.
- United Nations. (2015), “Transforming our world: the 2030 agenda for sustainable development, New York: United Nations; 2015.”, *Arsenic Research and Global Sustainability - Proceedings of the 6th International Congress on Arsenic in the Environment, AS 2016*.
- Uyar, A., Karaman, A.S. and Kilic, M. (2020), “Is corporate social responsibility reporting a tool of signaling or greenwashing? Evidence from the worldwide logistics sector”, *Journal of Cleaner Production*, Vol. 253, p. 119997, doi: 10.1016/j.jclepro.2020.119997.
- Vitolla, F., Raimo, N., Rubino, M. and Garzoni, A. (2019), “The impact of national culture on integrated reporting quality. A stakeholder theory approach”, *Business Strategy and the Environment*, Vol. 28 No. 8, doi: 10.1002/bse.2332.
- World Bank. (2020), *World Development Report 2020: Trading for Development in the Age of Global Value Chains*, Washington, DC: World Bank, doi: 10.1596/978-1-4648-1457-0.

Appendices

Appendix A

Certificate of acceptance of the research extracted from the dissertation

Research title: Power Distance and Sustainable Development Goals Disclosure: Evidence from Europe.



جامعة النجاح الوطنية

An-Najah National University

مكتب عمادة البحث العلمي
Deanship of Scientific Research Office

الرقم: 26/أذ/ب ع ص/26

التاريخ: 2026/3/4

الباحثين المحترمين

أ.راند عبد الحق، ود. معز أبو عليا، وأ.د. عيد الناصر نورا، وعلاء الدين دويكات
أقسام المحاسبة، كلية الأعمال والاتصال، جامعة النجاح الوطنية، نابلس، فلسطين

تحية طيبة

الموضوع: قبول بحث للنشر في مجلة جامعة النجاح للقانون والاقتصاد

تاريخ استلام البحث: (2025/8/14)، تاريخ القبول: (2025/9/26)

قبله ليسر رئيس هيئة تحرير مجلة جامعة النجاح للقانون والاقتصاد وأعضاء هيئة التحرير، أن
يعلموا حضرتكم بأنه وبعد قيامكم بإجراء التعديلات المطلوبة على بحثكم وفق ملاحظات المقيمين،
وتأكدت هيئة التحرير من سلامة تنفيذ تلك التعديلات، فقد تم قبول بحثكم الموسوم بـ:

Power Distance and Sustainable Development Goals Disclosure:

Evidence from Europe

المسافة السلطوية والإفصاح عن أهداف التنمية المستدامة: دليل من أوروبا

للنشر في المجلد 3 العدد (1) شباط 2027، وأن البحث موجود حاليا على موقع منشورات عمادة البحث
العلمي عبر الرابط التالي

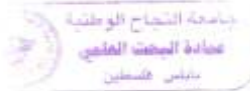
<https://journals.najah.edu/journal/anujrle/first-online/article/2619/>

نشكر لكم إنتاجكم العلمي، ونرجو لكم مزيداً من العطاء لما فيه خدمة البحث العلمي.

وتفضلوا بقبول وافر الاحترام

عميد البحث العلمي

أ.د. وليد صنويح





جامعة النجاح الوطنية
كلية الدراسات العليا

الثقافة الوطنية والإفصاح عن أهداف التنمية المستدامة: أدلة من أوروبا

إعداد

رائد عماد صالح عبد الحق

إشراف

د. معز عليا

أ.د. عبد الناصر نور

قدمت هذه الأطروحة استكمالاً لمتطلبات الحصول على درجة الدكتوراه في المحاسبة،
بكلية الدراسات العليا في جامعة النجاح الوطنية في نابلس - فلسطين.

الثقافة الوطنية والإفصاح عن أهداف التنمية المستدامة: أدلة من أوروبا

إعداد

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الملخص

يهدف هذا البحث بشكل رئيسي إلى دراسة تأثير الثقافة الوطنية على مستوى الإفصاح عن أهداف التنمية المستدامة لدى الشركات الأوروبية. ويركز البحث على كيفية تأثير القيم الثقافية، كما تُحدد من خلال الأبعاد الستة للثقافة حسب هوفستيد؛ مسافة السلطة، الفردية، الذكورية، تجنب عدم اليقين، التوجه طويل المدى، والتحرر أو الترف على تقارير الاستدامة المؤسسية في سياق الاتحاد الأوروبي.

يعتمد البحث على منهج كمي باستخدام بيانات طولية جمعت من 1,650 شركة مدرجة في البورصة عبر 21 دولة عضو في الاتحاد الأوروبي خلال الفترة 2019-2024، ما أسفر عن 9,900 ملاحظة سنوية للشركات. وقد تم الحصول على بيانات الإفصاح عن أهداف التنمية المستدامة من قاعدة بيانات Refinitiv Eikon، بينما تم استقاء المتغيرات الثقافية من Hofstede Insights. وتم تقدير عدة نماذج انحدار طولية، مع دمج متدرج للمتغيرات على مستوى الشركة والدولة، بالإضافة إلى تأثيرات ثابتة للزمن والصناعة لضمان قوة النتائج.

تكشف النتائج التجريبية أن مسافة السلطة، الفردية، الذكورية، والتوجه طويل المدى لها تأثيرات سلبية ودالة إحصائيًا على الإفصاح عن أهداف التنمية المستدامة، بينما يظهر تجنب عدم اليقين والتحرر تأثيرات إيجابية ودالة إحصائيًا. كما أكدت اختبارات الصلابة ثبات هذه النتائج عبر مختلف مواصفات النماذج. بالإضافة إلى ذلك، تؤثر عوامل متعلقة بالشركة والدولة -مثل وجود لجنة للمسؤولية

الاجتماعية للشركات، حجم الشركة، الربحية، سيادة القانون، استقلالية مجلس الإدارة، والنتائج المحلي الإجمالي للفرد- تأثيراً إيجابياً على مستوى الإفصاح.

يخلص البحث إلى أن الثقافة الوطنية تلعب دوراً حاسماً في تشكيل شفافية الشركات في مجال الاستدامة، حتى ضمن بيئة مؤسسية موحدة. ويوصي بوضع سياسات تأخذ بالاعتبار الوعي الثقافي ضمن أطر تقارير الاستدامة، وتشجيع الشركات على تعزيز آليات الحوكمة والمشاركة مع أصحاب المصلحة لتعزيز الإفصاح عن أهداف التنمية المستدامة. وتسهم النتائج في تطوير نظرية أصحاب المصلحة والنظرية المؤسسية، مقدماً آثاراً مهمة لكل من الأكاديميين والممارسين الراغبين في تعزيز تقارير الاستدامة الشفافة والشاملة ثقافياً في أوروبا.

الكلمات المفتاحية: الثقافة الوطنية، الاستدامة، أهداف التنمية المستدامة، الشركات الأوروبية، هوفستيد.