

Research on the Evaluation of ESG Information Disclosure Quality in the Textile and Apparel Industry

Yifei Liu

School of Economics and Management, Nanjing University of Science and Technology, Nanjing, China

Abstract. This paper systematically organizes the theoretical foundation and policy framework of ESG information disclosure at home and abroad. Based on the framework of the eight major accounting information quality characteristics and combined with the GRI Sustainability Reporting Standards, it establishes an ESG information disclosure quality evaluation system that reflects the characteristics of the textile and apparel industry. The system emphasizes completeness, relevance, reliability, comparability, and balance, forming a standardized framework suitable for evaluating ESG information disclosure quality in this sector. Based on the ESG information disclosure data of 200 listed textile and apparel companies in 2023, this paper conducts a comprehensive industry-wide analysis and constructs an index system for quantitative evaluation. The results show that the overall average ESG disclosure quality score of the sample companies is 5.196, indicating significant room for improvement in the industry's disclosure quality.

Keywords: Textile and apparel industry, ESG information disclosure, Analytic Hierarchy Process.

1. Introduction

In September 2020, China officially proposed clear goals: to achieve carbon peaking by 2030 and carbon neutrality by 2060. These goals not only mark a crucial transition in China's economic structure, industrial policy, and energy system but also demonstrate the country's high-level commitment to environmental protection and sustainable development. Subsequently, in 2021, the State Council issued the Action Plan for Carbon Peaking Before 2030, which integrates the dual-carbon strategy into the overall framework of national economic and social development, thereby promoting green production and lifestyle transformation. By 2022, the dual-carbon targets had been further institutionalized through government guidelines, emphasizing the need to promote carbon reduction and ensure the effective implementation of relevant policies. As a high-energy-consumption and high-pollution sector, second only to oil and chemical industries—the textile and apparel industry faces pressing challenges in achieving green transformation and carbon reduction.

Therefore, evaluating the ESG information disclosure quality of this industry is of great significance. It helps identify issues in sustainable development, guides enterprises to increase ESG investment, and provides empirical references for investors. Building upon the Textile and Apparel Industry ESG Disclosure Guidelines, this paper quantitatively evaluates ESG information disclosure quality, providing textile enterprises with tools for self-assessment and improvement. The study not only helps enterprises enhance their ESG management and self-evaluation capabilities but also reduces information asymmetry between investors and firms, thereby encouraging more active ESG disclosure behavior.

2. Literature Review

A considerable body of literature has explored the current state and problems of ESG information disclosure in the textile and apparel industry. Shi Tingting (2020) found that the environmental information disclosure of Chinese textile enterprises lacked consistency and comparability, making rational comparison difficult. Some companies ignored environmental governance measures in their disclosure. Wang Shu and Guo Fang (2021) pointed out that major problems in environmental disclosure include insufficient awareness, superficial disclosure, and lack of standardization. Cao Rui (2022) discovered that there was inconsistency in the environmental information disclosed by listed

textile firms, with limited content and low disclosure willingness. Dai Xiaosu and Liang Jing (2023) analyzed A-share listed textile companies and found that disclosure formats were inconsistent, disclosure content incomplete, and disclosure quality generally low. Similarly, Tong Xiying and Wang Yue (2023) studied 32 listed textile firms and identified random disclosure practices, inconsistent indicators, and insufficient disclosure on substantive issues. Gu Qiangping and Ma Yuting (2023) further pointed out that the main problems include irregular disclosure formats, low disclosure content quality, and weak voluntary disclosure intentions. Zhang Zhi (2023) revealed that textile companies' environmental disclosures showed weak awareness of green development, superficial content, and unstandardized formats. Chen Kailin (2024) found that the environmental disclosure of Chinese enterprises generally lacks regulation and post-disclosure supervision, as well as external auditing mechanisms.

In addition, numerous studies have investigated the influencing factors of ESG disclosure. Liu Yujia (2016) argued that when the government fails to formulate or enforce disclosure policies, enterprises tend to conceal environmental information to maximize self-interest. However, with stronger disclosure enforcement and reward-penalty systems, corporate disclosure levels increase significantly. Liang Yajie (2018) examined 2014–2016 A-share listed textile firms and found that management education level and tenure positively influence disclosure quality, while CEO duality and average age have no significant effect.

