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Evaluating ESG Transparency in the Portuguese Textile Sector: A Design Science Approach to Framework Development and Comparative Disclosure Analysis

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Abstract

This thesis explores the relationship between Environmental, Social, and Governance (ESG) transparency and the sustainability performance and competitiveness of Portuguese textile companies. Positioned within the Design Science Research (DSR) framework, the study develops and applies a comparative ESG reporting evaluation model, focusing on publicly disclosed data sourced from company websites, sustainability reports, certifications, and the Refinitiv Workspace platform. A total of 69 Portuguese textile firms, categorized by revenue, were assessed and classified into three ESG transparency levels: high, medium, and low.

The findings reveal a strong correlation between company size and ESG disclosure practices, with larger firms displaying significantly higher transparency. Conversely, small and medium-sized enterprises (SMEs) often lack structured ESG communication, making them underrepresented in global ESG databases and less competitive in sustainability-driven markets. This transparency gap highlights both structural barriers and missed opportunities for these firms.

The study concludes that ESG transparency is not merely a tool for compliance or reputation management but a strategic asset that contributes to long-term competitiveness and alignment with global sustainability goals. Recommendations include enhanced support for SMEs, greater harmonization of reporting standards, and broader recognition of ESG practices in underrepresented markets. The research contributes to advancing both academic discourse and practical frameworks for sustainability in the textile sector.

Keywords: ESG Transparency, Sustainability Reporting, Textile Industry, Competitiveness, Portugal

Index

1. Introduction....3

2. Literature Review....6

2.1. Conceptual Foundations....6

2.2. Methodology and Search Process....7

2.3. Purpose of Search String Diversity....9

2.4. Prisma Flow Diagram....10

2.5. Paper Inclusion and Exclusion Criteria....10

2.6. Literature Review Table....11

2.7. Critical Analysis of the Literature....14

3. Research Design....17

3.1. Method Identification....17

3.2. Design Science Research Framework and Its Application....18

3.3. Artifact Description....20

3.4. Assessment of the Artifact....21

4. Methodology....23

4.1 Dataset Identification and Sampling Strategy....23

4.2 ESG Transparency Levels and Indicator Selection....24

4.3 Scoring Procedure and Consistency Controls....26

5. Results and Interpretation....27

5.1 Grouping by Revenue....27

5.2 Overview of ESG Transparency Levels....27

5.3 Distribution of Transparency by Revenue Group....27

5.4 Key Insight: ESG Transparency Correlates with Company Size....28

5.5 Implications for Competitiveness and Sustainability....28

5.6 Limitations and Contextual Factors....29

5.7. Summary and Theorical Implications....29

6. Conclusion and Future Directions 31
6.1.1. Main Finding 1: ESG Transparency Correlates Strongly with Company Size 31
6.1.2. Structural Barriers to ESG Visibility Among SMEs 32
6.1.3. ESG Transparency as a Competitive Enabler 33
6.2. Addressing the Research Question.. 34
6.3. Future Research Directions 35
6.4. Final Reflection 36
7. Reflection on the Sustainable Development Goals 38
7.1.1. Contribution to SDG 12: Responsible Consumption and Production........................ 38
7.1.2. Contribution to SDG 9: Industry, Innovation, and Infrastructure 38
7.1.3. Contribution to SDG 8: Decent Work and Economic Growth.................................... 38
7.2. Broader Alignment.. 38
7.3. Final Reflection 38
References 40
Appendix 43

1. Introduction

The textile and apparel industry plays a vital role in global economic development but also ranks among the most environmentally and socially intensive sectors. According to the United Nations Environment Programme (UNEP), the industry accounts for an estimated 2 to 8 % of global greenhouse gas emissions. Its environmental footprint extends further: it consumes nearly 79 thousand million cubic meters of fresh water annually, with projections indicating a 50 % increase by 2030. Despite this, only 21 % of major textile companies responding to the CDP's water security questionnaire identify water pollution as a substantive strategic risk, highlighting a persistent lack of transparency and engagement (United Nations Environment Programme, 2023). These figures reflect a broader pattern of limited environmental accountability and reporting, even as stakeholder demands for sustainability rise.

In this context, Environmental, Social, and Governance (ESG) practices have become a strategic imperative. Stakeholders, including investors, regulators, consumers, and civil society, increasingly expect companies to not only act responsibly but to communicate their sustainability performance with transparency. In the European Union, the Corporate Sustainability Reporting Directive (CSRD), introduced in 2023, marks a significant shift by requiring over 50 000 companies, including many in the textile sector, to disclose standardized, audited ESG information (European Commission, 2024). This regulatory pressure reinforces the idea that ESG reporting is no longer optional or symbolic, but central to business resilience and market access.

However, the implementation of ESG disclosure is far from uniform. Research shows that many ESG reports lack depth, comparability, and clarity. Some companies use sustainability reports as reputational tools rather than performance documents, focusing on symbolic compliance instead of measurable outcomes (Boiral, 2013). Similarly, assessments of Global Reporting Initiative (GRI), based reports reveal inconsistencies and gaps that undermine stakeholder trust (Hąbek & Wolniak, 2015). These findings raise important questions about whether ESG reporting truly enhances sustainability performance or merely provides an illusion of accountability.

The situation is particularly relevant to the textile industry, where production processes are often complex, globalized, and resource intensive. Companies in this sector are frequently criticized for overproduction, labor rights violations, and opaque supply chains (Govindan et al., 2020; Wu et al., 2024). While there is growing evidence that integrating sustainability into corporate strategy can lead to long-term competitive advantage (Peters & Simaens, 2020), many textile firms struggle to translate ESG ambitions into credible public reporting.

This study focuses on the Portuguese textile sector, a compelling case of tension between perception and practice. Economically, the sector is one of the most productive and export-driven in the country. In 2022, it generated over € 6,1 thousand million in exports and employed more than 127 000 people (AICEP, 2023). It has also demonstrated strong adaptability, investing in circular economy solutions, technical textiles, and research. Between 2015 and 2020, the number of researchers employed in the Portuguese textile and clothing industry grew by 94 %, highlighting a knowledge-driven transformation (AICEP, 2023).

Yet despite these achievements, the sector continues to be perceived as traditional, polluting, and politically marginalized. Many Portuguese textile firms, especially small and medium-sized enterprises (SMEs), face barriers to international ESG visibility. While they are actively adopting eco-design, cleaner production, and labor certifications, their ESG disclosures often lack structure, standardization, or integration into global databases (Abbate et al., 2023). This disconnect prevents them from benefiting fully from ESG-linked funding, partnerships, or public recognition (Jestratijević et al., 2023).

This paradox of real progress with low visibility suggests that ESG transparency could be a critical enabler of competitiveness. By increasing reporting quality, firms may gain not only reputational benefits but also access to capital, talent, and innovation ecosystems. Studies suggest that ESG alignment can support long-term differentiation, particularly when combined with credible performance data and external validation (Jia et al., 2020; Garcia-Torres et al., 2017).

Given this context, the core research question that guides this thesis is:

How does ESG transparency and reporting drive sustainability performance and competitiveness in the Portuguese textile sector?

To explore this question, the study uses a qualitative and data-driven approach. It analyses ESG transparency practices among 69 Portuguese textile firms using ESG data accessed through Refinitiv Workspace, a global platform that aggregates publicly available information on environmental, social, and governance performance. Instead of relying on self-reported interviews, the study applies a design science methodology to develop a conceptual framework that links ESG transparency to sustainability performance metrics and competitive positioning.

The objective of this research is twofold. First, to contribute academically by filling a knowledge gap around ESG reporting in resource-intensive industries. Second, to offer practical insights for Portuguese textile firms, especially SMEs, on how ESG transparency can serve not only regulatory compliance but also strategic goals such as innovation, stakeholder trust, and market access.

This thesis is structured into seven chapters. Chapter 2 presents a literature review on ESG disclosure, sustainability, and competitiveness in the textile sector. Chapter 3 details the methodology and data sources used. Chapter 4 reflects on the research process, including its challenges and limitations. Chapter 5 presents the empirical results and interprets their significance. Chapter 6 summarizes the findings, draws conclusions, and suggests directions for future research. Finally, Chapter 7 discusses the study's alignment with the United Nations Sustainable Development Goals (SDGs), particularly Goal 12 on responsible production and consumption.

2. Literature Review

The literature review is a critical foundation of this research, synthesizing existing studies to contextualize the role of ESG transparency and reporting in enhancing sustainability performance and competitiveness in the textile sector. Given the interdisciplinary nature of the topic, this review examines prior works related to ESG frameworks, sustainability practices, and corporate competitiveness, with a specific focus on the textile industry. The objective is to identify gaps in current research, thereby positioning the study to contribute novel insights and practical implications.

2.1. Conceptual Foundations

This research is built on three interdependent concepts, Environmental, Social, and Governance (ESG); sustainability performance; and competitiveness, which collectively shape the framework for analysing the role of ESG transparency in the textile sector.

Environmental, Social, and Governance (ESG) refers to a multidimensional framework that captures a company's commitments and performance in environmental protection, social responsibility, and corporate governance. ESG has gained prominence as an essential criterion for institutional investors, regulators, and consumers to assess corporate behavior beyond financial metrics. In the textile industry, ESG is especially relevant due to the sector's environmental intensity and frequent exposure to labor rights controversies (Gonçalves & Silva, 2021). ESG reporting frameworks aim to improve organizational accountability and stakeholder trust by disclosing metrics related to emissions, waste, labor conditions, and governance structures (European Commission, 2024; Kotsantonis & Serafeim, 2019).

Despite its growing importance, ESG implementation remains uneven. Several studies highlight the fragmented and symbolic nature of ESG disclosures in the fashion and textile sectors, especially when firms prioritize reputational benefits over substantive change (Boiral, 2013; Cai et al., 2011). This disconnect underscores the need for transparency mechanisms that go beyond formality and enable cross-comparability and performance benchmarking.

Sustainability performance measures how effectively an organization manages its environmental, social, and economic impacts while pursuing long-term value creation. Within the textile sector, this encompasses practices such as minimizing water and energy consumption, reducing waste, eliminating hazardous substances, and promoting ethical labour standards. Sustainability frameworks such as the Global Reporting Initiative (GRI), life cycle assessments (LCAs), and the Higg Index are commonly used to monitor and communicate these efforts (Abbate et al., 2023; Jia et al., 2020).

High sustainability performance can reduce operational risk, enhance compliance with regulatory requirements, and strengthen corporate reputation. Moreover, scholars argue that firms with advanced sustainability capabilities tend to perform better financially, especially under stakeholder and consumer scrutiny (Eccles et al., 2014; Rupert & Ebner, 2010). Nonetheless, challenges persist in standardizing sustainability metrics and ensuring that reported data truly reflects internal practices rather than marketing narratives (Caputo et al., 2021).

Competitiveness is defined as the firm's ability to deliver superior value relative to its competitors through differentiation, innovation, or cost advantage (Porter, 1990). In the textile and apparel sector, competitiveness is increasingly linked to sustainability strategies. As consumer preferences shift toward ethical and eco-conscious products, firms are integrating ESG principles into their operations to gain market share, improve stakeholder relations, and access sustainability-linked financing (Garcia-Torres et al., 2017; Wu et al., 2024).

Transparent ESG reporting plays a growing role in signalling competitive positioning to investors and consumers. However, reporting alone does not guarantee improved performance. The effectiveness of ESG communication depends on the quality of information disclosed, its alignment with organizational practices, and the credibility of third-party validations. In contrast, symbolic disclosures may backfire if stakeholders perceive them as greenwashing (Hąbek & Wolniak, 2015).

