

The Dual Leverage and Mechanism of ESG Information Disclosure on Investor Behavior

Wenqi Wang^{1,a,*}, Bingqing Li^{2,b}, Ao Li^{3,c}

¹*School of Business, Qingdao University of Technology, Huangdao District, Qingdao, Shandong Province, China*

²*School of Business, Jinan University, Shizhong District, Jinan, Shandong Province, China*

³*College of Economic Management, Shandong Agricultural University, Taishan District, Tai'an, Shandong Province, China*

a. 1067821397@qq.com, b. mavis2004@126.com, c. 3012861949@qq.com

**corresponding author*

Wang Wenqi is the first author, Li Bingqing is the second author and Li Ao is the third author.

Abstract: With the global emphasis on sustainable development, ESG information disclosure has become a key factor for investors to assess corporate value and risk. The academic value of this paper lies in an in-depth analysis of the reverse effect, which is not mentioned in most literature. It stands from the perspective of investors' investment purposes and interests, the attitudes of long-term investors who desire sustainable development and short-term investors who only care about immediate returns in a short period when facing ESG information disclosure. On the other hand, there are negative impacts on investors due to reasons such as government policy standards or the level of corporate ESG information disclosure itself, which may also prevent investors from achieving their expected goals, leading to investment risks and ultimately investors may flow out of the company. At the same time, some external factors can also lead to a dual leverage effect, such as the economic slowdown caused by the pandemic.

Keywords: ESG Information Disclosure, Long-term and Short-term Investors, Investor Behavior, Dual Leverage, External Factors Impact.

1. Introduction

With the development of industrialization and the emergence of environmental changes, social issues, and corporate governance issues, the attention to corporate ESG information has gradually increased in recent years. This paper uses the well-known typical ESG-friendly enterprise Gree Electric Appliances as an example to analyze and expound the leverage and mechanism of corporate ESG information disclosure on investor behavior. The concept of sustainable development has not only played a role in nature and science but has also become a focal topic in economic life. Corporate ESG information disclosure can have different impacts and leverage effects on the public and stakeholders. Therefore, it is concluded that when companies disclose ESG information, they should strictly follow the minimum standards and requirements set by the country, have a good level of disclosure, and also reflect the company's excellent philosophy, practice results, and comprehensive value in the three aspects of Environment, Social, and Governance. Investors should examine and use the ESG

information disclosed by companies in a reasonable and standardized manner according to their own investment objectives and the duration of cooperation.

2. Theoretical Analysis and Research Hypothesis

2.1. "Good" ESG Information Disclosure Mostly Has a Positive Leverage Effect on Investor Behavior

Based on the introduction of the ESG concept in 2006, more and more companies have begun to practice ESG information disclosure, presenting ESG information to the public through various forms, such as ESG reports and corporate social responsibility reports, and showing investors the company's ideas and achievements in the three aspects of environment, society, and governance [1].

ESG information disclosure enables investors to identify companies that perform well in environmental and social responsibility. This leads investors to prefer investing in these companies, which are considered to have greater long-term growth potential and lower risk; investors use ESG information to assess the non-financial risks faced by companies, such as environmental pollution, social injustice, and governance issues, which may affect the company's reputation and financial performance, so investors will adjust their investment portfolios accordingly; with the increased attention to ESG information, investors have put forward higher requirements for the company's governance structure and decision-making process.

Through analysis by many experts and literature review, nowadays, an appropriate level of ESG information disclosure will become an impression tool that can maintain corporate value and increase social credibility, which is conducive to investors making more decisive and rational investment decisions. Good ESG information disclosure can convey positive non-financial information of the company to investors, which can reduce the information asymmetry between the two and help investors reduce risks and increase investment confidence. According to analysis, firstly, good environmental information disclosure by companies reflects the company's sustainable development capabilities with a good prospect; secondly, companies with good social responsibility information disclosure reflect the company's strong risk control ability; and finally, companies with good governance ability information disclosure reflect the long-term and sustained operation of the company [2].