3. Construction of the Evaluation System

In selecting the criteria layer indicators, this paper adopts the eight major accounting information quality requirements as the foundation, combined with the globally applicable GRI Sustainability Reporting Standards and the Textile and Apparel Industry ESG Disclosure Guidelines adapted to China's context and industry characteristics. Based on the five dimensions of completeness, relevance, reliability, comparability, and balance, the study constructs an evaluation framework for assessing the quality of ESG information disclosure in the textile and apparel industry.

Using the Analytic Hierarchy Process (AHP), the framework is divided into three layers: the criterion layer, the sub-criterion layer, and the indicator layer. Expert scoring was conducted to assess the relative importance of each indicator, and the final weights were calculated through AHP synthesis. The weights of each layer are shown in Table 1.

Table 1. Presents the comprehensive weight distribution of the textile and apparel industry's ESG information disclosure quality evaluation system.

Criterion Layer	Weight	Sub-criterion Layer	Weight	Comprehensive Weight
Completeness (A1)	0.190	Environmental disclosure completeness (A11)	0.518	0.099
		Social disclosure completeness (A12)	0.221	0.042
		Governance disclosure completeness (A13)	0.261	0.050
Relevance (A2)	0.202	Implementation of sustainable development (A21)	0.443	0.090
		Impact of sustainable development (A22)	0.358	0.072
		Timeliness of disclosure (A23)	0.199	0.040
Reliability (A3)	0.217	Statement of data sources (A31)	0.160	0.035
		Third-party assurance (A32)	0.435	0.094
		Authenticity commitment (A33)	0.193	0.042
		Coverage scope (A34)	0.212	0.046
Comparability (A4)	0.254	Horizontal comparability (A41)	0.457	0.116
		Vertical comparability (A42)	0.543	0.138
Balance (A5)	0.137	Disclosure of deficiencies and negative information (A51)	0.672	0.092
		Stakeholder feedback (A52)	0.328	0.045

4. Evaluation of ESG Information Disclosure Quality in the Textile and Apparel Industry

Referring to the methods of Chen Zhi et al. (2022) and Ma Wenjie & Yu Bojian (2023), this paper uniformly sets the full score of each sub-criterion layer at 10 points. The full score of each sub-criterion layer, after being multiplied by its respective weight, also equals 10 points. According to the characteristics of each indicator, different scoring standards are established. The specific scoring methods for each sub-criterion layer are shown in Table 2.

Table 2. Evaluation Criteria for ESG Information Disclosure Quality in the Textile and Apparel Industry.

Criterion Layer	Sub-criterion Layer	Full Score	Evaluation Standard
Completeness (A1)	Environmental disclosure completeness (A11)	10	A total of 10 indicators. Full disclosure earns 10 points; each missing indicator deducts 1 point.
	Social disclosure completeness (A12)	10	
	Governance disclosure completeness (A13)	10	
Relevance (A2)	Implementation of sustainable development (A21)	10	Detailed disclosure earns 10 points; partial disclosure earns 5 points; no disclosure earns 0 points.
	Impact of sustainable development (A22)	10	Complete and detailed disclosure earns 10 points; partial disclosure earns 5 points; no disclosure earns 0 points.
	Timeliness of disclosure (A23)	10	If ESG information is disclosed in the following year, 10 points; if disclosed two or more years later, 0 points.
Reliability (A3)	Statement of data sources (A31)	10	Comprehensive and detailed disclosure earns 10 points; partial disclosure earns 5 points; no disclosure earns 0 points.
	Third-party assurance (A32)	10	Reports with third-party assurance earn 10 points; partial assurance earns 5 points; no assurance earns 0 points.
	Authenticity commitment (A33)	10	Having a formal authenticity statement earns 10 points; absence of such a statement earns 0 points.
	Coverage scope (A34)	10	Information disclosed consistently through multiple channels earns 10 points; if the content disclosed via different channels is inconsistent, 5 points; if disclosed through only one channel, 0 points.
Comparability (A4)	Horizontal comparability (A41)	10	Indicators fully consistent with other enterprises in the same industry earn 10 points; partially consistent earn 5 points; inconsistent earn 0 points.
	Vertical comparability (A42)	10	Indicators consistent with previous years' disclosure earn 10 points; partially consistent earn 5 points; inconsistent earn 0 points.
Balance (A5)	Disclosure of deficiencies and negative information (A51)	10	Full and complete disclosure earns 10 points; partial disclosure earns 5 points; no disclosure earns 0 points.
	Stakeholder feedback (A52)	10	