In summary, ESG, sustainability performance, and competitiveness are tightly interwoven concepts. Transparency in ESG reporting serves not only as a compliance mechanism but also as a strategic tool that can enhance environmental and social outcomes while improving competitive advantage. This conceptual framework provides the foundation for examining how ESG disclosure influences the transformation and positioning of the Portuguese textile sector.

2.2. Methodology and Search Process

To ensure a systematic and comprehensive literature review, multiple search strings were employed across two academic databases: Scopus and Web of Science (WOS). These strings were carefully designed to capture diverse perspectives on ESG transparency, sustainability performance, and competitiveness within the textile sector. After obtaining the search results, the relevant records were extracted to an Excel sheet for organization and analysis. Each file was saved with a descriptive name that includes the database, and the specific search string used, ensuring clarity and traceability throughout the process.

The table below summarizes the key details of the search process, including the search strings, databases used, dates of searches, assessment of results, and the number of papers found. This structured approach ensures transparency and reproducibility of the review process.

Table 1

Summary of Key Contributions from Reviewed Literature

Data Base	Search String	# Papers Found	Date of Search	Assessment
Scopus and Wos	ESG AND Transparency AND Textile	2	08/nov	Very narrow search, producing only 2 results that were the same in Scopus and Wos, but directly relevant to the textile industry.
Scopus	("ESG" or "Environmental, Social, and Governance") AND (transparency OR reporting OR disclosure) AND (textile OR fashion OR apparel OR clothing)	9	08/nov	Broader search with 9 results in Scopus and 15 in Wos. The Papers focused on transparency in ESG but varied industries.
Wos	("ESG" or "Environmental, Social, and Governance") AND (transparency OR reporting OR disclosure) AND (textile OR fashion OR apparel OR clothing)	15	08/nov	Broader search with 9 results in Scopus and 15 in Wos. The Papers focused on transparency in ESG but varied industries.
Scopus	("ESG reporting" OR "sustainability reporting") AND (textile OR fashion OR apparel OR clothing)	37	08/nov	Productive search, yielding 37 results in Scopus and 34 in Wos. Many papers relevant to sustainability reporting frameworks in textiles.
Wos	("ESG reporting" OR "sustainability reporting") AND (textile OR fashion	34	08/nov	Productive search, yielding 37 results in Scopus and 34 in Wos. Many papers relevant to

	OR apparel OR clothing)			sustainability reporting frameworks in textiles.
Data Base	**Search String**	**# Papers Found**	**Date of Search**	**Assessment**
Scopus	("corporate responsibility") AND textile	9	08/nov	Narrow search with 9 results in Scopus and 8 in Wos. Results focus more on CSR than ESG transparency.
Wos	("corporate responsibility") AND textile	8	08/nov	Narrow search with 9 results in Scopus and 8 in Wos. Results focus more on CSR than ESG transparency.
Scopus	("environmental sustainability") AND ("social responsibility") AND textile	6	08/nov	Specific search with 6 results in Scopus and 12 in Wos. Papers explore the environmental and social aspects of sustainability in the textile area.
Wos	("environmental sustainability") AND ("social responsibility") AND textile	12	08/nov	Specific search with 6 results in Scopus and 12 in Wos. Papers explore the environmental and social aspects of sustainability in the textile area.
Scopus and Wos	("corporate governance") AND ("sustainability practices") AND textile	2	08/nov	Very narrow search producing only 2 results that were the same in Scopus and Wos. Limited but likely focused on governance-specific aspects in textiles.

2.3. Purpose of Search String Diversity

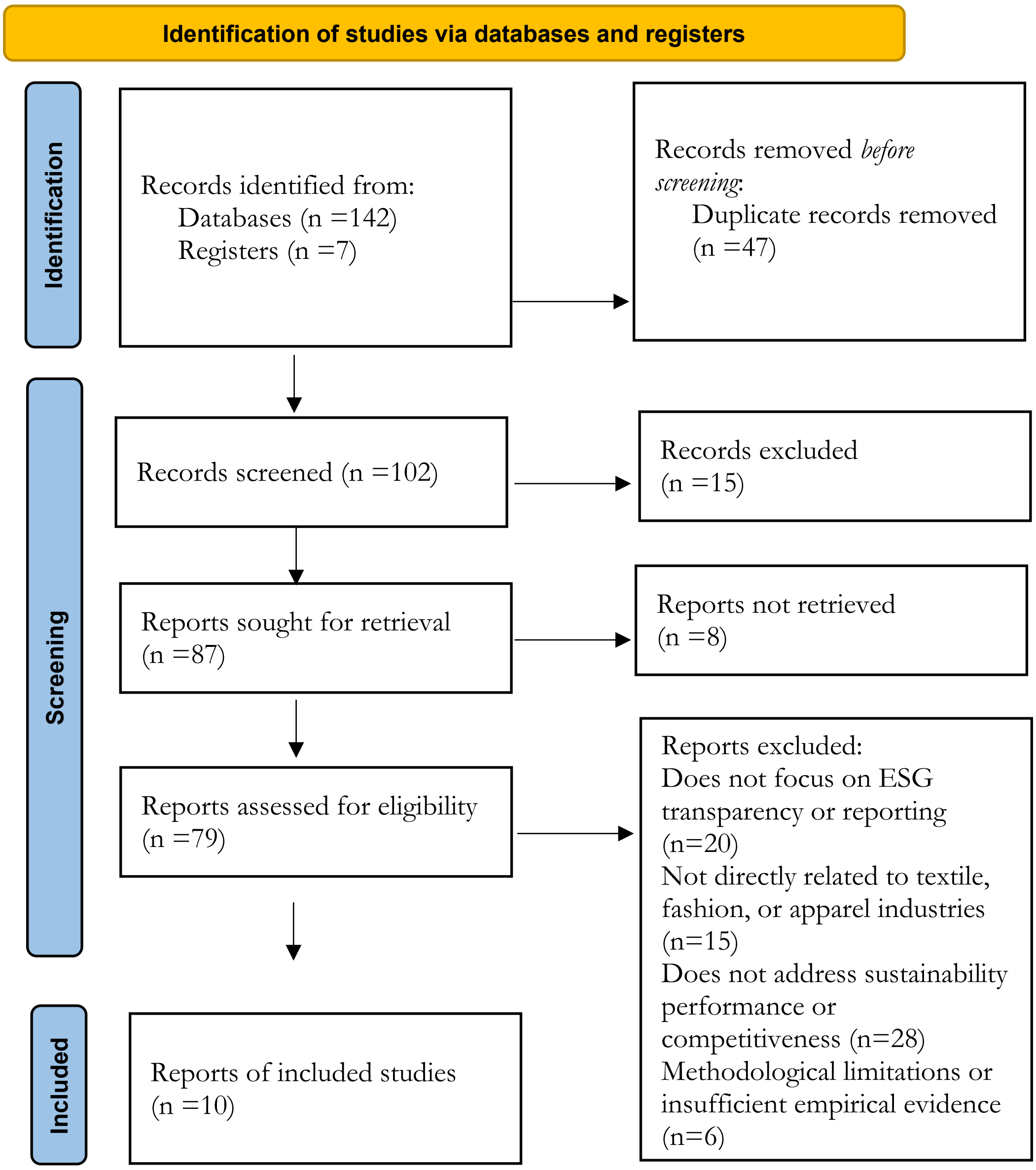
The purpose of employing diverse search strings in this study is to ensure comprehensive coverage of the multifaceted research question, which investigates the relationship between ESG transparency, sustainability performance, and competitiveness in the textile sector. Each search string was crafted to capture a distinct aspect of the research question, encompassing core concepts like ESG, sustainability reporting, corporate governance, and transparency, alongside their specific relevance to the textile industry.

This approach focusses on strengthening the foundation of the literature review, ensuring it is both comprehensive and aligned with the research question.

2.4. Prisma Flow Diagram (PRISMA, 2020)

Table 2

Prisma Flow Diagram



2.5. Paper Inclusion and Exclusion Criteria

To ensure the selection of papers that align closely with the research objectives, a set of inclusion and exclusion criteria was systematically applied during the screening process. The inclusion criteria focused on identifying papers that directly addressed key aspects of the research question, including ESG transparency, sustainability performance, and competitiveness within the textile sector. Priority was given to studies that discussed ESG reporting practices and their implications on sustainability and market positioning, as well as those that offered specific insights into the textile, fashion, or apparel industries.

Additionally, only peer-reviewed articles, credible academic publications, and papers with accessible full texts were considered to ensure the rigor and reliability of the review.

Conversely, exclusion criteria were implemented to refine the scope of the literature and eliminate irrelevant or low-quality studies. Papers that did not explicitly focus on ESG transparency or reporting, or those unrelated to the textile industry, were excluded. Similarly, studies that failed to explore the connection between ESG practices and sustainability performance or competitiveness were deemed irrelevant to the research objectives. Furthermore, articles with significant methodological limitations or inaccessible full texts were excluded to maintain the integrity of the review process.

By applying these criteria, the selection process ensured that the final set of papers not only provided valuable insights into the research question.

2.6. Literature Review Table

Table 3

Literature Review

Authors & Year	Concepts Covered	Future Research	Limitations
Wu, D., Lei, H., Ning, J., & Ren, Z. (2024)	The paper explores ESG reporting frameworks and the role of Corporate Responsibility (CR) in sustainability practices in the fashion industry. Focuses on data transparency, uneven ESG disclosure, and the challenges in comparing SR data across companies. Emphasizes environmental sustainability over governance and social aspects.	Investigate how standardized ESG frameworks across companies in the textile sector can improve cross-company comparability and enhance decision-making. Explore the link between qualitative CR disclosure and its tangible impact on competitive advantage in the industry.	Focuses only on three leading fashion companies (LVMH, KER, and ELC) over three years, limiting generalizability. Governance data is underexplored compared to environmental aspects. Focus on reporting but lacks analysis of its direct impact on competitiveness.
Garcia-Torres, S., Rey-Garcia, M., & Albareda-Vivo, L. (2017)	Introduces an action-oriented ESG disclosure tool for fast fashion, emphasizing alignment with SDGs and actionable sustainability practices. Highlights collaboration and	Test the framework in other textile sectors. Explore its role in improving competitive advantage and real-time reporting tools.	Focuses on two companies (H&M, Inditex) and voluntary reports. Limited analysis of feasibility and long-term impact.