For investors, the role of ESG is mainly reflected in the following three aspects: It helps to "make the cake bigger" — enhancing the intrinsic value of enterprises and increasing investor returns. In the book "The Cake Economics," the author points out that ESG can not only promote enterprises to contribute value to society but also is expected to continue to empower enterprises, helping to create more profits, enlarge the "value cake," and bring tangible benefits to investors; It helps to facilitate information transmission — assisting investment decisions and affecting the flow of capital. ESG evaluation results can convey rich corporate information to investors, helping them to approach from multiple angles based on ESG indicators in addition to financial indicators, thereby increasing the odds of successful investment; It helps to detect and defuse "mines" in a timely and effective manner, reducing investment risks. Changes in ESG ratings can serve as risk warnings, to some extent helping investors to identify risks, reduce investment risks, and lower the possibility of "stepping on mines" [3].

Overall, ESG information disclosure will have a positive impact on investor behavior. For example, standardized ESG information disclosure allows investors to have a clearer understanding of the company's performance and risks in environmental, social, and governance aspects, thereby increasing trust in the company; secondly, ESG information provides investors with very important non-financial information, helping to assess the company's long-term value and risks, and make wiser investment decisions; ESG information disclosure helps investors to identify and support enterprises

committed to sustainable development, promoting capital to flow to more environmentally friendly and socially responsible investment projects; research shows that enterprises with good ESG performance can often bring higher investment returns, and investors can identify these potential high-return enterprises through ESG information disclosure; finally, ESG information disclosure provides a platform for enterprises to communicate with investors, helping enterprises to better explain their ESG strategies and practices, and how these factors affect the long-term development of the enterprise. Therefore, unobstructed communication between investors and enterprises can retain long-term investors to the greatest extent and even attract more external investors to enter the enterprise.

From this perspective, good ESG information disclosure by enterprises can ensure a good social image and create a good impression and relationship with all stakeholders, including investors. From the perspective of enterprises, it has a positive (beneficial to the enterprise) force on investor behavior.

2.2. Not all ESG information disclosure has a positive leverage effect on investor behavior

Considering the purpose of investor investment and the duration of obtaining benefits or support from the enterprise, ESG information disclosure will have different directions of effect on investors of different natures. For long-term investors, they are more concerned about the sustainable development of the enterprise compared to the short-term benefits that can be obtained in a short period, that is, whether the enterprise has a sustainable business prospect and risk control ability. From this point of view, ESG information disclosure can provide long-term investors with crucial non-financial information in a timely manner, which is beneficial for long-term investors to understand the sustainability and social status and development prospects of the enterprise, and enterprises with good ESG information disclosure will have a positive leverage effect on long-term investors; For short-term investors (short-sighted speculators), they are more concerned about the high benefit income and returns that can be obtained in the short term compared to the long-term sustainable development of the enterprise. For example, retail investors in our country, that is, individual investors, are typical short-sighted speculators [4]. Short-term investors consider rapid returns in the near future, so it seems that they do not pay much attention to ESG information disclosure, and ESG information disclosure will not have a positive leverage effect on short-term investors. However, more importantly, if enterprises in order to disclose good ESG information, may add environmental protection equipment, participate in and do social welfare, and also increase employees' wages and benefits to a certain extent, the enterprise's short-term expenditure will increase, and short-term investors will decrease. This point is also not mentioned in most literature and research. Therefore, ESG information disclosure may even have a reverse effect on the behavior of short-term investors.

It should be noted that investors may over-rely on ESG information and ignore the financial fundamentals of the enterprise, or have insufficient understanding of the ESG concept, leading to investment decision-making errors by investors; In addition, different rating agencies may use different rating methods and standards, which can lead to significant differences in the ESG ratings of the same enterprise in different rating systems, increasing the difficulty for investors to assess the enterprise's ESG performance.

In addition, there are many reverse negative impacts that ESG information disclosure may have on investor behavior. For example, due to the lack of a unified national disclosure standard, there is a large degree of arbitrariness in the enterprise's ESG information disclosure, the disclosure results lack comparability, and the information disclosure may be inconsistent and incomplete, making it difficult for investors to obtain accurate and comprehensive ESG information for investment decision-making; At present, the quality of ESG information disclosure in our country is relatively low, the quality of reports is uneven, and the accuracy of information is insufficient. Some enterprises

use incorrect calculation methods, which may mislead investors in assessing the enterprise's ESG performance;

Secondly, the relevant policies issued by different government departments may be inconsistent and lack coordination and unity, which brings trouble to investors in understanding and applying ESG information, which is caused by the lack of coordination in policy guidance;

