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Exploring the Relationship Between Financial Transparency and Sustainability Transparency in the Fashion Industry

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Abstract

The focus of this research is to investigate the relationship between the corporate sustainability attributes of financial transparency and sustainability transparency in the fashion industry. Many firms in the fashion industry disclose sustainability reports to communicate their efforts and activities for promoting sound environmental, social, and governance-related policies and practices. However, recent literature suggests that within the fashion industry, incomplete disclosures and a general lack of transparency diminish the usefulness and effectiveness of such reports. This study seeks to ascertain whether observed shortcomings associated with environmental, social, and/or governance-related disclosures are associated with similar shortcomings in corporate financial reporting completeness and transparency.

Keywords: Corporate social responsibility, corporate sustainability, financial transparency, stakeholders

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Chapter 1: Introduction

Transparency, in the context of financial reporting, refers to substantially complete and accurate reporting and the disclosure of financial information and sustainability practices. Transparency has become an increasingly important quality for firms in the fashion industry (Jestratijevic et al., 2021). The accounting standards and regulations set in place, along with the parameters of the legal system, hold firms accountable for financial transparency to keep investors informed and safeguarded (Nair et al., 2019; Hussain, Rigoni, & Cavezzali, 2018). In recent years, there has emerged a heightened demand from stakeholders for firms to disclose their supply chain practices, and incentives are provided for firms to align their strategic plans to include financial and sustainability disclosures (Fashion Revolution, 2022; Jestratijevic et al., 2021; Nilawati et al., 2019). In the fashion industry, having transparency in both financial and sustainability reporting has evolved into an opportunity for firms to develop a competitive advantage by appealing to stakeholder demands for increased transparency (Fashion Revolution, 2022; Jestratijevic et al., 2021; Nilawati et al., 2019). The use of transparency for a competitive advantage can be understood from the stakeholder theory perspective, which provided the theoretical framework for this study.

When viewed through the lens of the stakeholder theory, transparency is demanded from firms in the fashion industry to avoid their having reputational damage and potential financial devastation and to promote their survival (Jestratijevic et al., 2021). According to Parmar et al. (2010), stakeholder theory is the normative theory for business operations that recognizes the relationship between all stakeholders, including those beyond investors and creditors such as customers, employees, and suppliers.

Stakeholder theory recognizes the complex nexus of a business and its customers, suppliers, employees, investors, and the broader community and society. Under stakeholder theory, effective business management leads to optimized value creation for all stakeholders. Since developed societies worldwide have become increasingly focused on sustainability matters, a set of measures have been developed to provide insight. The measures are evolving and are typically discussed under the moniker of environmental, social, and governance metrics. These issues have taken on heightened relevance, which demonstrates the emergence of stakeholder theory. The advancement of information technology and social media platforms has increased the demand for transparency, openness, and accountability among firms and for ethics, sustainability, and social responsibility to be of foremost importance in business paradigms.

Engaging with stakeholders is an important activity for firms in order that each more fully understands sustainability in their context (Gao and Zhang, 2006). Engaging the stakeholders also aids the entity in fulfilling stakeholders' expectations surrounding transparency (Jestratijevic et al., 2021). Accountants and business ethics scholars have used the underlying principles in stakeholder theory to develop ideas about reporting practices and outcomes (Parmar et al., 2010). Stakeholders demand sustainability and financial reporting transparency because it enables them to understand operations and the results of the operations and make sound decisions regarding future cash flows and risks (Nilawati et al., 2019).

Researchers have examined the importance of transparency and sustainability in organizations. However, there has been a lack of studies that have simultaneously examined the factors related to financial transparency and sustainability reporting. Using

secondary data from the Fashion Transparency Index (FTI; 2022), this study aimed to address the research gap between financial transparency and sustainability efforts by identifying predictors of transparency among firms in the fashion industry. The study contributes to the literatures on financial reporting, governance reporting, and corporate and environmental social responsibility by examining whether transparency in sustainability reporting is related to transparency in financial reporting in an especially relevant context—the fashion industry. The findings of the study inform analysts working in the fashion industry, whose reports on supply chain practices have received heightened scrutiny. They also contribute to growing academic literatures in management, finance, and accounting regarding the relevance and relative effectiveness of current reporting practices.

Corporate Sustainability

Dyllick and Hockerts (2002) defined corporate sustainability as satisfying the demands and objectives of all the firm's stakeholders. Corporate sustainability thus requires a comingling of environmental and social issues with economic concerns (Amini & Bienstock, 2014; Ashrafi et al., 2018; Dyllick & Muff, 2016; Elkington, 1998; Linnenluecke & Griffiths, 2010).

Corporate sustainability originated from the broad-based concept of sustainability formed by various political, public, and academic influences (Ashrafi et al., 2018; Linnenluecke & Griffiths, 2010). The early 20th century nature conservation movement, the 1960s and 1970s environmental and anti-technology movements, and the “no growth” perspective that began in the 1970s, along with efforts from the discipline of ecology, were all factors that influenced the conception of corporate sustainability (Linnenluecke

& Griffiths, 2010). In the 1980s, social problems, including human rights, quality of life issues, and poverty, became more prominent, particularly in developing countries. The public outcry grew for new solutions to environmental issues and an integration of environmental protections, which would eventually lead to the alleviation of poverty (Linnenluecke & Griffiths, 2010). Nevertheless, the continued existence of poverty, food shortages, clean water accessibility issues, political and civil disputes, and ecological disasters linked to resource scarcity have continued to influence the increasing rate of calls for enhancing corporate responsibility (Ashrafi et al., 2018; Dyllick & Muff, 2016).

Corporate sustainability considers all stakeholders. Financial reporting and accounting information has developed to supply information most relevant to the stakeholders with a direct financial interest in the firm, namely shareholders, creditors, and government taxing authorities. The information needs of stakeholders beyond those with a direct financial interest, namely the "social" stakeholders that make up a society impacted by firm decisions, have largely not been a part of regular corporate communications until this current century when the ideas embedded in stakeholder theory took hold in response to the above concerns surrounding the broader and global impact of corporate behaviors on society. While there is a recognized wide and deep stream of academic literature concerned with financial reporting information provided to the financial stakeholders, the literature surrounding the information needs of the social stakeholders has evolved primarily in the last twenty years. As an evolving area of interest, the terminology used in academic studies and in the popular press to refer to the needs of the social stakeholders has undergone several iterations in a relatively short time. While the term corporate sustainability seeks optimization for all stakeholders and

includes the idea of the "triple bottom line," the emphasis in the studies that have followed the early corporate sustainability work has been on the corporate strategies and disclosures meant to address the social stakeholders, so labelled as the "corporate social responsibilities" or CSR of firms. Over time, as the standing of the social stakeholders gained traction in the academic literature and popular press, the term ESG, which refers to specific metrics that provide feedback on corporate social responsibility over environmental, social, and governance issues, has gained prominence as an all-encompassing term for the metrics and corporate social responsibility strategies of firms. Because of the similarities in meaning for these acronyms, the remainder of this study will use the term "sustainability" to refer comprehensively to a firm's CSR programs and strategies and the abbreviation ESG to refer to the specific metrics related to environmental, social, and governance commitments.

Financial Transparency

Within existing structures and expectations, firms can promote financial transparency by reducing information asymmetry between their business managers and investors. Financial transparency has been shown to provide benefits for investors (stakeholders) and firms. For example, reducing the information asymmetry between a firm's managers and investors can reduce the cost of capital (Cummings et al., 2018).

Increased interest in financial transparency has also been spurred on by corporate fraud issues and financial crises (Fischer et al., 2020). In addition, there has been increased interest among the academic community to study financial transparency and the increased governmental response to these matters, as evidenced by the 2002 Sarbanes-

Oxley Act (Fischer et al., 2020). These trends have led to there being more of a need for reliable information of standards-based transparency.

Examining firm transparency practices is complicated by the lack of guidance provided for transparency in other practices, such as sustainability. Although there has been limited research on sustainability practices in relation to financial transparency, the benefits of sustainability practices have been established in previous literature. The absence of implementing sustainable practices has been associated with dishonest behavior within organizations. In addition, sustainable business practices have been found to have a negative statistical relationship with fraud (Ramos Montesdeoca et al., 2019). The evidence of a negative relationship between adverse firm outcomes and sustainability practices reflects the need to explore how transparency in sustainable practices corresponds with financial transparency. As presented in the following section, scholars have explored transparency in the context of the fashion industry, responding to increased calls for transparency.

Research Gap and Significance

Scholars have suggested that there be further explorations of transparency in the fashion industry due to the increased demand for this information, and there has been mixed evidence of transparency practices among firms, demonstrating a need for research advancements in this area (Jestratijevic et al., 2021; Nilawati et al., 2019). Despite advancements in research on transparency in the fashion industry, there remains a lack of understanding of how indicators of transparency in sustainability practices correspond with transparency in financial practices. The underlying assumption has been that

financial disclosures and transparency practices should correspond with the transparency of sustainability practices.

However, as was evident in the literature, researchers have noted that because of the secretive and nondisclosure type of culture in the fashion industry, research is required in the area of sustainability practices (Jestratijevic et al., 2021). Although changes in policy and culture have influenced the practice of transparency within industries (Fashion Revolution, 2022), there has been little research that explores which factors are significant predictors of transparency and disclosure in the fashion industry.

Using secondary data from the 2022 FTI, this quantitative exploratory study focused on examining predictors of financial and sustainability transparency within firms in the fashion industry. Although previous researchers have examined the importance of transparency and sustainability in organizations, there has been a lack of examination of the factors related to transparency in financial and sustainability reporting. This study addressed the research gap between financial transparency and sustainability by identifying transparency predictors among fashion industry firms. Practicing transparency has been described as being essential for achieving progressive change in the global fashion industry (Fashion Revolution, 2022; Jestratijevic et al., 2021; Nilawati et al., 2019).

Fashion Revolution has advocated for transparency since 2014 and developed the annual FTI towards those ends. In addition to this initiative led by Fashion Revolution, legislative ideas to combat "greenwashing"[1] and protect the credibility of sustainability

[1] "Greenwashing" is when brands mislead consumers into thinking that their products are eco-friendly without offering proof (Fraser & van der Ven, 2022).

claims continue to be developed in the European Union, United Kingdom, Netherlands, and United States (Fashion Revolution, 2022).

However, the challenge of there being limited transparency in the fashion industry remains largely unresolved (Jestratijevic et al., 2021). The lack of transparency or hesitancy to disclose information in the fashion industry results in unsustainable practices and unmet stakeholder demands (Jestratijevic et al., 2021).

Through the efforts of Fashion Revolution's FTI, information on 250 of the world's largest fashion brands and retailers is available, including what their commitments are to sustainability. The FTI data shows a recent reduction in companies' policy scores from 53% in 2021 to 51% in 2022, indicating an increasing lack of transparency and disclosure policies among companies.

From the literature review it became evident that the factors associated with the transparency and disclosure scores presented in the FTI required further exploration. Based on the stakeholder theory that states there is a correlation between sustainability practices and positive behaviors within firms, this study explored the potential relationship between the sustainability and financial transparency practices of firms.

This study aimed to use the report on firms in the fashion industry and their sustainability and financial practices to determine whether there were statistical predictors between the two. An exploratory empirical approach was utilized to investigate potential relationships and predictors, and the results led to recommendations for improving transparency and disclosure practices in the industry, which will be presented as a contribution of the study.

Research Question and Hypotheses

The central research question in this study was: What sustainability indicators are statistically significant predictors of financial transparency for firms in the fashion industry?

As such, the assumption of a relationship between sustainability practices and financial transparency for firms in the fashion industry was investigated. The associated hypotheses are as follows:

Hypothesis 1**:** Financial transparency is positively correlated with sustainability in the fashion industry.

Hypothesis 2: Financial transparency is positively correlated with organizational policies and commitment in the fashion industry.

Hypothesis 3: Financial transparency is positively correlated with organizational policies of governance in the fashion industry**.**

Hypothesis 4: Financial transparency is positively correlated with organizational policies associated with traceability (the public disclosure of transparency within the supply chain).

Hypothesis 5: Financial transparency is positively correlated with spotlight issues (sustainable development goals) in the fashion industry.

Chapter 2: Literature Review

Among all industries, the fashion industry is thought to have the highest pollution, primarily due to its excessive usage of resources and a lack of environmentally sustainable production practices that contribute to water, waste, and plastic pollution (Evans, 2022; Peters & Simaens, 2020). Due to consumers being increasingly aware of

the lack of sustainable practices in fashion production, they have also become increasingly concerned about its environmental impact (Jestratijevic et al., 2020). As a result, clothing manufacturers have committed themselves to more ethical behavior to meet consumer expectations (Jestratijevic et al., 2020). As part of their programs, fashion brands have increasingly been taking part in transparency initiatives, such as engaging in fair trade and sustainability initiatives and being listed on the information transparency index (Eberhardt et al., 2020). In recent years, there has been a growing desire for brands in the fashion industry to be transparent about their policies and practices, and as a consequence of this trend, brands are being asked to address the complex supply chain and lack of identification of the origins of clothing (Jestratijevic et al., 2021) Transparency is important in this industry because it facilitates customer trust, increases and maintains a company's attitude toward its brand, and provides a competitive advantage (Khosroshahi et al., 2019).

Several scholars have pointed out that transparency in the global fashion business is crucial for achieving progressive change (Fashion Revolution, 2022; Jestratijevic et al., 2021; Nilawati et al., 2019). There has been a strong movement since 2014 in the fashion industry to promote transparency. As a result of this focus, Fashion Revolution (2022) developed the FTI, an annual review of 250 of the world’s largest fashion brands and retailers ranked according to their level of public disclosure on human rights and environmental policies and practices and the impacts on their operations and supply chains. When the fashion industry lacks transparency or is hesitant to disclose information to stakeholders, it results in unsustainable practices and unmet stakeholder demands (Jestratijevic et al., 2021).

Theoretical Framework

The stakeholder theory served as the theoretical framework for this study. Edward Freeman developed this theory in 1984, and he suggested that financial investors are just one of a variety of groups that an organization must serve if they are going to succeed (Parmar et al., 2010). Within the stakeholder theory, a stakeholder is a person, group, or organization that is either impacted by the operations or performance of an organization or participates in the operations of an organization (Parmar et al., 2010). A stakeholder group includes employees and service providers, customers, suppliers, citizens of local and wider communities, and governmental agencies.

According to the stakeholder theory, organizations should consider all stakeholders' perspectives to maximize long-term success. It is thought that if an organization can accomplish this, it can prosper in the long run (Parmar et al., 2010). It is important to note that *stakeholder* theory conflicts with *shareholder* theory, which states that the only stakeholders an organization needs to consider are its shareholders (Parmar et al., 2010). Stakeholder theory was defined by Nilawati et al. (2019) as an approach to improving business success and accountability by corporate entities that consider the interests of stakeholders in addition to the current structures and processes that they have adopted. According to stakeholder theory, it is the aim of the company not only to fulfill its own purposes but to consider the needs of its stakeholder community. The stakeholder theory is considered a strategic management concept that can assist companies in strengthening their relationships with external parties as well as building competitive advantages through the development of relationships (Nilawati et al., 2019).

There are several ways the stakeholder theory can be applied to sustainability practices. It is important for companies to develop a corporate strategy that considers their internal and external stakeholders to integrate sustainability practices into their business model (Peters & Simaens, 2020). In short, stakeholder theory, from consumers to shareholders to nongovernmental organizations, warrants consideration. Cici and D'Isanto (2017) stated that it is important to integrate relationships in regard to sustainability with internal and external stakeholders to develop or improve them, and that this can be achieved through collaboration. Furthermore, extended stakeholder groups can also put more pressure on companies to satisfy their demands. Stakeholders expect organizations to respond to the environmental and social consequences of global industries. Water shortages and emissions are global concerns, and many natural resources are becoming scarce and expensive. Furthermore, stakeholder interests extend beyond traditional notions of corporate generosity, and companies' efforts are directed toward mitigating negative social and environmental impacts (Peters & Simaens, 2020).

Undoubtedly, sustainability is important for companies participating in today's interconnected economy. Corporations are expected to do their part to reduce the adverse effects of their policies and operations on the environment and society. Stakeholder theory encompasses sustainability and can be used to analyze models focused on sustainability. Several researchers have argued that corporations, including those in the fashion industry, should put the interests of their customers, employees, and shareholders above all else and strive to meet their demands (Nguyen et al., 2020). For corporations to achieve a sustainable future, efforts must be directed toward social responsibility, environmental safety, and business sustainability for all operations to ensure a sustainable

future focused on the planet and people along with their goals of making a profit (Nguyen et al., 2020). The FTI provides information towards these efforts by firms in the fashion industry. The remainder of this literature review will address the following key dimensions of sustainability in the fashion industry: the triple bottom line, corporate governance and transparency, sustainability disclosure, and supply chain sustainability. The FTI is then described, and the literature review concludes with a section on financial transparency.

