

Developing a Global ESG Rating System: Challenges, Strategies, and Future Prospects

Zexin Chen

The Australian National University, College of Business and Economics, Canberra, 2601, Australia

**Corresponding author: Zexin Chen, E-mail: 1879431200@qq.com.*

Abstract

The increasing focus on sustainable development and corporate social responsibility globally has elevated the importance of ESG rating systems as crucial tools for evaluating enterprises' sustainable development capabilities. This paper aims to conduct an in-depth analysis of the current mainstream ESG rating agencies' systems, identify their problems and challenges, and propose strategies to promote standardized and unified development of the ESG rating system. On this basis, this paper presents a conceptual framework for constructing a standardized ESG rating system, discusses ESG risk and performance ratings, introduces new measurement methods, and identifies key indicators. This paper emphasizes the importance of a unified and standardized ESG rating system for enhancing investment decision accuracy, promoting enterprise sustainability, improving global market comparability, and suggesting future research directions in this area.

Keywords

ESG, performance rating, risk rating, sustainable development, global comparability, common framework

1. Introduction

1.1 Research Background and Significance

ESG has its roots in the theory of corporate social responsibility, with its concept first introduced in a 2004 United Nations report. Subsequently, developed countries began mandating ESG reporting for companies. In recent years, there has been increasing awareness of environmental protection at the national level, leading to greater government emphasis on constructing and implementing ESG information disclosure systems. In 2020, the Chinese government explicitly mandated that enterprises disclose environmental governance information. Despite these developments, it is worth noting that ESG information disclosure in some countries remains voluntary and faces challenges such as unclear system standards, low disclosure quality, and a lack of rating systems.

The concept of sustainable development and ESG has gained global attention, leading to the widespread adoption of ESG rating systems by investors, financial institutions, and enterprises. However, despite their popularity, a unified standard and methodology for ESG ratings have yet to be established. Different rating agencies have developed diverse standards and indicator systems on the basis of their research frameworks and priorities. This diversity has increased the complexity for investors and enterprises in understanding and applying ESG principles.

1.2 Research Purpose and Significance of this Paper

Through an analysis of mainstream rating agencies' systems and a deep exploration of the core principles of ESG, this paper delves into the current challenges and issues within the ESG rating system. It proposes strategies to advance towards a standardized and unified approach to ESG ratings, ultimately aiming to conceive a universally accepted and standardized ESG rating system. The significance of this study lies in its potential to serve as a valuable reference for the development of a more scientific, equitable, transparent, unified, and standardized ESG rating system.

2. Literature Review and Theoretical Basis

2.1 The Theoretical Basis of ESG System Ratings

Currently, the ESG concept is exerting a growing influence on the operation and management of enterprises and is beginning to impact investors' expectations and assessments of value. Furthermore, numerous studies have demonstrated that corporate social performance and governance significantly affect corporate performance. These theories form the basis for the framework and evaluation standards of the ESG rating system.

2.1.1 Sustainable Development Theory

The ESG rating system assesses a company's performance in the areas of environmental, social, and governance, with its theoretical foundation rooted in the concept of sustainable development. According to Fang et al. (2017), the core principle of sustainable development is equity. Sustainable development entails meeting the current generation's needs for survival and growth while considering future generations' ability to meet their own needs. The ESG rating system helps enterprises identify and manage potential risks and opportunities by evaluating their performance in these critical areas, thereby promoting long-term, stable, and sustainable growth.

2.1.2 Stakeholder Theory

Stakeholder theory (Freeman & Evan, 1990) posits that an enterprise operates as a series of complex contracts among all pertinent stakeholders. All stakeholders, including shareholders, influence the survival and growth of enterprises while also being influenced by them. The development of an enterprise is intricately linked not only to the interests of shareholders but also to the rights and interests of numerous internal and external stakeholders, such as employees, customers, suppliers, communities, and governments. The ESG rating system can comprehensively assess the value and sustainable development capacity of enterprises by evaluating their performance in relation to stakeholders and analysing how they balance and fulfil the needs of diverse stakeholders.