Secondly, due to the insufficient attention of enterprises to ESG, especially some private enterprises do not pay enough attention to sustainable development and are not enthusiastic about information disclosure, which may cause investors to miss the opportunity to understand the ESG risks and opportunities of these enterprises;

Furthermore, the rapid development of ESG information disclosure has led to a shortage of relevant personnel and insufficient professionalism, which may affect the quality and depth of enterprise ESG information disclosure, and thus affect investors' understanding and judgment of the enterprise's ESG performance. Investors may not achieve the expected corporate goals within a certain period of time or in the long term, which may lead to investors leaving the enterprise [5]; For enterprises, meeting the growing requirements of ESG information disclosure may bring high costs and complex operations, which has become a burden and may indirectly affect investors, especially when assessing the cost-effectiveness of enterprises [6];

The reverse effect is also manifested in the fact that corporate information disclosure may not match the actual performance: some enterprises may engage in "greenwashing," that is, showing a good image in the ESG report, but the actual ESG performance is not as described in the report [7], and this behavior may mislead investors. In addition, if regulatory authorities fail to effectively supervise and evaluate the quality of corporate ESG information disclosure, it may lead to low-quality or untrue information disclosure in the market, increasing the risks faced by investors [8], causing them to make investment decisions based on incorrect information, and they may not receive the corresponding returns or suffer heavy losses. Investors may eventually become disheartened and leave the enterprise;

At the same time, it is also necessary to consider the impact of some external factors, such as the slowdown in economic development caused by the epidemic and the less attention paid to certain enterprises during special periods.

2.3. Challenges and Opportunities of ESG Information Disclosure

Standardization, comparability, and reliability of information are the challenges faced by ESG information disclosure. At the same time, the above problems should be improved, which can improve the quality and effectiveness of ESG information disclosure, thereby helping investors make wiser investment decisions. Nowadays, with the gradual unification of global ESG standards, these challenges are gradually being overcome, providing investors with clearer and more reliable decision-making basis.

3. Sample Data

Through the investigation of Gree Electric Appliances' ESG information disclosure, it is known that in recent years (from 2019 to the end of 2023), Gree has punctually disclosed high-quality ESG information.

At the same time, as shown in the following figure, compared with the number of shareholders in the previous year, that is, the attraction of ESG information disclosure to investors (positive leverage), there has been an overall upward trend from 2020 to 2024.

Historical trend chart of changes in the number of shareholder accounts

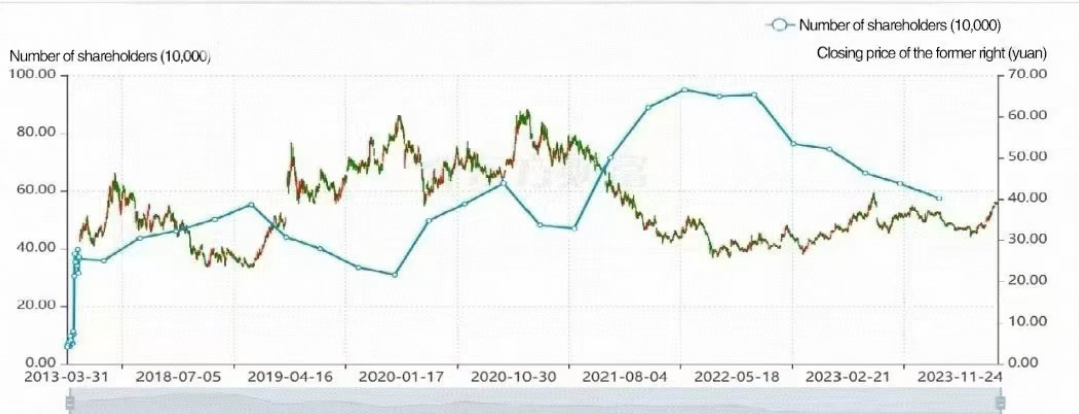


Figure 1: Trend of Shareholder Numbers Change in Gree Electric Appliances in Recent Years

4. Empirical Testing and Results Analysis

The establishment of hypotheses is studied using data analysis methods. According to the statistical data and analysis of Gree Electric Appliances, it is known that on May 7, 2020, the number of shareholders was about 520,000 people. Controlling the time interval variable and observing on May 7 every year, the number of shareholders in 2021 was about 560,000 people. Similarly, the observed data shows that in 2022, the number of shareholders was 930,000 people, and in 2023, it was 650,000 people. Let the dependent variable y represent the number of shareholders, and at the same time, since Gree Electric Appliances has controlled the same time interval in the observed years, the variable condition background remains unchanged. For the convenience of analysis and calculation, and in recent years, the company has always had a good ESG information disclosure report, let the independent variable x represent the cumulative number of ESG in recent years. The observation and calculation of the first three years can obtain: $y = 16.5x^2 - 45.5x + 81$ ($x > 0$) is established. It can be seen that good ESG information disclosure is directly proportional to the number of shareholders, and the hypothesis is established.

