

SUSTAINABILITY AND VALUE: DOES ESG INCREASE STOCK PRICES IN THE TEXTILE INDUSTRY?

SUSTENTABILIDADE E VALOR: O ESG AUMENTA O PREÇO DAS AÇÕES DAS EMPRESAS TÊXTEIS?

JOÃO PAULO MULIN GUZZO

Universidade Federal Fluminense, Faculdade de Administração e Ciências Contábeis, Departamento de Ciências Contábeis, Niterói, RJ, Brasil

● <https://orcid.org/0009-0008-9870-4036>
jpmguzzo@id.uff.br

THIAGO DE ABREU COSTA

Universidade Federal do Rio de Janeiro, Faculdade de Administração e Ciências Contábeis, Departamento de Ciências Contábeis, Rio de Janeiro, RJ, Brasil.

● <https://orcid.org/0000-0002-1366-7547>
thiago@facc.uff.br

GEOVANE CAMILO SANTOS¹

Universidade Estadual de Maringá, Câmpus Regional de Cianorte, Departamento de Ciências Contábeis, Cianorte, PR, Brasil

● <https://orcid.org/0000-0003-3253-830X>
gcsantos@uem.br

HUGO COSTA DE MACEDO

Universidade Federal Fluminense, Faculdade de Administração e Ciências Contábeis, Departamento de Ciências Contábeis, Niterói, RJ, Brasil

● <https://orcid.org/0000-0002-0559-8908/>
hugomacedo@id.uff.br

ABSTRACT

This study examines the relationship between environmental, social, and governance (ESG) practices and stock prices in the textile sector. Using data from Refinitiv Eikon (2005-2022), the final sample comprises 669 observations from 103 companies. The data were analyzed using panel data models, including Generalized Least Squares (GLS), Panel-Corrected Standard Errors (PCSE), and Two-Stage Least Squares (2SLS). The results consistently show a positive relationship between ESG practices and stock prices, indicating that investors value sustainability. The results show that the social and environmental pillars are particularly significant in explaining higher stock prices. This sector is one of the largest environmental polluters while also holding significant economic relevance. In this context, this study addresses a gap in the literature by showing that adopting ESG practices in the textile sector not only increases stock prices but also contributes to its sustainable development. These results provide a solid foundation for investment decisions and corporate strategy formulation.

Keywords: Value relevance. ESG. Textile industry. Sustainable investments.

Edited in English.

Version of the Paper presented at the Adcont Congress in 2024.

¹ **Correspondence address:** R. Afonso Pena, 130, Zona 1 | 87200-000 | Cianorte/PR | Brazil.

Received on 04/16/2025. **Revised on** 06/29/2025. **Accepted on** 09/15/2025, by Prof. Dr. Rogério João Lunkes (Editor-in-Chief). **Published on** 11/14/2025.

Copyright © 2025 RCCC. All rights reserved. Citation of portions of the article is permitted without prior authorization, provided that the source is properly identified.

RESUMO

Este estudo examina a relação entre as práticas ambientais, sociais e de governança (ESG) e os preços das ações no setor têxtil. Foram utilizados dados de Refinitiv Eikon (2005-2022), com amostra final de 669 observações relativas a 103 empresas. Os dados foram tratados em painel de dados, incluindo modelos Generalized Least Squares (GLS), Panel-Corrected Standard Errors (PCSE), and Two-Stage Least Squares (2SLS). Os resultados mostram consistentemente uma relação positiva entre as práticas ESG e os preços das ações, indicando que os investidores valorizam a sustentabilidade. Os resultados mostram que os pilares social e ambiental apresentam maior explicação do preço das ações. Esse setor é um dos maiores poluentes ambientais, ao mesmo tempo em que possui significativa relevância econômica. Nesse contexto, este estudo preenche essa lacuna, demonstrando que a adoção de práticas ESG no setor têxtil aumenta os preços das ações e contribui para o desenvolvimento sustentável do setor. Isso pode fornecer base sólida para decisões de investimento e formulação de estratégias corporativas.

Palavras-chave: *Value relevance. ESG. Indústria têxtil. Investimentos sustentáveis.*

1 INTRODUCTION

Kar (2015) states that despite its polluting effects, the textile industry plays an important socioeconomic role, particularly in developing countries. For instance, the global apparel market is projected to be valued at USD 1.84 trillion in 2025, representing about 1.6% of the world's Gross Domestic Product (GDP), with approximately 430 million people - or about 12% of the global workforce - employed in fashion and textile production (Global Market Insights, 2025). According to Berwal (2023), the textile sector is one of the most important in the Indian economy, accounting for approximately 7% of the country's total Gross Domestic Product (GDP), more than 12% of the manufacturing sector, and 13% of export revenues.

When released into the environment pollutants generated by the textile industry are among the most hazardous to human health and pose significant environmental risks. The main characteristics of pollutants include flammability, corrosiveness, reactivity, toxicity, and pathogenicity (Oliveira et al., 2023). According to Abbate et al. (2024), the textile industry is one of the largest contributors to global environmental pollution, exerting negative impacts across all stages of its supply chain.

Given this economic significance and its high potential for pollution and health risks, the study of Environmental, Social, and Governance (ESG) practices is crucial for enhancing corporate performance in this sector (Tian et al., 2025; Zhang et al., 2024). Adopting ESG practices can demonstrate that companies implementing environmental sustainability initiatives achieve positive results, suggesting a convergence toward globally accepted environmental sustainability standards (Danso et al., 2020). According to Busch et al. (2021), environmental and social aspects are key issues in finance and markets, where a clear shift toward considering real impacts has been observed.

Tian et al. (2025) analyzed Chinese textile and apparel companies between 2013 and 2023, and showed that ESG performance contributes to firm valuation, with part of this effect mediated by innovation capacity and amplified by digitalization. Similarly, Shao et al. (2025), in a study of textile and garment companies listed in China between 2015 and 2022, found that ESG is positively associated with firm value - particularly through the promotion of green innovation as an intermediate mechanism. Finally, Islam (2025) examined how corporate maturity moderates the value relevance of ESG disclosures in Bangladesh, indicating that younger companies benefit more from this transparency as a signal of reliability and quality. These works enrich the

contextualization by highlighting economic mechanisms - such as innovation and signaling - that link ESG to financial performance in industries related to textiles.

In the context of financial markets ESG has been linked to stock pricing because investors are considering additional metrics beyond traditional accounting (such as profit, revenue, and cash flow). Kotsantonis and Serafeim (2019) argue that this relationship can be explained by the fact that high ESG standards often enhance a company's reputational image. Ademi and Klungseth (2022) state that improving the ESG performance of publicly traded companies leads to an increase in their market value and operational capacity.

The integrated adoption of ESG practices by organizations has been identified as a potential source of competitive advantage in terms of financial performance (Khan, 2022). Examining the relationship between ESG performance and stock value contributes to a more robust framework for investment evaluation, while also fostering a business environment aligned with principles of ethical conduct, social responsibility, and environmental sustainability. This analytical perspective is particularly relevant in sectors such as the textile industry, which is often associated with significant environmental challenges.

The integrated adoption of ESG practices by organizations has been identified as a potential source of competitive advantage in terms of financial performance (Khan, 2022). Examining the relationship between ESG performance and stock value contributes to a more robust framework for investment evaluation, while also fostering a business environment aligned with principles of ethical conduct, social responsibility, and environmental sustainability. This analytical perspective is particularly relevant in sectors such as the textile industry, which is often associated with significant environmental challenges.

Studies have shown a positive effect of ESG on stock prices (Miralles-Quirós et al., 2019, 2018; Sahlian et al., 2023; E-Vahdati et al., 2023; Migliavacca, 2024). Research has examined different scenarios, including: the relevance of ESG performance in the Brazilian stock market (Miralles-Quirós et al., 2018); in companies in the banking sector (Miralles-Quirós et al., 2019); in Italian firms (Cordazzo et al., 2020); South Korea's tourism sector (Kwon & Shin, 2022); comparing periods before and during the pandemic (Santos & Tavares, 2023); during times of economic turbulence (Sahlian et al., 2023); and in companies from Japan and Malaysia (E-Vahdati et al., 2023).