The Triple Bottom Line in the Fashion Industry

Dyllick and Hockerts (2002) explained that to achieve long-term sustainability, firms must integrate and identify three key elements known as the "triple bottom line," which relates to economic, social, and environmental sustainability (Dyllick & Hockerts, 2002, p.132). As Alshehhi et al. (2018) argued, business owners, while advocating for the triple bottom line, must realize that to remain relevant in a constantly changing market, it is no longer acceptable to focus exclusively on the economics of the business. Instead, they must develop strategies that consider financial sustainability, environmental sustainability, and human development to ensure sustainable growth (Alshehhi et al., 2018). These business strategies encompass the framework of environmental, social, and corporate governance. The environmental and social outcomes of this framework are driven by strategic decisions made by management. The corporate governance of this framework is the means by which companies operationalize the ideals of the triple bottom line.

The environmental impacts of the fashion industry have been the subject of criticism in the media due to the industry's limited consideration of and responsibility for

social and environmental matters (Niinimäki et al., 2020). One major reason there has been an increase in negative environmental effects from this industry over the last few decades is due to the significant increase in clothing consumption and textile production associated with its growth. According to Niinimäki et al. (2020), the business model of "fast fashion" is based on recurring consumption, impulse buying, and the wide range of products offered to meet the demands of customers. Fast fashion's proliferation and success are mainly due to consumers not being aware of sustainability practices for the fashion brands they purchase or knowing what brands are responsible for in terms of sustainability. Fast fashion is associated with mass-market retailers. For many years, the opacity in fast fashion practices has resulted in more vocal complaints from consumers and nongovernmental organizations about the lack of transparency (Fraser & van der Ven, 2022).

To move towards greater social and environmental responsibility and away from the unsustainable practices of fast fashion, the "slow fashion" movement was introduced. Slow fashion is about reducing, reusing, and recycling materials and products so that the industry has a reduced environmental impact. According to Lee et al. (2017), the slow fashion movement is connected to the anti-consumption movement. Slow fashion is a concept that was first introduced by Kate Fletcher in 2007 that was used to slow down the pace at which products were being produced and consumed to make them more environmentally friendly. Slow fashion is also associated with luxury brands.

Unlike other fashion movements, slow fashion has adopted a production philosophy centered around the idea that all stakeholders, whether they be designers, buyers, retailers, or customers, should be considered when companies design, produce,

sell, or consume (Centobelli et al., 2022). This means it is important to pay attention to all stakeholders' needs and consider impacts of the fashion industry on workers, consumers, and ecosystems.

As visions and missions of companies are becoming integrated, sustainability has become an increasingly important part of everything they do and is one of the most important factors to consider for their success. Section 1 of the FTI (which is described in detail in the next section) captures the overall sustainability of companies.

Corporate Governance and Transparency in Fashion Firms

Corporate governance mechanisms are the means by which companies operationalize the ideals of the triple bottom line. Hussain et al. (2018) added onto prior research by studying the relationship between corporate governance and the triple bottom line through the performance of 100 U.S. firms over five years (2007 to 2011). As corporate governance variables, the authors considered board size, board independence, CEO duality, women on the board, the number of board meetings per year, and the existence of a sustainability committee or corporate social responsibility director, and they also used the triple bottom line sustainability performance based on the Global Reporting Initiative framework. Their results generally support how important corporate governance is on the environmental and social dimensions of the triple bottom line. Specifically, Hussain et al. (2018) indicated that board independence was positively associated with environmental and social performance, CEO duality was positively linked with environmental performance, women on the board positively impacted social performance, board meeting frequency was positively associated with social performance, and there was a positive association between corporate social responsibility

committees and environmental and social performance. No significant associations were found between corporate governance measures and economic sustainability. The authors posited that the lack of results in this area was related to the measurement of the economic indexes by the Global Reporting Initiative, and this finding has been further corroborated by updated metrics put in place for the Global Reporting Initiative since the study took place. Also, Hussain et al. (2018) pointed out the existing literature at the time of the study that associated corporate governance with financial performance.

Transparency in Fashion Firms

In recent years, brands in the fashion industry have become increasingly aware of the need to be transparent in their business practices. Wulff (2019) and Jestratijevic et al. (2021) examined transparency and concluded that it has been an emerging topic in the fashion industry in recent years due to the growing number of consumer demands and expectations. The lack of transparency brands have been offering has also been widely criticized by the public, prompting stakeholders to initiate that more transparency be put into effect. In an effort to force the fashion industry to disclose information about its supply chains, several government initiatives have been created, including the California Transparency in Supply Chains Act (Jestratijevic et al., 2021), aimed at requiring the fashion industry to provide such information.

In a study of transparency in the fashion industry, Jestratijevic et al. (2020) used data collected from the 2017 FTI to analyze levels of corporate and supply chain transparency. Their results indicated that there was a higher rate of firms who had corporate transparency in disclosing policies and corporate governance than there was for firms disclosing supply chain transparency. The authors further identified two samples,

one of mass-market retailers and one of luxury brands, to compare in terms of supply chain transparency and found that the mass-market subsample had higher levels of transparency regarding audits and traceability that led to a negative impact over their counterpart of luxury brands. These findings were consistent with prior research cited by the authors, in which luxury brands were found to be very secretive about their corporate and supply chain practices, mainly to maintain brand exclusivity.

Having transparent relationships with stakeholders is one of the most important actions a company can take to achieve its goals. There are reasons why a company might choose not to be transparent. However, opaqueness can lead to a higher cost of capital or even a lack of access to capital. A company's transparency is crucial for promoting trust, managing risks, and enhancing its brand reputation (Nilawati et al., 2019). Nilawati et al., in their explanatory research on the effect of stakeholder pressure and corporate financial performance on the transparency of sustainable reports on state-owned companies listed on the Indonesian stock exchange during 2013–2017, found a positive association between stakeholder pressure and higher transparency in sustainability disclosures. Nilawati et al. discovered companies in environmentally sensitive industries would disclose sustainability reports with high levels of transparency to minimize public perceptions of their environmental impact and that these reports were aligned with their objective of corporate governance. Reports on sustainability were found to be an effective solution to address the doubts of stakeholders. If a company has poor management strategies and presents false sustainability reports to show compliance with sustainability standards, they can be challenging to validate without certification. Therefore, if a company is not transparent about its sustainability performance, stakeholders may

become aware that their sustainability performance is low, which can hurt the company's image, minimize their legitimacy, and jeopardize the trust of its stakeholders (Nilawati et al., 2019).

Many groups in the apparel industry work to promote standards of ethical and environmental conduct, including the Sustainable Apparel Coalition, whose goal is to promote ethical and environmental standards for the apparel industry. Even though some industry norms are an attempt to encourage companies to be more transparent about their supply chains and how their operations affect the environment, there is still a wide spectrum of fashion retailers' commitment to transparency (Fraser & van der Ven, 2022). In a series of comparative case studies of the four largest fast fashion retail companies, Fraser and van der Ven (2022) found that higher levels of transparency were attributable to a combination of reputational risk, domestic norms and institutions, and CEO values.

Fraser and van der Ven's (2022) research indicates that consumer behaviors do not necessarily align with their attitudes toward sustainability. In a survey of 263 Croatian respondents who had purchasing power, Mandarić et al. (2022) found a positive correlation between the importance of fashion brands' sustainability practices and consumers' decisions to buy sustainable clothing products. However, the sustainability of a fashion brand or product was found to be among the least important factors in consumers' purchasing decisions. This gap between consumers' attitudes and purchasing behavior supported the results of prior research. The authors concluded that more work needs to be done to close gaps between sustainability practices and consumer behavior to move toward more proactive purchasing of sustainable clothing by consumers.

If certification processes are not transparent or clear, they cannot fully inform consumers about a product's sustainability. This issue is further complicated by the lack of guidance on how to examine firms' transparency practices. While there has been limited research on sustainability practices in relation to financial transparency, there has been a growing body of evidence indicating the benefits of sustainability practices. The absence of the implementation of sustainable practices has been associated with dishonest behavior among organizations. Several studies have revealed a negative statistical relationship between fraudulent behavior and sustainable business practices (Ramos Montesdeoca et al., 2019). Understanding how transparency in sustainable practices relates to transparency in financial reporting is important. Considering the increased calls for transparency, it is fitting that scholars have been exploring transparency in the context of the fashion industry. Section 2 of the FTI covers the ideals surrounding governance and transparency.

Sustainability Disclosures

In the fashion industry, the term "sustainability social and environmental impact of their disclosure" refers to the voluntary, non-financial disclosure made regarding a company's business operation (Diouf & Boiral, 2017). In 1997, the Global Reporting Initiative was established to provide guidelines for companies seeking to improve their business practices by using sustainable methods (Jestratijevic et al., 2020). An important objective of the reporting initiative is to make companies' business procedures and their impact more transparent so that they and their stakeholders can take steps to implement positive change, measure business performance, and monitor progress toward achieving these goals (Jestratijevic et al., 2020). There are a number of online sources for

sustainability reports that can be found on corporate websites or through independent sustainability reports published by independent third-party organizations (Jestratijevic et al., 2020). Creating reliable disclosures depends upon businesses operating transparently to ensure that they include easy-to-access, precise, accurate, and relevant information that is easily understood and readily available to the public. Ioannou and Serafeim (2017) found that mandatory sustainability reporting positively impacted socially responsible management practices. Several factors, such as changes in practices and new regulations in the industry, have led to companies disclosing their sustainability practice (Jestratijevic et al., 2020).

Some companies are now obtaining sustainability accreditations to demonstrate their commitment to corporate social responsibility. One of the fundamental accreditations in the fashion industry is the fair-trade certification, which attests to compliance with workplace safety conditions and hygiene standards of agricultural procedures in developing countries (Centobelli et al., 2022). Obtaining these accreditations allows consumers to make better informed choices regarding their purchases. Businesses also use sustainability reporting activities in which they voluntarily communicate the results of their business and do not limit themselves to reporting only financial and accounting results but include social and environmental results as well. Fashion companies use these reporting activities because of their benefits, like having better organization and management processes inside their company and gaining positive perspectives from external stakeholders (Centobelli et al., 2022).

Several initiatives have been implemented to encourage the publication of sustainability information. According to the California Transparency in Supply Chains

Act (2012), stores in the United States are required to certify the transparency of their supply chains and to disclose how they are taking steps to prevent human abuse during the production process. At the same time that the California Transparency in Supply Chains Act was instituted, the Modern Slavery Act (2015) was passed in the United Kingdom to address similar issues. To regulate the handling of chemicals and provide information about chemicals to the public, the European Union created the Register, Evaluation, Authorization, and Restriction of Chemicals Act (2006). Many advocacy groups, including Clean Clothes Campaign, People for the Ethical Treatment of Animals, and Greenpeace, have been pushing companies to treat workers, animals, and the environment more ethically. These organizations further require companies to disclose their processes and mechanisms to resolve these issues (Jestratijevic et al., 2020). Even though many fashion companies have taken steps to disclose their commitments to sustainability and inform their customers about it, it seems that industry stakeholders poorly understand corporate and supply chain disclosures (Gardner et al., 2019).

Corporate governance and sustainability disclosure together form the basis for sustainability. Using stakeholder theory for a study of sustainability disclosures from 57 companies listed on the U.S. Dow Jones Sustainability Index along with a control group belonging to the Dow Jones Global Index for the year 2003, Michelon and Parbonetti (2012) analyzed the impact of board composition, board characteristics (community influential board members), structure (presence of a corporate social responsibility committee) and leadership (CEO duality) on sustainability disclosure. In this study, fashion industry firms were included in either a consumer industry grouping (28 of 114 firms) or a consumer cyclical industry grouping (22 of 114 firms). The results indicated a

positive association between community influential board members and sustainability disclosure and a moderately significant positive association between the presence of a corporate social responsibility committee or director and the disclosure of social information. No significant association was found between board composition or CEO duality and sustainability disclosure.

There is a growing need for transparency in the fashion industry regarding sustainability, especially because of some common practices such as greenwashing. Greenwashing is an act being committed by brands against their consumers, in which consumers are misled into thinking that a company's products are eco-friendly without them providing evidence or substantiating the claims (Fraser & van der Ven, 2022).

Several brands in the fashion industry have turned to greenwashing as a tool to ease the pressure of their sustainability performance. A traditional definition of greenwashing is promoting and falsifying an organization's efforts to be environmentally friendly or spending more resources on promoting an organization's efforts to be environmentally friendly rather than engaging in environmentally sound practices (Generation Climate Europe, 2021).

As some fashion industry professionals describe it, greenwashing is when a company highlights one or just a few of its green practices while hiding other activities that negatively impact the environment to present the company as more environmentally sustainable than it is. In the context of the sustainability conflict, the literature review revealed that more work needs to be done to close sustainability gaps and effect consumer behavior so that they more proactively focus on sustainable clothing (Mandarić et al., 2022).

Numerous studies have been conducted on greenwashing and its effects on the fashion industry and on consumer trust. Lu et al. (2022) examined the relationship between consumers' perception of greenwashing and their green purchase intentions in the fast fashion industry to determine whether and how consumers' perceptions of greenwashing influenced their green purchase intentions. The results suggest that consumers' perceptions of greenwashing in the fast fashion industry have a direct adverse effect on their intentions to purchase green goods. Furthermore, a conclusion of the study was that the perception of greenwashing also had an indirect negative effect on consumers' perception of risk, namely the perception of financial and environmental risk. Several significant insights have been provided regarding the fast fashion industry and consumer behavior as a result of this study conducted by Lu et al. (2022).

When suspicions of greenwashing arise, a consumer is less likely to purchase products in the future from that company or products that are related to its sustainability efforts. This can harm a company's public brand recognition, and the lack of consumer confidence can have a detrimental effect on their brand recognition. Companies in the fashion industry must take more measures towards sustainability and adopt a factual approach to their marketing strategies without exaggeration or concealment. Lu et al. (2022) suggested that companies adopt more authentic communication strategies when making green statements and declarations. According to Gazzola et al. (2020), there has been a growing interest in sustainability issues among younger consumers in recent years, which should be viewed as an indication for companies to become more transparent to consumers in their disclosure of sustainability practices.

This issue is further complicated by the lack of guidance on how to examine firms' transparency practices within their sustainability practices. While there has been limited research conducted on sustainability practices in relation to financial transparency, there has been a growing body of evidence indicating the benefits of sustainability practices. It is clear in the literature that the absence of implementing sustainable practices has been associated with dishonest behavior among organizations. Several studies have revealed a negative relationship between fraudulent behavior and sustainable business practices (Ramos Montesdeoca et al., 2019). Understanding how transparency in sustainable practices relates to transparency in financial reporting is important. Considering the increased calls for transparency, it is only fitting that scholars have been and continue to explore transparency in the context of the fashion industry.

Scholars have analyzed how the increased demands for transparency have impacted the fashion industry. It is important to realize that the use of transparency for a competitive advantage is based on the need to engage with stakeholder demands while minimizing its associated perceived risk (Nilawati et al., 2019). Undoubtedly, companies in the fashion industry have had to respond to stakeholder demands for increased transparency and have then turned this into a competitive advantage (Jestratijevic et al., 2021). The fashion industry is experiencing a growing demand for financial transparency as well as transparency in sustainability reporting, which has evolved into an opportunity for firms to develop a competitive advantage by appealing to stakeholder needs for transparency (Fashion Revolution, 2022; Jestratijevic et al., 2021; Nilawati et al., 2019). Kim et al. (2020), Jestratijevic et al. (2021), and other scholars have also examined the benefits of transparency for firms in the fashion industry. In fact, scholars have called for

further investigation of transparency in the fashion industry due to the increased demand for evidence of transparency practices among firms. While multiple sections of the FTI framework touch upon sustainability, Section 3 is most aligned with sustainability disclosures.

Supply Chain Sustainability

Sustainability has evolved over the last few decades from its initial focus on the environment to encompass social and environmental concerns, which has led to a growing interest in green supply chain management, which incorporates a social and environmental focus (Rajeev et al., 2017). Companies in the supply chain management sector must recognize that they have a responsibility within the social and environmental domains to provide sustainable supply chain management services and not to focus only on profit maximization (Köksal et al., 2017). Fashion industries have become increasingly globalized, and companies depend heavily on supply networks. The result of this is a significant amount of social and environmental problems due to the exploitation and extraction of resources and air pollution and smog caused by these processes (Karaosman et al., 2020). The burden on suppliers to produce garments faster and cheaper than their competitors may cause engagement in risky labor practices and other scandalous activity to meet company demand, including the release of toxic chemicals into the environment, child labor, and a variety of other tactics in the social and environmental contexts. Moreover, risky practices to produce faster and cheaper garments damages brands and demonstrates that the fashion industry is not sustainable (Brun et al., 2020).

The fashion industry, as a whole, depends significantly on globally dispersed, highly complex, and fragmented supply chains, and this is one of the largest factors of competitiveness within the industry. Fashion supply chains are considered to be complex due to various factors such as supply and demand uncertainty, short product lifecycles, and product variety. These factors contribute to a difficulty in managing fashion supply chains (Karaosman et al., 2016). Raw material producers, manufacturers, distributors, and retailers are the essential elements of the fashion supply chain when managing it correctly (Brun et al., 2020). Many environmental and social concerns are generated when picking up raw materials, processing and producing products, and disposing of them (Brun et al., 2020).

A growing number of fashion brands are increasing transparency in their business practices in response to the demand from stockholders and consumers. These brands disclose information on their products' cost breakdowns and manufacturing processes as part of their commitment to fostering a transparent culture. For example, Everlane practices what is called “radical” transparency in its business practices, which refers to reporting production costs by each component manufactured. As a result, labor, materials, transportation, duties, and other costs are separately reported. Especially for fashion brands that are looking to make a name for themselves in the market, transparency is an important aspect to focus on for their business. This is due to ethical questions that are frequently asked in relation to supply chains in the fashion industry (Amed et al., 2019), especially regarding the treatment of workers throughout the production process.