However, through the analysis of the number of shareholders in Gree Electric Appliances in 2023, it is known that although Gree has always insisted on disclosing ESG information, the number of shareholders does not continue to rise. It may be other external factors, such as changes in the company's financial level, a decrease in attention during the period, or fluctuations in economic recovery after the epidemic. Compared with companies that have not disclosed ESG information, companies that disclose ESG information reasonably are often providing investors with an additional channel to see the company's ability to deal with risks and the prospects for sustainable development. Investors with a long-term perspective tend to be more inclined to understand and choose to invest in such companies.

5. Conclusion and Enlightenment

Through the study of literature and the interpretation of relevant data of Gree Electric Appliances, it is understood that under ideal conditions, excluding the influence of other external factors, good ESG information disclosure can have a positive leverage on investor behavior. It can strengthen investors' trust in the company, that is, ESG information disclosure can provide investors and the public with positive non-financial information, demonstrate the company's determination for long-term sustainable development from the perspective of environmental responsibility, social responsibility, and corporate governance responsibility, while reducing the information asymmetry between

enterprises and investors, allowing investors to understand the company's situation and development philosophy more comprehensively and profoundly, increasing investors' confidence in investment, and thus generating attractiveness to investors, that is, positive leverage.

However, mere ESG information disclosure may also have a reverse effect on investor behavior. If the ESG performance reflected by ESG information disclosure is poor, it is difficult to obtain support from investors and all aspects [9]. In other words, ESG performance and the level of information disclosure should be good to potentially have a positive impact on investor behavior. However, the purpose of investors is also an important influencing factor. Long-term investors will deeply study a company's ESG information disclosure and choose companies with good ESG performance; short-sighted investors will pay more attention to the company's performance and benefits within a certain period. At this time, the impact of ESG information disclosure on them becomes very complex. If they do not pay attention to ESG information disclosure, it may not matter; if they do, it may lead to a reverse effect.

This also enlightens current companies to strictly follow the minimum standards and requirements set by the country when disclosing ESG information, to achieve a good level of disclosure, and to reflect the company's excellent philosophy, practical results, and comprehensive value in the three aspects of Environment, Social, and Governance. Investors should examine the ESG information disclosed by companies according to their own investment objectives and the duration of cooperation, and standardize the review.

References

- [1] Huang Jun et al. *ESG Information Disclosure: Connotation Analysis, Evaluation Methods, and Mechanism of Action*. *Foreign Economics & Management*, June 2023, Volume 45, Issue 6.
- [2] Zhang Xier et al. *The Impact of ESG Information Disclosure on High-Quality Corporate Development under the Background of Green Finance*. *Finance & Taxation*, 2022.
- [3] *Series on ESG (Part IV) | What is the Use of ESG for Investors*. *Financial Investment News*, November 2023.
- [4] Reporter Hu Wenjuan, Expert Robert G. Eccles. *Making ESG an Important Piece of Information Affecting Business and Investment Decisions*. *Sustainable Development Economic Herald*, March 2019.
- [5] *Exclusive Interview with Liu Yifang from Central University of Finance and Economics: What are the Insufficiencies in China's ESG Information Disclosure and How to Improve Them*. *Market Information*, July 2023.
- [6] *The Three Major Stock Exchanges Officially Release Guidelines for Sustainable Development Reporting of Chinese Listed Companies*. *Deloitte*, April 2024.
- [7] *Interpreting the Current Status of ESG Information Disclosure and Exploring the Management of ESG*. *Deloitte*, November 2022.
- [8] *ESG Information Disclosure Facilitates Communication with Stakeholders and Promotes Industrial Development*. *Deloitte*.
- [9] Li Zhibin et al. *ESG Information Disclosure, Media Supervision, and Corporate Financing Constraints*. *Scientific Decision Making*, July 2022.