Thus, there is a lack of studies focused on the textile sector, which this research seeks to address. The importance of a sector-specific analysis lies in the fact that the textile industry is one of the largest environmental polluters. In this context, companies adopting stronger ESG practices are expected to be considered more environmentally sustainable, which, according to the Stakeholder Theory, reflects a commitment to maximizing societal well-being. This, in turn, could lead investors to better price these companies' stocks.

The research question is: What is the relationship between ESG practices and stock prices in the textile sector? To address this question, the study examines the relationship between ESG and stock prices in textile industry firms. The hypothesis of the study is H1: ESG performance information has a positive and significant relationship with stock prices in the textile industry. The sample comprises 669 observations from 103 companies between 2005 and 2022. The choice of 2022 is justified as it represents the most recent year of data available at the time of collection.

This study contributes to the accounting and business literature by addressing a gap in research on the value relevance of ESG practices in the textile industry, a sector with substantial environmental impact and global socio-economic significance. By empirically demonstrating that ESG practices positively affect stock prices in this specific sector, the research expands the understanding of how non-financial indicators influence market valuation, thereby integrating sustainability considerations into financial analysis frameworks.

For academics, the findings provide evidence that supports and enriches theories such as signaling theory and stakeholder theory, while also opening avenues for comparative studies in other industries or geographic contexts. For investors, the results provide a basis for incorporating ESG metrics into valuation models, enabling the identification of firms with lower environmental, social, and governance risks and potentially superior long-term performance. For corporate managers, the study highlights ESG adoption as a strategic tool to enhance reputation, attract stakeholders, improve operational efficiency, and access sustainable capital at lower costs - thus aligning social responsibility with financial performance.

2 LITERATURE REVIEW AND RESEARCH HYPOTHESIS FORMULATION

According to Elkington (2006), sustainability is an ethical obligation and a fundamental strategy for corporate innovation and competitiveness. Esty and Winston (2006) argue that companies investing in sustainability are building for the long term and mitigating risks associated with climate change and environmental challenges. Liu and Cao (2024) add that sustainable investments represent a strategic resource for companies.

The textile sector has historically contributed, and continues to contribute to economic development worldwide. From a stakeholder perspective, there is an increasing appreciation for practices that create value, foster innovation, promote sustainability, and address the needs and expectations of market participants (Freudenreich et al., 2020). Liu et al. (2023) state that companies with better ESG performance generally focus on textile/apparel design and marketing. In contrast, companies with lower ESG performance primarily concentrate on raw material production (e.g., fabrics, cotton). This perspective reinforces the notion that industrial companies, which consume more environmental resources, tend to be more polluting.

Despite its economic contribution, the textile sector is one of the most polluting industries. Hossain et al. (2018), in a study aimed at identifying the impact of wastewater from textile dyeing industries in Bangladesh, and found that by 2021, the volume of effluents and pollutant load generated by textile dyeing industries was 1.61 times higher than in 2016. The projection for 2025, *ceteris paribus*, using linear interpolation with a constant rate, is approximately 2.90, underscoring the urgency of changes in the textile sector.

Sakamoto et al. (2019) found that Bangladesh's primary causes of water pollution are linked to the textile sector. This reinforces the view that companies are not balancing their operational activities with environmental protection. The findings also indicate that regulatory institutions in the country do not sufficiently motivate companies to comply with environmental regulations, given the high import taxes, weak monitoring, inadequate enforcement of penalties by government authorities, and the absence of explicit subsidy schemes.

Recent research in the textile sector offers converging evidence that ESG practices are positively associated with firm valuation, yet through distinct but complementary mechanisms. Tian et al. (2025) show that innovation capacity and digital transformation amplify the benefits of ESG adoption, while Shao et al. (2025) emphasizes the role of green innovation as a key pathway to value creation. Islam (2025) adds a maturity-based perspective, showing that younger companies derive greater reputational and trust-based gains from ESG transparency. Taken together, these findings suggest that ESG initiatives in the textile industry operate both as a market signal - reducing perceived risk and enhancing credibility - and as a driver of operational and technological improvements, which, in turn, foster competitive advantage.

In financial markets, Miralles-Quirós et al. (2018) note a growing number of shareholders considering ESG aspects in their investment decisions. According to Gracia and Siregar (2021), investors who incorporate sustainable assets into their investment portfolios increase the available capital for financing projects at net present value. Kong et al. (2023) argue that stronger ESG

practices create intangible value, attract socially responsible investors, and mitigate risks, increasing corporate value.

Recent literature highlights the growing influence of investors in shaping corporate behavior through ESG-related expectations, which directly affect stock valuation. Institutional investors are emerging as key drivers in demanding transparency and accountability from firms regarding their ESG practices (Gillan et al., 2021). As ESG information becomes more integrated into investment decision-making, investors tend to reallocate capital towards companies that demonstrate strong sustainability performance, signaling lower risk and greater long-term potential (Friede et al., 2015). According to Khan et al. (2016), firms with strong ESG profiles are more likely to benefit from a valuation premium due to perceived resilience and stakeholder trust. This aligns with the growing body of evidence indicating that market participants increasingly incorporate ESG scores into their pricing models (Aureli et al., 2020; Krüger, 2015). As a result, ESG performance is no longer seen merely as a reputational asset, but rather as a fundamental determinant of firm value, particularly in industries with high environmental and social materiality, such as textiles.

Due to the competitive advantages associated with investments in ESG practices, companies have increasingly adopted sustainable practices, as these can enhance liquidity (El-Kassar & Singh, 2019), improve stock returns (Friede et al., 2015), and/or reduce the cost of capital (Gonçalves et al., 2022). Adeneye et al. (2023) argue that ESG companies in market-based economies benefit from a faster adjustment speed to achieve leverage compared to bank-based economies, where debt costs are relatively higher.

This perspective aligns with Stakeholder Theory, which assumes a company's commitment is to generate value for its stakeholders (Freeman & Reed, 1983; Luo, 2022). According to the Stakeholder Theory, organizational performance should not be limited to maximizing shareholder returns but must instead focus on creating value for all groups that influence or are influenced by corporate activities. From this standpoint ESG practices represent essential mechanisms for aligning corporate interests with stakeholder demands (Freeman & Reed, 1983). According to Luo (2022), stakeholder-oriented organizations are more likely to incorporate sustainable practices into their strategies, recognizing that non-financial factors play a central role in long-term value creation. Therefore, the integration of ESG criteria into corporate decision-making reinforces ethical commitment and aligns with the core principles of stakeholder theory, promoting a more inclusive and transparent governance model.

Responsible investment is fundamental to managing risks and identifying opportunities for long-term value creation (United Nations Environment Programme Finance Initiative, 2005). Accordingly, investors assess companies by analyzing market trends, growth potential, and other factors before making investment decisions. In this context, ESG performance has emerged as a critical component of the investment evaluation process, especially among institutional investors seeking to align financial returns with ethical and sustainability criteria. Recent studies indicate that firms with higher ESG scores are often perceived as more resilient, better governed, and more likely to adapt to regulatory and environmental changes (Gillan et al., 2021; Khan et al., 2016).

When entering the stock market, an important factor for investors to consider is value relevance. According to Barth et al. (2001), value relevance can be defined as the ability of financial information to explain variations in stock prices. It can also be understood as the capacity to capture and verify information that impacts stock prices (Song et al., 2010). Therefore, value relevance refers to the extent to which accounting numbers are relevant in provide information that enables investors to make stock price decisions.