Additionally, the fashion industry needs more transparency in the pricing and selling of its products. Even though the price of a fashion product largely influences

consumers' decision-making, details about the cost of sustainable products are primarily hidden from them when they make these decisions (Han et al., 2017).

Even though some industry norms attempt to encourage companies to be more transparent about their supply chains and how their operations affect the environment, there is still a wide spectrum of commitments to transparency among fashion retailers (Fraser & van der Ven, 2022). Section 3 of the FTI captures companies' supply chain transparency.

Fashion Transparency Index

Fashion Revolution (2022), part of the UK Foundation initiative, published the FTI for the first time in 2017. The publication compiles the information disclosed by the most affluent fashion brands on their websites, parent company websites, or sustainability reports to rank them according to their level of disclosure (Jestratijevic et al., 2020). The index includes corporate transparency, supply chain transparency, and corporate governance information. Moreover, the report has subcategories that include: (a) policies, which refer to the standards of social and environmental care that businesses adhere to; (b) the visibility of top management and their responsibilities; (c) the visibility of suppliers and production networks; (d) information regarding the last audits, corrective action plans, and remediations performed by the producers; and (e) information on the impact of businesses on the environment (Jestratijevic et al., 2020). Fashion Revolution's primary goal in providing the index is to condense ratings in a cumulative and area specific form, along with scores for each brand, to help businesses identify their strengths and weaknesses (Jestratijevic et al., 2020).

Fashion Revolution (2022) works toward a vision of the fashion industry in which the environment is conserved and restored, and people are prioritized over growth and profit. Fashion Revolution has evolved into the world's most significant fashion activism movement, uniting citizens, industries, and policymakers through research, education, and advocacy.

According to Fashion Revolution (2022), when FTI was founded 100 brands were reviewed and their information was collected to be used by individuals, activists, environmental groups, policymakers, investors, and the brands themselves to examine how big fashion brands were operating, assess trends, and compare transparency levels on human rights and environmental issues across their value chains, hold them accountable, and work to make change a reality. However, the FTI has expanded to a yearly review of 250 of the biggest global clothing brands and retailers. The FTI concentrates on the most profitable and prominent brands and retailers because they have the highest negative impact on employees and the environment compared to other companies and thus bear the most responsibility for making changes.

The FTI offers a way to examine brands' public disclosures on human rights and environmental issues across 246 factors in 5 key areas. The first key area is “policies and commitments”: This section offers data on companies’ social and environmental policies for employees and workers in the supply chain, as well as how these guidelines are carried out. The second area is “governance”: This section lists brands’ governance and who is responsible for social and environmental implementation and performance on their executive board. The third area is “supply chain traceability”: This section gives data that is collected from brands who are expected to publish supplier lists for

manufacturing, processing facilities and mills, and raw materials. Other details include supplier addresses and worker demographics. Further, the suppliers' lists for the companies are made publicly available, which is in alignment with the open data standard for the apparel sector. The index lists if brands are active contributors to the Open Apparel Registry to enable collaboration and efficient data access for impacted stakeholders. The fourth area is “know, show, and fix”: This section offers data on brands’ disclosures towards human rights, their environmental due diligence process, and audits of their suppliers' policies and results. The fifth area is “spotlight issues”: This lists brands’ sustainability disclosures on forced labor, living wages, purchasing practices, sustainable materials, water, and chemicals. (See Appendix A for a full description of data items contained in these five areas.)

Financial Transparency

The term *financial transparency* refers to a true and fair reflection of a company's economic performance and financial position as it is portrayed in their financial statements. Financial accounting information is generated through a company's accounting and external reporting systems that measure and frequently disseminate audited, quantitative data addressing publicly traded companies' financial position and performance. Audited balance sheets, income statements, cash flow statements, and supporting disclosures are the backbone of an organization's data set available to stakeholders and government regulators (Bushman & Smith, 2003).

Bhattacharya et al. (2003) designed a study based on Bushman and Smith’s (2003) call for further research. Cross-country comparisons were used to investigate the connections between financial accounting information and corporate governance, and

three earnings channels were examined that could impact the financial markets. The first earning channel was related to improving accounting information, which allows investors to differentiate between good and bad investment opportunities and to lower their estimation risk along with lowering the firm's cost of equity. The second earning channel was related to improving accounting information to allow investors to differentiate between good and bad managers and to reduce agency costs and firms' equity costs. The third earning channel was related to earnings opacity, which increases asymmetry by weakening the connection between reported accounting earnings and unobservable economic earnings (Bhattacharya et al., 2003).

Furthermore, Bhattacharya et al. (2003) contended that cross-country comparisons of earnings opacity may result from variations in accounting standards, audit quality, and dispersed earnings opacity in different countries. Additionally, earnings opacity can be interconnected to cross-country variations in financial efficiency and organizational and worldwide environmental factors (Bhattacharya et al., 2003).

Bhattacharya et al. (2003) analyzed the financial statements of 58,653 firms in 34 countries from 1985 to 1998 using earnings opacity variables from the data collected from the Worldscope database. The researchers aimed to construct a group of data sets designed to measure the three dimensions of earnings opacity for the reported accounting earnings of each country: earning aggressiveness, loss avoidance, and earning smoothing. Combining the three dimensions of earnings opacity resulted in each country having an overall earnings opacity, which was a time series measure. Bhattacharya et al. investigated whether the three earnings opacity measures impacted two characteristics of a country's equity market: the return on the shareholder demand and the amount of their

trading. The analysis of average earnings opacity assumptions for each country was significantly associated with factors that may have affected the general quality of a nation's financial reporting regime. Furthermore, they discovered that an increase in a nation's earnings opacity was associated with a rise in the cost of equity and lower trading in that country's stock market (Bhattacharya et al., 2003).

Kim et al. (2012) investigated whether there were differences in the behavior of socially responsible and non-socially responsible firms in their financial reporting. Their main focus was to find whether firms with corporate social responsibility avoided earnings management for transparent and reliable financial information over firms that did not meet the same corporate social responsibility guidelines. Kim et al. (2012) collected the corporate social performance data from Kinder, Lyndenberg, and Domini (KLD; 2006). The KLD database uses survey data, financial statements, well-known media articles, scholarly articles, and government reports to determine social performance aspects such as corporate governance, community diversity, labor relations, the environment, and the product. To determine the discretionary accruals (proxies for earnings management) for actual activities manipulation, observations from 23,391 firms were compiled from KLD and matched with data from Audit Analytics and S&P's Compustat Financials databases from 1991 to 2009. Kim et al. (2012) reported a low likelihood of corporate social responsibility from firms managing aggressive earnings through discretionary accruals and/or real activities manipulation. They further found that firms with corporate social responsibility were more conservative and cautious in accounting and operational decisions, providing more transparent financial information to serve the best interests of every stakeholder (Kim et al., 2012).

Dhaliwal et al. (2014) examined whether there was an association between corporate social responsibility disclosure and the cost of equity capital in more stakeholder-oriented countries and whether there was an association with the cost of equity capital in financially opaque countries or firms. The authors collected corporate social responsibility reports covering 31 countries from online sources such as the Corporate Register, corporate social responsibility news, and firms' websites. Dhaliwal et al. reported a negative association between corporate social responsibility disclosure and the cost of equity capital, and further, found a substantial negative association with more stakeholder-oriented countries. Additionally, the authors found that for countries or firms with financial opacity, the negative association between corporate social responsibility disclosure and the cost of equity capital was more visible since financial and non-financial disclosures were used alternatively (Dhaliwal et al., 2014).

Nair et al. (2019) examined the relationship between corporate social responsibility disclosures and financial transparency in India, where corporate social responsibility disclosures are mandatory. The study consisted of 12 industries and included data drawn from the Prowess IQ database on the top 100 non-financial and non-state-owned Indian companies listed on the BSE (formerly the Bombay Stock Exchange) for the years 2014–2017. Nair et al. found that financial transparency improved when corporate social responsibility disclosures were mandated. Furthermore, Nair et al. observed that ownership structure had different impacts on the relationship between corporate social responsibility disclosures and financial transparency. Their findings suggest that retail investors effectively impact the positive relationship between corporate

social responsibility disclosures and financial transparency, while institutional investors do not (Nair et al., 2019).

According to Nair et al. (2019), firms are responsible for ensuring that their investors are informed while simultaneously protecting them as they implement legal, regulatory, and accounting policies. For a firm to implement financial transparency, it mainly means disclosing their earnings through financial statements, which are used to assess their economic performance (Nair et al., 2019).

As a result of incidents of corporate fraud and financial crises, the interest in financial transparency and governance has increased over the last few years (Fischer et al., 2020). Research has shown that reducing the asymmetry in information between a firm's managers and investors can be beneficial by stimulating additional capital through their ability to increase financial transparency disclosures (Cummings et al., 2018). Academic researchers have similarly demonstrated an increased interest in financial transparency and governance, and government response to this issue has increased, as evidenced by the 2002 Sarbanes Oxley Act (Fischer et al., 2020). As a result of these trends, inferable information and standards-based transparency have become more important than ever before. In the past few decades, there has been a strong push toward increasing corporate transparency, resulting in regulations that promote transparency and accountability within corporations (Guerber & Anand, 2019).

Conclusion

The literature review provided an overview of transparency in the fashion industry. The fashion industry has come a long way with its efforts towards transparency in both the financial and sustainability domains. However, much more has to be done

because of the waste and pollution the fashion industry continues to cause. While fast fashion previously dominated the industry, which contributed to increased waste, many companies and advocates have been placing mounting pressure on companies to reduce their waste, contribute to the sustainability of the industry, and help eliminate contaminants in the environment. The conditions of workers in factories have also been a concern. Advocates of human rights have worked hard to ensure that companies who outsource their work to developing countries pay their workers a fair wage. Sustainability practices have become a popular topic in the fashion industry. While progress has been made with companies being transparent with their sustainability practices, much more can be done to ensure workers and the environment are well taken care of, leading to a fully sustainable industry.

Chapter 3: Method

The methods and procedures used to conduct this quantitative study will be explained in this section. The research design was driven by the purpose of the study, which was to examine the relationships between financial transparency and indicators of transparency in sustainability practices in the fashion industry. In addition to a description of the research design and methodology, an explanation of the analysis that was conducted will be described.

Research Design

An empirical quantitative methodology was used in this study. Such methods are applied when the researcher is interested in examining the statistical relationships between variables using numeric data (Creswell & Creswell, 2018).

Since existing data was available, this secondary data was utilized to conduct the study. All data used in this study was obtained from publicly available sources. The FTI (2022) is a secondary, non-financial source that was used to gather data on the transparency of companies in disclosing their sustainability practices and their culture surrounding these practices. There is reason to believe that the FTI data was correct at the time of its publication. The assessment of fashion brands was carried out solely according to the new FTI methodology. The 2022 FTI consists of data on 250 of the most prominent fashion brands and retailers whose rank is based on their released public information on environmental and human rights policies and procedures and their effect on their business operations and supply chains (Fashion Revolution, 2022). When conducting this study, a distinction was made between organizations that did or did not have a complete set of company-wide policies regarding their employees, community, products, customers, and the environment. Using the FTI data, the extent of the disclosures furnished by companies was explored regarding their sustainability practices.

For the study, the fashion brands' financial reporting data was obtained from the Audit Analytics and Compustat Financials databases, which offer standardized financial statements and statistical and market information for over 90,000 active and dormant publicly traded companies worldwide. The financial data sets of the same companies that were listed on the FTI were downloaded and collected from the Audit Analytics and Compustat Financials databases from the 10-K reports over six years (2017–2022).

The outcome of interest in the study was that financial transparency and sustainability would be related to transparency indicators found in the FTI data. The

underlying hypothesis was that organizations with higher transparency scores within the FTI have increased financial transparency.

Research Question and Hypotheses

The central research question of this study was the following: What is the relationship between financial and sustainability transparency in the fashion industry?

The hypotheses associated with the research question were developed based on the predictor variables of interest and financial transparency. According to Nair et al. (2019), little empirical evidence links sustainability disclosures and financial transparency. Nair et al. (2019) noted that previous research on the relationship between sustainability disclosures and earnings management has indicated low financial transparency and yielded mixed results. However, Kim et al. (2012) found that socially responsible firms behaved as such, and their financial information was more transparent and reliable to investors than that of other firms. On the other hand, Prior et al. (2008), using a sample of 593 firms in 26 countries between 2002 and 2004, discovered a positive relationship between socially responsible businesses and their level of earnings management practices, implying self-interested and exploitative managerial behavior. Since there were different opinions found in the literature regarding the relationship between financial transparency and sustainability policy, it was essential to pose the following hypothesis:

Hypothesis 1**:** Financial transparency is positively correlated with sustainability in the fashion industry.

From a stakeholder theory perspective, the long-term success of an organization is maximized by considering its environmental and social impact, implementing sound

practices, and then measuring its impact. Done well, this is an approach to maximize long-term organizational success for all stakeholders (Eccles et al. 2014). Considering this approach to sustainable organizations, it was assumed that integrating environmental and social policies within organizational policies and commitment would result in transparency in sustainability disclosures. For Hypothesis 2, then, the variables of policy and commitment were included with the organizational policies and commitments related to the FTI.

Hypothesis 2: Financial transparency is positively correlated with organizational policies and commitment in the fashion industry.

Aras and Crowther (2008) explained that sound corporate governance fosters an environment of trust, ethical and moral values, and confidence. As a result, good governance of a firm focuses on creating long-term value, achieving objectives, and balancing economic and social benefits. Firms must understand the four principles of good corporate governance: (a) transparency, (b) accountability, (c) responsibility, and (d) fairness.

These principles are linked to a company's sustainability. Sound corporate governance within a firm means long-term sustainable value is created, objectives are achieved, and a balance of economic and social benefits are maintained. Therefore, companies with sound corporate governance are transparent in their sustainable practices (Aras & Crowther, 2008).

Furthermore, Hussain, Rigoni, and Orij (2018) stated that a corporate social responsibility committee represents a board's alignment and commitment to sustainable growth. According to the authors, the presence of a corporate social responsibility

committee indicates an attempt to commit to more effective stakeholder management. Based on this knowledge, in the present study, it was anticipated that there would be a positive relationship between financial transparency and governance for firms in the fashion industry, which was the basis of the next hypothesis.

Hypothesis 3: Financial transparency is positively correlated with organizational policies in governance in the fashion industry.

Brun et al. (2020) explained that stakeholders demand transparent supply chain information and that transparency is required for a sustainable supply chain. They found that there was growing pressure on managers from external stakeholders who demanded they be provided with supply chain information. Collaboration with multi-stakeholder engagement, top management commitment, and leadership is required to overcome supply chain complexity and enhance transparency. On the other hand, due to the secretive and non-disclosure type of culture in the fashion industry, releasing information on supply chains, transparency, and traceability has always been problematic. Therefore, the following hypothesis was proposed:

Hypothesis 4: Financial transparency is positively correlated with organizational policies producing strong traceability information (the public disclosure of transparency within the supply chain).

Spotlight issues refer to work and purchasing practices; gender and racial equality; sourcing and materials, overconsumption, waste, and electricity; water and chemicals; and climate change and biodiversity. According to Fashion Revolution (2022), Greenpeace's campaign called "Detox My Fashion," which spotlighted the devastating

environmental impact of clothing and shoe manufacturers, served as a wake-up call for the fashion industry.

According to Wagner (2005), a positive relationship exists between a firm's environmental and economic performance and pollution prevention strategies, and this relationship improves their sustainability. Similarly, the findings of Oncioiu et al. (2020) suggest that enhancing environmental, social, and governance disclosure performance should be a major policy priority for firms to be more profitable and achieve financial transparency. Based on this knowledge, the following hypothesis was proposed:

Hypothesis 5: Financial transparency is positively correlated with spotlight issues (sustainable development goals) in the fashion industry.

Model Specification

This study applied the methodology used by Qian et al. (2015) and Nair et al. (2019). The resulting models are described in this section. The dependent variable of financial transparency was measured as earnings aggressiveness (EA). In the following models, *FTI* refers to the overall FTI score for firm *y* at time *t*. *BIG 4* refers to the Big 4 auditing firms; it equals 1 if the firm had been audited by a Big 4 firm at time *t* or it is 0 otherwise. *SIZE* refers to the firm's size, which is the natural logarithm of total assets (Nair et al., 2019). *BTM* refers to the book-to-market ratio of firm *y* at time *t*. *LEV* refers to the leverage for firm *y* at time *t* and is measured as the ratio of the book value of debts to the book value of total assets (Nair et al., 2019). *AGE* refers to the age of the firm *y* at time *t* in years and is measured by the natural log of the number of years since inception.

The following models were estimated to test the respective hypotheses:

Hypothesis 1: $FINTPY_{y,t} = \beta_0 + \beta_1 FTI_{y,t} + \beta_2 BIG4_{y,t} + \beta_3 SIZE_{y,t} + \beta_4 BTM_{y,t} + \beta_5 LEV_{y,t} + \beta_6 AGE_{y,t} + \varepsilon$.