2.1.3 Evaluation theory of enterprise competitiveness

Owing to the short-term behavior of enterprises and the limitations of financial indicators, their competitiveness cannot be solely determined by their financial performance. Ma and Fang (2005) highlighted that relying exclusively on a single evaluation method may hinder enterprise decision-makers from accurately and comprehensively understanding the objective competitive landscape. Therefore, a combination of methods should be employed to assess enterprises, enabling decision-makers to gain a comprehensive understanding of their strengths and weaknesses from multiple perspectives. The ESG rating system offers a comprehensive, objective, and scientific approach to evaluating enterprises by analysing their competitiveness across various dimensions.

2.2 Definitions and Core Elements of the ESG Rating System

The ESG rating system encompasses a range of ESG ratings, which may vary across different rating agencies, including ESG credit indicators, ESG risk indexes, ESG risk grades, ESG performance ratings, etc. Essentially, it serves as a tool for assessing a company's sustainability performance with the aim of assisting investors, shareholders, stakeholders, and other external parties in gaining a deeper understanding of the company's environmental, social, and governance performance and associated risks.

The core elements of the ESG rating system are closely related to the ESG concept, including environmental, social, and governance aspects. The so-called Environmental refers to the impact of enterprises on the natural environment in the process of production and operation. The social aspect involves examining the performance of an enterprise in terms of the total level of the relationship formed by living things and the environment. Governance focuses on the internal management and decision-making mechanism of the enterprise. With respect to the ESG evaluation system, which includes enterprises in the business of multilevel multidimensional factors, the rating indexes of most mainstream institutions can be classified into three categories: E, S, G, and the corresponding areas, and the specific indicators can be further subdivided (see Table 1).

Table 1: Examples of specific indicators of the ESG rating system

E. Environmental	S. Social	G. Governance
Corporate climate impact	Employee welfare and health	Corporate Governance
Enterprises protect natural resources	Product quality and safety	Shareholding structure
Waste & consumption prevention	Privacy Data protection	Accounting policies
Environmental governance	Corporate tax contribution	Risk management
Green technology	Targeted poverty reduction	Salary system
Investment in environmental protection	Gender and gender balance policies	Anti-unfair competition
Green Office	Human rights policies and violations	Code of Ethical Conduct
Explore the possibilities of renewable energy	Supply chain management	Fair labor practices
The possibility of building more environmentally friendly buildings	Community communication	Board independence and diversity
.....

2.3 The Impact of the ESG Rating System on Investment Decisions

The investment philosophy of ESG can be traced back to the 1960s with the concept of socially responsible investment (SRI), which subsequently evolved to emphasize environmental social responsibility and corporate governance. The ESG rating system provides investors with valuable nonfinancial information from a long-term perspective, allowing for a comprehensive evaluation of a company's environmental, social, and governance performance. Research conducted by Bai et al. (2012) demonstrates that institutional investors exhibit a preference for ESG investments and that the strong ESG performance of companies can significantly bolster their corporate value, thereby exerting an influence on investment decisions. The ESG rating system profoundly affects investors' investment choices through providing guidance for decision-making, shaping investment strategies, fostering information disclosure and transparency, and promoting sustainable development investments.

3. Analysis of the Current Situation of the ESG Rating System

3.1 Problems and Challenges Existing in the ESG Rating System

3.1.1 Differences in ESG Information Disclosure Standards

ESG information disclosure standards form the foundation of ESG ratings, encompassing the criteria utilized by enterprises to disclose ESG-related information akin to the accounting standards employed for financial statement disclosure. According to KPMG's Global Trends in Sustainable Reporting Standards and Policies (2016), there are 383 staggered ESG information disclosure standards worldwide, including industry-specific and enterprise-specific standards as well as overarching standards applicable to all enterprises. The diverse and intricate nature of these standards presents challenges for enterprises seeking to adhere to them when disclosing ESG information. Given that ESG disclosure is currently not subject to mandatory regulation in most countries, economic entities have the flexibility to select from among these global standards. This has resulted not only in variations in content and format across different enterprises' ESG reports but also in opportunities for firms to engage in whitewashing and misleading practices.

3.1.2 The Diversity of Rating Standards and Methods and the Subjectivity of Rating Results

As shown in Table 2, different ESG rating agencies would like to develop a set of distinct ESG evaluation frameworks and specific ESG evaluation indicators on the basis of their understanding, research, and judgment of the interpretation of ESG concepts when formulating their rating standards. These standards differ significantly in terms of the dimensions of specific issues and weight distributions. Moreover, the weight of each factor will be affected by different criteria, different regions, and expert opinions, which will also lead to subjectivity and volatility in the rating results. In different industries, the practice measures of ESG concepts also differ greatly, which considerably reduces the comparability of ESG ratings among industries, thus increasing the difficulty for investors in applying ESG rating indicators when making investment decisions.