	value creation across supply chains.		
Authors & Year	**Concepts Covered**	**Future Research**	**Limitations**
Schwoy, S. M., Dutzi, A., & Messing, J. (2024)	Examines the transparency and selective reporting of ESG controversies in corporate sustainability and annual reports in the pharmaceutical and textile industries. Highlights trends in disclosure practices, dependence on media attention, and the limited impact of standards and third-party assurances.	Extend analysis to SMEs and other industries, explore the role of stakeholder expectations in controversy disclosure, and assess the long-term impacts of evolving regulatory frameworks like the EU CSRD.	Focuses on 16 companies over three years, relies on Refinitiv Eikon for controversy data, and excludes local media sources. Scope limited to large multinational enterprises in two industries.
Peters, J., & Simaens, A. (2020)	Examines the integration of sustainability into corporate strategy in the T&C industry using VAUDE as a case study. Highlights drivers like consumer awareness, competitive advantage, and top management, and barriers such as value chain complexity and balancing sustainability with profitability.	Explore sustainability integration across regions, investigate circular business models in T&C, and include SMEs and longitudinal analyses for broader insights.	Based on a single European case study, focused on a family-owned firm. Uses a qualitative, cross-sectional approach with a small sample of company personnel.
Jestratijevic, I., Uanhoro, J., & Rana (2023)	Examines seven years (2017–2023) of sustainability disclosures by luxury and mass-market fashion brands, highlighting selective reporting that prioritizes corporate policies over supply chain transparency, and the impact of COVID-19 on disclosure practices.	Investigate the relationship between increased transparency and actual supply chain improvements, evaluate the role of Open Data Standards in enhancing reporting, and explore undisclosed sustainability actions by fashion brands.	Focuses on 90 brands featured in the Fashion Transparency Index, with limited exploration of individual brand trade-offs. Does not assess causal links between transparency and performance improvements.
Jia, F., Yin, S., Chen, L., & Chen, X. (2020)	Identifies drivers and barriers to adopting circular economy practices in the textile and apparel industry. Highlights strategies	Examine the impact of social sustainability on CE adoption, assess the financial and operational benefits of CE	Relies on single-case studies from a narrow industry focus, lacks detailed exploration of 6R recycling processes, and

	like eco-design, reverse logistics, and supplier collaboration for sustainability.	technologies, investigate the role of supplier networks in fostering innovation, and develop broader comparative studies across industries to generalize findings.	underemphasizes social sustainability metrics and the organizational dynamics hindering CE adoption.
Authors & Year	**Concepts Covered**	**Future Research**	**Limitations**
Di Leo, A., Sfodera, F., Cucari, N., Mattia, G., & Dezi, L. (2023)	Analyzes sustainability reporting in 31 luxury fashion companies, clustering them into four categories: sustainability-driven, newcomers, potential, and passive. Highlights the use of Global Reporting Initiative (GRI) standards and reveals fragmented practices in environmental, social, and governance (ESG) reporting.	Examine how sustainability communication evolves for different stakeholders, investigate longitudinal reporting practices post-2019, and explore sector-specific sustainability initiatives for deeper insights.	Focused on 31 luxury brands using 2019 data; excludes post-pandemic reporting and changes. Does not investigate causal links between reporting and sustainability outcomes.
Abbate, S., Centobelli, P., Cerchione, R., Naddem, S. P., & Riccio, E. (2023)	Analyzes sustainability trends in the textile, apparel, and fashion (TAF) industries over the last 20 years. Identifies three key research areas: sustainable consumer behavior, circular economy (CE) initiatives, and sustainability challenges across the supply chain. Highlights drivers and barriers for implementing corporate social responsibility (CSR) and CE practices.	Explore consumer perceptions of communication tools used by TAF companies to promote sustainability. Investigate technological advancements for sorting and recycling textile waste. Examine slow fashion business models, digital technologies' role in sustainability, and the integration of CE and CSR principles in supply chains.	Focuses on peer-reviewed journal articles in the Web of Science database, excluding other publication types and data sources. The co-occurrence analysis is limited to VOSviewer software, and related concepts like zero waste are not included.
Gonçalves, A., & Silva, C. (2021)	The paper examines ESG transparency and reporting in the apparel industry, focusing on life cycle assessments (e-LCA, s-LCA) and certifications to improve sustainability performance. It highlights industry	Future studies should explore how standardized ESG frameworks enhance comparability, consumer trust, and competitiveness in the textile sector. Research on ESG transparency's role in supply chain	The study focuses on fragmented methodologies and tools like the Higg Index but lacks analysis of governance aspects and how transparency directly impacts competitiveness. External

	tools like the Higg Index, noting challenges in standardization and comparability across companies.	collaboration and decision-making is also needed.	comparability and broader ESG implications are underexplored.
Authors & Year	**Concepts Covered**	**Future Research**	**Limitations**
Govindan, K., Shaw, M., & Majumdar, A. (2020)	This study reviews 129 research papers to analyze social sustainability drivers, barriers, tensions, and practices in multi-tier supply chains, emphasizing the overlooked issues of higher-tier suppliers in emerging economies. It highlights frameworks and theories, such as stakeholder theory and paradox theory, linking social sustainability practices to performance outcomes.	Future research should develop quantitative models and industry-specific frameworks to measure social sustainability performance across multi-tier supply chains. Studies on the role of stakeholders, technology like Industry 4.0, and contextualizing paradoxes in emerging markets are needed to address tensions and drive practical implementations.	The review focuses predominantly on emerging economies and higher-tier suppliers, with limited generalizability to developed regions. Theoretical development is underexplored, and existing frameworks lack comprehensive validation through empirical studies or cross-industry applications.

2.7. Critical Analysis of the Literature

This section synthesizes insights from existing literature to establish a foundation for answering the research question: *How does ESG transparency and reporting drive sustainability performance and competitiveness in the Portuguese textile sector?* It integrates findings from both fast fashion and luxury brands, general textile companies, and supply chain-focused research to identify emerging themes, practical tensions, and knowledge gaps. These insights guide the development of a sector-specific framework and position this study to contribute academically and practically.

The reviewed literature broadly agrees that ESG transparency plays a central role in improving sustainability outcomes across resource-intensive industries. Tools like the Higg Index and life cycle assessments are widely used to evaluate companies' environmental and social impacts, serving both internal benchmarking and external communication purposes (Gonçalves & Silva, 2021). However, a lack of standardized reporting formats and fragmented adoption practices, particularly among SMEs and suppliers in emerging markets, continues to limit the broader impact of ESG disclosure (Di Leo et al., 2023; Govindan et al., 2020).

Stakeholder trust is another recurrent theme. Frameworks like the Global Reporting Initiative (GRI), the Fashion Transparency Index, and Open Data Standards have shown promise in aligning corporate communication with public expectations (Jestratijević et al., 2023). Brands such as H&M and Inditex demonstrate how embedding sustainability into disclosure efforts can align with reputational strategies and long-term branding goals (Capelle-Blancard & Petit, 2019). However, symbolic compliance remains common, with many firms using ESG reports to enhance image rather than disclose meaningful data (Boiral, 2013; Cai et al., 2011). This misalignment weakens trust and complicates the task of distinguishing authentic progress from performative practices.

While ESG reporting is increasingly linked to corporate competitiveness, especially in the fast-fashion and luxury sectors, evidence of direct causal impact remains limited. Several studies describe positive correlations between sustainability disclosures and innovation, operational efficiency, or investor appeal (Peters & Simaens, 2020; Wu et al., 2024). Yet, these findings are largely case-based and drawn from multinational companies. Academic research on SMEs or Portuguese textile firms, many of which operate outside global reporting indexes.

This issue becomes more relevant when comparing with other industries. In sectors like pharmaceuticals, the application of ESG standards has been more advanced, benefiting from strong institutional support and more mature regulatory environments (Schwoy et al., 2024). In contrast, textile supply chains remain highly fragmented and opaque, making it harder to achieve meaningful traceability or alignment between sustainability objectives and reporting outputs (Govindan et al., 2020).

From a policy perspective, the introduction of the EU's Corporate Sustainability Reporting Directive (CSRD) represents a turning point. Starting in 2024, thousands of companies will be required to disclose detailed ESG data based on common European standards (European Commission, 2024). This regulatory push may support greater comparability across firms and pressure textile manufacturers, especially in export-heavy countries like Portugal, to enhance transparency as a business necessity. As scholars have noted, stronger ESG frameworks often act as indirect mechanisms of competitive advantage by attracting sustainability-oriented investors and customers (Amel-Zadeh & Serafeim, 2018; Eccles & Klimenko, 2019).

Four critical gaps emerge from the literature. First, most studies fail to establish a causal relationship between ESG transparency and competitiveness, instead relying on correlation or qualitative evidence. Second, existing reporting frameworks often lack textile-specific metrics that capture the nuances of multi-tier supply chains, such as social compliance among subcontractors or traceability in fabric sourcing. Third, SME representation is limited, especially in Southern European contexts where firms face resource and visibility barriers. Fourth, the link between ESG reporting and consumer behaviour is underexplored, with few studies addressing whether transparency meaningfully influences brand loyalty or purchasing decisions.

This thesis addresses these limitations by focusing on 69 Portuguese textile companies, including SMEs, and by using data from Refinitiv Workspace to assess how ESG transparency relates to sustainability performance and market positioning. The study explores whether patterns observed in multinational fashion firms, such as the strategic use of ESG to gain investor trust and reputational capital, apply in a national context characterized by high export activity but low international ESG visibility. It also aims to identify where the Portuguese sector diverges from global trends, offering insight into the specific enablers and constraints that shape ESG-driven competitiveness at a local level.

3. Research Design

3.1. Method Identification

The central research question, "How does ESG transparency and reporting drive sustainability performance and competitiveness in the Portuguese textile sector?", emerges from the significant fragmentation in ESG reporting practices and the lack of visibility among small and medium-sized enterprises (SMEs) within the sector (Di Leo et al., 2023; Govindan et al., 2020). These challenges underscore the need for a methodology that accommodates both the complexity of real-world problems and the absence of standardized datasets.

To address this, the study adopts the Design Science Research (DSR) methodology. DSR provides a structured and iterative approach for developing practical artifacts, such as frameworks, that offer tangible solutions to organizational problems while contributing to academic knowledge. Unlike econometric models, which require large, homogenous datasets to establish statistical correlations, DSR is better suited to contexts with incomplete, diverse, or non-standardized data, characteristics that typify ESG disclosures in the Portuguese textile sector. As such, DSR supports the creation of actionable, context-sensitive tools grounded in theoretical rigor (Hevner et al., 2004).

The choice of DSR also reflects the dual intent of this research: to develop a framework that is both academically robust and practically useful for textile firms with differing resources, market positions, and levels of ESG engagement (Peters & Simaens, 2020). The iterative nature of DSR enables continuous refinement based on real-world feedback, which is essential in a regulatory environment that is still evolving in a sector where reporting practices are inconsistent.

To ensure alignment with the realities of the Portuguese textile industry, the study adopts a document-based content analysis approach. It draws on publicly available information such as corporate websites and sustainability reports. This method is justified by the limited availability of standardized ESG scores for Portuguese textile firms and the low participation of SMEs in formal ESG rating platforms. As such, a document-driven approach is more representative of how transparency is currently practiced, allowing for a realistic analysis of communication strategies, disclosure quality, and framework adoption.

Additionally, the study applies a comparative analysis of three widely used ESG frameworks: the Global Reporting Initiative (GRI) (GRI, 2025), the Higg Index (Sustainability Insights &

Measurement Platform, 2024), and the Fashion Transparency Index (Fashion Revolution, 2024).

These tools, accessible via their respective organizations' websites, provide established benchmarks for sustainability communication in the textile and apparel sectors. Their inclusion supports the analysis of structure, consistency, and accessibility in ESG disclosures, while also raising questions about their suitability for SMEs. Research suggests that smaller firms often face resource constraints that limit their capacity to engage in complex reporting, making the assessment of simplification and adaptability critical (Abbate et al., 2023).

In summary, the adoption of DSR enables this study to develop a tailored artifact that bridges the gap between theory and practice. By focusing on verifiable, publicly available disclosures and analysing them through the lens of established ESG frameworks, the research generates grounded insights that address both the strategic needs of textile companies and the knowledge gaps in sustainability literature.

3.2. Design Science Research Framework and Its Application

The following diagram illustrates the Design Science Research (DSR) framework guiding this study, which explores how ESG transparency and reporting contribute to sustainability performance and competitiveness in the Portuguese textile industry. The model integrates three key domains: Environment, Knowledge Base, and IS Research to ensure that the artifact is both practically relevant and academically rigorous (Hevner et al., 2004).

On the left, the Environment captures the real-world needs of stakeholders, including industry actors, regulatory demands, and technological systems. These needs shape the development of the ESG reporting framework. On the right, the Knowledge Base anchors the study in existing theories, standards, and methodologies, including frameworks like GRI and the Higg Index, as well as academic research on ESG and competitiveness. At the center, the IS Research process involves building and refining an artifact in response to stakeholder needs and theoretical gaps, ensuring its practical and scholarly contributions.