Several studies have analyzed the relationship between ESG and stock prices. Miralles-Quirós et al. (2018, 2019) show that while environmental and governance pillars tend to enhance value relevance, the social dimension may have a weaker or non-significant effect, suggesting

heterogeneous investor priorities. Aureli et al. (2020) and Zhou et al. (2022) confirm that stronger ESG adoption is associated with higher market value and operational capacity, yet Aureli et al. note cross-country differences, indicating the influence of institutional and cultural factors. Aureli et al. (2020) found that 31% of the companies analyzed experienced a positive impact of ESG practices on value relevance

Similarly, E-Vahdati et al. (2023) demonstrate consistent positive impacts in Asian markets, while Santos and Tavares (2023) show that ESG resilience persists even during systemic crises such as the pandemic. Conversely, Sahlian et al. (2023) highlight that in the aftermath of turbulent periods, investor attention may temporarily shift back to short-term financial performance, reducing the immediate value relevance of ESG. Taken together, these studies suggest that ESG operates both as a long-term signal of stability and as a strategic driver of value creation - mechanisms that underpin the present study's hypothesis that, in the textile sector, ESG adoption should be reflected in higher stock prices.

Some recent studies have reported a negative relationship between ESG performance and stock prices, challenging the predominant view of ESG as a driver of financial value. For example, Migliavacca (2024) found that ESG indicators showed a negative relationship with stock prices in most of the years analyzed, with a positive relationship observed only in the final year of the study. Highlighting such inconsistencies is essential for contextualizing sectoral divergences and to understanding why certain industries - like the textile sector - might exhibit distinct behavior. In sectors with high environmental impact and reputational exposure, ESG efforts may be perceived differently by investors, potentially altering the direction and magnitude of ESG's value relevance. These contrasting results thus underscore the need for disaggregated analyses that account for industry-specific characteristics, temporal dynamics, and the evolving perception of ESG by market participants.

Despite the growing body of research exploring the relationship between ESG practices and stock prices, several limitations persist in the existing literature. A significant portion of prior studies - such as those by Miralles-Quirós et al. (2018, 2019), Aureli et al. (2020), Zhou et al. (2022), and E-Vahdati et al. (2023) - focus primarily on companies located in developed countries, where institutional environments, investor behavior, and regulatory frameworks may differ substantially from those in emerging economies. This geographical concentration introduces potential bias, limiting the generalizability of the findings to other contexts. Additionally, few studies have examined sector-specific dynamics in depth, particularly in environmentally sensitive industries such as textiles. This omission is noteworthy given the sector's substantial environmental footprint and the growing public scrutiny it faces regarding sustainability practices. Furthermore, methodological challenges related to ESG measurement - such as the use of divergent proxies and scoring systems - can compromise comparability and introduce inconsistencies across studies. Addressing these gaps is crucial to advancing a more comprehensive and context-sensitive understanding of ESG's value relevance.

Therefore, considering Stakeholder Theory and previous studies on the impact of ESG practices on stock prices, the research hypothesis is formulated as follows:

H₁: ESG performance information has a positive and significant relationship with stock prices in the textile industry.

H_{1a}: Environmental performance information has a positive and significant relationship with stock prices in the textile industry.

H_{1b}: Social performance information has a positive and significant relationship with stock prices in the textile industry.

H_{1c}: Governance performance information has a positive and significant relationship with stock prices in the textile industry.

3 METHODOLOGICAL ASPECTS

3.1 Sample and Data Collection

The data were collected from the Refinitiv Eikon database. The initial population consisted of 1,603 companies classified under the TRBC Industry Name: Textiles & Leather Goods (920) and Apparel & Accessories, totaling 29,214 observations from 2005 to 2022. The “Textiles & Leather Goods” and “Apparel & Accessories” sectors were selected due to their high sensitivity to ESG factors, particularly regarding environmental and social issues across the supply chain. They operate through globalized supply networks often associated with intensive resource use, pollution, and labor controversies such as poor working conditions in developing countries (Eccles et al., 2014; Kotsantonis et al., 2016). As noted by Khan (2022), sectors highly exposed to ESG risks tend to experience stronger stock price reactions in the presence of unsustainable practices. Furthermore, according to Friede et al. (2015), ESG factors have a more pronounced effect in sensitive sectors, directly influencing market valuation and investor perception.

We chose 2005 as the starting point because it was the first year after the proposition of ESG, which occurred in 2004. It is important to note, however, that in the early years following the proposition of the ESG concept, few companies disclosed such information, and the reporting process followed a clear learning curve until reaching the current standards. Nevertheless, this limitation does not compromise the significance of the results, especially considering that, in the initial years, the companies that disclosed ESG information represented a selective group, which may even reinforce the relevance of the sample during that period. The choice of 2022 is justified as it was the year with the most recent data at the time of collection.

After excluding companies with missing data, particularly related to ESG, the final sample comprised 669 observations from 103 companies. Due to the absence of ESG data and to increase the reliability of the results, a dummy variable was created, assigning a value of 1 for companies with ESG data and zero for those without. As a result, a robustness analysis was conducted with a sample of 6,099 observations from 688 companies. This complementary analysis is presented in Table 8.

3.2 Data Treatment

The data were winsorized at the 1% level to reduce the influence of outliers. The choice of the 1% threshold follows prior literature (Bolognesi et al., 2025; Dsouza et al., 2025) and aims to balance the trade-off between mitigating outlier effects and preserving data variability. After this procedure, the multivariate Bacon test was applied, and no outliers were identified in the sample. After these steps, the Mann-Whitney test for independent samples was conducted to compare the model's variables between companies with ESG performance above and below the median.

Next, the data were analyzed using unbalanced panel regression models. The following tests were applied: the F-Chow test (to compare fixed effects models with the OLS model), the Breusch-Pagan Lagrangian Multiplier test (to compare the pooled model with the random effects model), and the Hausman test (to compare fixed and random effects models). The results are reported in Table 1. Additionally, multicollinearity was assessed using the Variance Inflation Factor (VIF) test, which indicated no multicollinearity issues, as the VIF was 2.19, below the threshold of 5.0.

Table 1

Results of statistical tests for selecting the most appropriate panel model

Test	March	April	Average March-April
F-Chow test	34.47***	35.19***	35.21***
Breusch-Pagan test	1675.99***	1670.04***	1678.35***
Hausman test	37.35***	46.35***	47.19***

Source: Prepared by the authors.

*p < 0.05, **p < 0.01, ***p < 0.001

Furthermore, autocorrelation was assessed using the Wooldridge test, which confirmed the existence of this issue. Heteroscedasticity in the panel was also tested and confirmed. Generalized Least Squares (GLS) and Panel-Corrected Standard Errors (PCSE) models were applied to correct these issues, ensuring more robust estimates.

A common challenge in studies analyzing the relationship between ESG and stock prices is endogeneity (Wang et al., 2014). To mitigate this issue, the Two-Stage Least squares (2SLS) method was employed aiming to obtain less biased estimates (Erhemjamts et al., 2013; Wang et al., 2014). The application of this methodology contributed to strengthening the robustness of the results. We followed previous studies (Erhemjamts et al., 2013; Wang et al., 2014) and used the lagged ESG score as a regressor to mitigate potential reverse causality concerns.

3.3 Definition of Variables and Econometric Model

The definition of the variables used in the research is presented in Table 2.

Table 2

Definition of Variables Used in Research

Variable	Definition	Authors
Price	The stock price of the company was i at the time $t+1$.	(Miralles-Quirós et al., 2018, 2019; Santos & Tavares, 2023)
EPS	Earnings per Share represent the company's net profit divided by the number of outstanding shares, indicating profitability per issued share.	(Collins et al., 1997; Miralles-Quirós et al., 2018, 2019)
BVPS	Book Value per Share - calculated as the company's total equity divided by the number of shares, reflecting the net asset base per share.	(Collins et al., 1997; Miralles-Quirós et al., 2018, 2019)
ESG	Environmental, Social, and Governance - An index measuring a company's sustainability and governance practices, reflecting its performance in environmental, social, and corporate governance. The ESG score ranges from 0 to 100, where higher scores indicating stronger sustainability, social, and governance practices.	(Friede et al., 2015; Kotsantonis & Serafeim, 2019)
Leverage	This represents the company's level of indebtedness, indicating the proportion of debt relative to the company's total capital.	(Chehade & Procházka, 2024; Ertugrul, 2021)
LnSize	Natural logarithm of firm size - A transformation of firm size that helps capture scale while normalizing the data.	(Badenhorst et al., 2015; Souza et al., 2023)

Source: Prepared by the authors.