In this model, *FINTPY* refers to financial transparency measured as earnings aggressiveness, $EA = (\Delta TA - \Delta CL - \Delta CASH + \Delta STD - DEP + TP)/LTA$.

Hypothesis 2: $FINTPY_y = \beta_0 + \beta_1 FTI\ S1_{y,t} + \beta_2 BIG4_{y,t} + \beta_3 SIZE_{y,t} + \beta_4 BTM_{y,t} + \beta_5 LEV_{y,t} + \beta_6 AGE_{y,t} + \varepsilon$.

In this model, *FTI S1* refers to Section 1 of the FTI, which pertains to policy and commitment.

Hypothesis 3: $FINTPY_y = \beta_0 + \beta_1 FTI\ S2_{y,t} + \beta_2 BIG4_{y,t} + \beta_3 SIZE_{y,t} + \beta_4 BTM_{y,t} + \beta_5 LEV_{y,t} + \beta_6 AGE_{y,t} + \varepsilon$.

In this model, *FTI S2* refers to Section 2 of the FTI, which pertains to governance.

Hypothesis 4: $FINTPY_y = \beta_0 + \beta_1 FTI\ S3_{y,t} + \beta_2 BIG4_{y,t} + \beta_3 SIZE_{y,t} + \beta_4 BTM_{y,t} + \beta_5 LEV_{y,t} + \beta_6 AGE_{y,t} + \varepsilon$.

In this model, *FTI S3* refers to Section 3 of the FTI, which pertains to supply chain traceability.

Hypothesis 5: $FINTPY_y = \beta_0 + \beta_1 FTI\ S5_{y,t} + \beta_2 BIG4_{y,t} + \beta_3 SIZE_{y,t} + \beta_4 BTM_{y,t} + \beta_5 LEV_{y,t} + \beta_6 AGE_{y,t} + \varepsilon$.

In this model, *FTI S5* refers to section 5 of the FTI, which pertains to spotlight issues.

According to Qian et al. (2015) and Nair et al. (2019), financial transparency is the inverse of financial opacity. Applying this logic, a lower level of earnings aggressiveness signifies greater financial transparency. The variables will be described in detail in the next section, along with the expected directions for the coefficients.

Dependent Variables

Qian et al. (2015) and Nair et al. (2019) measured financial transparency as earnings aggressiveness.[1] In the present study, earnings aggressiveness was estimated as $EA_t = (\Delta TA_t - \Delta CL_t - \Delta CASH_t + \Delta STD_t - DEP_t + TP_t)/TA_{t-1}$.

In this model, *ΔTA* refers to the change in total assets from year *t-1* to end of year t. *ΔCL* is the change in total current liability; ΔTA_t refers to the change in total assets from end of year *t-1* to end of year *t*. ΔCL_t refers to the change in current liabilities from end of year *t-1* to end of year *t*. *ΔCASH* refers to the change in total cash; $\Delta CASH_t$ refers to the change in total cash from end of year *t-1* to end of year *t*. *ΔSTD* refers to the change in short-term debt; ΔSTD_t refers to the change in short-term debt from end of year *t-1* to end of year *t*. *DEP* refers to depreciation and amortization expense; DEP_t refers to depreciation and amortization expense in year *t*. *TP* refers to taxes payable; TP_t refers to taxes payable at the end of year *t*. *LTA* refers to lagged total assets. As described previously, as earnings aggressiveness increases, financial transparency decreases.

Independent Variables

The independent variable of FTI overall score was measured using the data from the FTI. The index lists 250 brands' public disclosures on human rights and

[1] Two other measures of transparency were also estimated in the model—earnings smoothing and loss avoidance. There were not enough observations to compute meaningful earning smoothing and loss avoidance measurements to investigate financial transparency.

environmental issues across 246 factors in five areas (policies and commitments; governance; supply chain traceability; know, show, and fix; and spotlight issues). The final scores listed in the FTI were converted to percentages. Each section had a different weight with a maximum of possible points totaling 250. All scores in percentages were converted to decimals.

The independent variable of FTI S1, or Section 1 of the FTI, pertains to policy and commitment and was weighted at 33/250. This section of the FTI lists brands' social and environmental policies for workers and employees in the supply chain, how well they are implemented, whether the brands have relevant goals and targets, and whether brands disclose yearly developments against such targets. Furthermore, this section lists the brands' independent third-party audited annual sustainability reports (Fashion Revolution, 2022).

The independent variable FTI S2, or Section 2 of the FTI, pertains to governance. This section lists who is responsible for social and environmental performance and their impact within a company, who is the responsible member of the board of directors for social and environmental performance and results, and how the oversight is carried out. In the study, this section was worth 11/250. This section of the FTI also offers how brands' employees are incentivized on social and environmental impacts outside of the sustainability team and how the brands look at supplier incentives linked to improvements in human rights impacts and environmental management (Fashion Revolution, 2022).

The independent variable of FTI S3, or Section 3 of the FTI, refers to traceability. This section lists how brands have proven to stakeholders that they are transparent and

that they disclose information on raw material suppliers and other suppliers, factories, and processing facilities. In the study, this section was worth 73/250.

The independent variable of FTI S5, or Section 5 of the FTI, refers to spotlight issues. A goal for the 2022 FTI was to cover six strategic areas to align with and support the Sustainable Development Goals. The Sustainable Development Goals are urgent calls for action to build a better world for people and our planet by 2030 (Fashion Revolution, 2022). The six areas of focus in Section 5 are as follows: (a) decent work and purchasing practices, (b) gender and racial equity, (c) sustainable sourcing and materials, (d) overconsumption, waste, and circularity, (e) water and chemicals, and (f) climate change and biodiversity. In the study, this section was worth 83/250.

Population and Data Collection Approach

The population of interest in this study was U.S. publicly traded companies in the fashion industry. The goal of this study was to examine transparency in financial reporting and sustainability practices in these organizations. The data was obtained from three publicly available data sources, the 2022 FTI, Audit Analytics, and Compustat Financials, to examine the relationships between the variables of interest. The unit of analysis was all U.S. organizations in the fashion industry that were in the FTI and had their financial statements available in the Audit Analytics and Compustat Financials datasets.

Table 1

Sample Selection

Total fashion companies	250.00
Offshore companies	(157.00)
U.S. Companies with concentration in multiple industries	(3.00)
U.S. Companies with the same parent company	(17.00)
U.S. Companies in bankruptcy	(1.00)
Privately held U.S. and Canadian companies	(17.00)
U.S. Companies with missing or incomplete data	(5.00)
Final sample	50.00

Data Analysis Approach

A multiple regression analysis was considered to examine whether the identified variables were statistically significant predictors of organizations' financial transparency in the fashion industry. Before conducting the statistical analysis for this study, data cleaning was conducted.

Summary

In this chapter, the methods and procedures that were utilized to conduct the study were presented. Using transparency and sustainability data from the FTI, Audit Analytics, and Compustat Financials, a regression analysis was used to explore the factors pertaining to financial transparency and sustainability indicators among organizations in the fashion industry. In Chapter 4 the results of applying the methodology will be described.

Chapter 4: Data Analysis and Results

Data from U.S. firms in the fashion industry were used to analyze the relationship between sustainability indicators and financial transparency. The sustainability indicators used in this study were the FTI overall score, FTI Section 1 (organizational policies and commitment) score, FTI Section 2 (corporate governance) score, FTI Section 3 (supply chain traceability) score, and FTI Section 5 (environmentally sustainable development goals) score. Financial transparency was measured as earnings aggressiveness.

The results of the analysis will be presented in this chapter, providing insights into the relationship between sustainability indicators and financial transparency. Univariate statistics, correlation analyses, and regression analyses were used to assess the nature, strength, and significance of the relationship between the variables.

Table 2 presents the descriptive statistics for the variables. (See Appendix B for definitions of the variables.) The table provides a summary of the distribution of values (Meyers et al., 2016) for all five models. The mean, median, minimum, maximum, and standard deviation for the variables were included to explain central tendency and variability measures and a summary of the average value and its spread is presented (Meyers et al., 2016).

Table 2

Descriptive statistics for continuous variables

Variable	*M*	*Mdn*	*SD*	Min.	Max.
FTI Section 1 score*	0.52	0.51	0.23	0.05	0.93
FTI Section 2 score*	0.3	0.25	0.23	0	0.92
FTI Section 3 score*	0.15	0.01	0.24	0	0.97
FTI Section 5 score*	0.12	0.08	0.13	0	0.51
FTI overall score	0.21	0.16	0.16	0	0.66
Company size	19,459.21	3775	54,550.33	353	46,2675
Company size-LN	8.58	8.32	1.41	6.27	13.04
Market-to-book ratio	6.13	3.2	11.79	0	154.86
Leverage	0.28	0.29	0.17	0	1.34
Company age	43.06	37	30.79	−2	157
Company age-LN	3.61	3.73	0.83	0	5.13
Earning aggressiveness	−0.04	−0.04	0.15	-0.78	0.83

*Scores reported as the percentage of the total score possible (e.g., .30 is 30% of the total possible).

The study focused on U.S. publicly traded fashion companies with $400 million or more in annual revenue. There was some missing data in the FTI dataset that was used. The missing scores either resulted from firms not reporting certain data to Fashion Revolution or from certain data not being included in the index during those years.

Control variables were incorporated that were found in prior studies to be associated with the dependent variable of earnings aggressiveness. These control variables included the firm's age, leverage, market-to-book ratio, size, and audit quality proxied by whether they used the Big 4 auditors. Furthermore, the study investigated the

impact of independent variables that measured sustainability and its components, specifically the FTI overall score and the scores for FTI Sections 1, 2, 3, and 5.

As a reasonableness check on the measures of control variables, the means reported by Nair et al. (2019) for these same control variables were considered. It should also be noted that Nair et al. (2019) conducted a study across many industries in India, while the current study only focused on the fashion industry in the United States.

For the control variables, the findings of the current study indicated that the average size of the firms was $19.46 billion, which is lower than the average firm size reported by Nair et al. (2019), measured at $308 billion. Moreover, the average market-to-book ratio of 6.13 in the current study demonstrated a consistent pattern with the average of 5.58 established by Nair et al. (2019). The average leverage ratio of the current study was 0.28, higher than the average leverage ratio reported by Nair et al., which was measured at 0.174. The mean score for the variable of age was 43.06 for the current study, which corresponded closely to the average firm age of 43 years reported by Nair et al.. However, it is important to note that in the regression analysis for the current study, the company's age in the model was defined as the natural log of the number of years since inception, following the approach outlined by Nair et al. (2019).

Furthermore, the fact that the Big 4 accounting firms audited 98% of the sample firms reinforced the confidence placed in the sample firms' financial statements. These control variables contributed to the overall understanding of the financial landscape of the firms in this study.

The use of dummy variables in a regression analysis is a widely practiced way to control for year-specific factors not captured by other independent variables (Grotenhuis

& Thijs, 2015). For instance, during the time this study took place, the global COVID pandemic potentially impacted the relationships of variables in unusual ways. As such, the analysis of each model included a fiscal year dummy variable. In addition, because prior studies have suggested that the fast fashion brands in the industry may behave differently than non-fast fashion brands, a dummy variable was included in each model marked as 1 for firms identified as fast fashion firms by previous researchers or investigator industry expertise and was 0 otherwise.

The dependent variable of earning aggressiveness served as a proxy for financial transparency. Financial transparency is widely regarded as the inverse of financial opacity, with lower levels of earning aggressiveness, indicating greater financial transparency (Nair et al., 2019; Qian et al., 2015). Across the six years of data, the mean for earning aggressiveness was −0.036, indicating an overall lower level of earnings aggressiveness or higher financial transparency.

To effectively analyze the impact of independent variables, the FTI scores (FTI overall scores and Sections 1, 2, 3, and 5 scores) were divided into two groups based on their median, according to the approach described by Kraemer and Blasey (2004). This approach involved coding the variables with scores at or above the median of 1, while scores below the median were coded as 0. As a result, a series of binary variables called FTI scores (HI) were prepared for each section.

Table 3 presents the correlation matrix, which provided the relationship between two variables. This matrix includes the relation index, correlation coefficient, and squared correlation coefficient, which, as a whole, indicates the strength of these relationships (Meyers et al., 2016). The correlation coefficient, known as Pearson *r*, measures the

strength and direction of the linear relationship between two variables. It ranges from −1 to 1 with a positive value indicating a positive correlation, known as a direct relationship, while a negative value indicates a negative correlation (Meyers et al., 2016).

Table 3

Bivariate Correlations (Pearsons)

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. FTI Section 1	–	.71***	.70***	.84***	.89***	.03	.33***	−.03	.21**	.18**	.13*	.04
2. FTI Section 2		–	.56***	.67***	.67***	−.01	.14*	−.01	.04	.14*	.12+	.07
3. FTI Section 3			–	.79***	.79***	.91***	.09	.03	.16*	.06	.09	.08
4. FTI Section 5				–	.90***	.04	.22**	−.01	.26***	.18**	.12+	.02
5. FTI Overall score					–	.03	.23***	.00	.15*	.12+	.13*	.06
6. Fast fashion						–	−.10	.04	.00	.03	.09	−.06
7. Company size							–	.02	.16**	.19**	.01	.17**
8. Market-to-book ratio								–	.22***	−.27**	.05	−.02
9. Leverage									–	−.06	.11+	−.15*
10. Age										–	.11+	−.13*
11. Big 4											–	−.11+
12. Earnings aggressiveness												–

Note. $^{+}p < .10$. $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

The findings showed that earning aggressiveness had a negative and significant association with leverage. This suggests that as a firm's leverage increases, their earning aggressiveness tends to decrease, indicating their financial transparency measures will increase. The negative correlation coefficient supported the inverse association. Additionally, the analysis revealed a positive and significant association between earning aggressiveness and a firm's size. This suggests that as a company's size increases, their earning aggressiveness increases.

Further, this association suggests that as a firm's size grows, their financial opaqueness increases. Moreover, the correlation matrix indicated a negative and statistically significant association between earning aggressiveness and a firm's age. This relationship implies that older fashion companies are more likely to demonstrate higher levels of financial transparency, providing stakeholders with greater confidence in the companies' financial operations and reporting. Moreover, the correlation matrix revealed a negative but insignificant relationship between market-to-book ratio and earning aggressiveness; however, Nair et al. (2019) found a positive association between market-to-book ratio and earning aggressiveness.

The correlation matrix found positive and statistically significant associations between leverage, the FTI final score, and the scores for Sections 1, 3, and 5. These relationships show that firms with a higher FTI final score (socially responsible firms) and those with higher scores in Section 1, 3 (traceability), and 5 (spotlights issues) exhibit a higher leverage ratio. According to Bae et al. (2019), companies engaged in corporate social responsibility activities show higher levels of leverage since customer-driven costs are higher. Also, several studies have shown that corporate social responsibility activities

require substantial financial investment; as a result, firms may need to rely on external financing options. Moreover, according to Nair et al. (2019), higher debt exhibits higher transparency.

Other correlation matrix findings indicated positive and statistically significant associations between a firm's size, their FTI final score, and their scores from Sections 1 and 2 (governance). This relationship revealed that as a firm's size increases, they tend to score higher on the FTI final score and Sections 1 and 2 scores. The association of a firm's size and a higher score is expected; according to Nair et al. (2019), larger companies draw greater attention and aim to be less opaque in their financial transactions.

Similarly, the results revealed that as the age of firms increases, there is a significant and positive association with their scores in FTI Sections 1, 2, and 5, indicating that older companies in the fashion industry are more socially responsible. The association suggests that older firms use their age as proof that society can trust them to act responsibly (Nair et al. 2019).

Dependent Variables Tested in Regression Models

While Nair et al. (2019) examined three dependent variables, earning aggressiveness, earning smoothing, and loss avoidance, the models in this study only used the proxy of earning aggressiveness for financial transparency. The measure of earning smoothing relied upon a standard deviation calculated for a time series of net income and cash flow observations. In the sample period of 2017–2022, there were not enough observations to compute a meaningful standard deviation of net income or cash flow. For this reason, earning smoothing was not relied upon as a valid reason of measure for investigating financial transparency.

For loss avoidance, the logistical regression depended upon a dichotomous 1/0 categorization of firm years, based on the closeness of their net income to 0. Specifically, for firm years that had a positive net income that was less than 2% of their total assets, the dependent variable took the value of 1 and was otherwise 0. In the sample, there were only 19 firm years that had the value of 1 assigned. This rendered the dependent variable of loss avoidance meaningless for a logistic prediction of financial transparency.

Further, for all U.S. companies in this sample that were considered fast fashion companies, a dummy variable was employed called “fast fashion dummy.” This variable allowed for the identification of fast fashion companies within the data set.

Model 1—Earning Aggressiveness and FTI Overall

Table 4 presents the linear regression analysis that used the variables of size, market-to-book ratio, leverage, age, the Big 4, FTI final score, final HI, fast fashion dummy, and dummy codes for 2017–2021 to predict earning aggressiveness.