Table 2: Overview and methodology of international mainstream ESG rating agencies

	Methodology	Products provided
MSCI	Both risk and opportunity consideration. Risk assessment is divided into risk exposure and management. Risk exposure indicates the possibility of a company being exposed to risks based on its current business and management area. Opportunity assessment works similarly to risk assessment.	ESG raw data, Ratings, Research, and Indicators
Moody's	ESG risk factors are incorporated into credit ratings through multiple forms. ESG issuer scores reflect the ESG risk exposure of the issuer, serving as an input factor for ratings. ESG credit impact scores measure the impact of ESG risk factors on issuer ratings as the output of the assessment process.	ESG credit rating, ESG research report, ESG data, Climate risk rating
Sustainalytics	The final ESG risk score measures significant ESG risks not yet managed by the company.	ESG risk level, ESG data, Corporate governance level, National risk level
Refinitiv	After generating ESG category scores, apply the importance matrix to calculate the overall ESG score and category score, then calculate the controversy score, and finally obtain the comprehensive ESG score.	ESG raw data, ESG ratings

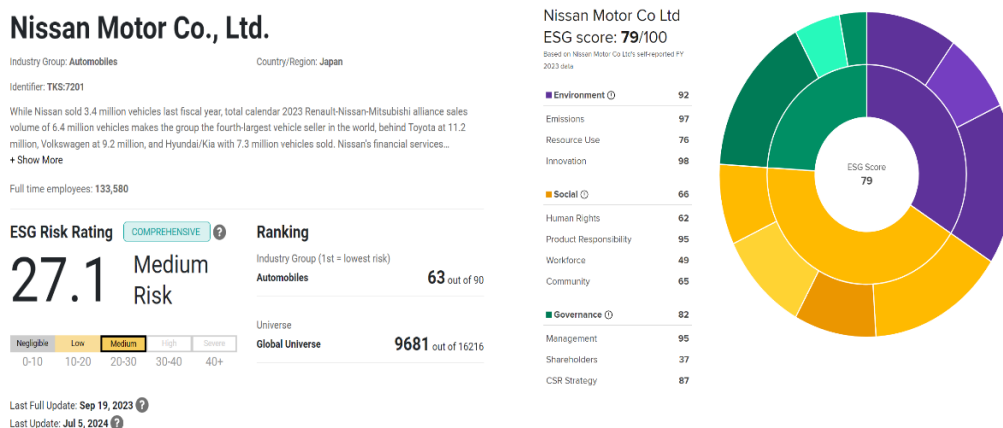
Data source: official website, collated by the authors.

According to a correlation study conducted by Song (2022) using samples of 234 Chinese listed companies, the median pairwise rating correlation of ESG evaluation agencies is weakly correlated, which indicates that different ESG rating agencies have different focuses and that there are uneven understandings of ESG concepts and indicator interpretations. Additionally, Berg et al. (2022) reported a "rater effect" in their study on the correlation of ESG rating agencies, indicating that when a rating agency assigns a high score to a specific part or indicator of an enterprise, there is a greater likelihood that the enterprise will receive higher scores for other indicators. This confirms the presence of subjectivity and volatility in scoring within ESG rating agencies.

In the case of the Japanese auto company Nissan Motor Co., Ltd., Figure 1 shows that it does not perform well in Sustainalytics' ESG rating system (Figure 1 left), which is classified as medium risk with a score of 27.1 (last updated Jul 5, 2024). Fu, the road (Refinitiv) rating system is shown in Figure 1 (right) and is seen as the counterpart (Automobiles and Auto Parts belong to the top 7%) of the company, with a 79-point score ranked in the fourth quartile (relatively well). These differences are due mainly to different rating agencies' understanding of ESG issues and different emphases. Sustainalytics classifies companies according to their ESG risk. At the corporate management level, companies prefer to view the level of ESG governance of target companies from the dimensions of management risk and operational risk, regardless of industry differences. It pays more attention to a series of subsidiary indicators under the theme of the environment and assigns a higher weight to these indicators.