To increase the robustness of the results, the stock price variable was evaluated using three different points : the closing price in March, the closing price in April, and the average of March and April. This strategy was applied consistently across all analyses to address short-term price volatility and to verify the stability of the model's outcomes under different time references. The

selection of these dates is justified by the typical disclosure period of financial statements, which generally occurs between February and March. This timing allows for the assessment of whether such information influenced stock prices.

Equation 1 presents the econometric model evaluated in this research. It is based on studies by Miralles-Quirós et al. (2018, 2019) and aims to identify whether ESG is statistically significant in explaining stock prices.

$$Price_{i,t+1} = \alpha_{i,t} + \beta_1 EPS_{i,t} + \beta_2 BVPS_{i,t} + \beta_3 ESG_{i,t} + \beta_4 Leverage_{i,t} + \beta_5 LnSize_{i,t} + segment + year + country + \varepsilon_{i,t}$$

Where: Price = stock price of company *i* at time *t+1* (April, March, and the average of March and April); EPS = earnings per share of company *i* in period *t*; BVPS = book value per share of company *i* in period *t*; ESG = environmental, social, and governance practices variable for company *i* in period *t*; Leverage = leverage of company *i* in period *t*; e LnSize = logarithm of company size for company *i* in period *t*, *segment, year and country* = *dummies variables*.

Table 3 presents the expected relationship between the dependent variable (stock price) and the explanatory variables (EPS, BVPS, ESG, Leverage, and LnSize).

Table 3
Expected Relationship Between the Dependent Variable and the Explanatory Variables

Indicator	Relationship	Justification	Authors
ESG	+	A positive relationship is expected, as these practices tend to increase transparency, reduce risks, attract investors, and improve financial performance in the long term.	(E-Vahdati et al., 2023; Miralles-Quirós et al., 2018, 2019; Santos & Tavares, 2023)
EPS	+	Earnings per share tend to be positive, reflecting the company's ability to distribute profits.	(Collins et al., 1997; Ohlson, 1995)
BVPS	+	Expected to be positive due to its ability to indicate financial solidity, represented by net assets.	(Collins et al., 1997; Ohlson, 1995)
Leverage	-	Leverage tends to exhibit a negative relationship because high debt levels increase financial risk and reduce the company's attractiveness to investors.	(Chehade & Procházka, 2024; Ertugrul, 2021; Jensen, 1986; Myers, 1977)
LnSize	+	The logarithm of firm size is expected to show a positive relationship as larger companies generally have greater resources, stability, and profit-generating capacity.	(Badenhorst et al., 2015; Souza et al., 2023)

Source: Prepared by the authors.

Legend: ESG = environmental, social, and governance; EPS = earnings per share; BVPS = book value per share; Leverage = company debt; LnSize = logarithm of firm size.

4 RESULTS AND DISCUSSION

4.1 Descriptive Analysis

Table 4 presents the descriptive statistics and the results of the Mann-Whitney test for the sample under study. The results show that the environmental score has the highest coefficient of variation and the lowest mean, suggesting that companies face greater difficulty balancing their activities with environmental preservation. Among the ESG components, corporate governance has the highest mean, and lower coefficient of variation, suggesting greater homogeneity of the data. This may be due to increased pressure from securities commissions and regulatory bodies for companies to adopt more transparent practices. The companies in the sample are profitable, with a positive EPS, being higher for companies above the median, with this group showing lower data heterogeneity (coefficient of variation).

Table 4
Descriptive Statistics and Mann-Whitney Test

Variables	Below the Median (44.79)		Above the Median (44.79)		Z-Test
	Mean	CV	Mean	CV	
ESG	28,6310	36,0703	60,3016	17,7233	-22,3830***
ENV	19,1483	88,0925	56,7210	32,8806	-19,0590***
SOC	26,0028	50,2815	64,1959	22,6584	-21,1550***
GOV	39,4610	50,7516	55,3590	35,6380	-9,5460***
Pricea	44,8423	208,8605	75,0553	182,9024	-5,1910***
Pricem	43,4793	207,4991	72,5706	180,8991	-5,1070***
Pricex	44,1608	208,0994	73,9079	182,2025	-5,1550***
EPS	2,0374	209,3155	2,9706	152,4825	-4,7700***
BVPS	19,4496	188,2909	18,9255	143,5230	-2,6120***
LnSize	20,9850	6,1821	21,9998	6,5852	-9,3640***
Leverage	1,1407	172,1658	1,6520	138,6800	-5,0700***

Source: Prepared by the authors.

*p < 0.05, **p < 0.01, ***p < 0.001

Legend: CV = variation coefficients; ENV = Environmental; GOV = Governance; SOC = Social; other variables defined previously.

According to the Mann-Whitney test, companies with ESG scores above the median have significantly higher stock price than those below the median ESG score. The results also show that companies above the median ESG exhibit greater profitability (EPS), supporting the findings of Kim and Li (2021), who observed higher profitability in companies with higher ESG scores. It is also noted that companies above the median have higher equity and total assets. Additionally, leverage is significantly higher for companies above the median ESG, as they have greater access to external capital at a lower cost (Adeneye et al., 2023; Gonçalves et al., 2022).

In a complementary (non-tabulated) analysis, the results showed that companies located in Germany, Denmark, Turkey, Italy, and Sweden exhibit the highest ESG practices, with lower coefficients of variation. By contrast Malaysia, South Korea, Hong Kong, China, and Japan present the lowest averages, with higher coefficients of variation. Thus, there is a predominance of European companies in ESG performance. The mean difference test further revealed that practices differ significantly among the countries in the sample. The most profitable companies are in France, Switzerland, South Korea, Denmark, and the United States. It was also found that the means are statistically different.

When comparing segments, it is observed that ESG and its components do not show statistically significant differences. However, stock prices, earnings per share, equity, and total assets are statistically higher for companies in the Apparel & Accessories segment, while leverage is also higher in companies in this segment.

4.2 Multivariate Analysis

The results in Table 5 reveal a positive and significant relationship between EPS and stock prices across all models evaluated, indicating that more profitable companies tend to have higher stock prices. According to Ball and Brown (1968), accounting profits are strong relationship with stock returns. Dichev and Tang (2009) further argue that a high and consistent EPS signals a financially healthy company, making it more attractive to investors and contributing to higher stock prices. In the textile sector, this finding reinforces the evidence found by Tian et al. (2025), who showed that financial performance and ESG adoption jointly enhance firm valuation through innovation capacity. High EPS in textile companies may reflect operational efficiency and innovation investments, which are increasingly relevant in a market pressured by sustainability and digital transformation.

Table 5
Regression Model Results

	GLS	PCSE	2SLS	GLS	PCSE	2SLS	GLS	PCSE	2SLS
	March Price			April Price			Average Price		
Constant	1.852*** (0.602)	1.227 (0.914)	1.334 (1.069)	2.000*** (0.684)	0.902 (0.931)	1.134 (1.079)	2.084*** (0.646)	1.022 (0.922)	1.235 (1.072)
EPS	0.154*** (0.013)	0.095*** (0.013)	0.156*** (0.022)	0.156*** (0.013)	0.096*** (0.013)	0.156*** (0.021)	0.157*** (0.013)	0.095*** (0.013)	0.156*** (0.021)
BVPS	0.011*** (0.002)	0.011*** (0.002)	0.011*** (0.002)	0.011*** (0.002)	0.011*** (0.002)	0.011*** (0.002)	0.011*** (0.002)	0.011*** (0.002)	0.011*** (0.002)
ESG	0.014*** (0.001)	0.008*** (0.002)	0.017*** (0.003)	0.015*** (0.002)	0.007*** (0.002)	0.017*** (0.004)	0.015*** (0.002)	0.008*** (0.002)	0.017*** (0.003)
Leverage	-0.142*** (0.015)	-0.053*** (0.014)	-0.139*** (0.021)	-0.137*** (0.015)	-0.046*** (0.014)	-0.136*** (0.022)	-0.138*** (0.015)	-0.049*** (0.014)	-0.137*** (0.021)
LnSize	0.065*** (0.023)	0.117*** (0.043)	0.059 (0.063)	0.054* (0.029)	0.134*** (0.045)	0.069 (0.063)	0.051** (0.026)	0.128*** (0.044)	0.064 (0.063)
Country Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	669	669	552	669	669	552	669	669	552
Groups	103	103		103	103		103	103	
VIF	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
r ²		0.886	0.852		0.890	0.853		0.888	0.853
chi ²	8985.141* **	4087.122* **	3.1e+04* **	1.0e+04* **	4111.506* **	2.9e+04* **	9477.938* **	4122.212* **	3.0e+04* **

Source: Prepared by the authors.