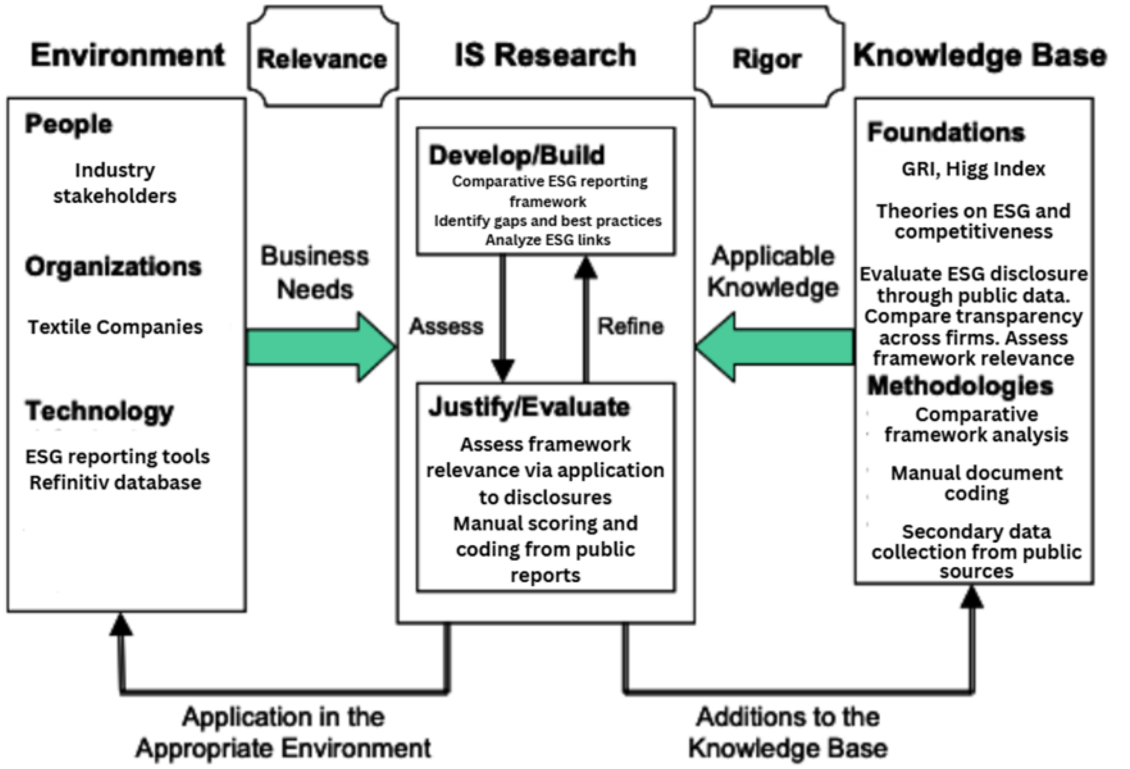


Fig. 1 Design Science Research Framework

In this study, the Environment represents the Portuguese textile sector and its relevant actors. The analysis focuses on public and private textile companies operating in Portugal, filtered through Refinitiv Workspace by TRBC classification ("Textiles & Apparel") with revenue and employee count greater than zero. These companies typically lack formal ESG ratings, highlighting the sector's data gap and fragmentation (Di Leo et al., 2023). Stakeholders include investors, consumers, and regulators who increasingly demand transparency and sustainable operations (European Commission, 2024).

Technologies used include platforms like Refinitiv, which was instrumental in identifying companies for the study, and public websites and documents, which served as the primary data source for assessing ESG communication strategies. This approach ensures the framework responds to the actual practices and constraints of companies operating without standardized ESG scoring (Jestratijević et al., 2023).

The Knowledge Base is composed of two dimensions. The first includes ESG frameworks such as the Global Reporting Initiative (GRI) (GRI, 2025), the Fashion Transparency Index (Fashion Revolution, 2024), and the Higg Index (Sustainability Insights & Measurement Platform, 2024), which are publicly accessible and widely used in the textile and apparel industry (Jia et al., 2020). These frameworks serve as benchmarks for evaluating disclosure practices.

The second dimension includes academic literature exploring how ESG transparency contributes to competitiveness, especially in industries characterized by complex supply chains and environmental pressures (Govindan et al., 2020). These works provide critical context for developing an artifact that is both academically grounded and industry relevant.

Methodologically, the study adopts comparative framework analysis and manual document coding, which are consistent with DSR's emphasis on systematic evaluation and artifact relevance (Abbate et al., 2023). These methods allow assessment of alignment with standards while highlighting the accessibility of ESG practices across firms of varying sizes.

At the center of the study is the IS Research process, where a comparative ESG reporting framework is designed and evaluated iteratively. The Develop/Build phase includes mapping practices from industry leaders like H&M, Inditex, and LVMH and assessing how these are structured within ESG frameworks (GRI, Higg). The aim is to construct a framework that highlights links between ESG transparency, sustainability outcomes, and competitiveness (Schwoy et al., 2024).

In the Justify/Evaluate phase, the artifact is applied to a selected sample of Portuguese textile firms, analysed through manual coding and public document review. ESG transparency scores are derived using a high-medium-low scale based on the presence, structure, and depth of disclosures. This analysis also tests the feasibility of framework adoption by SMEs, often limited by resource constraints or reporting capacity (Gonçalves & Silva, 2021).

3.3. Artifact Description

This study presents an artifact in the form of a comparative ESG reporting framework tailored to the Portuguese textile sector. The artifact was developed to address persistent fragmentation in ESG disclosures, especially among companies lacking standardized reporting or formal ESG ratings. Rather than creating a framework from scratch, this artifact draws on the structure and principles of existing leading models, namely the Global Reporting Initiative (GRI), the Higg Index, and the Fashion Transparency Index, while adapting them to reflect the realities of firms with different levels of resources, size, and international exposure (Fashion Revolution, 2024; GRI, 2025; Sustainability Insights & Measurement Platform, 2024).

The comparative nature of the artifact is central to its utility. It provides a structured basis for evaluating ESG transparency by mapping indicators from these established frameworks and examining their applicability across company profiles. The design explicitly considers the needs of SMEs, which often face technical or financial limitations in ESG implementation, but whose role in the textile value chain is essential. By simplifying and contextualizing key ESG dimensions, the framework supports a more inclusive reporting approach, ensuring that companies of all sizes can engage with sustainability disclosure in a meaningful and credible way (Di Leo et al., 2023; Govindan et al., 2020).

The artifact also builds on a thorough analysis of best practices within the textile industry. Benchmark companies such as H&M, Inditex, and LVMH, known for their advanced ESG initiatives, were analysed to extract actionable elements of their disclosure strategies. This process helped define which indicators are commonly emphasized by industry leaders and which reporting styles facilitate clarity and accessibility for diverse stakeholder audiences (Abbate et al., 2023; Jestratijević et al., 2023).

Beyond structural harmonization and best practice synthesis, the artifact was conceived to highlight the strategic potential of ESG transparency. Drawing on literature that links disclosure to competitiveness and value creation, it integrates performance-focused elements such as stakeholder engagement, supply chain traceability, and alignment with regulatory standards (Cai et al., 2011; Jia et al., 2020). In doing so, the framework is not only descriptive but also prescriptive, offering textile firms a path to leverage ESG reporting as a tool for differentiation and strategic positioning in an increasingly sustainability-driven market.

3.4. Assessment of the Artifact

The artifact developed in this study was assessed through an iterative process consistent with the principles of Design Science Research (DSR). The evaluation focused on whether the framework met its intended objectives: supporting ESG transparency in a fragmented reporting landscape, accommodating the needs of both large firms and SMEs, and aligning with recognized standards while maintaining adaptability to the Portuguese textile sector.

The assessment emphasized both relevance, the degree to which the artifact addresses real-world challenges, and rigor, by grounding the framework in established models and academic insights (Hąbek & Wolniak, 2015). The artifact was tested conceptually against known ESG reporting difficulties, such as limited standardization, accessibility barriers for SMEs, and the strategic disconnect between sustainability disclosures and business positioning.

Crucially, the evaluation process informed refinements to the framework itself. Based on observed trends in disclosure clarity, thematic balance, and stakeholder alignment across various company profiles, certain indicators and categories were streamlined to enhance usability. This reflective adaptation strengthens the artifact's practical impact while reinforcing its academic contribution (Boiral, 2013).

In summary, the artifact was validated not only as a theoretical construct, but also as a practical tool designed to enhance ESG communication and benchmarking in the textile industry. The detailed methodological application of this evaluation, including firm selection and data analysis strategies, is presented in the following chapter.

4. Methodology

Sustainability disclosure in the textile industry often presents itself as a patchwork of claims, certifications, and selective communication. This chapter outlines the methodological steps taken to bring greater structure and consistency to the evaluation of ESG transparency among Portuguese textile companies. Rooted in Design Science Research and qualitative analysis, this study aimed to go beyond superficial assessments to understand how firms communicate sustainability in practice.

4.1 Dataset Identification and Sampling Strategy

The evaluation of ESG transparency in the Portuguese textile industry began with the extraction of data through Refinitiv Workspace in May 2025. To ensure sectoral relevance, the TRBC (Thomson Reuters Business Classification) filter was applied through the following hierarchy: Consumer Cyclicals, flowed by Cyclical Consumer Products, then Textiles & Apparel, incorporating subclassifications such as Footwear, Apparel & Accessories, and Textile & Leather Goods. Additional filters ensured that only active companies were included, specifically, firms with revenue above zero and a non-zero employee count, resulting in a dataset of 558 Portuguese textile-related companies.

From this universe, a purposive sampling strategy was adopted to construct a representative subset for qualitative evaluation. A final sample of 69 companies was selected. This decision was informed by the need to balance diversity and analytical manageability. The sample includes companies of various sizes and from across the main subsectors of the Portuguese textile and fashion industry, such as garments, home textiles, leather goods, and footwear. Purposeful sampling is particularly appropriate in research contexts where ESG data is sparse, reporting behaviours are heterogeneous, and statistical generalization is not the primary aim but rather a deep, contextualized understanding (Abbate et al., 2023; Hąbek & Wolniak, 2015).

Prior research has also highlighted the limitations of relying solely on standardized ESG scores, especially for SMEs or privately held firms often excluded from ESG databases (Di Leo et al., 2023; Schwoy et al., 2024). In such cases, non-probabilistic sampling allows researchers to focus on disclosure patterns, content quality, and the visibility of sustainability efforts. This is aligned with best practices in sustainability research, where qualitative depth and sector-specific insight are prioritized over numerical generalization (Cai et al., 2011).

Thus, the selected sample reflects both sectoral diversity and the practical need for targeted analysis. By focusing on companies likely to vary in ESG maturity and visibility, the study aims to uncover patterns in communication quality and transparency that broader, score-based approaches may overlook. A detailed list of the 69 companies included in the sample, along with their revenue groupings, transparency classification, and qualitative notes, is presented in Appendix A.

4.2 ESG Transparency Levels and Indicator Selection

Given the absence of standardized ESG scores for all the firms in the dataset, a manual evaluation framework, structured around key indicators from established ESG frameworks, was developed to assess the degree of ESG transparency based on publicly available information. This qualitative approach allowed for the examination of not only whether ESG information existed, but how clearly and consistently it was communicated.

To classify firms, three levels of ESG transparency were defined: high, medium, and low, based on the nature, depth, and structure of the ESG-related information disclosed. The criteria used to distinguish between levels are summarized in Table 4 below.