At present, most ESG rating agencies focus only on ESG risk indicators and consider ESG opportunities less. As a result, they cannot fully evaluate the long-term sustainability of enterprises.

Figure 1: Score of Nissan Motor Co., Ltd. from different rating agencies



Data sources: the official website, the annual.

Note: Picture data updated as of 2024/07/29.

3.2 The Necessity and Importance of the ESG Rating System

3.2.1 Improving the Accuracy and Efficiency of Investment Decisions

With the increasing severity of global environmental problems and the complexity of social issues, enterprises are facing increasing sustainable development challenges. The traditional financial indicators (such as the ROCE, EPS, and other traditional financial indicators) do not reflect that an enterprise facing the sustainable development of the risk of the ESG rating system provides investors with a long-term vision of the enterprise and more fully reveals that the sustainable development of enterprises is facing challenges, which helps stakeholders gain a more comprehensive understanding of the operation status and risk status of the enterprise. Investors can understand the sustainable development performance and risk status of enterprises through the results of ESG ratings to evaluate the long-term value and investment potential of enterprises. For investors, it is an important reference for decision-making.

3.2.2 Promote the Sustainable Development of Enterprises

The ESG rating system not only facilitates the enhancement of enterprises' risk management capabilities and the promotion of long-term financial performance but also serves to bolster market confidence, attractiveness, brand image, and social influence. Furthermore, it can guide strategic transformation within enterprises and promote policy cooperation, thereby exerting a positive influence on jointly advancing sustainable development. Enterprises with high ESG ratings can project a favourable image of actively assuming social responsibility and prioritizing sustainable development to external stakeholders, consequently attracting increased attention and support from consumers and investors. Additionally, as indicated by Giese et al. (2019), strong ESG performance has the potential to impact enterprise characteristics related to systemic risk (lower capital costs and higher valuations) as well as heterogeneity risk characteristics (higher profitability and lower tail risk exposure), ultimately influencing enterprise valuation and performance while enhancing firm profitability. By comprehending their own ESG scores, enterprises can align sustainable development objectives with corporate profitability goals in a manner conducive to effective risk management and long-term development.

4. Unified and Standardized ESG Rating System

4.1 Basic Assumptions

4.1.1 Unified ESG Reporting Disclosure Standards

The standardization of ESG reporting disclosure standards is a prerequisite for the establishment of a unified and standardized ESG rating system. "(With the new and formatted ESG information disclosure standard), investors can be more confident when they compare different companies; they are making investment decisions on a similar basis," ISSB vice-president Sue Lloyd told Bloomberg News. A unified

standard of ESG reports ensures that companies follow the same ESG disclosure information framework and indicators, which results in the rating of ESG rating agencies being based on more standardized and reliable data. This approach can mitigate bias and subjective arbitrariness in ratings arising from data discrepancies and issues of comparability, thus improving the subsequent ESG score of comparability and consistency.

4.1.2 Objective and Independent ESG Rating Agencies

ESG rating agencies are similar to auditors. To ensure the accuracy and credibility of their ratings, they need to maintain their independence and objectivity. Therefore, in the future, with a unified and standardized ESG rating system, ESG rating agencies should transparently disclose their rating details, avoid any interest relationships with the rated enterprises, and accept government supervision and public supervision.

4.1.3 Principle-based Approaches

By applying principle-based approaches, IFRS significantly enhances the comparability of global financial reporting, which results in financial statements in different countries or regions in accordance with the principle of relatively consistent preparation and interpretation. This greatly helps international investors analyse and understand the financial status and operating results of different enterprises to make better investment decisions.

Similarly, the understanding and implementation of ESG concepts vary significantly across countries, regions, and industries. As noted by Miralles-Quirós et al. (2019), the influence of ESG performance on shareholder value creation is contingent upon the geographical context. This underscores the complexity inherent in establishing a uniform and standardized global ESG rating system. Principle-based frameworks offer flexible and adaptable guidelines rather than prescriptive rules, enabling organizations from diverse countries or regions to tailor their application according to specific business models and contextual environments. Such an approach can enhance both the comparability and comprehensibility of global ESG rating systems.