Table 4

Regression Model Predicting Earning Aggressiveness, FTI Final Scores

Variable	*B*	*SE*	*t*	*p*
(Constant)	0..07	0.085	0.84	0.40
Fast fashion	−0.018	0.019	−0.985	0.325
Company size	0.020	0.006	3.23	0.001
Market-to-book ratio	−2.656E-05	0.001	-0.04	0.968
Leverage	−0.092	0.058	−1.58	0.116
Company age	−0.025	0.010	−2.4	0.017
Big 4	−0.116	0.062	−1.86	0.065
Year: 2017	−0.055	0.031	-1.78	0.077
Year: 2018	−0.042	0.030	-1.40	0.163
Year: 2019	−0.137	0.026	−5.20	0.000
Year: 2020	−0.130	0.025	-5.21	0.000
Year: 2021	−0.041	0.025	-1.60	0.111
FTI Final score	0.200	0.080	2.52	0.013
FTI Final score-HI	−0.047	0.025	−1.87	0.063

Note. Model summary. $F(13, 225) = 5.69$. $p < .001$. $R^2 = .25$.

The variable of interest for Hypothesis 1 was the impact of the independent variable FTI overall final score. A higher score means there is a higher level of sustainability, according to the metrics followed for the FTI. The prediction model was significantly significant, $F\ (13, 225) = 5.686$, $p < .001$, and the adjusted R^2 indicated that the variance of earning aggressiveness was explained by the independent variables. The independent variable of FTI overall final score had a positive and significant effect, Beta = 0.232, $p = 0.013$, with earning aggressiveness, indicating that as earning aggressiveness increases, the FTI overall score decreases. This is consistent with the findings of Prior et

al. (2008), who suggested that socially responsible firms and their level of earnings management practices imply self-interested and exploitative managerial behavior. The variable of final HI had a negative and marginally significant effect, Beta = −0.175, p = 0.063, indicating that higher final HI scores (those above the median FTI final level) are associated with lower levels of earning aggressiveness.

On the other hand, the variable of fast fashion dummy did not have a significant effect, Beta = −0.058, p = 0.325, and had a negative coefficient between fast fashion dummy and earning aggressiveness, suggesting that fast fashion companies have lower earning aggressiveness. The controlled variable of size revealed a positive and significant association, Beta = 0.201, p = 0.001, indicating that larger fashion companies tend to have higher levels of earning aggressiveness. Finally, the remaining control variables, market-to-book ratio (negative coefficient), leverage (negative coefficient), age (negative coefficient), and the Big 4 (negative coefficient), did not have significant associations with earning aggressiveness. The fixed effect variables for 2019 and 2020 were both negative and significantly associated with earning aggressiveness.

The results of Model 1 are consistent with the idea that greater earnings management is associated with increased FTI overall scores.

Model 2—Earning Aggressiveness and FTI Section 1

The variable of interest for Hypothesis 2 was the impact of the independent variable of the FTI Section 1 score, which represented fashion companies integrating environmental and social policies within their organizational policies and commitments. A higher score meant there is a higher level of environmental and social policies in organizational policies and commitments, according to the metrics used in the FTI.

In the second linear regression model, the variables of size, market-to-book ratio, leverage, age, the Big 4, FTI section 1 score, Section 1 HI, fast fashion dummy, and the dummy code for the years 2017–2021 were used to infer their effect and their contribution to the dependent variable of earning aggressiveness. Table 5 shows the prediction model was significantly significant, F (13, 217) = 4.658, p <.001, and the adjusted R^2 indicated that 17.1% of the variance of earning aggressiveness was explained by the independent variables. The independent variable of the FTI Section 1 score had a positive but insignificant effect, β = 0.110, p = 0.339, on the dependent variable of earning aggressiveness. The result suggests that companies with a higher FTI Section 1 score (environmental and social policies within the organization) have a weak positive correlation with earning aggressiveness; however, the relationship between FTI Section 1 scores and earning aggressiveness was not statistically significant. On the other hand, the control variable of size had a significant effect, β = 0.157, p = 0.018, indicating a significantly positive association between the size of a company and the dependent variable of earning aggressiveness. The results indicate that larger fashion companies tend to have higher levels of earning aggressiveness, consistent with findings of Model 1.

Table 5

Regression Model Predicting Earning Aggressiveness, FTI Section 1 Scores

Variable	*B*	*SE*	*t*	*p*
(Constant)	0.09	0.087	1.08	0.281
Fast fashion	−0.02	0.02	-1.234	0.219
Company size	0.02	0.01	2.39	0.018
Market-t-book ratio	0.00	0.00	-0.05	0.962
Leverage	−0.08	0.06	-1.39	0.167
Company age	−0.02	0.01	-2.16	0.032
Big 4	−0.11	0.06	-1.73	0.085
Year: 2017	−0.06	0.03	-1.83	0.069
Year: 2018	−0.04	0.03	-1.34	0.182
Year: 2019	−0.13	0.03	-4.93	0.000
Year: 2020	−0.13	0.03	-5.00	0.000
Year: 2021	−0.04	0.03	-1.42	0.158
FTI Section 1 score	0.06	0.07	0.96	0.339
FTI Section 1 HI	−0.02	0.03	-0.67	0.503

Note. Model summary. $F(13, 217) = 4.67$. $p < .001$. $R^2 = .22$.

The control variable of age had a negative and significant effect, $\beta = -0.141$, $p = 0.032$, suggesting that older fashion companies tend to have lower levels of earning aggressiveness, which is consistent with the findings for Model 1. Furthermore, the variables of market-to-book ratio (negative coefficient), leverage (negative coefficient), fast fashion dummy (negative coefficient), Section 1 HI (negative coefficient), and the Big 4 (negative coefficient) did not have significant effects on earning aggressiveness. Similar to Model 1, the fixed effects variables for 2019 and 2020 were significantly negatively associated with earning aggressiveness.

Overall, the results of Model 2 suggest that there is no relationship between companies in the fashion industry that integrate environmental and social policies within their organizational policies and commitment and earning aggressiveness.

Model 3—Earning Aggressiveness and FTI Section 2

The variable of interest in Hypothesis 3 was the impact of the independent variable FTI Section 2 score, which represented organizational policies in governance in the fashion industries. A higher score means the firm has a higher level of organizational policies in governance, according to the metrics used in the FTI. In the linear regression Model 3 as shown in Table 6, the variables of size, market-to-book ratio, leverage, age, the Big 4, FTI Section 2 score, Section 2 HI, fast fashion dummy, and the dummy code for the years 2017–2021 were used to assess their effect and contribution to the dependent variable of earning aggressiveness.

Table 6

Regression Model Predicting Earning Aggressiveness, FTI Section 2 Scores

Variable	*B*	*SE*	*t*	*p*
(Constant)	0.08	0.087	0.96	0.338
Fast fashion	−0.02	0.02	−0.95	0.342
Company size	0.02	0.01	3.01	0.003
Market-to-book ratio	0.00	0.00	0.10	0.920
Leverage	−0.09	0.06	−1.55	0.123
Company age	−0.02	0.01	−2.18	0.030
Big 4	−0.12	0.06	−1.81	0.072
Year: 2017	−0.06	0.03	−1.92	0.057
Year: 2018	−0.05	0.03	−1.44	0.151
Year: 2019	−0.13	0.03	−4.77	0.000
Year: 2020	−0.13	0.03	−4.76	0.000
Year: 2021	−0.03	0.03	-1.31	0.190
FTI Section 2 score	0.02	0.06	0.39	0.699
FTI Section 2 Hi	0.00	0.03	0.07	0.948

Note. Model summary. $F(13, 219) = 4.80$. $p < .001$. $R^2 = .22$.

The prediction model was significant, $F\ (13, 219) = 4.798$, $p < .001$, and the adjusted R^2 indicated 17.5% of the variance in earning aggressiveness was explained by the independent variables. The independent variable of FTI Section 2 score had a positive but insignificant effect, $\beta = 0.041$, $p = 0.699$, on the dependent variable of earning aggressiveness. The results suggest fashion companies with a higher FTI Section 2 score have a positive correlation with their earning aggressiveness. However, the relationship between the FTI Section 2 score (organizational policies in governance) and earning aggressiveness was not statistically significant.

On the other hand, the variable of size had a significant effect, Beta = 0.192, p = 0.003, indicating a positive correlation between the size of a company and the dependent variable of earning aggressiveness. The results suggest that larger fashion companies tend to have higher levels of earning aggressiveness. Further, the independent variable of age revealed a negative and significant effect, $\beta = -0.142$, $p = 0.030$, indicating that older fashion companies tend to have lower levels of earning aggressiveness. Furthermore, the variables of market-to-book ratio, leverage, fast fashion dummy, Section 2 HI, and the Big 4 did not have significant effects on earning aggressiveness. As in Models 1 and 2, the fixed effects variables for 2019 and 2020 indicated significantly lower levels of earning aggressiveness for those two years.

The results of Model 3 demonstrate that there is no relationship between companies in the fashion industry that integrate organizational policies in governance and their financial transparency.

Model 4—Earning Aggressiveness and FTI Section 3

The variable of interest for Hypothesis 4 was the impact of the independent variable of the FTI Section 3 score, which represented supply chain traceability as part of organizational policies. A higher score means a higher level of supply chain transparency, according to the metrics used for the FTI. In the regression Model 4 as shown in Table 7, the variables of size, market-to-book ratio, leverage, age, the Big 4, FTI Section 3 score (transparency in suppliers lists), Section 3 HI, fast fashion dummy, and the dummy code for years 2017–2021 were used to assess their effect and their contribution to the dependent variable of earning aggressiveness.

Table 7

Regression Model Predicting Earning Aggressiveness, FTI Section 3 Scores

Variable	*B*	*SE*	*t*	*p*
(Constant)	0.082	0.084	0.97	0.33
Fast fashion	−0.02	0.02	-0.95	0.342
Company size	0.02	0.01	3.30	0.001
Market-to-book ratio	0.00	0.00	-0.09	0.930
Leverage	−0.09	0.06	−1.59	0.113
Company age	−0.02	0.01	−2.27	0.024
Big 4	−0.12	0.06	−1.90	0.059
Year: 2017	−0.06	0.03	−1.74	0.083
Year: 2018	−0.04	0.03	−1.29	0.199
Year: 2019	−0.13	0.03	−4.90	0.000
Year: 2020	−0.12	0.03	−4.71	0.000
Year: 2021	−0.03	0.03	-1.27	0.204
FTI Section 3 score	0.11	0.05	2.49	0.014
FTI Section 3 Hi	−0.03	0.02	−1.23	0.221

Note. Model Summary. $F(13, 219) = 5.37$. $p < .001$. $R^2 = .24$.

The prediction model was significantly significant, $F\ (13, 219) = 5.366$, $p < .001$, and the adjusted R^2 indicated that 19.7% of the variance of earning aggressiveness was explained by the independent variables. The independent variable of interest in Hypothesis 4, the FTI Section 3 score, had a positive and significant association with earning aggressiveness, $\beta = 0.191$, $p = 0.014$. The relationship between the FTI Section 3 score and earning aggressiveness was statistically significant. The results suggest that fashion companies with a higher FTI Section 3 score have a higher level of earning aggressiveness.

Furthermore, the variable of size had a significant effect, $\beta = 0.205$, $p = 0.001$, indicating a positive correlation between the size of the company and the dependent variable of earning aggressiveness. The results suggest that larger fashion companies tend to have higher levels of earning aggressiveness. Further, the independent variable of age revealed a negative and significant effect, $\beta = -0.145$, $p = 0.024$, indicating older fashion companies tend to have lower levels of earning aggressiveness. Furthermore, the variables of market-to-book ratio (negative coefficient), leverage (negative coefficient), fast fashion dummy (negative coefficient), Section 3 HI (negative coefficient), and the Big 4 (negative coefficient) did not have significant effects on earning aggressiveness as was the case in other models. The fixed effect variables for 2019 and 2020 indicated lower levels of earning aggressiveness for these years.

The results of Model 4 suggest that firms in the fashion industry that disclose supplier lists to present transparency in the supply chain are less financially transparent. The findings in Model 4 refute Hypothesis 4.

Model 5—Earning Aggressiveness and Section 5

The variable of interest for Hypothesis 5 was the impact of the independent variable of the FTI Section 5 score, which represented spotlight issues and sustainable development goals in the fashion industry. A higher score means a higher level of sustainable goals for the firm, according to the metrics used for the FTI. The linear regression Model 5 as shown in Table 8 analyzed the impact of the variables of size, market-to-book ratio, leverage, age, the Big 4, the FTI Section 5 score (spotlight issues), Section 5 HI, fast fashion dummy, and the dummy code for the years 2017–2021 and

were used to assess their effect and their contribution to the dependent variable of earning aggressiveness.

Table 8

Regression Model Predicting Earning Aggressiveness, FTI Section 5 Scores

Variable	*B*	*SE*	*t*	*p*
(Constant)	0.09	0.09	1.022	0.31
Fast fashion	−0.02	0.02	−0.96	0.339
Company size	0.02	0.01	3.04	0.003
Market-to-book ratio	0.00	0.00	0.07	0.943
Leverage	−0.10	0.06	−1.66	0.099
Company age	−0.03	0.01	−2.34	0.020
Big 4	−0.11	0.06	−1.77	0.078
Year: 2017	−0.05	0.03	−1.66	0.098
Year: 2018	−0.04	0.03	−1.20	0.233
Year: 2019	−0.13	0.03	−4.79	0.000
Year: 2020	−0.12	0.03	−4.60	0.000
Year: 2021	−0.03	0.03	-1.25	0.213
FTI Section 5 score	0.14	0.10	1.37	0.171
FTI Section 5 Hi	−0.02	0.03	−0.82	0.412

Note. Model Summary. $F(13, 219) = 4.94$. $p < .001$. $R^2 = .23$.

The prediction model was significantly significant, F (13, 219) = 4.937, p <.001, and the adjusted R^2 indicated that 18.1% of the variance of earning aggressiveness was explained by the independent variables. The independent variable of the FTI Section 5 score had a positive but statistically insignificant effect, Beta = 0.136, p = 0.171, on the dependent variable of earning aggressiveness.

Furthermore, the variable of size had a significant effect, β = 0.193, p = 0.003, indicating a positive correlation between the size of a company and the dependent variable of earning aggressiveness. The results suggest that larger fashion companies tend to have higher levels of earning aggressiveness. Further, the independent variable of age revealed a negative and significant effect, β = −0.154, p = 0.020, indicating older fashion companies tend to have lower levels of earning aggressiveness. Furthermore, variables of market-to-book ratio (negative coefficient), leverage (negative coefficient), fast fashion dummy (negative coefficient), Section 5 HI (negative coefficient), and the Big 4 (negative coefficient) did not have significant effects on earning aggressiveness. As in the other models, the fixed effect variables for 2019 and 2020 indicated a significantly lower earning aggressiveness for these years.

The results of Model 5 show that there is no relationship between the firms in the fashion industry involved in environmental and economic performance with pollution strategies to enhance environmental, social, and governance and financial transparency as proxied by earning aggressiveness.

Chapter 5: Conclusion

A statistical analysis was conducted on 50 U.S. based firms in the fashion industry to determine the relationship between sustainability indicators and financial transparency.

The utilization of secondary data from publicly available sources, the 2022 FTI, the Audit Analytics database, and the Compustat Financials database, allowed for a comprehensive study on disclosure and transparency in sustainability practices and its culture in U.S. companies in the fashion industry. Please see Appendix 1 for a detailed methodology of FTI.

Since 2017, Fashion Revolution (2023) has been publishing the FTI. Fashion Revolution is leading change toward a transformed industry that prioritizes the environment and people above growth and profit. Fashion Revolution was formed after the tragic Rana Plaza disaster, which awakened millions of people to the dark realities of the fashion industry. Since then, Fashion Revolution has become the largest fashion activism movement, uniting citizens, industry leaders, and policymakers in their mission of greater industry transparency and accountability.

The 2022 FTI consisted of publicly available data from 250 of the most prominent fashion brands and retailers ranked by their environmental and human rights policies, procedures, and their effects on their business operations and supply chains (Fashion Revolution, 2022). This study focused on firms that had a complete set of company-wide policies regarding the environment, their employees, the community, their products, and their customers. Using the FTI data, the extent of disclosures furnished by companies regarding their sustainability practices was explored by how they measured on the FTI.

Financial data for the fashion brands listed on the FTI was collected from Audit Analytics and Compustat Financials, which offer standardized financial statements and statistical and market information for over 90,000 active and dormant publicly traded companies worldwide. The financial data sets for six years (2017–2022) were

downloaded and collected from the 10K reports of companies listed on the FTI for the same period.

Accountants and business ethics scholars have recognized the significance of stakeholder rationale in shaping reporting practices and outcomes. Businesses can align their reporting practices with their sustainability goals and ethics by considering stakeholder needs and interests (Freeman et al., 2010). There is a growing demand from stakeholders for sustainability and financial reporting transparency. As Nilawati et al. (2019) noted, stakeholders rely on such information to comprehensively understand a company's operations and make informed decisions regarding risk management and investments.

Corporate sustainability, as defined by Dyllick and Hockerts (2002), is a crucial aspect of business success. It involves meeting the needs and expectations of various stakeholders, including stockholders, employees, customers, advocacy groups, and communities. In this study the term sustainability was used to describe the corporate social responsibility programs and strategies directed towards meeting the needs of the stakeholders beyond the stockholders.