Table 4

ESG Transparency Classification Rubric

Transparency Level	Description	Typical Indicators Observed
High Transparency	Companies in this category demonstrate structured, accessible, and verifiable ESG communication. Their disclosures are typically aligned with international standards and supported by credible third-party certifications.	Dedicated sustainability/ESG section on the website Published sustainability or ESG reports References to certifications such as GOTS, GRS, OEKO-TEX, ISO 14001 Quantitative data (e.g., carbon reduction targets, renewable energy use) Disclosure of labor practices, supply chain policies, stakeholder engagement
Medium Transparency	These companies present some ESG-related information, but it is often scattered, lacks coherence, or is limited in depth and scope. Certification references, if present, are sparse.	Mentions of ESG initiatives or general sustainability commitment Basic or single-issue certifications Occasional ESG mentions in reports or on website Less structured presentation of data

Transparency Level	Description	Typical Indicators Observed
Low Transparency	Companies show minimal or no ESG-related disclosure. Communication is often vague, promotional, or non-existent. No third-party validation is typically present.	No website or ESG-related web content Only vague mentions of sustainability No references to certifications No quantitative or structured ESG reporting

The specific indicators used to evaluate ESG transparency were derived through a synthesis of criteria from three widely recognized frameworks: the Global Reporting Initiative (GRI, 2025), the Fashion Transparency Index (Fashion Revolution, 2024), and the Higg Index (Sustainability Insights & Measurement Platform, 2024). These sources consistently emphasize transparency in environmental impacts (e.g., emissions, resource use), social practices (e.g., labor conditions, safety standards), and governance structures (e.g., policies, supplier audits).

The selection of certifications such as GOTS, GRS, OEKO-TEX, or ISO 14001 as markers of disclosure effort was based on their role as externally verifiable signals of sustainability compliance and traceability. Similar approaches were used in prior studies to benchmark communication quality and ESG engagement, particularly in low-scoring or non-rated firms (Di Leo et al., 2023; Garcia-Torres et al., 2017; Jestratijević et al., 2023).

While the three-tier classification (High, Medium, Low) was adapted for this study, its structure was inspired by patterns observed in previous document-based evaluations of ESG practices in the fashion and textile sectors (Abbate et al., 2023; Hąbek & Wolniak, 2015). The resulting rubric offers a pragmatic way to interpret communication quality in contexts where quantitative ESG scores are unavailable, ensuring comparability while remaining sensitive to the specific realities of the Portuguese textile industry.

Additionally, the methodological choice to use manual classification is supported by prior studies that examined sustainability disclosures in fragmented reporting contexts. Research has shown that when ESG ratings are unavailable or unreliable, manual content analysis of websites and reports remains a valid alternative for evaluating transparency and communication practices (Boiral, 2013; Garcia-Torres et al., 2017). This approach is especially relevant in sectors like textiles, where supply chain complexity and resource constraints among SMEs often result in inconsistent reporting.

By grounding the classification system in recognized frameworks and literature and adapting it to the data realities of Portuguese textile firms, this methodology ensures that transparency is evaluated in a structured, context-sensitive, and academically defensible manner.

4.3 Scoring Procedure and Consistency Controls

After the evaluation framework was defined, each company in the sample was assessed between May 12 and 17, 2025 using a consistent manual review protocol. The evaluation focused on identifying publicly available ESG and sustainability-related information, prioritizing sources such as the companies' official websites, dedicated sustainability pages, and downloadable reports. When no substantial content was found on these channels, complementary searches were conducted using public news and media sources to capture any additional disclosures related to environmental or social practices.

All findings were documented in an Excel file that combined the original company dataset extracted from Refinitiv Workspace with two additional columns: "ESG Transparency (Manual)", which captured the assigned classification (High, Medium, Low), and "Transparency Notes," which recorded observations related to the depth, clarity, and structure of the disclosures.

While some degree of subjectivity is inherent in manual evaluation, efforts were made to ensure consistency by applying a pre-established rubric derived from recognized reporting frameworks and academic literature (Di Leo et al., 2023; Hąbek & Wolniak, 2015). When ambiguity arose, cases were revisited to verify alignment with the classification thresholds, focusing particularly on the presence of structured information, use of recognized certifications, and thematic balance across environmental and social topics.

The methodology does not aim to replace quantitative ESG scoring systems but to offer a grounded and structured assessment in a context where those systems are unavailable. The full list of the 69 evaluated companies, along with their classifications, is provided in Appendix A, and the annotated Excel document is available upon request for transparency.

5. Results and Interpretation

This chapter presents the findings from the ESG transparency assessment of 69 Portuguese textile companies, categorized into three revenue-based groups: high, medium, and low. The analysis aims to explore whether company size represented by revenue that correlates with the level of transparency in ESG reporting.

5.1 Grouping by Revenue

To ensure a representative analysis, the companies were divided into three categories based on revenue. High-revenue companies had earnings ranging from € 30 million to € 122 million. Medium-revenue firms reported between € 6,2 million and € 8,1 million, while low-revenue firms generated less than € 0,85 million. This stratification enabled a clearer understanding of how financial capacity may influence ESG disclosure practices.

5.2 Overview of ESG Transparency Levels

Each company was manually evaluated and categorized into one of three ESG transparency levels: high, medium, or low. These classifications were determined based on the availability and clarity of publicly disclosed ESG information, such as sustainability reports, certifications, website content, and relevant news articles.

5.3 Distribution of Transparency by Revenue Group

The results reveal a pronounced correlation between revenue levels and ESG transparency. Among the 28 high-revenue companies, 15 were rated as high transparency, 7 as medium, and 6 as low. For the 23 medium-revenue companies, the distribution was more balanced: 8 high, 8 medium, and 7 low. The contrast becomes very apparently in the group of 18 low-revenue companies, where 16 were found to have low transparency, and only one achieved medium and high transparency.

These patterns are illustrated in the chart below.

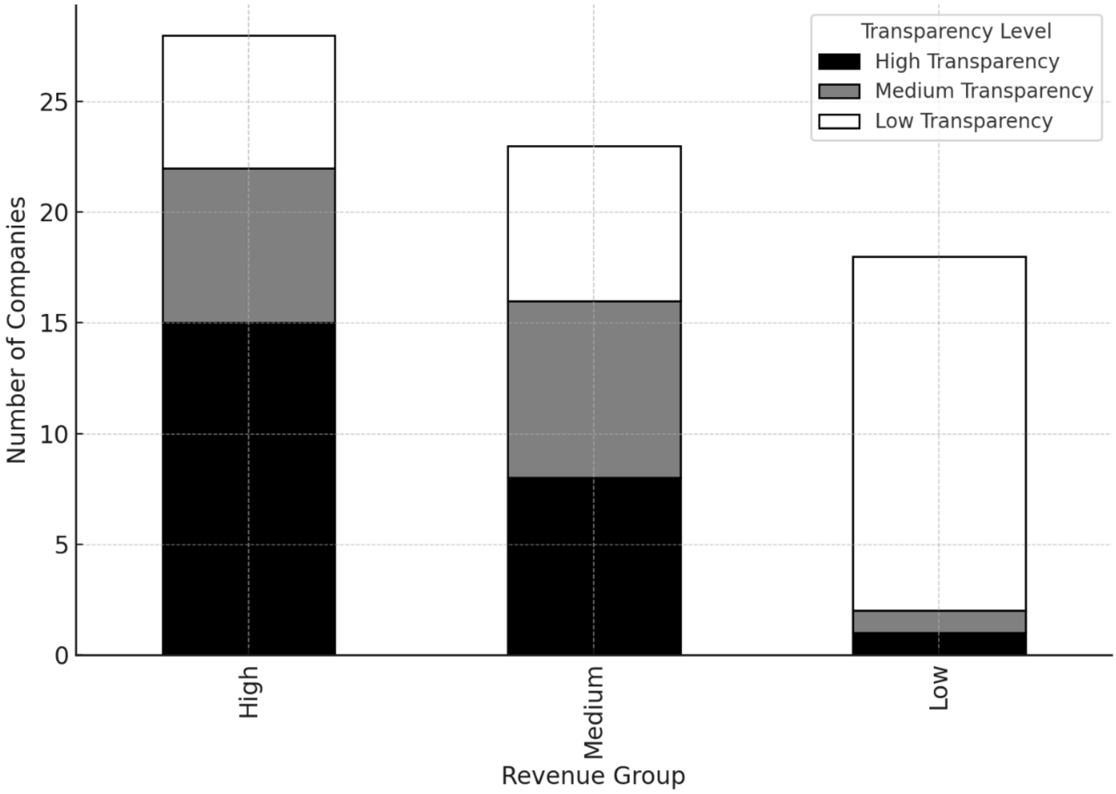


Fig 2. ESG Transparency by Revenue Group

5.4 Key Insight: ESG Transparency Correlates with Company Size

The data confirms a consistent trend: the larger the company in terms of revenue, the more likely it is to demonstrate higher ESG transparency. High-revenue companies typically invest more in certifications, maintain dedicated sustainability sections on their websites, and make public commitments to environmental and social initiatives. In contrast, smaller firms often lack the resources, incentives, or strategic focus to prioritize transparency, resulting in minimal or no publicly available ESG information.

5.5 Implications for Competitiveness and Sustainability

This disparity in transparency carries broader implications. Companies with stronger ESG visibility are better positioned to meet international market expectations, align with evolving regulatory standards, and appeal to environmentally and socially conscious consumers. On the other hand, smaller firms risk marginalization in global supply chains if they fail to adopt and communicate sustainable practices. Addressing this gap may require targeted policy interventions or industry-level support systems to help SMEs implement and report on ESG criteria.

5.6 Limitations and Contextual Factors

It is important to acknowledge limitations in this analysis. The manual nature of the classification carries inherent subjectivity, even with a standardized evaluation rubric. In several cases, companies had no website or any accessible online information regarding ESG practices yet were still included in the study and classified as low transparency. This inclusion strategy strengthens the integrity of the sample but also underscores the overall lack of ESG communication within a segment of the industry. Furthermore, no ESG scores were available in Refinitiv Workspace for any of the 500 plus companies originally retrieved, highlighting a systemic coverage gap and reinforcing the relevance of the manual assessment method.

5.7. Summary and Theorical Implications

The results confirm a clear relationship between company size, represented by revenue, and ESG transparency levels. Larger firms are significantly more likely to disclose structured, verifiable ESG information, while small companies frequently exhibit minimal or non-existent sustainability communication. These findings are consistent with prior literature suggesting that ESG reporting is resource-intensive, often requiring dedicated teams, technical expertise, and formalized internal procedures (Boiral, 2013; Hąbek & Wolniak, 2015). Larger companies tend to have greater institutional pressure to conform to stakeholder expectations and global sustainability norms, especially when operating in export markets where transparency is increasingly a requirement (Caputo et al., 2021).

Moreover, the results support the view that ESG communication serves not just as an accountability mechanism but also as a strategic signal, particularly for high-revenue firms aiming to position themselves competitively in global value chains (Cai et al., 2011). These firms often adopt internationally recognized standards and certifications, such as GOTS, GRS, or ISO 14001, which serve as proxies for trustworthiness and alignment with sustainability principles.

Conversely, the lack of structured ESG communication among smaller firms may reflect both capability constraints and lower institutional pressure. Many SMEs face limited human and financial resources and may not perceive immediate commercial benefits from ESG disclosure (Capelle-Blancard & Petit, 2019). This gap underscores the need for tailored support mechanisms, whether through industry associations, public policy, or supply chain governance, to help smaller firms engage meaningfully in sustainability practices and improve transparency.

Thus, the findings contribute to a broader understanding of how ESG transparency is shaped not only by internal company choices but also by structural factors like firm size, industry dynamics, and institutional expectations. The correlation observed in this study reinforces existing theories of strategic disclosure and stakeholder responsiveness in the context of environmental and social governance.

6. Conclusion and Future Directions

This research set out to examine ESG transparency within the Portuguese textile industry, focusing on whether company size, measured by revenue, correlates with the degree of publicly disclosed sustainability information. Through a qualitative assessment of 69 companies, this study aimed to understand not only how firms communicate ESG efforts but also what factors contribute to disparities in disclosure practices.