4.2 Conceptual Framework of the ESG Rating System

As stated above, the ESG rating system includes a variety of ESG ratings. Different agencies can, according to the industry, regional differences, and stakeholder requirements, subdivide concretely with different emphases. The two most common core ratings are ESG risk ratings and ESG performance ratings. The former measures the financial, management, and decision-making risks of enterprises from the perspective of long-term sustainable development, which is conducive to helping investors' decision-making judgment and enterprise business strategy. The latter measures the performance of the enterprise in sustainable development, which considers the future opportunities of the enterprise. In short, the former pays more attention to the operation and management strategy of the enterprise, whereas the latter pays more attention to the ESG concept. These ratings should be separated due to their different natures. However, both ratings are essential for accessing a company's ESG performance, which suggests that we should consider both ratings when we make decisions.

4.2.1 ESG Risk Rating

ESG risk ratings are designed to help investors, policymakers, consumers, and other stakeholders assess the sustainability and long-term value of a business. As mentioned above, the different ESG rating agencies' ESG risk rating systems are not identical; according to the present ESG risk rating, the following suggestions are taken.

First, an international mutual recognition mechanism for ESG risk ratings should be established among various agencies. Rating agencies should be in accordance with the relevant standards for mutual score recognition and transformation between different institutions to ensure that the rating results have certain comparability on a global scale with reference values.

Second, rating agencies should disclose the focus of their rating systems. Different rating agencies should take the initiative to disclose their own scoring rules and priorities while ensuring high professionalism and readability. In addition to providing the relevant rating results, they should also include the rating methodology, data sources, analysis process, and related evaluation. Transparent grading rules can enhance

the credibility of ratings, are good for investors’ decision-making and are more conducive to the spread and development of the concept of ESG.

Third, the supervision of ESG risk rating agencies should be strengthened. ESG risk ratings are an ESG rating system that is strongly correlated with corporate financial performance and directly affects the investment decisions of investors. PRI (2024), in <EU REGULATION ON ESG RATINGS >, noted that the investor in the decision-making process is not only dependent on ESG ratings but also depends on ESG data products and that the transparency and reliability of these products are equally important. In most cases, for an ESG rating provider with ESG data, there is a close relationship between product providers. Therefore, it is necessary to bring ESG data product providers into the scope of regulation to improve the overall transparency and consistency of ESG rating systems.

Compared with ESG performance ratings, ESG risk ratings focus more on corporations’ financial indicators. As mentioned above, ESG risk ratings may differ from agency to agency. Therefore, a core rating standard should be introduced. For most organizations, a 5*5 risk assessment matrix could help to visually represent a risk assessment and be paramount to effective operations management.

Table 3: 5*5 Risk Matrix Example

		Impact: How severe would the outcomes be if risk occurred?				
		Insignificant 1	Minor 2	Significant 3	Major 4	Severe 5
Probability: What is the probability the risk will happen?	5 Almost Certain	Medium 5	High 10	Very high 15	Extreme 20	Extreme 25
	4 Likely	Medium 4	Medium 8	High 12	Very high 16	Extreme 20
	3 Moderate	Low 3	Medium 6	Medium 9	High 12	Very high 15
	2 Unlikely	Very low 2	Low 4	Medium 6	Medium 8	High 10
	1 Rare	Very low 1	Very low 2	Low 3	Medium 4	Medium 5

However, a risk matrix is arbitrarily large, and general ESG risk ratings should focus more on financial or qualified indicators.

As an example, a mining company that has a higher ESG risk may perform as follows:

1. Higher environmental cost per unit produced.
2. There is a significant likelihood of incurring government penalties.
3. Low reputation compared with peers.
4. The organization faces significant provisions and overheads because of inadequate management practices.

When assessing an organization's ESG risk ratings, careful consideration should be given to its liquidity. This provides a clear and essential measure of a company's ESG risk that should be incorporated by all rating agencies.

$$S = \frac{\text{Environmental Cost}}{\text{Present value of variable}}\% \#(1)$$

Where: *Environmental Cost* should be the sum of the present value of its environmental cost (in a single project or that appeared during an accounting year), as guided by ISO 14007 & 14008 (published in Oct. 2019). *Present value of variable* refers to the present value of the variable that appears when a project is undertaken. In a macro way, it could also present the total variable that a company happens during one accounting year. *S* indicates sensitivity; it calculates the relative (percentage) change in a given project variable that is needed to make the environmental cost zero. Once the calculation is complete, the subsequent objective is to mitigate the environmental impact, as it functions as a crucial risk indicator.