The first hypothesis tested in Model 1 aimed to explore the positive correlation between financial transparency and sustainability in the fashion industry and the linear regression analysis conducted in Model 1 focused on predicting earning aggressiveness. Contrary to expectations, the analysis results of Model 1 provided evidence that contradicted Hypothesis 1, suggesting a negative association between financial transparency and sustainability. These findings provide valuable insights into the complex relationship between financial transparency, sustainability, and earnings management. On

the other hand, the variable of final HI had a negative and marginally significant effect, Beta = −0.175, $p = 0.063$, indicating that higher final HI scores (those above the median FTI final level) are associated with lower levels of earning aggressiveness.

Previous studies by Prior et al. (2008) found a positive relationship between socially responsible businesses and their level of earnings management practices. Their results suggest the presence of self-interest and exploitative managerial behavior and align with the results from Model 1, revealing that socially responsible fashion firms might engage in questionable practices to manipulate earnings. According to Huang and Watson (2015), peer competition is a strong motivation for managers to engage in socially responsible corporate activities because managers aspire to be industry leaders in environmental and sustainability performance to gain a competitive edge. Furthermore, managers may view sustainability as an investment and a signal to enhance their company's reputation, build trust with their stakeholders, and exhibit strong expected future earnings and cash flow from their operations.

The second hypothesis assumed that financial transparency positively correlates with organizational policies and commitment in the fashion industry. The linear regression for Model 2 showed no significant relationship between companies in the fashion industry that integrate and commit to environmental and social policies within their organizational policies and earnings management. This finding suggests that firms in the fashion industry that adopt environmental and social policies will not be significantly impacted to manage their earnings. Furthermore, the lack of a relationship between financial opaqueness (dependent variable of earning aggressiveness) and

organizational policies indicates that integrating environmental and social policies within an organizational framework is insufficient to ensure financial transparency.

According to Yuan et al. (2022), disclosing sustainability or environmental, social, and governance information benefits shareholders by attracting socially responsible investors and enhancing a company's reputation, leading to improved financial performance. On the other hand, there are claims that companies may selectively disclose sustainability information to divert attention from negative news or issues and this could result in higher levels of opaqueness. Drawing from Oncioiu et al. (2020), the impact of environmental, social, and governance disclosure on financial transparency must be determined; however, company size, diversity growth, and market conditions affect financial performance. Furthermore, it is important to note that the environmental, social, and governance disclosure content and purposes vary by sector, and stakeholder requirements must be expressed in financial performance and financial transparency reports.

Hypothesis 3 assumed that financial transparency is positively correlated with organizational policies in governance in the fashion industry. The results of Model 3 indicate that there is no relationship between companies in the fashion industry integrating organizational policies in governance and their financial transparency. The results highlight that organizational policies alone may not drive financial transparency.

Researchers of previous studies that have examined the relationship between these factors, such as Aras and Crowther (2008), have argued that corporate governance mechanisms are essential for the sustainable performance of businesses. However, the conflict between financial performance and social and environmental performance in

sustainability must be addressed. While sustainability highlights social and environmental factors, financial performance is also important. Businesses need financial stability and success to continue operations and meet social and environmental responsibilities in the long term.

Furthermore, according to Kocmanová et al. (2011), environmental, social, and economic factors and corporate governance shape corporate and business strategies. These factors are not separate from daily operations but are interconnected, driving success and indicators of potential threats and risks. Moreover, these factors must include involuntary corporate reporting to assess the links between environmental and economic performance, social performance, and their relationship with corporate governance (Kocmanová et al., 2011). Further, Oncioiu (2020) stated that disclosures and transparency are essential to good corporate governance, preserving stakeholders' interests and promoting an efficient and effective corporate environment, a principle that protects a company's resources. Moreover, Oncioiu (2020) explained that according to the stakeholder theory, companies must meet the expectations of all interested parties; as such, in this study, it was important to find the correlation between corporate social responsibility practice and financial indicators.

Hypothesis 4, tested in Model 4, assumed financial transparency is positively correlated with organizational policies that are associated with traceability (publicly disclosing supplier lists and supply chain transparency). The results of Model 4 indicate that earning aggressiveness is significantly and positively associated with the FTI Section 3 score. The results suggest fashion companies with a higher FTI Section 3 score have a higher level of earning aggressiveness. Egels-Zandén and Hansson (2016), in a related

research study, found evidence suggesting that supply chain transparency can increase revenues but does not serve as a consumer tool for holding the disclosing firm accountable; instead, the authors found that supply chain transparency can be a useful corporate tool for increasing revenues due to perceptions that the disclosing firm is accountable, which boosts a firm's legitimacy and creditability. The evidence from the current study does not negate this prior research, but rather shows how it is possible to both increase revenues and practice earnings aggressiveness at the same time. Indeed, a useful corporate tool could be using the perceived boost in creditability as a way to hide earnings aggressiveness.

Accordingly, the results from Model 4 were more consistent with the trend of greenwashing. As highlighted by Lee et al. (2017), the inclusion of sustainability practices by companies is perceived by consumers as an investment that can yield various benefits, such as gaining a larger market share, and it can also enable firms to charge premium prices for their products and avoid potential backlashes, such as boycotts, which could adversely affect profits and the company's reputation. This trend is often called greenwashing and can be observed globally across firms.

The fifth hypothesis tested in Model 5 examined the potential positive correlation between financial transparency and spotlight issues (sustainable development goals). The findings led to an interesting conclusion; the results of Model 5 indicate no significant relationship exists between the environmental and economic performance of firms in the fashion industry and their adoption of pollution strategies to enhance environmental, social, and governance practices. Furthermore, the proxy used for financial transparency, earning aggressiveness, did not appear to significantly impact the relationship between

firms' environmental, social, and governance practices and their financial transparency. These findings could reflect the current state of sustainability disclosure regulation in the United States. Dhaliwal et al. (2014) argued that sustainability disclosure depends on how much a country's laws and public awareness legalizes the interest of stakeholders who are non-shareholders in a firms' operating activities and reporting policies. This means it is crucial to understand a country's interest in stakeholder perspectives. Further, studying the moderating effect of a country's stakeholder orientation on sustainability disclosure would provide new insights into relevant sustainability issues. Consistent with the findings of Model 5 of this study, Nair et al. (2019) found that if sustainability disclosures are not mandatory but are voluntary in a country, or the disclosures are not regularly scrutinized by regulators, there is a higher chance of firms being opaque; therefore firm disclosures should be scrutinized.

In conclusion, the findings from this study's analysis sheds light on the relationship between financial transparency and sustainability in the fashion industry. This study contributes to the existing literature and has important implications for fashion industry practitioners and policymakers and will be of interest for academics who study the fashion industry. Integrating social and environmental policies does not guarantee financial transparency in the fashion sector. While these policies are necessary for a more ethical and sustainable industry, they do not guarantee that businesses will be open and honest about their financial operations. Across the sample of U.S. firms focused on in the study, none had solid mandatory sustainability reporting requirements. In addition, firms in the fashion industry that choose to submit sustainability disclosures must be routinely scrutinized by regulators.

In response to increasing concerns about climate change and its impact on the economy, in October 2023, California took significant steps to address greenhouse gas emissions and climate-related financial risks. With Senate bill 253 (Climate Corporate Data Accountability Act, 2023–2024) and 261 (Greenhouse Gases: Climate-Related Financial Risk, 2023–2024), California has become one of the jurisdictions requiring public and private companies to report their greenhouse gas emission and disclose climate-related financial risks. These new regulations will come into effect in 2026, allowing companies ample time to prepare and align their reporting practices with the state's guidelines.

Further, California has introduced Senate bill 707, the Responsible Textile Recovery Act of 2023, which focuses on repair, reuse, and recycling. This legislation provides a framework for producers to establish stewardship programs that will contribute to a more environmentally friendly and circular economy. The Responsible Textile Recovery Act sets a new standard for responsible textile management, sending a clear message that the state of California is determined to build a future that prioritizes environmental protection and resource conservation. By doing so, California seeks to drive transparency and enable investors, stakeholders, and the public to make informed decisions based on a company's environmental performance and climate related risks. According to Statista, the number of units produced by the U.S. apparel industry is expected to be 32.2 billion pieces by 2028, with a volume growth of 1.7% in 2024. As the volume of garments and textiles is growing, California laws will ultimately require sustainability reporting for almost all firms, and potentially, this will bring the relationship between financial transparency and sustainability reporting in line with the

theoretical predictions of stakeholder theory, which underpin the hypotheses examined in this study.

In conclusion, although the results of the study did not support the proposed hypotheses, it is crucial to continue examining the multifaceted nature of financial transparency in the fashion industry. By doing so, greater accountability and sustainability can be gained within this industry, ultimately benefiting all of society.

Future Research

Further research is necessary to understand the association between sustainability and financial transparency in the fashion industry and their underlying mechanisms and causality. Since every industry differs, it is important to understand the unique variables that affect the relationship between sustainability and financial transparency in every sector of the fashion industry. Accordingly, the specific strategies and practices implemented by firms rated high on the FTI who work to achieve greater transparency and sustainability should be explored to provide actionable insights for other organizations aiming to enhance their sustainability performance.

Limitations

It is important to acknowledge and address the limitations of this study. One limitation is that the research design and the main analysis relied solely on scores from the FTI. It is worth noting that using a different database, if available, could have provided access to larger samples.

An additional limitation of this study is that, due to time constraints, the research focused solely on U.S. companies and including a broader sample of offshore companies may produce different results.

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Appendix A

Fashion Transparency Index Table 1, 2, 3, 4, and 5

Indicators	Explanation of and interpretation of indicators
Table 1. Explanation of Measure and Scoring for Section 1 of the Fashion Transparency Index	
1.1 Company's human rights and environmental policies.	
Animal Welfare	Presence of a policy, which covers issues such as husbandry and use of animal derived materials.
Annual Leave & Public Holidays	Presence of policies that outline annual holiday allowance or vacation time in number of days or weeks. Following local regulation is not sufficient.
Anti-bribery, Corruption, & Presentation of False Information	Best practice would include separate policies for head office and warehouse employees.
Biodiversity & Conservation	This can include deforestation. This does not include water conservation (water usage) but can include ocean conservation.
Community Engagement	
Discrimination	Disclosure that prohibits discrimination based on protected characteristics (sex, gender, age, race, religion etc.).
Diversity & Inclusion	Disclosure must go beyond a non-discrimination policy to encourage or foster a diverse and inclusive environment such as a disabilities and accessibility policy and/or flexible working.
Energy & Greenhouse Gas Emissions	Policy must track and reduce Scope 1 and 2 emissions (own operations).
Equal Pay	Meaning men and women are paid the same for performing equal work. This can sometimes be found within a discrimination policy.
Freedom of Association, Right to Organise, & Collective Bargaining	
Harassment & Violence	Aligning language with the new ILO Convention 190 supplemented by Recommendation 206, concerning the elimination of violence and harassment in the world of work.

Indicators	Explanation of and interpretation of indicators
Health & Safety	
Maternity Rights & Parental Leave	Presence of policies that outline maternity and parental leave allowance in number of days or weeks.
Mental Health & Wellbeing	
Restricted Substance List (RSL)	Definition: an RSL targets only the chemicals that end up in the finished product. The list itself must be published; not sufficient if they just say that they have a RSL in place.
Wages & Financial Benefits (e.g., bonuses, insurance, social security, pensions)	
Waste & Recycling (Packaging/Office/Retail)	Disclosure could range from packaging to plastic bags to paper recycling or building materials. Best practice could include alignment to the UK Plastics Pact.
Waste & Recycling (Product/Textiles)	Presence of policies on off-cuts and textile wastage or policies on waste resulting from defective stock or production samples. We will not accept a policy on the use of recycled materials.
Water Consumption	
Working Hours & Rest Breaks	
1.2 Company's vendor/supplier policies covering human rights and environmental standards across the supply chain.	
Annual Leave & Public Holidays	Weekends or number of days off in a given week does not count as annual leave or public holiday. Presence policies that outline annual holiday allowance or vacation time. Points can be awarded if the policy follows local regulation but not if the disclosure is vague such as "enhanced annual leave."
Anti-bribery, Corruption, & Presentation of False Information	
Biodiversity & Conservation	This can include deforestation. This does not include water conservation (water usage) but can include ocean conservation. In general, best practice aligns with EU Best Available Techniques (BATs). However, EU BATs should

Indicators	Explanation of and interpretation of indicators
	not be used in place of more ambitions, local legal standards.
Child Labour	
Community Engagement	Company must be in the CoC and must have a policy, not just community-based program they have in place in production countries.
Contracts & Terms of Employment (including notice period, dismissal, & disciplinary action)	Points can be awarded if the evidence is across multiple disclosures.
Discrimination	
Energy & Greenhouse Gas Emissions	Best practice disclosure would consist of annual reporting of emissions.
Equal Pay	Meaning men and women are paid the same for performing equal work. This can sometimes be found within a discrimination policy.
Forced & Bonded Labour	
Foreign & Migrant Labour	Best practice would include a separate migrant workers policy.
Freedom of Association, Right to Organize, & Collective Bargaining	
Harassment & Violence	Aligning language with the new ILO Convention 190.
Health & Safety	Best practice would include separate guidebook on health and safety and/or alignment with the ILO Code of Practice on Safety and Health in Textiles, Clothing, Leather, and Footwear industries.
Homeworking	We are looking for policies that recognize the existence of homeworkers in supply chains. Best practice would include guidance on contracts and working hours. We are looking for policies that go beyond a ban of homeworking.
Living Conditions/Dormitories	This can sometimes be found within a Health and Safety policy.

Indicators	Explanation of and interpretation of indicators
Manufacturing Restricted Substances List (MRSL)	An MRSL targets all chemicals used in the manufacturing process of a product. The list itself must be published; not sufficient if company just says that they have an MRSL in place. If you are disclosing commitment to ZDHC, best practice uses the ZDHC MRSL as the orientation mark.
Maternity Rights & Parental Leave	Points can we awarded if the policy follows local regulation but not if the disclosure is vague such as “enhanced maternity leave.”
Overtime Pay	Company discloses rate of pay for overtime hours. For example, overtime shall always be compensated at a premium rate, which is recommended to be not less than 125% of the regular rate of pay. Disclosing that overtime pay is paid at a premium is not sufficient.
Subcontracting	
Wages & Financial Benefits (e.g., bonuses, insurance, social security, pensions)	This can often be found under a Remuneration policy.
Waste & Recycling (Packaging/Office/Facility)	This could be anything from packaging to plastic/poly bags to paper recycling or building materials.
Working Hours & Rest Breaks	
Does the company state that its supplier/vendor policies are based on credible international standards such as the Ethical Trading Initiative Base Code, relevant UN and ILO Conventions, OECD Guidelines for Multinational Enterprises, or the UN Global Compact?	
Does the company publish whether the policy (or policies) is part of the purchase agreement or if a supplier signature is required?	
Publishes translations of the supplier/vendor policies/CoC in local languages of production/sourcing countries.	Translations themselves must be published and publicly available. The translation should be in a language from a sourcing country.
1.3 Company’s human rights and environmental management procedures (how sections 1.1 and 1.2 are put into action by the companies).	

Indicators	Explanation of and interpretation of indicators
Animal Welfare	Example activities: participation in the Leather Working Group, Responsible Down Standard, Responsible Wool Standard, etc. If the brand does not use any animal-derived materials, should provide evidence of vegan certification such as Vegan Society, EVE Vegan, Certified Vegan.
Annual Leave & Public Holidays	Company provides evidence of a system in place that ensures employees actually receive annual leave. This could be a record system to track employees' annual leave or an annual leave approval system.
Anti-bribery, Corruption, & Presentation of False Information	Examples include a dedicated training for employees/workers on bribery and corruption. We will not award the point for general whistleblowing channels.
Biodiversity & Conservation	Examples include working with FSC or Canopy to ensure sources of cellulose-based fibres are not contributing to biodiversity loss, by restoring soil health and increasing biodiversity through regenerative agriculture.
Child Labour	Company provides evidence of due diligence, partnerships, or programs that work to eliminate child labour.
Community Engagement	Company provides evidence of partnerships and programs that support communities in the areas impacted by the company.
Contracts & Terms of Employment (including notice period, dismissal, & disciplinary action)	This could be a procedure ensuring all contracts are in the local language, are signed by both parties, and that employees are given a copy of the contract, or training sessions for workers who are not literate to go through their contract verbally before they sign.
Discrimination	Company provides evidence of partnerships and/or specific programs that seek to prevent, mitigate, or remedy discrimination, including training.
Diversity & Inclusion	Company provides evidence of partnerships and/or specific programs that foster diversity and inclusion including training, gender empowerment, and ethnic inclusion efforts to promote a diverse leadership.

Indicators	Explanation of and interpretation of indicators
Energy & Greenhouse Gas Emissions	Implementation of any energy-saving and reduction initiatives to reduce their carbon emissions. Brand could receive points for targets approved by the Science-Based Targets Initiative, including initiatives that support suppliers in the transition to green energy.
Equal Pay	Any evidence of work beyond a policy to ensure equal pay; could be evidence of training on this issue, partnerships, or specific programs that address this topic explicitly.
Forced & Bonded Labor	Company provides evidence of due diligence, partnerships, or programs that work to eliminate human trafficking, forced and bonded labor—the type of procedural information which might be included in a U.K. Modern Slavery Act or California Transparency in Supply Chains Act statement.
Foreign & Migrant Labor	Company provides evidence of due diligence, partnerships or programs that work to support migrant workers within their supply chain such as the AAFA/FLA Apparel & Footwear Industry Commitment to Responsible Recruitment.
Freedom of Association, Right to Organise, & Collective Bargaining	Example could be via a Global Framework Agreement or partnerships that proactively support freedom of association and CB such as ACT, Indonesia Protocol, or partnerships with local unions.
Harassment & Violence	This could include initiatives such as training for factory managers and workers, dedicated hotline to anonymously report harassment/abuse/violence, and other sensitization type activities.
Health & Safety	Company demonstrates how health and safety policies are put into practice such as topical training for workers.
Homeworking	Company demonstrates programs or initiatives that support homeworkers. Guidance may align with the Homeworkers Worldwide Toolkit for brands.