The findings indicate that ESG transparency is not evenly distributed and that company size plays a central role. Larger firms, such as Petritex and Valérius Têxteis SA, were among the most transparent, with dedicated sustainability sections, detailed ESG reports, and multiple internationally recognized certifications like GOTS and ISO 14001. On the other hand, a significant portion of small companies, including several without a functional website, demonstrated little to no ESG communication.

These differences illustrate deeper structural challenges in the industry. While larger companies appear better equipped to align with global ESG expectations, smaller firms may lack both the resources and incentives to formalize or communicate their sustainability practices. This divergence reflects not only resource asymmetries but also varying levels of market exposure, stakeholder pressure, and regulatory readiness across the Portuguese textile sector.

6.1.1. Main Finding 1: ESG Transparency Correlates Strongly with Company Size

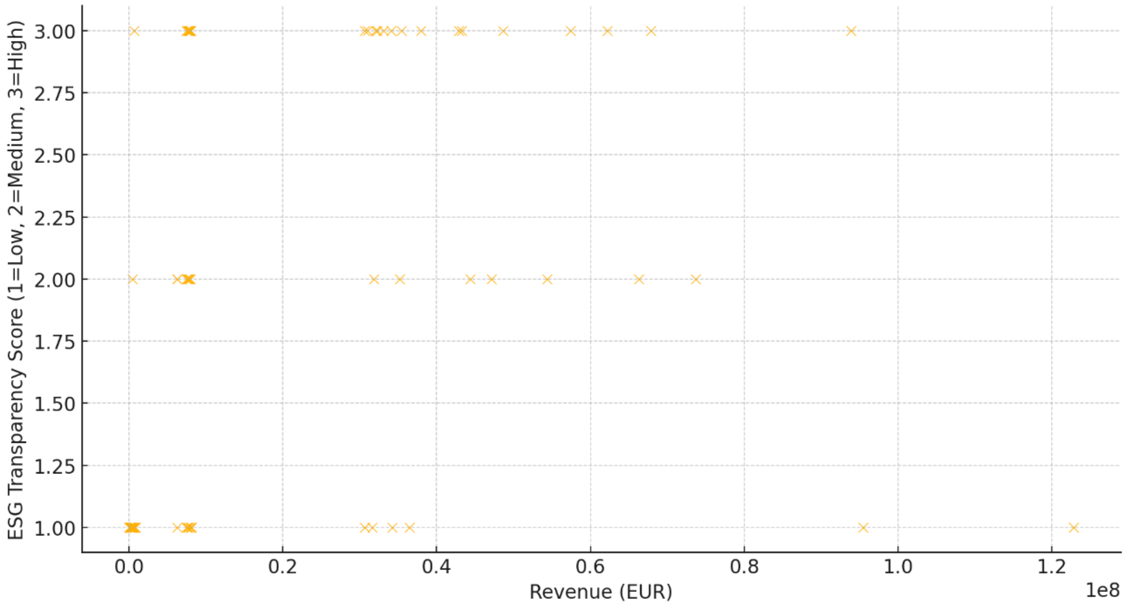


Fig. 3 Spearman Correlation Between Company Revenue and ESG Transparency Level

This study identified a moderate and statistically significant correlation between company revenue and ESG transparency within the sample of Portuguese textile firms. A Spearman correlation analysis was conducted to explore this relationship, assigning scores to transparency levels (1 for low, 2 for medium, and 3 for high). The resulting coefficient of $\varrho = 0.59$ ($p < 0.001$) suggests that higher revenue is generally associated with greater ESG transparency. Companies were grouped according to their position in the revenue distribution of the sample. High-revenue companies were defined as those earning over €30 million annually, medium-revenue firms reported between € 6,2 million and € 8,1 million, and low-revenue companies earned under € 850 000, a figure based on the upper limit of the lowest third of the sample.

The correlation becomes visible when examining the distribution of ESG transparency across these groups. Among the high-revenue companies, a significant number demonstrated high levels of transparency, including clear sustainability sections on their websites, the publication of ESG-related reports, and possession of recognized certifications. Medium-revenue companies displayed a more balanced distribution across the three transparency levels. In contrast, nearly all low-revenue firms were rated as low transparency, with most lacking any publicly available ESG information or formal sustainability communication. This disparity highlights how resource availability, international exposure, and stakeholder pressures likely contribute to the ability of larger firms to engage with ESG frameworks and disclose their practices more effectively (Abbate et al., 2023; Di Leo et al., 2023).

It is important to note that the sample used in this study was selected through a purposive, non-random method and does not claim to be statistically representative of the broader industry. As such, the correlation identified here should be interpreted as indicative rather than conclusive. However, the finding is consistent with existing literature suggesting that firm size is a critical determinant of sustainability reporting behaviour (Abbate et al., 2023; Hąbek & Wolniak, 2015). Larger firms tend to face higher external scrutiny, possess more sophisticated reporting systems, and often operate in international markets where ESG expectations are more stringent. These structural factors provide a plausible explanation for the observed pattern, and they point to potential structural disadvantages faced by SMEs in communicating their sustainability efforts.

6.1.2. Structural Barriers to ESG Visibility Among SMEs

The analysis revealed a pronounced disparity in ESG transparency between larger firms and small and medium-sized enterprises (SMEs). Nearly all companies classified in the low-revenue group, defined here as earning under € 850 000, were rated as having low ESG transparency. This was not necessarily due to a lack of sustainable practices, but rather a consistent absence of structured communication, such as published reports, certifications, or detailed website content. In several cases, basic company websites were missing altogether.

This lack of visibility aligns with previous studies highlighting the unique challenges SMEs face in sustainability disclosure. SMEs often operate with limited financial and human resources, making it difficult to invest in ESG reporting systems, hire dedicated sustainability personnel, or obtain third-party certifications (Abbate et al., 2023; Hąbek & Wolniak, 2015). Moreover, they typically experience lower external pressure from investors, regulators, or international clients, reducing the incentives to prioritize public transparency (Govindan et al., 2020).

Additionally, large-scale ESG scoring systems often overlook smaller firms due to their limited disclosure or lack of standardized data formats (Boiral, 2013). This creates a visibility gap that may inadvertently marginalize SMEs in sustainability-focused procurement and investment decisions, even when these firms are making genuine but informal efforts toward responsible practices.

As such, the issue is not solely about non-compliance or unwillingness but about structural barriers that hinder formal ESG engagement. Without targeted support, such as simplified disclosure tools, technical assistance, or incentives, SMEs may continue to be sidelined in the broader ESG discourse. This suggests a role for industry associations and policymakers in bridging the resource and capability gap to promote more inclusive sustainability reporting.

6.1.3. ESG Transparency as a Competitive Enabler

The companies that achieved high transparency in this study, primarily larger firms, frequently exhibited not only detailed ESG communication but also broader signs of strategic maturity. These included multiple certifications, integration into international value chains, and alignment with stakeholder expectations regarding labor, traceability, and environmental compliance.

This suggests that transparency is not merely an ethical display but functions as a mechanism for competitive differentiation. Literature increasingly supports this link, showing that firms that disclose ESG information in a structured and credible way are more likely to attract responsible investors, secure long-term business relationships, and mitigate reputational risks (Caputo et al., 2021; Jestratijević et al., 2023). In the textile sector specifically, where sustainability scrutiny is high and value chains are global, visibility into practices is essential to participate in procurement frameworks set by multinational buyers (Capelle-Blancard & Petit, 2019).

Moreover, transparent firms tend to show better preparedness for tightening regulatory landscapes and growing consumer awareness. Studies have pointed out that ESG disclosure often correlates with improved internal accountability and operational performance, reinforcing the idea that transparency drives, not just reflects, organizational alignment with sustainability goals (Peters & Simaens, 2020).

Conversely, the absence of communication from smaller or less structured firms may hinder their participation in export markets or B2B partnerships where ESG credentials are a prerequisite. While transparency alone does not guarantee sustainability performance, it does act as a gatekeeper for visibility, trust, and inclusion in the competitive ecosystem of modern supply chains.

6.2. Addressing the Research Question

The central research question guiding this study was: "How does ESG transparency and reporting drive sustainability performance and competitiveness in the Portuguese textile sector?"

The results suggest that ESG transparency is both a reflection of internal commitment to sustainability and a driver of organizational competitiveness. Companies with higher levels of transparency were more likely to be larger in size, possess recognized sustainability certifications, and engage in structured reporting practices. These firms also appeared better integrated into international markets and displayed alignment with industry sustainability norms, supporting the notion that transparency reinforces external legitimacy and internal performance management (Di Leo et al., 2023; Peters & Simaens, 2020).

This supports previous findings that ESG communication enhances stakeholder trust and acts as a strategic resource in competitive positioning (Boiral, 2013; Caputo et al., 2021). Transparent reporting also encourages companies to adopt more systematic sustainability practices, not just for disclosure but for improvement, thus transforming communication into a form of organizational learning (Hąbek & Wolniak, 2015).

However, the findings also highlight the structural divide in ESG engagement across firm sizes. SMEs often lack the resources, knowledge, or incentives to formalize and communicate sustainability actions. This leads to informational asymmetry that marginalizes them in sustainability discourse and procurement processes. As the literature notes, such exclusion can reinforce power imbalances in global supply chains (Govindan et al., 2020), creating barriers for SMEs to participate in ESG-driven economies.

In this context, ESG transparency is not merely a reporting outcome, it becomes a proxy for market readiness and stakeholder alignment. The study shows that the act of reporting itself contributes to organizational capacity, reputation, and legitimacy. It thus becomes clear that fostering transparency, especially among SMEs, is a necessary step toward levelling the playing field in sustainable textile production.

6.3. Future Research Directions

This study provides a foundational look at ESG transparency within the Portuguese textile sector, but several avenues remain open for further exploration. First, future research could expand the sample size beyond the 69 companies analysed here, enabling more robust statistical testing and the use of additional techniques such as regression modelling or factor analysis. A larger and more diverse dataset would allow researchers to explore not only the correlation between company size and transparency but also the influence of variables such as export orientation, ownership structure, or age of the firm.

Second, more granular quantitative data could be collected to measure ESG performance alongside ESG communication. This would allow future studies to assess whether firms that disclose more also perform better in environmental or social metrics, providing a fuller picture of sustainability beyond surface-level transparency. Tools such as content analysis software or natural language processing (NLP) could be employed to systematize and scale the manual review process used in this thesis.

Third, comparative or cross-country studies would help establish whether the patterns observed in Portugal are specific to the local market or reflective of broader trends in the textile industry across Europe or globally. Benchmarking ESG transparency across countries with varying regulatory pressures and sustainability cultures could yield valuable policy insights.

Fourth, longitudinal research could be conducted to evaluate whether ESG transparency improves over time, particularly in response to regulatory changes like the EU Corporate Sustainability Reporting Directive (CSRD). Tracking the same companies over several years would provide insight into how disclosure practices evolve and whether external pressures translate into deeper ESG engagement.

Lastly, qualitative methods such as interviews with company leaders or sustainability officers could complement quantitative analysis by shedding light on the motivations, constraints, and strategic decisions behind ESG disclosure. This mixed-methods approach could bridge the gap between policy, theory, and organizational practice.

6.4. Final Reflection

This research sheds light on an important yet underexplored dimension of sustainability in the Portuguese textile sector: the visibility and clarity of ESG communication. Through a manually constructed dataset of 69 companies, the study reveals a consistent pattern in which company size, particularly revenue, correlates with transparency. Larger firms are better positioned to disclose ESG initiatives, supported by more resources, international exposure, and stakeholder pressure. In contrast, smaller firms tend to be less transparent, not necessarily due to a lack of sustainability practices, but because of structural barriers such as limited capacity, know-how, or perceived relevance of reporting.