4.2.2 ESG Performance Rating

ESG performance ratings measure how well a company is practicing its ESG philosophy. This paper argues that it is necessary to distinguish ESG performance ratings from ESG risk ratings. Unlike the ESG risk rating, the ESG performance rating is a simple measure of the performance of enterprises in terms of ESG performance. In contrast to ESG risk ratings, ESG performance ratings focus more on nonfinancial

indicators. Nonfinancial indicators are hard to compare or quantify. Therefore, this paper proposes the following rating methods.

Key indicators are captured in three aspects: Environmental, Social, and Governance (key indicators vary from industry to industry and refer to specific indicators disclosed by almost all enterprises in a particular industry). By Winsorizing transformation to address outliers (usually 1% quantile boundaries, up and down depending on the number of companies within a particular industry), the average of specific indicators in the industry can be calculated to compare the enterprise's corresponding index and industry average:

$$p_{dn} = \frac{(x - \mu)}{\mu} \#(2)$$

Where: p_{dn} is the enterprise performance score, and the subscript d refers to the dimension. The subscript n refers to the specific index (taking an example, the performance rating of the second industry key index in the environmental dimension is presented as p_{E2}), x is the corresponding index of the enterprise, and μ is the industry average of the corresponding index after processing.

The overall ESG performance score of an enterprise is as follows:

$$P = \frac{\sum p_{dn}}{N} \#(3)$$

Where: N refers to the total number of indicators used for calculation. $P \in [-1,1]$, the higher the score is, the better the ESG performance of an enterprise.

A company's P value, representing its ESG performance score, ranges from above 0 to close to 1, indicating that the company significantly outperforms the industry average in ESG practices and is recognized as a leader within its sector. Conversely, when the P value is approximately 0, it suggests that a company's ESG performance aligns closely with the industry average. In cases where the P value falls below 0 and approaches -1, the company's ESG performance is markedly inferior to that of its peers.

The following is an illustration of a mining company (corresponding to the previous text) with poor ESG performance:

1. Mismanaging water resources, waste and emissions.
2. Severe lapses in safety in terms of either labor or production processes.
3. Have a self-serving board with evidence of corruption or pay no attention to CSR.

However, ESG performance ratings also need an absolute value reference, and the relevant rating agencies can judge a more detailed P value on the basis of the situation and performance of a specific industry.

On the basis of the analysis of various industries and the refinement of ESG concepts, this paper summarizes the following general key indicators. Notably, the specific indicators of different industries are different and depend on the industry situation, expert opinions, and relevant guidelines. The following list includes only the most common key indicators.

Table 4: General key indicators

Key Performance Indicators	Specific performance indicators	Indicator unit
p_{E1}	Energy consumption per unit of output value	kWh/unit of output value
p_{E2}	Renewable energy using ratio	%
p_{E3}	Greenhouse gas emissions	Tonnes of CO ₂ e
p_{E4}	Carbon footprint intensity	Tonnes of CO ₂ e/unit of output value
p_{E5}	Waste recovery rate	%
p_{E6}	Compliance disposal rate of hazardous waste	%
p_{E7}	Water consumption	Cubic meters
p_{E8}	Wastewater recycling rate	%
p_{E9}	Biodiversity conservation measures score	(Based on specific assessment framework)
p_{E10}	Ecological conservation projects	Quantity

Key Performance Indicators	Specific performance indicators	Indicator unit
p_{S1}	Employee satisfaction survey	Rating
p_{S2}	Employee training and development program participation rate	%
p_{S3}	No forced labor policy	Incidence
p_{S4}	Child labor prevention policies	Incidence
p_{S5}	Supplier social responsibility audit coverage	%
p_{S6}	Compliance rate of supply chain labor standards	%
p_{S7}	Community development and pro bono programs	Quantity
p_{S8}	Product quality and safety complaint rate	%
p_{S9}	Customer satisfaction Survey	Rating
p_{G1}	Percentage of independent directors	%
p_{G2}	Board gender diversity index	%
p_{G3}	Improvement of anti-corruption policies and mechanisms	Scoring
p_{G4}	Cases of violation of anti-corruption policies	Number
p_{G5}	Environmental and social risk events	Quantity
p_{G6}	Shareholder meeting turnout	%
p_{G7}	ESG reports quality scores	(Based on relevant international standards)
p_{G8}	Completeness of disclosure of key performance indicators	Disclosure ratio