Standard errors in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001, ~ p < 0.01

Legend: Variables defined previously.

Similarly, BVPS also shows a positive and significant relationship with stock prices in all tested models. According to Guay et al. (1996), BVPS is a stable measure of intrinsic value and helps predict future performance. For textile firms, a higher BVPS suggests a solid equity structure capable of sustaining capital-intensive modernization projects - such as cleaner production technologies and green innovation - highlighted by Shao et al. (2025) as a channel through which ESG creates economic value. This tangible asset base reduces insolvency risks and attracts more conservative investors, which particularly important in a sector exposed to high competition and volatile input prices.

The results in Table 5 indicate a positive and significant relationship between ESG practices and stock prices. These findings are consistent with previous studies that have also found a positive association between ESG practices and stock prices (Miralles-Quirós et al., 2019, 2018; Sahlian et al., 2023; E-Vahdati et al., 2023; Migliavacca, 2024). Therefore, the results confirm Hypothesis 1, which states that ESG practices increase stock prices.

From an economic perspective, these results suggest that ESG in the textile sector is not merely a reputational tool but a strategic asset that can attract investors, improve market perception, and facilitate access to capital. This aligns with Stakeholder Theory (Freeman & Reed, 1983) and supports the argument of Ni and Sun (2023) that companies with higher ESG scores convey greater reliability. In textile and garment companies - often criticized for environmental and labor issues - ESG adoption may work as a signaling mechanism, as observed by Islam (2025), mitigating concerns about social responsibility and product traceability.

Regarding control variables, larger companies tend to have higher stock prices, likely due to their greater stability, lower perceived risk, and stronger capacity to pay dividends. In the textile industry, larger firms may also be better positioned to implement costly ESG initiatives and benefit

from economies of scale in innovation and digitalization, amplifying the valuation effect described by Tian et al. (2025). Conversely, higher debt levels are associated with lower stock prices, reflecting greater financial risk and the possibility of reduced dividend payouts due to interest expenses. In the context of textile production, where investment in modernization and compliance is essential, excessive leverage may constrain strategic flexibility and slow down ESG-related innovation, potentially eroding long-term competitiveness.

Overall, these results not only validate the positive role of ESG in stock valuation but also highlight its strategic importance in the textile sector, where environmental, social, and innovation pressures are strong. The findings indicate that integrating ESG into a business strategy can generate tangible financial benefits, improve investor confidence, and position companies advantageously in an increasingly sustainability-oriented market

Table 6
Analysis by ESG Score

Panel A – Environmental Component									
	GLS	PCSE	2SLS	GLS	PCSE	2SLS	GLS	PCSE	2SLS
	March Price			April Price			Average Price		
Constant	1.177 (0.756)	0.300 (0.960)	0.184 (1.157)	1.246 (0.753)	0.584 (0.958)	0.428 (1.139)	1.289 (0.755)	0.392 (0.955)	0.307 (1.146)
EPS	0.165*** (0.013)	0.094*** (0.013)	0.160*** (0.022)	0.166*** (0.014)	0.094*** (0.013)	0.160*** (0.022)	0.167*** (0.013)	0.094*** (0.013)	0.160*** (0.022)
BVPS	0.010*** (0.002)	0.011*** (0.002)	0.009*** (0.002)	0.009*** (0.002)	0.011*** (0.002)	0.009*** (0.002)	0.009*** (0.002)	0.011*** (0.002)	0.009*** (0.002)
ESG	0.008*** (0.001)	0.004* (0.002)	0.007* (0.003)	0.007*** (0.001)	0.004* (0.002)	0.007* (0.003)	0.007*** (0.001)	0.004* (0.002)	0.007* (0.003)
Other variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	669	669	552	669	669	552	669	669	552
Groups	103	103		103	103		103	103	
r ²		0.890	0.848		0.886	0.848		0.888	0.848
chi ²	1.4e+04**	4097.566**	2.8e+04**	1.0e+04***	4084.364**	2.9e+04**	1.2e+04***	4127.210**	2.9e+04**
Panel B – Social Component									
	GLS	PCSE	2SLS	GLS	PCSE	2SLS	GLS	PCSE	2SLS
	March Price			April Price			Average Price		
Constant	2.144** (0.725)	1.336 (0.942)	1.021 (1.149)	2.143** (0.659)	1.494 (0.936)	1.236 (1.139)	2.273** (0.700)	1.373 (0.935)	1.129 (1.142)
EPS	0.155*** (0.013)	0.095*** (0.013)	0.157*** (0.022)	0.154*** (0.013)	0.094*** (0.013)	0.157*** (0.022)	0.156*** (0.013)	0.094*** (0.013)	0.157*** (0.022)
BVPS	0.012*** (0.002)	0.010*** (0.002)	0.011*** (0.003)	0.012*** (0.002)	0.010*** (0.002)	0.010*** (0.002)	0.012*** (0.002)	0.010*** (0.002)	0.010*** (0.003)
ESG	0.011*** (0.001)	0.008*** (0.002)	0.012*** (0.003)	0.011*** (0.001)	0.009*** (0.002)	0.012*** (0.003)	0.011*** (0.001)	0.008*** (0.002)	0.012*** (0.003)
Other variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	669	669	552	669	669	552	669	669	552
Groups	103	103		103	103		103	103	
r ²		0.894	0.851		0.889	0.851		0.893	0.851
chi ²	1.0e+04**	4246.568**	2.8e+04**	8799.181**	4185.482**	2.9e+04**	9238.022**	4242.609**	2.9e+04**
Panel C – Governance Component									
	GLS	PCSE	2SLS	GLS	PCSE	2SLS	GLS	PCSE	2SLS

	March Price			April Price			Average Price		
Constant	-0.088 (0.671)	-0.339 (0.869)	-0.844 (0.884)	0.389 (0.657)	-0.112 (0.861)	-0.635 (0.880)	0.319 (0.620)	-0.258 (0.861)	-0.737 (0.880)
EPS	0.155*** (0.013)	0.098*** (0.013)	0.154*** (0.021)	0.155*** (0.013)	0.098*** (0.013)	0.154*** (0.022)	0.157*** (0.013)	0.098*** (0.013)	0.154*** (0.021)
BVPS	0.010*** (0.002)	0.011*** (0.002)	0.010*** (0.002)	0.010*** (0.002)	0.011*** (0.002)	0.010*** (0.002)	0.010*** (0.002)	0.011*** (0.002)	0.010*** (0.002)
ESG	0.008*** (0.001)	-0.002 (0.002)	0.013*** (0.003)	0.008*** (0.001)	-0.001 (0.002)	0.013*** (0.003)	0.008*** (0.001)	-0.001 (0.002)	0.013*** (0.003)
Other variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	669	669	552	669	669	552	669	669	552
Groups	103	103		103	103		103	103	
r ²		0.881	0.850		0.881	0.850		0.881	0.850
chi ²	1.0e+04**	4032.927**	3.1e+04**	1.0e+04***	4063.631**	3.2e+04**	1.0e+04***	4071.102**	3.2e+04**

Source: Prepared by the authors.

Standard error in parentheses * p < 0.05, ** p < 0.01, *** p < 0.001, ~ p < 0.01

Legend: Variables defined previously.