These findings reinforce existing academic discussions about the link between firm size and sustainability disclosure, while also contributing practical insight into the Portuguese context. The correlation between revenue and ESG transparency, backed by a statistically significant Spearman coefficient, suggests that structural inequalities in the industry are mirrored in the visibility of ESG efforts. Without intervention, these disparities may deepen, as transparency becomes increasingly tied to competitiveness, regulatory compliance, and access to markets.

At the same time, the study shows the value of qualitative, ground-level analysis in settings where ESG data is fragmented or unavailable. The absence of coverage in major databases like Refinitiv for over 500 companies highlights the limitations of global ESG monitoring systems and signals a need for more inclusive data practices. This gap creates a risk that many SMEs remain invisible to investors and policy initiatives focused on sustainability, reinforcing their marginalization.

For industry stakeholders, this research underscores the strategic role of ESG communication, not only as a moral imperative but as a competitive asset. Companies that communicate effectively are more likely to integrate into international supply chains, comply with upcoming regulations, and earn the trust of sustainability-conscious consumers and partners. For policymakers, the findings suggest the urgency of designing support mechanisms for SMEs, such as training in ESG disclosure, standardized reporting templates, or incentives tied to communication efforts.

Ultimately, transparency is not just about reputation management or ticking boxes, it is about creating accountability and alignment between internal practices and external expectations. In this sense, ESG communication is a gateway to deeper transformation. For the Portuguese textile industry to evolve toward greater sustainability, it must ensure that all its players, regardless of size, are equipped and encouraged to participate in that conversation.

7. Reflection on the Sustainable Development Goals

This research project, though centred on the ESG transparency of Portuguese textile companies, naturally aligns with several of the United Nations Sustainable Development Goals (SDGs). As the global community advances toward the 2030 Agenda for Sustainable Development, the relevance of environmental, social, and governance practices becomes more critical, particularly in sectors with large environmental footprints like textiles.

7.1.1. Contribution to SDG 12: Responsible Consumption and Production

The core of this thesis addresses SDG 12 by analysing how textile companies disclose their sustainability practices. By evaluating ESG transparency, the research sheds light on how companies manage their environmental and social impacts and how openly they communicate those efforts. Encouraging better ESG disclosure is a step toward more responsible production models and fosters accountability across the supply chain.

7.1.2. Contribution to SDG 9: Industry, Innovation, and Infrastructure

The findings emphasize the disparity between large and small firms in ESG communication. This reflects broader gaps in access to innovation, digital infrastructure, and compliance systems, making this work relevant to SDG 9. It highlights the need to support SMEs in their journey toward more structured and transparent sustainability practices, which are increasingly necessary in modern industrial ecosystems.

7.1.3. Contribution to SDG 8: Decent Work and Economic Growth

Social responsibility, part of the ESG framework, relates directly to SDG 8. Through the manual analysis, the thesis identifies companies engaging in fair labor practices, worker wellbeing programs, and gender equality measures. Although not all companies disclose this clearly, those that do contribute to inclusive and sustainable economic growth.

7.2. Broader Alignment

This research also contributes indirectly to SDG 13 (Climate Action) by revealing how companies address energy efficiency and emissions. Furthermore, the study promotes SDG 17 (Partnerships for the Goals) by encouraging cooperation among businesses, policy makers, and institutions to improve ESG frameworks and knowledge-sharing platforms.

7.3. Final Reflection

In summary, this thesis does not only serve an academic purpose, it also acts as a modest contribution to the global sustainability dialogue. By focusing on transparency and accountability, it supports the idea that progress toward the SDGs requires not only action but also clear and accessible communication. Better ESG disclosure practices can foster a culture of responsibility, innovation, and fairness that benefits both business and society.

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Appendix

Appendix A:

ESG Transparency Classification Overview

Company Name	Revenue (EUR)	Subsector	ESG Transparency Level (High/Medium/ Low)	Transparency Notes
Continental Industria Textil do Ave SA	122 778 240	Textiles & Leather Goods	Low	No official website or ESG disclosures found. No sustainability-related content identified via public sources. Indicates limited or no engagement with public ESG communication.
Gabor Portugal Industria De Calcado Lda	95 444 391	Footwear	Low	No ESG or sustainability-related information found on company website or in public sources. Website focused solely on product display. Indicates minimal public ESG communication or strategic emphasis.
Riopele Texteis SA	93 905 840	Textiles & Leather Goods	High	Company publishes annual sustainability reports (2022, 2023), sets measurable goals (e.g., carbon neutrality by 2027, 61 % renewable energy), promotes circular economy (e.g., Piñayarn, Circulose), holds certifications (e.g., OCS), and publicly engages in ESG-focused events. Strong ESG integration across operations and communication.
Couro Azul Industria E Comercio De Couros SA	73 675 290	Textiles & Leather Goods	Medium	No formal sustainability section on website, but participates in multiple funded ESG-focused R&D projects (RARISS, TraceLeather, Oak Tann). Publicly committed to CO_2 reduction (-60.5 %), energy efficiency (+37.9 %). Holds ECO2L certification and is referenced as an industry sustainability leader by third-party sources. Transparent through indirect means but lacks central ESG reporting.

Company Name	Revenue (EUR)	Subsector	ESG Transparency Level (High/Medium/Low)	Transparency Notes
Polopique - Comercio E Industria De Confeccoes,S.A.	67 865 305	Apparel & Accessories	High	Dedicated sustainability section on website, holds certifications such as GOTS, and is a member of the Better Cotton Initiative. Demonstrates environmental commitment (e.g., animal care, biodiversity, sustainable manufacturing) through both symbolic and certified actions. Clear and intentional ESG messaging.
EcCo Let (Portugal) Fabrica Do Sapatos Lda	66 257 391	Footwear	Medium	ECCO discloses a wide range of sustainability-related policies and principles under their “Corporate Responsibility” umbrella. They address human rights, environmental efforts, sourcing ethics, and anti-corruption. However, there’s no structured ESG report, metrics, or dedicated sustainability strategy section. Transparency is broad but lacks measurable depth.
Petratex Confeccoes SA	62 204 550	Apparel & Accessories	High	Petratex provides a robust sustainability section on its website, including concrete environmental targets, historical progress on CO_2, water, and waste reduction, and a wide array of global certifications (e.g., GOTS, ISO 14001, GRS, RCS). Demonstrates strong ESG commitment with traceability, circularity, and impact metrics.
Vieira Pocargil SA	57 413 252	Apparel & Accessories	High	Clear ESG commitment with a dedicated sustainability page highlighting social, environmental, and governance principles. The company lists extensive certifications (GOTS, BCI, HIGG, OEKO-TEX, ISO 14001, etc.) and outlines

				actions related to energy, waste, community, and employees. Strong ESG alignment and traceable communication.
Company Name	**Revenue (EUR)**	**Subsector**	**ESG Transparency Level (High/Medium/ Low)**	**Transparency Notes**
Fsm Industria De Confeccoes SA	54 378 946	Apparel & Accessories	Medium	Website mentions a sustainability initiative ("FSM Better Project") and lists certifications such as GOTS and RWS. However, there is no detailed ESG reporting, metrics, or structured disclosures. Some commitment is evident, but transparency is moderate and limited in scope.
ERT Textil Portugal S.A.	48 634 873	Textiles & Leather Goods	High	ERT presents both an environmental and sustainability policy on its website and is actively involved in EU and PRR-funded sustainability innovation projects (e.g. Texboost). The group invests in chemical and mechanical recycling R&D, has won awards for circular materials, and is engaging in decarbonization projects. Clear, long-term sustainability strategy with detailed communication.
Ramiro & Carvalho Lda	47 119 218	Apparel & Accessories	Medium	Website lists relevant certifications (GOTS, OCS, RCS) and published a clear ESG-related statement on LinkedIn regarding sustainable practices and materials. However, the company does not provide structured ESG reports or KPIs. Good product-level transparency, limited corporate-level data.
Rodiro Fabrica De Calcado SA	44 341 492	Footwear	Medium	The website includes a section on "Responsibility" with broad statements on climate, carbon, waste, and community impact. However, most content lacks specificity and appears

				placeholder-like. No measurable goals or structured reports. Shows ESG awareness but weak transparency.
Company Name	**Revenue (EUR)**	**Subsector**	**ESG Transparency Level (High/Medium/ Low)**	**Transparency Notes**
AAC Texteis S.A.	43 286 877	Apparel & Accessories	High	Extensive sustainability and ethical commitment. Website includes a full sustainability policy, Theory of Change framework, certifications (GOTS, GRS, SA8000), and participation in environmental initiatives (e.g., LCA, ZDHC). Clear communication of values, transparency practices, and social engagement. Highly aligned with ESG best practices.
Jefar Industria De Calcado Sa	42 870 442	Footwear	High	Has a detailed environmental policy certified by ISO 14001. Discloses clear goals (e.g., 80% renewable energy use), resource optimization, pollution prevention, and social responsibility efforts. High-quality public disclosure and commitment to continuous improvement. Transparent and aligned with EU environmental priorities.
Valerius Texteis SA	37 933 549	Apparel & Accessories	High	Valérius is one of Portugal's most advanced textile companies in ESG. Their Valérius 360º unit is a model of circular textile production — with mechanical fiber recycling, low environmental impact (up to -85 % water usage, -83 % energy, -98.5 % chemicals), and traceability. They publish sustainability insights, have numerous certifications (GOTS, ISO 14001, GRS, RCS, OCS), and pursue carbon neutrality. Strong social engagement and

				transparency. Industry benchmark.
Company Name	**Revenue (EUR)**	**Subsector**	**ESG Transparency Level (High/Medium/ Low)**	**Transparency Notes**
Cristextil Confeccao Lda	36 444 300	Apparel & Accessories	Low	No ESG-related information found on website or online. No sustainability strategy, policies, or certifications disclosed. Indicates a lack of public engagement with ESG, despite being a textile company.
J.Pereira Fernandes II, S.A.	35 385 192	Textiles & Leather Goods	High	Although sustainability is not highly visible on their main website, a PDF document outlines a very structured sustainability policy. Initiatives include energy reuse, CO_2 reduction, water recycling, eco-design, use of renewable raw materials (e.g. banana fiber, hemp), employee well-being, and social responsibility. Backed by numerous certifications (ISO 9001, GOTS, OCS, GRS, RCS, BCI, etc.). Strong environmental and social focus.
Antonio De Almeida E Filhos Texteis Sa	35 194 695	Textiles & Leather Goods	Medium	Website contains limited ESG messaging, with sustainability and certifications sections somewhat hidden. Mentions recycling, local production, and some sustainable product lines. No detailed strategy, KPIs, or external communications. Note: the 2021 insolvency filing may affect data reliability — if the company ceased operations or restructured, consider flagging it in your dataset.
Belisotex - Confeccoes S.A.	34 197 749	Apparel & Accessories	Low	No sustainability disclosures found on the website or externally. No environmental, social, or governance information available. Can be used as a

				representative example of low ESG transparency.
Company Name	**Revenue (EUR)**	**Subsector**	**ESG Transparency Level (High/Medium/ Low)**	**Transparency Notes**
Mundotextil Industrias Texteis SA	34 047 676	Textiles & Leather Goods	High	Website details a structured ESG strategy including energy production (solar and cogeneration), wastewater reuse, and certified social responsibility. Several sustainability policies in place and a full sustainability report (2022) is publicly available. Also holds multiple certifications including GOTS. Demonstrates strong transparency and measurable commitments.
Mari-Sport Calcado Lda	33 073 262	Footwear	High	Well-structured environmental initiatives including renewable energy, zero-energy footprint goal, eco-friendly production upgrades, reduced paper and water use, and advanced energy optimization. ISO 14001 certified and a UN Global Compact signatory. Multiple reports and strong media coverage on sustainable footwear design. Strong ESG commitment and clear communication.
Be Stitch Industria Textil Lda	32 254 397	Textiles & Leather Goods	High	Website includes extensive sustainability content across multiple impact areas: water recycling, solar energy, biomass, low-impact chemicals, waste reuse, and social responsibility. Transparency in operational practices and multiple certifications (e.g., GOTS, Better Cotton). Although there's little external media presence, the internal documentation is robust. Strong candidate for high transparency.
Elastron Portugal SA	32 083 261	Textiles & Leather Goods	High	Website discloses an advanced ESG structure with GRI-aligned reporting,