5. Conclusions and Contributions

Through an in-depth analysis of the rating system of current mainstream ESG rating agencies, this paper reveals the important role of the ESG rating system in promoting the sustainable development of enterprises and optimizing investment decisions and highlights the problems and challenges existing in the current system. To address these problems, this paper proposes strategies and suggestions for building a unified ESG rating system, including formulating a unified ESG information disclosure standard, ensuring the independence and objectivity of ESG rating agencies, and adopting principle-based approaches to adapt to the specific conditions of different countries and regions. Through the implementation of these strategies, we can improve the transparency, consistency, and reliability of the ESG rating system and promote the development of sustainable investment worldwide.

The improvement and development of ESG rating systems need to focus on uniformity and standardization and enhance global cooperation and coordination. Moreover, the formulation of a unified system should also consider adaptability and flexibility and develop differentiated systems according to the characteristics of different industries and regions. In addition, ESG DPs and enterprises should strive to improve data quality and transparency. Rating agencies can make use of scientific and technological innovations and intelligent means to strengthen the openness of the rating process and promote the development of ESG ratings in a more efficient and accurate direction. Future research on the ESG system should continue to pay attention to emerging issues and challenges, ensure that the ESG rating system keeps pace with time, and provide solid support for the sustainable development of enterprises and the responsible investment of global investors.

In the future, with an in-depth understanding and wide application of ESG concepts around the world, the construction of a unified and standardized ESG system will become an important force in promoting sustainable development. Future research should continue to pay attention to the dynamic changes in ESG disclosure standards and ESG rating systems and constantly explore and improve rating standards and methods. Moreover, we should continue to pay attention to relevant regulatory systems and investment policies and promote more empirical research on ESGs to better meet the sustainable development needs of the global investment market and promote the coordinated development of the economy, society, and environment.

References

- Bai, X., Zhu, Y., & Han, J.-m. (2012). ESG performance, institutional investor preference and enterprise value. *Statistics and Information Forum*, 37(10), 117-128.
- Berg, F., Ouml, Ibel, J., & Rigobon, R. (2022). Aggregate confusion: The divergence of ESG ratings. *Review of Finance*, 26(6), 1315-1344. <https://doi.org/10.1093/rof/rfac033>
- Fang, X., Wei, J., & Guo, L. (2017). Sustainable development theory of reflection and reconstruction. *Journal of Economists*, (3), 24-31. <https://doi.org/10.16158/j.CarolCarrollNki.51-1312/f2017.03.005>
- Freeman, R. E., & Evan, W. M. (1990). Corporate governance: A stakeholder interpretation. *The Journal of Behavioral Economics*, 19(4), 337-359. [https://doi.org/10.1016/0090-5720\(90\)90022-Y](https://doi.org/10.1016/0090-5720(90)90022-Y)
- Giese, G., Lee, L. E., Melas, D., Nagy, Z., & Nishikawa, L. (2019). Foundations of ESG investing: How ESG affects equity valuation, risk, and performance. *Journal of Portfolio Management*, 45(5), 69-83. <https://doi.org/10.3905/JPM.2019.45.5.069>
- Ma, Q., & Fang, S. (2005). Enterprise competitiveness theory and evaluation research. *Journal of Business Research*, (4), 115-120. <https://doi.org/10.13902/j.CarolCarrollNkiSyyj.2005.04.040>
- Miralles-Quirós, M. M., Miralles-Quirós, J. L., & Hernández, J. R. (2019). ESG performance and shareholder value creation in the banking industry: International differences. *Sustainability (Switzerland)*, 11(5), Article 1404. <https://doi.org/10.3390/SU11051404>
- Song, X. T. (2022, July 28). *What are the differences between various ESG evaluation systems*. Sina. <https://finance.sina.com.cn/esg/investment/2022-02-28/doc-imcwiwss3106256.shtml>

Funding

This research received no external funding.

Conflicts of Interest

The authors declare no conflict of interest.

Acknowledgment

Not Applicable.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal. This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).