Table 7
ESG Above the Median

	GLS	PCSE	2SLS	GLS	PCSE	2SLS	GLS	PCSE	2SLS
	March Price			April Price			Average Price		
Constant	1.826* (0.736)	0.573 (0.921)	2.108 (1.314)	1.477 (0.760)	0.316 (0.917)	1.931 (1.325)	1.719* (0.747)	0.415 (0.916)	2.022 (1.317)
EPS	0.153*** (0.014)	0.097*** (0.013)	0.152*** (0.022)	0.153*** (0.014)	0.097*** (0.013)	0.152*** (0.021)	0.154*** (0.014)	0.097*** (0.013)	0.152*** (0.021)
BVPS	0.011*** (0.002)	0.011*** (0.002)	0.012*** (0.003)	0.012*** (0.002)	0.011*** (0.002)	0.012*** (0.003)	0.012*** (0.002)	0.011*** (0.002)	0.012*** (0.003)
ESG_Median	0.397*** (0.067)	0.160* (0.071)	0.701*** (0.191)	0.401*** (0.067)	0.146* (0.071)	0.711*** (0.192)	0.404*** (0.067)	0.151* (0.071)	0.706*** (0.191)
Other variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	669	669	552	669	669	552	669	669	552
Groups	103	103		103	103		103	103	
r ²		0.894	0.850		0.898	0.850		0.897	0.850
chi ²	8419.216**	4428.506**	2.9e+04**	8710.436**	4518.113**	2.8e+04**	8615.921**	4505.949**	2.9e+04**

Source: Prepared by the authors. Standard error in parentheses * p < 0.05, ** p < 0.01, *** p < 0.001, ~ p < 0.01

Legend: ESG_Median: indicates one for companies above the median and zero otherwise. Other variables were defined previously.

Table 8
ESG Dummy

	GLS	PCSE	2SLS	GLS	PCSE	2SLS	GLS	PCSE	2SLS
	March Price			April Price			Average Price		
Constant	-5.774*** (0.173)	-6.872*** (0.338)	-4.952*** (0.328)	-5.867*** (0.165)	-7.093*** (0.344)	-5.028*** (0.331)	-5.872*** (0.166)	-7.022*** (0.339)	-5.022*** (0.329)
EPS	0.040*** (0.005)	0.014* (0.006)	0.058*** (0.011)	0.040*** (0.005)	0.017** (0.006)	0.057*** (0.011)	0.040*** (0.005)	0.015* (0.006)	0.059*** (0.011)
BVPS	0.023*** (0.001)	0.028*** (0.001)	0.023*** (0.001)	0.023*** (0.001)	0.027*** (0.001)	0.023*** (0.001)	0.023*** (0.001)	0.028*** (0.001)	0.023*** (0.001)
ESGdummy	0.067* (0.027)	0.244*** (0.052)	0.108 (0.063)	0.081** (0.027)	0.254*** (0.052)	0.105 (0.063)	0.074** (0.027)	0.257*** (0.051)	0.113 (0.063)
Other variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Country Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year Control	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6099	6099	5919	6099	6099	5919	6099	6099	5919
Groups	688	688		688	688		688	688	
r ²		0.691	0.748		0.691	0.747		0.688	0.749
chi ²	6.3e+04***	1.4e+04***	3.3e+04***	6.5e+04***	1.4e+04***	3.3e+04***	6.8e+04***	1.4e+04***	3.3e+04***

Source: Prepared by the authors.

Standard error in parentheses * p < 0.05, ** p < 0.01, *** p < 0.001, ~ p < 0.01. **Legend:** ESGdummy = indicates 1 for companies with ESG and zero otherwise; Other variables defined previously.

4.3 Robustness Analysis

Three robustness analyses were conducted. The first examined the relationship between each ESG component and stock prices, with the results presented in Table 6. The environmental and social components show a positive and significant relationship across all models and periods, indicating that the effect is robust and consistent. This allows us to confirm hypotheses 1 and 2. In the textile sector - frequently criticized for pollution and labor conditions - strong environmental and social performance can directly mitigate reputational risk and improve consumer and investor perception. However, the corporate governance component showed varying results depending on the model used. These findings align with the study by Miralles-Quirós et al. (2018), who also observed that investors assign different levels of importance to each ESG component. This suggests that, in textiles, environmental and social factors may be more salient drivers of value than governance in isolation.

The second robustness analysis employed a dummy variable, assigning one to companies above the ESG median and zero otherwise. The results are shown in Table 7. Research has shown that the disclosure of ESG practices is relevant to stock value in the textile industry. This means that companies that disclose more ESG practices (above the median) have higher stock prices than those with lower ESG practices (below the median). This reinforces the evidence from Tian et al. (2025) and Shao et al. (2025) that ESG in textile-related industries generates economic value partly through innovation and signaling credibility - attributes particularly relevant in global supply chains under scrutiny for sustainability compliance. Therefore, the analysis supports the hypothesis that ESG performance positively affects stock value.

The third robustness analysis considered a dummy variable, where one was assigned to companies that reported ESG data and zero otherwise. The results are presented in Table 8. The findings show that the ESG dummy variable has a positive and significant relationship with stock prices. This result reinforces the previous findings that stock prices in the textile industry are higher for companies with stronger ESG practices. This suggests that transparency itself acts as a positive market signal, as noted by Islam (2025), especially for younger or emerging textile companies seeking to build stakeholder trust. Thus, the results further support Hypothesis 1, which states that ESG practices contribute to the increase in stock prices.

5 CONCLUSIONS

This study aimed to analyze the relationship between ESG (Environmental, Social, and Governance) and stock prices in textile sector companies Using data from 103 firms between 2005 and 2022 (669 firm-year observations) along with additional robustness tests involving 688 firms, the analysis employed panel data techniques, including GLS, PCSE, and 2SLS estimations.

The results indicate a positive and statistically significant relationship between ESG practices (environmental, social, and governance) and stock prices in textile sector companies, confirming the research hypothesis that ESG practices increase stock prices. One possible explanation for this relationship lies in *signaling theory*, which suggests that ESG adoption sends a positive signal to the market regarding a firm's transparency, long-term orientation, and reduced

risk. This implies that adopting ESG practices is a relevant factor in investment decision-making, suggesting that companies implementing these practices tend to perform better in the stock market.

In the textile sector, ESG practices may serve as a differentiating factor, enhancing reputation and credibility, which in turn fosters investor confidence and contributes to stock price appreciation. Moreover, these practices can reduce informational asymmetry, thereby facilitating access to capital under more favorable conditions.

This study provides significant contributions for investors, business managers, and researchers. For investors, the results indicate that incorporating ESG criteria into their analyses can be an effective strategy for identifying companies with the potential for appreciation, lower risks, and greater transparency. For managers, the study underscores the importance of integrating ESG practices into business strategies to increase market value and competitiveness. For researchers, the findings offer opportunities for future investigations analyzing the relationship between ESG and financial performance in different industrial sectors.

Future research could explore whether ESG initiatives directly influence the market competitiveness of textile companies or affect operational performance through supply chain efficiency and supplier relationships. Longitudinal studies could also investigate whether sustained ESG commitment generates cumulative benefits over time or if the effect is more immediate. Additionally, cross-country analyses may assess how institutional environments and regulatory frameworks shape the ESG - valuation link in textile and related industries.