According to the 2023 industry classification results for listed companies released by the China Association for Public Companies, there were 41 listed companies in China's textile and apparel industry in 2023, among which 20 companies disclosed ESG-related information. Based on the criterion layer, sub-criterion layer, and indicator layer weights established in the previously constructed ESG information disclosure evaluation system for the textile and apparel industry, this study evaluates each company's ESG information disclosure performance using data from their

Corporate Social Responsibility Reports or Environmental, Social, and Governance (ESG) Reports. Each indicator and corresponding sub-layer were scored according to its disclosure level, leading to the calculation of the scores across the five dimensions as well as the final comprehensive ESG disclosure score for the 20 listed textile and apparel companies.

Table 3. ESG Information Disclosure Scores of Textile and Apparel Companies Across Different Dimensions and Overall Scores.

Company Name	Completeness Score	Relevance Score	Reliability Score	Comparability Score	Balance Score	Comprehensive Score
Youngor	7.181	6.420	7.825	7.285	10.000	7.580
Langzi Co., Ltd.	7.663	4.205	5.650	10.000	8.360	7.217
Shenghong Group	6.960	4.205	7.825	7.285	10.000	7.090
Jiamin Jie	4.659	8.210	5.650	10.000	3.280	6.759
Hongdou Co., Ltd.	5.149	4.205	7.825	10.000	1.640	6.290
Jiixin Silk	4.884	6.420	4.850	10.000	1.640	6.042
Senma Apparel	4.410	6.420	5.650	7.715	3.280	5.770
Huali Group	4.406	1.990	7.080	10.000	3.280	5.765
Hailan Home	4.366	6.420	5.650	7.715	3.280	5.761
Goliath	2.225	8.210	5.650	7.715	3.280	5.716
Dixing Fashion	3.406	6.420	1.930	7.715	10.000	5.692
Jiu Mu Wang	2.623	1.990	7.825	10.000	3.280	5.588
Bosideng	2.623	6.420	4.050	7.715	1.640	4.858
Jienscheng Group	2.547	1.990	4.850	10.000	1.640	4.703
Kute Smart	2.326	6.420	5.650	5.000	1.640	4.460
Meibang Apparel	2.551	4.205	4.050	7.715	1.640	4.397
Xinsilu Co., Ltd.	1.884	1.990	4.850	5.000	3.280	3.532
Septwolves	2.105	4.205	2.120	2.715	1.640	2.624
Anzheng Fashion	2.410	4.205	0.000	2.285	1.640	2.112
Aimee Co., Ltd.	1.181	1.990	2.120	2.715	1.640	2.001
Average Score	3.778	4.827	5.055	7.429	3.804	5.198

As shown in Table 3, the ESG information disclosure scores of 20 listed textile and apparel companies vary across dimensions and in their overall performance. It can be observed that the overall quality of ESG information disclosure in the textile and apparel industry remains relatively low, with an average comprehensive score of only 5.196, and the results reveal significant disparities among enterprises.

Among the five dimensions, the comparability dimension recorded the highest average score, indicating that most textile and apparel enterprises exhibit relatively consistent disclosure formats and data continuity. However, the completeness and balance dimensions show comparatively low average scores, reflecting issues such as insufficient disclosure coverage and the selective reporting of favorable information while avoiding negative or sensitive data.