Indicators	Explanation of and interpretation of indicators
Living Conditions/Dormitories	Company engages in programs in supplier facilities focused on improving conditions in hostels/dormitories where workers are living onsite. For example, supporting hostel registration or providing provisions to increase quality of life for workers living in hostels/dormitories.
Manufacturing Restricted Substances List (MRSL)	Examples include testing or programs to support the implementation of MRSLs (e.g., working with ZDHC program such as MMCF, if link to ZDHC provided, or Changing Markets Foundation's The Roadmap Towards Responsible Viscose and Modal Fibre Manufacturing).
Maternity Rights & Parental Leave	Includes procedures and programs that seek to protect maternity rights and ensure parental leave for employees. For example, schemes that allow employees to work remotely or part-time after returning from maternity leave.
Mental Health & Wellbeing	Examples include procedures and programs that support garment worker or employee mental health and wellbeing.
Overtime Pay	We are looking for initiatives or procedures that manage overtime pay for employees. This could be documentation of overtime hours and pay through an overtime management system.
Restricted Substances List (RSL)	This could be an overview of their product testing, results, and progress. Best practice would go beyond alignment to ZDHC to disclose the date of when the RSL was last reviewed and how often it is reviewed.
Subcontracting	We are looking for evidence of partnerships and specific programs that seek to address and support better home working practices or traceability of sub-contracting.
Wages & Benefits (e.g., bonuses, insurance, social security, pensions)	We are looking for evidence of partnerships and programs that proactively support improving wages and benefits. For example, ACT membership, Fair Wear Foundation Fair Wage Ladder, calculating and benchmarking wages using Anker or Asia Floor Wage. Or it could be

Indicators	Explanation of and interpretation of indicators
	by providing detailed information about wage management systems.
Waste & Recycling (Packaging/Office/Facility/Retail)	Initiatives or procedures that are in action to reduce/reuse waste such as paper, plastic and glass, packaging, etc.
Waste & Recycling (Product/Textiles)	Initiatives or practices that reduce/reuse/repurpose off-cuts and textile wastage, defective stock, production samples, and/or post-consumer waste. We will not accept the use of recycled materials as a procedure here.
Water Effluents & Treatment	We are looking for evidence that brands have a program on improving wastewater quality and treatment or wastewater testing. Working with ZDHC programme is sufficient.
Water Consumption	Initiatives or procedures that are in action to reduce/minimize the use of water in business or supplier activities.
Working Hours & Rest Breaks	We are looking for initiatives or procedures that ensure workers/employees receive an adequate number of paid rest breaks for a healthy person within normal working hours. Or initiatives or procedures that ensure workers/employees are working normal, legal hours in a day.
1.4 and 1.5 Publishing strategic plan towards improving human rights and environmental impacts and publishes an annual sustainability plan.	
Publishes measurable, timebound, and long-term commitments, targets, or goals on improving human rights.	Includes long-term as goals which span at least a 3 year period. If the brand has a 5 year strategy and they are at the end of that 5 years and reporting on progress then that is still acceptable.
Publishes measurable, timebound, and long-term commitments, targets, or goals on improving environmental impacts.	Includes long-term goals which span at least a 3 year period. If the brand has a 5 year strategy and they are at the end of that 5 years and reporting on progress then that is still acceptable.
Annual, up-to-date disclosure of progress towards achieving the company's measurable, timebound, and long-term human rights commitments, targets, or goals.	

Indicators	Explanation of and interpretation of indicators
Annual, up-to-date disclosure of progress towards achieving the company's measurable, timebound, and long-term environmental commitments, targets, or goals.	
Publishes an annual sustainability or corporate social responsibility report (could also be found within annual company report) that is audited or verified by an independent third party.	Companies must state clearly that the sustainability information is audited and not just the financial data within the report, or if unclear then we cannot count. The report should include an assurance statement by a third party stating the scope of assurance.

Table 2. Explanation of Measure and Scoring for Section 2 of the Fashion Transparency Index

Publicly discloses contact details for the department of the company that has responsibility for human rights and environmental issues.	Presence of a policy, which covers issues such as husbandry and use of animal derived materials.
Discloses name and/or direct contact details of board member responsible for human rights and environmental issues in the business.	This must be a specific board member, an individual person, such as the chair of the relevant committee. The board means the team of people elected by a company's shareholders to represent the shareholders' interests and ensure that the company's management acts on their behalf.
Publishes description of how board level accountability is implemented in practice.	The board means the team of people elected by a company's shareholders to represent the shareholders' interests and ensure that the company's management acts on their behalf. For example, providing a mechanism for board members to provide advice and guide the brand's Sustainability Strategy, for example, through a sustainability specific committee.
Worker representation on the corporate board of directors.	Worker representatives are elected by employees rather than selected by the board.
Publishes a responsible tax strategy.	
Discloses how employees beyond the corporate social responsibility (CSR)/sustainability/ethical trade team (sourcing, production, buyers, designers, merchandisers) incentives (e.g., bonuses; part of employee performance reviews) are tied to improvements in human rights impacts and environmental management.	Training is not sufficient.

Indicators	Explanation of and interpretation of indicators
Discloses how executive (e.g.,. CEO, CFO, president) pay, bonuses, and/or performance reviews are tied to improvements in human rights impacts and environmental management.	
Percentage of executive bonus or pay linked to environmental and social targets.	
Description of how suppliers' incentives are tied to improvement in good labour practices and environmental management (e.g., long-term commitments to purchase, longer contracts, increased orders, price premiums, fewer audits).	Training is not sufficient.

Table 3. Explanation of Measure and Scoring for Section 3 of the Fashion Transparency Index

3.1 Publishes tier one factories, direct relationship with buyer (e.g., production units, Cut Make Trim (CMT) facilities, garment sewing, garment finishing, full package production, and packaging and storage).

Name of Facility	Companies provide a map or list that represents a significant proportion of their suppliers, and not just a few. OAR houses data from tier one and beyond. Facility means individual factories or manufacturing locations.
Name of Parent Company (for each facility, if applicable)	A parent company is a holding group that has majority ownership or control over a factory or supplier facility. If a facility does not have a parent company and that is indicated in the list, then points are allowed.
Address	If a brand links to OAR and you can find suppliers linked to the brand on the platform, then we will allow points.
Type of products or services.	
Approximate number of workers at each site.	
If facility has a trade union.	
If the facility has an independent worker committee.	Worker-management committees are not sufficient. Committees must be independent, otherwise workers' power is potentially quite limited.

Indicators	Explanation of and interpretation of indicators
Sex-disaggregated breakdown of workers at each site.	
Percentage or number of migrant or contract workers.	The type of workers who are typically recruited through outsourcing companies, labour recruiters, or other informal intermediaries. They are often employed seasonally or in some form of flexible, casual labour. Migrant workers may have moved from one region to another within a country or moved from one country to another to find work.
What certifications, if any, the facility has.	For example, GOTS, FLO, SA8000, WRAP, etc.
List is publicly available as a csv, json, or Excel spreadsheet (aligning with the Open Data Standard for the Apparel Sector) in order to make this information easy to use for trade unions and NGOs.	Online maps and PDF documents do not count as not machine readable; need to supply excel, csv, or json documents.
List contributed to the OAR, in order to enable collaboration, as well as easy and efficient access for trade unions & NGOs.	Where a Contributor name includes [Public List] at the end, this means that the data has been accessed, formatted and contributed to the OAR by the OAR Team. It is not actively managed and updated by the brand itself. In that case, the brand does not get the point.
Discloses aggregate volume of business that is captured by the disclosure and the percentage of total supplier factories published.	This indicator is aligned with Fashion Checker.
If list/map covers at least 95% of the tier one factories in its supply chain.	Where a brand says their list includes “all” their suppliers, we assume this means 100% and we give them the point here and for the next question, over 95%.
Discloses that this list or map of tier one factories has been updated within the past 6 months.	Will accept if the brand says their list is updated every 6 months or more frequently. If list published within the past 6 months, allow the point.
3.2 Publishes processing facilities (e.g., ginning and spinning, knitting, weaving, subcontractors, dyeing and wet processing, tanneries, embroidering, printing, fabric finishing, dyehouses, laundries, etc.).	
Name of Facility	Companies provide a map or list that represents a significant proportion of their suppliers. Disclosing one or two suppliers is not sufficient unless it specifies that these suppliers supply a significant chunk of the company's overall

Indicators	Explanation of and interpretation of indicators
	product volume. Facilities refer to individual factories or processing locations.
Name of Parent Company (for each facility, if applicable)	A parent company is a company that has majority ownership or control over a factory or supplier facility.
Address	
Type of products or services.	
Approximate number of workers at each site.	
If facility has trade union.	
If the facility has an independent worker committee.	Worker-management committees are not sufficient. Committees must be independent, otherwise workers' power is potentially quite limited.
Sex-disaggregated breakdown of workers at each site.	
Percentage or number of migrant or contract workers.	The type of workers who are typically recruited through outsourcing companies, labour recruiters or other informal intermediaries. They are often employed seasonally or in some form of flexible, casual labour. Migrant workers may have moved from one region to another within a country or moved from one country to another to find work.
What certifications, if any, the facility has.	For example, GOTS, FLO, SA8000, WRAP, etc.
List is publicly available as a csv, json, or Excel spreadsheet (aligning with the Open Data Standard for the Apparel Sector) in order to make this information easy to use for trade unions and NGOs.	Online maps and PDF documents do not count as not machine readable. Looking specifically for Excel, csv, or json documents.
List contributed to the OAR, in order to enable collaboration, as well as easy and efficient access for trade unions & NGOs.	Where a Contributor name includes [Public List] at the end, this means that the data has been accessed, formatted and contributed to the OAR by the OAR Team. It is not actively managed and updated by the brand itself. In that case, the brand does not get the point.
Discloses aggregate volume of business that is captured by the disclosure and the percentage of total supplier factories published.	

Indicators	Explanation of and interpretation of indicators
If list/map covers at least 95% of the processing factories in its supply chain.	
Discloses that this list or map of tier one factories has been updated within the past 6 months.	If list is published within the past 6 months, allow the point.
3.3 Publishes suppliers of raw materials such as fibres, hides, rubber, dyes, metals, etc. (e.g., raw material providers, farms, slaughter houses, sewing yarn suppliers, filament and staple, chemical suppliers, etc.).	
Name of supplier (e.g., parent company)	Company provides a list or map that represents a significant proportion of suppliers. Disclosing one or two suppliers is not sufficient unless it specifies that these suppliers supply a significant chunk of the company's overall volume. However, will accept if list covers only one or two types of fibre such as viscose, wool, cotton, etc.
Name of specific facility or farm	Facility refers to individual factories, farm, or locations in which the raw materials originate.
Address	
Discloses the specific raw material fibre, products or services.	For instance, viscose or synthetics
Approximate number of workers.	
Sex-disaggregated breakdown of workers.	
Percentage or number of migrant or contract workers.	A contracted worker has usually been employed by a third party agency and not directly by the company which often encourages bonded labour. Companies can provide the number of workers, not the percentage and also provide the number of workers per facility; they can also receive the point.
List is publicly available as a csv, json, or Excel spreadsheet (aligning with the Open Data Standard for the Apparel Sector) in order to make this information easy to use for trade unions and NGOs.	Online maps and PDF documents do not count as not machine readable including excel, csv, or json documents.
Discloses what percentage of raw materials suppliers is published.	
Discloses supplier list that covers more than one raw material type.	

Indicators	Explanation of and interpretation of indicators
Publishes that this list or map of raw materials suppliers has been updated within the past 12 months.	Will accept if the brand says their list is updated annually or more frequently. If list published within the past 12 months, allow the point.
Discloses whether the company is tracing the source/supplier of one or more specific raw materials (e.g., part of Leather Working Group or using Responsible Down/Wool Standard, Global Recycling Standard, Content Claim Standard, Organic Cotton Standard, GOTS, FAIRTRADE Certified Cotton Mark and Cotton Programme, Cotton Made in Africa HIP, Oeko-Tex SteP/Made in Green, or company/parent group's own initiatives such as using blockchain or transaction certifications or DNA schemes).	Better Cotton Initiative (BCI) is only traceable to country level and not producer group/farmer level, so no points for this initiative. Please check conflict mineral policies or reports as they may contain information on tracing raw materials.

Explanation of Measure and Scoring of Section 4 of the Fashion Transparency Index

4.1a Know, Show & Fix: Publicly discloses human rights due diligence processes, outcomes and what brand is doing to remediate any issues identified. (Please note: Auditing by itself does not represent a due diligence process.)

Due diligence on human rights risks, impacts, and violations.

Please note for this entire section: Due diligence is the process through which companies identify, prevent, mitigate, and remedy their actual and potential adverse impacts. Due diligence can be included within broader enterprise risk management systems, provided that it goes beyond simply identifying and managing material risks to the enterprise itself to include issues occurring within their supply chain and focuses on identifying the most salient risks to workers, farmers, and other affected stakeholders themselves.

A materiality matrix may be partially based on a company's due diligence process, but they do not get points in this section purely for publishing a materiality matrix.

- Discloses how the company works to identify and prioritize human rights risks, impacts and violations in its supply chain (its approach to conducting human rights due diligence).
- Discloses how worker/producer/farmer representatives, unions, and other affected stakeholders are involved in the due diligence process.
- Discloses how women workers, women's organizations, women human rights defenders, and gender experts are involved in all stages of human rights due diligence.
- Discloses the salient human rights risks, impacts, and violations identified.
- Discloses evidence of steps taken to cease, prevent, mitigate, and remedy human rights risks, impacts, and violations identified.
- Discloses the outcomes or results of steps taken to cease, prevent, mitigate, and remedy human rights risks, impacts, and violations identified.

Indicators	Explanation of and interpretation of indicators
4.1b Know, Show & Fix: Publicly discloses environmental due diligence processes, outcomes, and what brand is doing to remediate any issues identified. (Please note: Auditing by itself does not represent a due diligence process.)	
Due diligence on environmental risks, impacts, and violations. Please note for this entire section: Due diligence is the process through which companies identify, prevent, mitigate, and remedy their actual and potential adverse impacts. Due diligence can be included within broader enterprise risk management systems, provided that it goes beyond simply identifying and managing material risks to the enterprise itself to include issues occurring within their supply chain and focuses on identifying the most salient risks to workers, farmers, and other affected stakeholders themselves. A materiality matrix may be partially based on a company's due diligence process, but they do not get points in this section purely for publishing a materiality matrix.	• Discloses how the company works to identify and prioritize environmental risks, impacts, and violations in its supply chain (its approach to conducting environmental due diligence). • Discloses how worker/producer/farmer representatives, unions, and other affected stakeholders are involved in the environmental due diligence process. • Discloses the salient environmental risks, impacts, and violations identified. • Discloses evidence of steps taken to cease, prevent, mitigate, and remedy environmental risks, impacts, and violations identified. • Discloses evidence of steps taken to cease, prevent, mitigate, and remedy environmental risks, impacts, and violations identified.
4.2 Know: Publicly discloses how the company assesses implementation of its supply chain policies (as described in section 1.2) by facility (e.g., at factories, processing facilities, and farms).	
	Discloses the scope, process, and accreditation for environmental audits. Discloses criteria for taking on new facilities before production commences to ensure the facility meets policies and standards. Discloses number or percentage of workers interviewed offsite as part of audits. Percentage of audits which included a trade union representative.
4.3 Show: Publicly discloses findings from its facility-level assessments (e.g., at factories, processing facilities, and farms).	
Summary of assessment findings or aggregate facility rating without naming individual facilities.	Points for increasing degrees of disclosure • At tier 1 level • Beyond tier 1 • Raw material level

Indicators	Explanation of and interpretation of indicators
Facility-level rating by named facility.	Points for increasing degrees of disclosure • At tier 1 level • Beyond tier 1 • Raw material level
Selected audit findings/reports by named facility.	Points for increasing degrees of disclosure • At tier 1 level • Beyond tier 1 • Raw material level
Full audit reports naming individual facilities.	Points for increasing degrees of disclosure • At tier 1 level • Beyond tier 1 • Raw material level
4.4A Fix: Publicly discloses description and status of the remediation process.	
	Discloses the process for remediation when non-compliances are found in a facility (e.g., corrective action plans that include stop-work notices, warning letters, supplementary training, and/or policy revision).
	Discloses how the company engages with workers/producers/farmers, trade unions, and any other affected stakeholders in the development and implementation of remediation/corrective action plans.
	Discloses exit strategy when a brand leaves a supplier (e.g., ensuring that policy is not to just cut-and-run, including an assessment on potential adverse human rights impacts, and ensuring suppliers are given reasonable notice of intent to terminate the relationship).
	Discloses Corrective Action Plans and status by named-facility (open, on-track, behind schedule, complete).
	Discloses the individual findings and root cause analysis of the CAPR (such as non-compliances, observations, and good examples) by named facility.
4.4B Fix: Publicly discloses how the company ensures human rights and environmental grievances from employees and workers are captured and addressed (no points given if whistleblowing is only for reasons of financial misconduct). Reports published after January 2020.	