REFERENCES

- Abbate, S., Centobelli, P., Cerchione, R., Nadeem, S. P., & Riccio, E. (2024). Sustainability trends and gaps in the textile, apparel and fashion industries. *Environment, Development and Sustainability*, 26(2), 2837–2864. <https://doi.org/10.1007/s10668-022-02887-2>
- Ademi, B., & Klungseth, N. J. (2022). Does it pay to deliver superior ESG performance? Evidence from US S&P 500 companies. *Journal of Global Responsibility*, 13(4), 421–449. <https://doi.org/10.1108/JGR-01-2022-0006>
- Adeneye, Y. B., Kammoun, I., & Ab Wahab, S. N. A. (2023). Capital structure and speed of adjustment: The impact of environmental, social and governance (ESG) performance. *Sustainability Accounting, Management and Policy Journal*, 14(5), 945–977. <https://doi.org/10.1108/SAMPJ-01-2022-0060>
- Aureli, S., Gigli, S., Medei, R., & Supino, E. (2020). The value relevance of environmental, social, and governance disclosure: Evidence from Dow Jones Sustainability World Index listed companies. *Corporate Social Responsibility and Environmental Management*, 27(1), 43–52. <https://doi.org/10.1002/csr.1772>
- Badenhorst, W. M., Brümmer, L. M., & De Wet, J. H. vH. (2015). The value-relevance of disclosed summarised financial information of listed associates. *Journal of International Accounting, Auditing and Taxation*, 24, 1–12. <https://doi.org/10.1016/j.intaccudtax.2015.02.002>
- Ball, R., & Brown, P. (1968). An Empirical Evaluation of Accounting Income Numbers. *Journal of Accounting Research*, 6(2), 159. <https://doi.org/10.2307/2490232>
- Barth, M. E., Beaver, W. H., & Landsman, W. R. (2001). The relevance of the value relevance literature for financial accounting standard setting: Another view. *Journal of Accounting and Economics*, 31(1–3), 77–104. [https://doi.org/10.1016/S0165-4101\(01\)00019-2](https://doi.org/10.1016/S0165-4101(01)00019-2)
- Berwal, R. (2023). *INDIAN TEXTILES INDUSTRY: PROSPECTS AND CHALLENGES–AHEAD*. 11(5).

- Bolognesi, E., Burchi, A., Goodell, J. W., & Paltrinieri, A. (2025). Stakeholders and regulatory pressure on ESG disclosure. *International Review of Financial Analysis*, 103, 104145. <https://doi.org/10.1016/j.irfa.2025.104145>
- Busch, T., Bruce-Clark, P., Derwall, J., Eccles, R., Hebb, T., Hoepner, A., Klein, C., Krueger, P., Paetzold, F., Scholtens, B., & Weber, O. (2021). Impact investments: A call for (re)orientation. *SN Business & Economics*, 1(2), 33. <https://doi.org/10.1007/s43546-020-00033-6>
- Cehade, S., & Procházka, D. (2024). Value relevance of accounting information in an emerging market: The case of IFRS adoption by non-financial listed firms in Saudi Arabia. *Journal of Accounting in Emerging Economies*, 14(1), 220–246. <https://doi.org/10.1108/JAEE-06-2022-0165>
- Collins, D. W., Maydew, E. L., & Weiss, I. S. (1997). Changes in the value-relevance of earnings and book values over the past forty years. *Journal of Accounting and Economics*, 24(1), 39–67. [https://doi.org/10.1016/S0165-4101\(97\)00015-3](https://doi.org/10.1016/S0165-4101(97)00015-3)
- Cordazzo, M., Bini, L., & Marzo, G. (2020). Does the EU Directive on non-financial information influence the value relevance of ESG disclosure? Italian evidence. *Business Strategy and the Environment*, 29(8), 3470–3483. <https://doi.org/10.1002/bse.2589>
- Danso, A., Adomako, S., Lartey, T., Amankwah-Amoah, J., & Owusu-Yirenkyi, D. (2020). Stakeholder integration, environmental sustainability orientation and financial performance. *Journal of Business Research*, 119, 652–662. <https://doi.org/10.1016/j.jbusres.2019.02.038>
- Dichev, I. D., & Tang, V. W. (2009). Earnings volatility and earnings predictability. *Journal of Accounting and Economics*, 47(1–2), 160–181. <https://doi.org/10.1016/j.jacceco.2008.09.005>
- Dsouza, S., K., K., Kayani, U., Nawaz, F., & Hasan, F. (2025). Sustainable investing: ESG effectiveness and market value in OECD regions. *Cogent Economics & Finance*, 13(1), 2445147. <https://doi.org/10.1080/23322039.2024.2445147>
- Eccles, R. G., Ioannou, I., & Serafeim, G. (2014). The Impact of Corporate Sustainability on Organizational Processes and Performance. *Management Science*, 60(11), 2835–2857.
- El-Kassar, A.-N., & Singh, S. K. (2019). Green innovation and organizational performance: The influence of big data and the moderating role of management commitment and HR practices. *Technological Forecasting and Social Change*, 144, 483–498. <https://doi.org/10.1016/j.techfore.2017.12.016>
- Elkington, J. (2006). Governance for Sustainability. *Corporate Governance: An International Review*, 14(6), 522–529. <https://doi.org/10.1111/j.1467-8683.2006.00527.x>
- Erhemjamts, O., Li, Q., & Venkateswaran, A. (2013). Corporate Social Responsibility and Its Impact on Firms' Investment Policy, Organizational Structure, and Performance. *Journal of Business Ethics*, 118(2), 395–412. <https://doi.org/10.1007/s10551-012-1594-x>
- Ertugrul, M. (2021). How does leverage affect the value relevance? Evidence from Turkey. *Spanish Journal of Finance and Accounting / Revista Española de Financiación y Contabilidad*, 50(2), 246–267. <https://doi.org/10.1080/02102412.2020.1786946>
- Esty, D. C., & Winston, A. S. (2006). *Green to gold: How smart companies use environmental strategy to innovate, create value, and build competitive advantage*. Yale University Press.

- E-Vahdati, S., Wan-Hussin, W. N., & Mohd Ariffin, M. S. (2023). The Value Relevance of ESG Practices in Japan and Malaysia: Moderating Roles of CSR Award, and Former CEO as a Board Chair. *Sustainability*, 15(3), Artigo 3. <https://doi.org/10.3390/su15032728>
- Freeman, R. E., & Reed, D. L. (1983). Stockholders and Stakeholders: A New Perspective on Corporate Governance. *California Management Review*, 25(3), 88–106. <https://doi.org/10.2307/41165018>
- Freudenreich, B., Lüdeke-Freund, F., & Schaltegger, S. (2020). A Stakeholder Theory Perspective on Business Models: Value Creation for Sustainability. *Journal of Business Ethics*, 166(1), 3–18. <https://doi.org/10.1007/s10551-019-04112-z>
- Friede, G., Busch, T., & Bassen, A. (2015). ESG and financial performance: Aggregated evidence from more than 2000 empirical studies. *Journal of Sustainable Finance & Investment*, 5(4), 210–233. <https://doi.org/10.1080/20430795.2015.1118917>
- Gillan, S. L., Koch, A., & Starks, L. T. (2021). Firms and social responsibility: A review of ESG and CSR research in corporate finance. *Journal of Corporate Finance*, 66(September 2019), 101889. <https://doi.org/10.1016/j.jcorpfin.2021.101889>
- Global Market Insights. (2025). *Apparel Market Size*. <https://www.gminsights.com/industry-analysis/apparel-market>
- Gonçalves, T. C., Dias, J., & Barros, V. (2022). Sustainability Performance and the Cost of Capital. *International Journal of Financial Studies*, 10(3), Artigo 3. <https://doi.org/10.3390/ijfs10030063>
- Gracia, O., & Siregar, S. V. (2021). Sustainability practices and the cost of debt: Evidence from ASEAN countries. *Journal of Cleaner Production*, 300. Scopus. <https://doi.org/10.1016/j.jclepro.2021.126942>
- Hossain, L., Sarker, S. K., & Khan, M. S. (2018). Evaluation of present and future wastewater impacts of textile dyeing industries in Bangladesh. *Environmental Development*, 26, 23–33. <https://doi.org/10.1016/j.envdev.2018.03.005>
- Islam, S. M. M. (2025). Exploring How Corporate Maturity Moderates the Value Relevance of ESG Disclosures in Sustainable Reporting: Evidence from Bangladesh's Developing Market. *Sustainability*, 17(13), 5936. <https://doi.org/10.3390/su17135936>
- Jensen, M. C. (1986). Agency Cost Of Free Cash Flow, Corporate Finance, and Takeovers. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.99580>
- Kar, M. (2015). *The Indian Textile and Clothing Industry: An Economic Analysis*. Springer India. <https://doi.org/10.1007/978-81-322-2370-2>
- Khan, M. A. (2022). ESG disclosure and Firm performance: A bibliometric and meta analysis. *Research in International Business and Finance*, 61, 101668. <https://doi.org/10.1016/j.ribaf.2022.101668>
- Khan, M., Serafeim, G., & Yoon, A. (2016). Corporate Sustainability: First Evidence on Materiality. *The Accounting Review*, 91(6), 1697–1724. <https://doi.org/10.2308/accr-51383>
- Kim, S., & Li, Z. (Frank). (2021). Understanding the Impact of ESG Practices in Corporate Finance. *Sustainability*, 13(7), Artigo 7. <https://doi.org/10.3390/su13073746>