Leading enterprises such as Youngor, Langzi Co., Ltd., and Shengtai Group perform notably well across multiple dimensions, demonstrating mature and systematic disclosure frameworks. In contrast, companies like Anzheng Fashion and Aimer Co., Ltd. have relatively low scores and thus need to enhance the quality and transparency of their ESG information disclosure.

5. Conclusion

Based on an in-depth analysis of the theoretical and practical foundations of ESG information disclosure evaluation both domestically and internationally, this study constructs an ESG information disclosure quality evaluation system tailored to the characteristics of the textile and apparel industry. Grounded in the eight major accounting information quality requirements, and aligned with the GRI Sustainability Reporting Guidelines and the Textile Enterprise ESG Disclosure Guidelines, the system identifies completeness, relevance, reliability, comparability, and balance as the five primary criterion layers. These are further refined into 14 sub-criteria and 41 specific indicators.

Using the Analytic Hierarchy Process (AHP), expert evaluations were conducted to assign weights at each level, resulting in a scientifically grounded weight matrix for both the criterion and sub-criterion layers. Based on the established evaluation standards, a quantitative and qualitative scoring method was developed, forming a 10-point scoring scale for comprehensive assessment.

Through the scoring and analysis of 20 listed textile and apparel companies, the study finds that the overall ESG information disclosure level in the industry is relatively low, with an average comprehensive score of 5.198. This indicates insufficient standardization and completeness in ESG disclosure practices.

Across different dimensions, the comparability dimension achieved the highest scores, while completeness and balance lagged behind—suggesting that some enterprises still neglect the disclosure of negative information and lack comprehensive data transparency. Furthermore, significant differences exist among enterprises: Youngor, Langzi Co., Ltd., and Shengtai Group demonstrate higher disclosure quality, whereas Aimer Co., Ltd. and Anzheng Fashion perform relatively poorly and need substantial improvement in their ESG disclosure quality.

References

- [1] Xue Yongsheng, Shi Lanjiang. Research on Environmental Accounting Information Disclosure of China's Textile Enterprises [J]. *China Forestry Economy*, 2020 (02): 117 – 120.
- [2] Wang Shufeng, Guo Chenfang. Research on Environmental Accounting Information Disclosure Problems in Textile Enterprises [J]. *Modernization of Shopping Malls*, 2021 (15): 186 – 188.
- [3] Jin Lumin. Exploration on Environmental Accounting Information Disclosure of Listed Textile Companies [J]. *Chinese and Foreign Corporate Culture*, 2022 (06): 55 – 57.
- [4] Dai Xiaosu, Liao Jingjing. Research on Environmental Accounting Information Disclosure Issues in Textile Enterprises [J]. *Textile Report*, 2023, 42 (07): 20 – 22.
- [5] Bian Xiting, Wang Mei. Discussion on the Quality of Environmental Accounting Information Disclosure in Listed Textile Companies [J]. *Economic Research Guide*, 2023 (13): 92 – 94.
- [6] Gu Qiangping, Ma Yani. Analysis of Environmental Accounting Information Disclosure in Listed Textile Companies—From the Perspective of Corporate Governance [J]. *Management and Technology of Small and Medium-sized Enterprises*, 2023 (11): 79 – 81.
- [7] Zhang Yunfan. Research on Environmental Accounting Information Disclosure of Textile Enterprises under the “Dual Carbon” Goals—Based on Listed Textile Companies [J]. *China Management Informatization*, 2023, 26 (02): 43 – 45.
- [8] Ran Kaixuan. Research on Environmental Accounting Information Disclosure in the Textile Industry under the Background of “Dual Carbon” [J]. *Time-honored Brand Marketing*, 2024 (03): 62 – 64.
- [9] Zeng Yueming, Liu Jiajia. Game Analysis of Environmental Information Disclosure Based on Government–Enterprise Relations [J]. *Finance and Accounting Communications*, 2016 (16): 12 – 15.
- [10] Li Jizhi, Liang Ziqi. The Impact of Management Governance on the Quality of Environmental Information Disclosure—Taking China's Textile Industry as an Example [J]. *Friend of Accounting*, 2018 (18): 62 – 66.