				Ecovadis participation, ISO 14001 and 45001 certifications, product carbon footprint monitoring, and PIR materials. Transparency is high.
Company Name	**Revenue (EUR)**	**Subsector**	**ESG Transparency Level (High/Medium/ Low)**	**Transparency Notes**
Anglotex Confeccoes Lda	31 828 481	Apparel & Accessories	Medium	The company shows commitment to sustainability through multiple certifications (e.g., GOTS, BCI, Sedex) and has started a carbon footprint project using the GHG Protocol. No detailed sustainability report found, but initiatives are recent and ongoing.
M Look Confeccoes Lda	31 645 093	Apparel & Accessories	Low	No website or online presence. No information available regarding ESG practices or certifications.
Confeccoes Fernandes & Miranda Lda	30 995 028	Apparel & Accessories	High	Comprehensive sustainability section on the website, multiple certifications, and transparent investment in solar energy and recycled materials. Includes social responsibility initiatives and participation in external sustainability verifications.
Mario Cunha & Filhos Lda	30 649 556	Footwear	Low	No website or online ESG information available.
A Sampaio e Filhos Texteis SA	30 624 220	Apparel & Accessories	High	Strong and detailed sustainability disclosures, including certificates, renewable energy use, waste separation, electric vehicles, and social responsibility programs. Transparency across environmental, social, and economic dimensions.
Fernandes & Sampaio Lda	8 134 490	Footwear	Low	There is no section related to sustainability on their website. While four certificates are shown, none are ESG- or sustainability-specific. Additionally, no relevant information was

				found through external online searches.
Company Name	**Revenue (EUR)**	**Subsector**	**ESG Transparency Level (High/Medium/ Low)**	**Transparency Notes**
F.Campelos, LDA	8 132 936	Textiles & Leather Goods	Low	No information related to sustainability or ESG could be found on the company's website. No external sources or news articles with sustainability references were located.
Arpitex Comercio E Industria De Confeccoes Lda	8 069 201	Apparel & Accessories	High	The company has a dedicated section on its website discussing sustainability and innovation. They report significant investments in technology modernization and energy efficiency, with details on projects co-financed by IAPMEI. Highlights include a photovoltaic system covering 50 % of energy needs, a switch from diesel to electric boilers, and the goal of carbon neutrality. Additionally, news articles confirm further investments in renewable energy and recent GOTS certification.
Exiled Confeccoes Em Liquidacao Lda	8 017 298	Apparel & Accessories	Low	The company has no active website and no public data or sustainability-related news available online.
Bordalima	7 988 619	Textiles & Leather Goods	Medium	While the company does not have a dedicated sustainability section, they prominently feature various certificates on their site, including GOTS, RCS, OEKO-TEX®, and European Flax®. These indicate a focus on using organic, recycled, and traceable materials, alongside sustainable agricultural practices.
Pigmentabstrato Lda	7 948 093	Apparel & Accessories	High	This company has a structured and comprehensive sustainability section. They detail their

				commitment to environmental protection, social responsibility, and legal compliance. Efforts include sustainable sourcing, "green manufacturing" practices, and adherence to SA8000 and other international standards. Certifications include GOTS, ISO 9001, ISO 14001, and the Global Recycled Standard.
Company Name	**Revenue (EUR)**	**Subsector**	**ESG Transparency Level (High/Medium/ Low)**	**Transparency Notes**
Joaquim Jose Heitor SA	7 903 783	Footwear	High	JJ Heitor presents a thorough sustainability section, albeit placed subtly on their site. They outline circular economy efforts, use of eco-certified materials, slow fashion principles, and social responsibility practices. They are certified by ISO 14001, FSC, and LWG, and are members of SEDEX and Cascale (formerly Sustainable Apparel Coalition). They also received recognition as ESG Reporting Pioneers. Online news confirms ISO 14001 certification in 2021.
NGS Malhas Empresa De Malhas SA	7 883 951	Apparel & Accessories	Medium	The company features a sustainability section highlighting their preference for eco-friendly and low-impact raw materials. They claim usage of natural, renewable, biodegradable, and recycled textiles, and hold certifications like GOTS, GRS, OEKO-TEX, SUPIMA, GOTEX, and BCI. However, there is no additional detailed information or media coverage online.
AFiuza & Irmao Lda	7 821 459	Apparel & Accessories	High	A. Fiúza has both sustainability and certification sections on their site. Their policy emphasizes rational use of

				resources, social responsibility, and anti-corruption. They undergo regular third-party audits and hold numerous certifications including GOTS, OEKO-TEX®, ISO 9001, and several from CITEVE.
Company Name	**Revenue (EUR)**	**Subsector**	**ESG Transparency Level (High/Medium/ Low)**	**Transparency Notes**
AJGoncalves SA	7 745 754	Apparel & Accessories	Low	No mention of ESG, sustainability, or certifications was found on their website or in external sources.
Fiorima Fabricacao De Peugas SA	7 740 588	Apparel & Accessories	High	Fiorima presents detailed environmental and social responsibility information through their certifications. They are certified in ISO 14001 (since 2005), SA8000, ISO 9001, ISO 45001, GOTS, GRS, OEKO-TEX, and others. They also communicate their alignment with ILO and UN human rights principles. However, this information is mainly provided through the certification section, with less emphasis on storytelling or strategic ESG plans.
Faria & Coelho Lda	7 733 597	Textiles & Leather Goods	High	FACOL has no dedicated sustainability or ESG strategy page on its website, but it does present an extensive list of certifications, many of which are directly tied to sustainability and environmental/social standards.
Mabera Acabamentos Texteis SA	7 723 593	Textiles & Leather Goods	Medium	No dedicated sustainability section, but the website has a comprehensive Code of Conduct with social, environmental, and ethical principles. Mentions sustainability intentions and has 3–4 certificates, including GOTS. No public reports.

Company Name	Revenue (EUR)	Subsector	ESG Transparency Level (High/Medium/ Low)	Transparency Notes
Goncalves SA	7 635 318	Footwear	Medium	No ESG content on the website, but external news confirms actions like solar panels, eco-materials, and emissions reduction. No certifications or structured disclosure, but real initiatives exist.
Luis Azevedo & Filhos SA	7 598 428	Textiles & Leather Goods	High	Strong sustainability section aligned with SDGs. Uses eco-materials, publishes fiber manuals, and has major certifications (GOTS, OCS, GRS, etc.). Clear communication and third-party validation.
Domingos Fernandes Ferreira & Filhos Lda	7 593 479	Apparel & Accessories	Low	No website or online ESG information found.
Texteis DA-Domingos Almeida SA	7 574 225	Textiles & Leather Goods	Medium	Basic site with OEKO-TEX and ISO certifications. No dedicated ESG strategy or reports. Limited visibility but some credibility from certifications.
Tarawa Comercio De Vestuario E Representacoes Unipessoal Lda	7 496 726	Apparel & Accessories	Low	No website or ESG-related information online.
Neves & Companhia Lda	7 488 415	Textiles & Leather Goods	Medium	Strong focus on certifications (OEKO-TEX, OCS, RCS). Mentions sustainability and innovation but no reports or strategic ESG info. Structured but shallow disclosure.
Savana - Calcados, S.A.	7 448 963	Footwear	High	Detailed sustainability section with innovative materials, community projects, and clear ESG philosophy. Strong product innovation and transparency. Has a Code of Conduct and social impact initiatives.
Guay Trading Internacional SA	6 285 405	Apparel & Accessories	Low	No website or sustainability-related information available online.

Company Name	Revenue (EUR)	Subsector	ESG Transparency Level (High/Medium/ Low)	Transparency Notes
Alda Texteis Lda	6 278 689	Textiles & Leather Goods	Medium	No information on website, but online news sources mention sustainability certifications (GOTS, BCI, GRS) and the use of recycled materials in product design. No formal ESG reporting found.
Modelmalhas Industria De Malhas Lda	627 7316	Apparel & Accessories	Medium	No details on the company website, but trade fair disclosures suggest a strong focus on sustainable product lines. No formal reports or metrics disclosed publicly.
TTT Tech Tinturaria E Acabamentos Texteis SA	840 000	Textiles & Leather Goods	Low	Website lacks any mention of ESG or sustainability. No external sources found discussing ESG practices or initiatives.
Pecafi Shoes Calcado SA	834 370	Footwear	Low	Minimal reference to environmental responsibility on the website without detail or supporting actions. No third-party certifications or sustainability initiatives found.
Dermyslouro Industria De Curtumes SA	724 967	Textiles & Leather Goods	Low	No website and no online visibility related to ESG or sustainability.
Diniz & Cruz Vestuario De Homem Lda	710 157	Apparel & Accessories	Low	Neither the company's website nor external sources provide information on sustainability or ESG practices.
Sonice Comercio Internacional Lda	651 650	Textiles & Leather Goods	High	The company website includes a detailed sustainability section with commitments to reducing emissions, increasing clean energy use, and electric vehicle infrastructure. Additionally, several sustainability certifications are listed (e.g., GOTS, Better Cotton). Online articles reinforce their strong positioning as a sustainable and innovative company in the textile sector. Community engagement and

				education on sustainability are also emphasized.
Company Name	**Revenue (EUR)**	**Subsector**	**ESG Transparency Level (High/Medium/ Low)**	**Transparency Notes**
Tovartex Industria Textil Lda	551 102	Apparel & Accessories	Low	No digital presence or evidence of ESG practices was found.
Ecoexclusive Lda	547 634	Textiles & Leather Goods	Low	No website and no publicly available sustainability or ESG information.
Sanbrusapatos Industria De Calcado Lda	490 394	Footwear	Low	The company website is inaccessible and there is no public ESG-related content online.
Alfastigma Industria De Confeccoes Em Liquidacao Lda	439 145	Apparel & Accessories	Low	No website and no ESG or sustainability references located online. Company status ("em liquidação") likely affects disclosure.
Glamourcountry Lda	423 550	Footwear	Medium	The company website briefly mentions sustainability principles, highlighting the use of recycled and biodegradable materials as well as waste minimization. No further details or evidence found online.
Campos & Campos Lda	370 804	Apparel & Accessories	Low	No ESG data on the website or found through online searches.
Keupe Unipessoal Lda	314 619	Apparel & Accessories	Low	Although the company has a website, there are no references to sustainability or ESG-related content either there or online.
Empresa Textil Electrica Unipessoal Lda	267 820	Textiles & Leather Goods	Low	No website or evidence of environmental/social initiatives available.
Blusa Empresa De Confeccoes Lda	265 320	Apparel & Accessories	Low	Lacks both a digital presence and any visible sustainability information.
Macauniter Malhas E Confeccoes Lda	189 005	Apparel & Accessories	Low	No available website or ESG data found online.
Denlotex SA	148 736	Apparel & Accessories	Low	No online presence or evidence of ESG-related disclosures.

Company Name	Revenue (EUR)	Subsector	ESG Transparency Level (High/Medium/ Low)	Transparency Notes
Pleasant Level Unipessoal Lda	112 072	Apparel & Accessories	Low	No company website or sustainability-related information was found online.
Softcouro Comercio de Couros e Peles Lda	368	Textiles & Leather Goods	Low	The company does not have a website, and there are no mentions of sustainability or ESG practices available online.