- Kong, L., Akbar, M., & Poulouva, P. (2023). The Role of Environment, Social, and Governance Performance in Shaping Corporate Current and Future Value: The Case of Global Tech Leaders. *Sustainability*, 15(17), Artigo 17. <https://doi.org/10.3390/su151713114>
- Kotsantonis, S., Pinney, C., & Serafeim, G. (2016). ESG Integration in Investment Management: Myths and Realities. *Journal of Applied Corporate Finance*, 28(2), 10–16. <https://doi.org/10.1111/jacf.12169>
- Kotsantonis, S., & Serafeim, G. (2019). Four Things No One Will Tell You About ESG Data. *Journal of Applied Corporate Finance*, 31(2), 50–58. <https://doi.org/10.1111/jacf.12346>
- Krüger, P. (2015). Corporate goodness and shareholder wealth. *Journal of Financial Economics*, 115(2), 304–329. <https://doi.org/10.1016/j.jfineco.2014.09.008>
- Kwon, H.-G., & Shin, H. (2022). A Study on the Relationship between ESG Performance Information and Value-Relevance: Focusing on Travel & Tourism Industry in Korea. *Journal of Global Business and Trade*, 18(6), 79–96. <https://doi.org/10.20294/jgbt.2022.18.6.79>
- Liu, T., & Cao, X. (2024). Going Green: How Executive Environmental Awareness and Green Innovation Drive Corporate Sustainable Development. *Journal of the Knowledge Economy*. <https://doi.org/10.1007/s13132-024-01788-1>
- Liu, X., Yang, Y., Jiang, Y., Fu, Y., Zhong, R. Y., Li, M., & Huang, G. Q. (2023). Data-driven ESG assessment for blockchain services: A comparative study in textiles and apparel industry. *Resources, Conservation and Recycling*, 190, 1–14. <https://doi.org/10.1016/j.resconrec.2022.106837>
- Luo, D. (2022). ESG, liquidity, and stock returns. *Journal of International Financial Markets, Institutions and Money*, 78, 1–21. <https://doi.org/10.1016/j.intfin.2022.101526>
- Migliavacca, A. (2024). Value relevance of accounting numbers and sustainability information in Europe: Empirical evidence from nonfinancial companies. *Journal of International Accounting, Auditing and Taxation*, 55, 100620. <https://doi.org/10.1016/j.intaccudtax.2024.100620>
- Miralles-Quirós, M. M., Miralles-Quirós, J. L., & Redondo Hernández, J. (2019). ESG Performance and Shareholder Value Creation in the Banking Industry: International Differences. *Sustainability*, 11(5), 1404. <https://doi.org/10.3390/su11051404>
- Miralles-Quirós, M. M., Miralles-Quirós, J. L., & Valente Gonçalves, L. M. (2018). The Value Relevance of Environmental, Social, and Governance Performance: The Brazilian Case. *Sustainability*, 10(3), Artigo 3. <https://doi.org/10.3390/su10030574>
- Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of Financial Economics*, 5(2), 147–175. [https://doi.org/10.1016/0304-405X\(77\)90015-0](https://doi.org/10.1016/0304-405X(77)90015-0)
- Ohlson, J. A. (1995). Earnings, Book Values, and Dividends in Equity Valuation*. *Contemporary Accounting Research*, 11(2), 661–687. <https://doi.org/10.1111/j.1911-3846.1995.tb00461.x>
- Oliveira, C. R. S., De Aguiar, C. R. L., Missner, M. E. P., Aragão, F. V., Da Silva Júnior, A. H., & Mapossa, A. B. (2023). A Comprehensive Guide to Textile Process Laboratories: Risks, Hazards, Preservation Care, and Safety Protocol. *Laboratories*, 1(1), 1–33. <https://doi.org/10.3390/laboratories1010001>

- Sahljan, D. N., Popa, A. F., Banța, V. C., Răpan, C. M., & Chiriac, S. C. V. (2023). The Value Relevance of Financial Performance and ESG Scores During Tumultuous Economic Periods. *Eastern European Economics*, 0(0), 1–19. <https://doi.org/10.1080/00128775.2023.2225500>
- Sakamoto, M., Ahmed, T., Begum, S., & Huq, H. (2019). Water Pollution and the Textile Industry in Bangladesh: Flawed Corporate Practices or Restrictive Opportunities? *Sustainability*, 11(7), Artigo 7. <https://doi.org/10.3390/su11071951>
- Santos, G. C. dos, & Tavares, M. (2023). Qual o papel do ESG no value relevance? Evidências na América Latina no período da pandemia. *Advances in Scientific and Applied Accounting*, 121–145. <https://doi.org/10.14392/asaa.2023160206>
- Santos, G. C. D., & Tavares, M. (2023). What is the role of ESG in value relevance? A comparison of the evidence in Latin America before and during the pandemic of COVID-19. *Advances in Scientific and Applied Accounting*, 16(2), 121–133. <https://doi.org/10.14392/asaa.2023160206>
- Shao, Y., Zheng, M., Xu, X., & Ji, X. (2025). Does ESG performance have an impact on firm value? Evidence from the Chinese textile and garment industry. *Industria Textila*, 76(02), 249–256. <https://doi.org/10.35530/IT.076.02.2023126>
- Song, C. J., Thomas, W. B., & Yi, H. (2010). Value Relevance of FAS No. 157 Fair Value Hierarchy Information and the Impact of Corporate Governance Mechanisms. *The Accounting Review*, 85(4), 1375–1410. <https://doi.org/10.2308/accr.2010.85.4.1375>
- Souza, M. P. R. D., Marques, C., & Rech, I. J. (2023). Influência do método de mensuração de ativos biológicos na qualidade dos lucros. *Revista Contemporânea de Contabilidade*, 20(54), 1–14. <https://doi.org/10.5007/2175-8069.2023.e78681>
- Tian, B., Song, R., Qu, H., & Li, H. (2025). Sustainable Development in the Textile and Apparel Industry: ESG Performance, Digital Transformation, and Corporate Value. *Textile & Leather Review*, 8, 349–376. <https://doi.org/10.31881/TLR.2025.007>
- United Nations Environment Programme Finance Initiative. (2005). *A legal framework for the integration of environmental, social and governance issues into institutional investment*. October.
- Wang, W. K., Lu, W. M., Kweh, Q. L., & Lai, H. W. (2014). Does corporate social responsibility influence the corporate performance of the U.S. telecommunications industry? *Telecommunications Policy*, 38(7), 580–591. <https://doi.org/10.1016/j.telpol.2014.01.004>
- Zhang, Y., Chen, C., & Zhang, X. (2024). The Impact of Environmental, Social, and Governance Performance on the Total Factor Productivity of Textile Firms: A Meditating-Moderating Model. *Sustainability*, 16(16), 6783. <https://doi.org/10.3390/su16166783>

CONFLICT OF INTERESTS

The authors declare that there is no conflict of interest regarding this submitted work.

AUTHOR CONTRIBUTIONS

Roles	1st author	2nd author	3rd author	4th author
Conceptualization	♦			
Data Curation		♦		
Formal Analysis	♦			
Funding Acquisition		♦		
Investigation	♦			
Methodology	♦			
Project Administration	♦	♦		
Resources	♦			
Software		♦		
Supervision		♦		
Validation		♦	♦	♦
Visualization		♦	♦	♦
Writing – Original Draft	♦			
Writing – Review and Editing		♦	♦	♦