Indicators	Explanation of and interpretation of indicators
For direct employees.	Description of confidential whistleblowing or grievance mechanism (e.g., web form, email, hotline). (The mechanism itself must be published; not sufficient if they just say that they have it in place.)
For suppliers and vendors. (No points given if onus is solely on the supplier to set up a grievance mechanism.)	• Description of confidential whistleblowing or grievance mechanism (e.g., web form, email, hotline). (The mechanism itself must be published; not sufficient if they just say that they have it in place.) • How the whistleblowing or feedback mechanism is implemented (i.e., how the company responds to complaints, and/or reported violations of policies and standards). • How workers are informed of the whistleblowing or grievance mechanism (e.g., posted a wall or board in the facility, via a training session with facility workers). • If the whistleblowing procedure or grievance mechanism is included in the supplier/vendor policies (e.g., Code of Conduct). (The mechanism itself must be published; not sufficient if they just say that they have it in place.) • Discloses data about the number of reported violations or grievances filed, addressed, and resolved.

Explanation of Measure and Scoring of Section 5 of the Fashion Transparency Index

5.1 Decent Work & Purchasing Practices

Discloses brand's approach to recruitment fees in the supply chain, including whether the brand adopts the Employer Pays Principle and/or reimburses any costs workers have incurred during recruitment processes.	Best practice disclosure aligns with the Institute for Human Rights and Business's Employer Pays Principle, which states that no worker should pay for a job and where the costs of recruitment should be borne not by the worker but by the employer. Best practice due diligence would include that workers are interviewed about their recruitment journey to establish if any fees or related costs have been paid.
Discloses the number of workers in the supply chain affected by the payment of recruitment fees or related costs.	This indicator aligns with the Corporate Human Rights Benchmark. Please see pg. 48 of CHRB Methodology.

Indicators	Explanation of and interpretation of indicators
Publishes data on the prevalence of modern slavery related violations and risk factors (e.g., excessive and forced overtime, restricted freedom of movement, retaining workers' passports or other identity/personal documents, withholding wages, debt bondage, grievances related to recruitment practices).	Best practice addresses all of the modern slavery related violations listed rather than aggregated disclosure. Company should disclosure on the number of violations. Disclosure accepted for forced labour risk factors and violations identified in own operations and supply chain.
Discloses the company's approach to achieving the payment of living wages to workers in the supply chain.	The living wage questions refer to garment workers, factory workers, and other supply chain producers involved in production. It doesn't include retail workers, warehouse staff, or other employees in the company's owned operations. This question must be evidenced through a credible process such as ACT membership, Fair Wear Foundation Fair Wage Ladder, Fairtrade Textile Standard, FLA's Fair Compensation Strategy. With regards to disclosure of membership in multi-stakeholder initiatives, best practice would include a description of what specific measures the brand is taking beyond disclosure of membership to the MSI.
Publishes time-bound, measurable roadmap/strategy for how it will achieve a living wage for all workers across its supply chain.	
Reports on annual, measurable progress towards paying living wages to workers in the supply chain.	This could include data such as the number of wage management systems set up/improved, the outcomes of worker capacity building related to wage increases, outcomes of participation in initiatives such as ACT or FLA, the percentage of wage increases workers in the supply chain have received as result of brand's effort to improve wages, etc.
Discloses what living wage estimates brand uses to track and benchmark wages for workers in its supply chain.	Company provides information about how brands calculate and benchmark living wage rates for workers in their supply chain, such as by using the Anker methodology, Asia Floor Wage, or Wage Indicator Foundation data. They could be using multiple benchmarks.
Percentage of workers that are receiving wage payments digitally.	Best practice would include a full breakdown on the percentage of workers paid digitally, by cash, and by cheque.

Indicators	Explanation of and interpretation of indicators
Percentage above the minimum wage workers are paid in the brand's supply chain.	Will accept if data only covers a small number of selected supplier facilities.
Discloses percentage or number of workers in supply chain that are being paid a living wage rate.	Will accept if data only covers a small number of selected supplier facilities. Best practice would be disclosure against a target that has been determined using credible methodologies such as the Anker methodology, Asia Floor Wage, or Wage Indicator Foundation.
Discloses method for calculating and ring-fencing labour costs (including wage rate + overtime, social security, sick leave, vacation and other forms of leave, as well as the cost of indirect labour and wage increases) in price negotiations.	Many of these indicators are required as part of ACT brand membership but ACT membership is not sufficient to score points.
Percentage of orders/volume for which wages and other labour costs (such as wages increases) are isolated/ringfenced.	
Percentage that the brand's Free On Board (FOB) prices have increased or decreased on average in the past 12 months.	
Publishes a standard, due diligence aligned supplier agreement template, setting out typical order and payment terms and conditions.	Due diligence-aligned supplier agreements should include, at a minimum: Commitment by both buyer and supplier to engage in human rights due diligence Buyer commitments: • Responsible purchasing practices • Contract pricing that covers the costs of production and the costs associated with responsible business conduct • Reasonable assistance to support suppliers' ability to uphold buyers' human rights standards • Responsible exit • Human rights remediation ahead of traditional contract remedies for human rights breaches

Indicators	Explanation of and interpretation of indicators
Publishes a Responsible Purchasing Code of Conduct (a.k.a., "Buyer Code").	A Buyer Code should include, at a minimum, commitments to: • Carrying out human rights due diligence, including responsible purchasing • Selecting suppliers using both commercial and human rights standards • Negotiating contracts fairly and agreeing prices that cover all costs of production, including those associated with responsible business conduct • Engaging in ongoing dialogue with suppliers throughout the course of the contract to ensure that buyers' requests do not undermine human rights • Providing for or cooperating in human rights remediation in the event of a human rights breach • Exiting contracts responsibly, by giving reasonable notice, paying outstanding invoices, and taking measures to address adverse impacts connected to termination Please see this example published by American Bar Association Business Law Working Group to Draft Model Contract Clauses to Protect Human Rights in International Supply Chains, developed in wide consultation with industry stakeholders.
Discloses policy on what percentage of the purchase order the brand typically pays to the supplier up front before production begins (in order to cover pre-production costs such as the purchase of raw materials and other inputs).	
Discloses policy to pay suppliers within a maximum of 60 days (e.g., via UK Prompt Payment Code commitments).	
Discloses the average number of days in which purchase orders are paid in full to suppliers after delivery.	
Percentage of orders that have retrospective changes to their previously agreed payment terms.	

Indicators	Explanation of and interpretation of indicators
Discloses annual supplier feedback on the brands' purchasing practices through a formal process (e.g., via Better Buying platform, Supplier Summits, internal surveys of suppliers of brands' purchasing practices).	For example, if brands publish their Better Buying report then this would count. Please note audits not sufficient.
5.2 Gender and Racial Equality	
Publishes annual gender pay gap, including by distribution of job roles, within the company.	
Publishes annual sex-disaggregated distribution of job roles (e.g., executive level, managers/supervisors, employees) within the company (head office, retail stories, owned and operated facilities).	
Publishes annual sex-disaggregated distribution of job roles (e.g., employees such as helpers/machinists verses supervisors/managers) in supplier facilities.	
Publishes data on the prevalence of gender-based labour violations in supplier facilities (e.g., sexual harassment and other forms of gender-based violence; treatment and firing of pregnant workers; maternity pay; bathroom breaks during periods, etc.; women in supervisor/middle management roles; gender pay gap; women on Worker Participations Committees and in unions; etc.).	
Discloses actions focusing on the promotion of gender equality in supplier facilities (such as steps taken to address instances of gender-based violence or initiatives to promote women workers into leadership positions).	We are looking for actions and programs that foster a culture in favour of gender equality, inclusion of women in managerial and executive positions, and the promotion of gender equality in integration events of new workers.
Publishes annual ethnicity pay gap, including by distribution of job roles (e.g., executive level, managers/supervisors, employees) within the company (head office, retail stories, owned and operated facilities).	
Publishes race/ethnicity breakdown by distribution of job roles (e.g., executive level, managers/supervisors, employees) within the company (head office, retail stories, owned and operated facilities).	

Indicators	Explanation of and interpretation of indicators
Publishes actions focusing on the promotion of racial and ethnic equality in supplier facilities (such as steps taken to address instances of racial and ethnic discrimination or initiatives to promote racial or ethnic equality).	Company reports actions and programs that foster a culture in favour of racial diversity, inclusion of people of colour in managerial and executive positions, and the promotion of racial equality in integration events of new employees.
5.3 Sustainable sourcing and materials	
Discloses breakdown (percentage or tonnes) of types of fibres sourced annually (i.e., the fibre mix).	Best practice would include disclosure of both percentage and tonnes of types of fibres.
Discloses a time-bound and measurable sustainable materials strategy, roadmap or targets.	The strategy must cover multiple materials.
Publishes annual progress on achieving sustainable material targets (e.g., what percentage of materials are made using conventional/virgin materials verses more sustainable materials such as organic/Fairtrade, recycled/repurposed, recycled and sustainable wool, recycled polyester, chrome-free/recycled leather, sustainably sourced forest based fabrics).	Brands should only receive this point if they publish progress for more than one material.
Explains what tool or process they use to define what is considered a “sustainable” material.	For example, the brand may specify and provide a hyperlink to a particular sustainable materials benchmark they use such as the Textile Exchange Preferred Fibre and Material Exchange Index.
Publishes measurable, time-bound targets for the reduction of textiles deriving from virgin fossil fuels.	Best practice would include disclosure on the elimination of synthetic materials.
Publishes annual progress on the reduction of textiles deriving from virgin fossil fuels.	
Publishes measurable, time-bound targets for the reduction of virgin plastics for packaging (including accessories, hangers, packaging).	
Publishes annual progress on the reduction of virgin plastics for packaging (including accessories, hangers, packaging).	Company must disclose beyond stating membership or commitments to initiatives.

Indicators	Explanation of and interpretation of indicators
Discloses what the brand is doing to minimize the impact of microfibres.	This could be through testing of materials and products to assess microfibre shedding, designing products for reduced shedding, or partnering with research bodies or multistakeholder initiatives to understand microfibre impacts and develop science-based tools.
5.4 Overconsumption, waste, and circularity	
Discloses quantity of products produced during the annual reporting period.	Companies disclose items brands produced in the past year. For example, “we produced 1.5 billion products in 2020.”
Discloses quantity of pre-production waste generated annually (e.g., offcuts, scraps, threads, end of roll fabrics).	Companies disclose the amount of pre-production textile waste from manufacturing is generated each year. For example, “We produced 10,000 tons of pre-production textile waste in 2020.”
Discloses quantity of postproduction/pre-consumer waste generated annually (e.g., deadstock, overstock, samples).	Companies disclose the amount of post-production textile waste generated each year (e.g., deadstock, overstock, samples). For example, “We produced 10,000 tonnes of deadstock/overstock/samples in 2020.”
Discloses breakdown (percentage or tonnes) of how pre-consumer waste is reused or recycled (e.g., downcycled, resold locally, used for energy recovery, resold into other markets, upcycled, recycled into new textiles).	Companies disclose how much of the brand's pre-consumer waste is reused or recycled (e.g., downcycled, resold locally, used for energy recovery, resold into other markets, upcycled, recycled into new textiles). For example, “In 2020, we recycled 80% of pre-production textile waste into new textiles and 20% of pre-production textile waste was downcycled.”
Percentage or tonnes of textiles or number of items destroyed (typically incinerated) during the annual reporting period.	Companies disclose how much of the brand’s waste is destroyed. We are looking for this to cover all textile waste that has been incinerated in the textile production process; this should clearly state that it covers both post and pre-production textiles/items.
Offers permanent, year-round takeback schemes/in-store recycling.	One-off or irregular projects not sufficient for the point.
Discloses what happens to clothes received through take-back scheme (e.g., how much is resold locally, resold into other markets,	

Indicators	Explanation of and interpretation of indicators
downcycled, upcycled, recycled into new textiles).	
Offers new business models that support clothing longevity and slow down consumption of new clothing such as renting and reselling.	Take-back schemes do not apply.
Offers repair services in order to increase clothing longevity and slow down consumption of new clothing.	
5.5 Water and Chemicals	
Discloses a time-bound commitment/roadmap to eliminate the use of hazardous chemicals as aligned with international standards such as ZDHC and Bluesign.	
Discloses measurable progress towards eliminating the use of hazardous chemicals at supply chain partners as aligned with international standards such as ZDHC MRSL, (e.g., via Bluesign or STeP by Oekotex).	If no clear target disclosed, no points available for progress. Targets referring to RSL requirements (product level, also PRSL) are insufficient, as targets should refer to elimination of use in production. Evaluation of reaching targets should therefore be done by evaluating the supply chain partners' chemical inventories, (e.g., via ZDHC InCheck, STeP, or Bluesign certificates for individual supply chain partners). For viscose/modal, we will accept disclosure on reduction as some chemicals cannot be eliminated. Best practice includes disclosure on how progress is measured and information on how chemical inventories are verified.
Publishes supplier wastewater test results.	For example, publishing wastewater testing results publicly on the Institute of Environmental Affairs (IPE) website. The ZDHC Detox Live platform (on their "Gateway") does not currently disclose wastewater test results to the public, or NGOs/Trade Unions. Points should only be given when wastewater test reports (laboratory reports) are disclosed via IPE or on a company's own website in line with the DHC programme, Oeko-Tex, Bluesign, AFIRM, EU Ecolabel, the Nordic Swan, Global Organic Textile Standard (GOTS), and equivalent.

Indicators	Explanation of and interpretation of indicators
Publishes annual water footprint in company's owned and operated facilities (e.g., head office, retail stores, distribution centres, warehouses, etc.).	
Publishes annual water footprint at manufacturing and/or processing facility level.	
Publishes annual water footprint at fibre production and/or raw material level.	
Discloses process or methodology for conducting water-related risk assessments.	Best practice includes alignment and engagement with WRI Water Aqueduct Too, WWF Water Atlas Filter, WBCSD Global Water Tool, as well as CDP Water. Additionally, engagement on managing water use with suppliers in water-risk basins.
5.6 Climate Change and Biodiversity	
Publishes time-bound, measurable commitment to decarbonisation (e.g., commitment to a complete coal phase out and/or renewable energy targets for own operations and supply chain).	Must cover Scopes 1, 2 and 3 (i.e., supply chain and own operation and these figures must be aligned with SBTIs and verified by the Science Based Targets Initiative).
Publishes measurable progress towards decarbonization.	If no clear target disclosed, no points available for progress.
Explains what is included in the company's scopes 1, 2 and 3 emissions .	When calculating their carbon footprint, brands do not always disclose what is in and out of scope. Best practice would include listing the different categories accounted for in Scope 3, in alignment with the greenhouse gas (GHG) Protocol.
Publishes Science Based Targets (such as those approved by Science Based Targets Initiative) covering climate and/or other environmental topics.	
Publishes evidence that maps environmental risks and impacts directly to financial statements (e.g., Environmental Profit & Loss).	This could be done by putting a cost on environmental risks. For example, costs associated with closing down a factory in a country at high risk of floods. This is the type of disclosure you may find in a CDP Climate questionnaire.

Indicators	Explanation of and interpretation of indicators
Publishes time-bound, measurable commitment to zero deforestation.	Will not allow net zero deforestation which allows for the clearance or conversion of forests in one area as long as an equal area is replanted elsewhere. Looking for best practice on this issue, which is zero deforestation.
Publishes measurable progress towards achieving zero deforestation.	If no clear target disclosed, no points available for progress.
Discloses evidence of implementing regenerative farming practices in one or more raw material source.	Regenerative Agriculture is a system of farming principles and practices that increases biodiversity, enriches soils, improves watersheds, and enhances ecosystem services, including carbon sequestration. We are also looking for disclosure on how brands financially support farmers to transition to more regenerative farming practices.

Appendix B

Definitions of Variables

Variable	Definition
Dependent variable	
FINTPY	Financial transparency measured as earning aggressiveness.
ΔTAt	Changes in total assets.
ΔCLt	Changes in total current liabilities.
ΔCASHt	Changes in total cash.
ΔSTDt	Changes in short-term debt.
DEPt	Depreciation and amortization expense.
TPt	Tax payable.
TAt-1	Lagged total asset.
Independent variable	
FTI Overall	Brands' FTI final score.
FTI S1	FTI Section 1 score—Policy and Commitments.
FTI S2	FTI Section 2 score—Governance.
FTI S3	FTI Section 3 score—Traceability.
FTI S5	FTI Section 5 score—Spotlight issues: Sustainable goals.
Control variable	
BIG 4	An indicator variable that takes a value of 1 if the firm is audited by a Big 4 auditor and 0 otherwise.
SIZE	Natural log of total assets.
BTM	The market-to-book ratio is measured as the market value of equity scaled by the book value of equity.
LEV	Leverage ratio measured as ratio of book value of debts to book value of total assets.
Fast fashion	Low-priced, rapid design, production, and distribution to mass market.
AGE	Natural log of number of years since inception.