

Research on ESG Information Disclosure of Haier Intelligence in Manufacturing Industry

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Abstract: The ESG report is the information carrier to disclose the undertaking of corporate social responsibility, and is an important channel for the outside world to understand corporate environmental protection, social responsibility and corporate governance. This paper introduces the concept, development status and relevant theoretical basis of ESG, and conducts SWOT analysis of ESG disclosure in manufacturing industry. Taking Haier Zhijia as an example, this paper summarizes the significance of its ESG disclosure, points out the problems existing in its ESG report, and puts forward suggestions for improving the information disclosure of ESG.

1. Introduction

In recent years, issues related to environmental and resource protection and sustainable development have received wide attention worldwide. Under the guidance of the “two-carbon” goal, not only enterprises have begun to attach importance to their own sustainable development, but also investors and government regulators have begun to attach importance to obtaining the information disclosed in corporate sustainable development and social responsibility reports as the carrier of corporate social responsibility. The research on ESG information disclosure has become a hot topic.

2. Theoretical Overview

2.1 Overview of ESG

2.1.1 Related Concepts

ESG is an abbreviation of “Environmental”, “Social” and “Governance”. It focuses on the environmental, social and governance performance of enterprises and focuses on their environmental performance and resource utilization. The social aspect focuses on the enterprise's contribution to the society, while the governance aspect focuses on the enterprise's management level, internal control and governance transparency.

2.1.2 Development Status

After the UN Sustainable Development Summit in 2015, the international community began to attach importance to ESG strategic management. In the early 21st century, the concept of ESG was gradually widely recognized and applied, becoming an important evaluation system for corporate social responsibility and sustainable development. Research shows that enterprise participation in ESG can help improve enterprise financing ability, reduce enterprise risk and enhance enterprise value^[1]. Today, ESGs have become a hot topic among investors, policy makers, the media and the public. In 2021, A total of 1366 A-share listed companies disclosed social responsibility related reports, an increase of 254 compared with 2020, A year-on-year growth of 22.84%, accounting for 29.42% of all A-share listed companies in the current year, the overall disclosure level still has a large room to rise in the future. as shown in Fig. 1

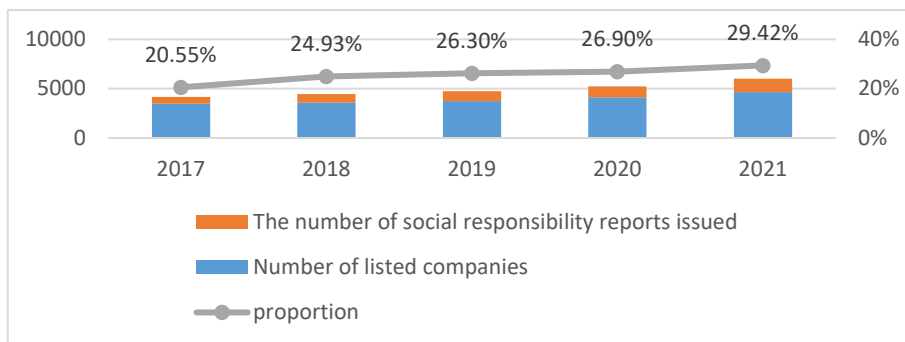


Fig.1 Disclosure of Social Responsibility Report of Chinese a-Share Listed Companies

Among the 1366 enterprises that have disclosed relevant reports, the financial industry has the highest degree of information disclosure, reaching 88.10%; Followed by culture and sports industry, the release rate of 57.38%. Although the manufacturing industry accounts for the largest proportion of listed companies, its disclosure rate is low, only 25.07%. as shown in Fig. 2.

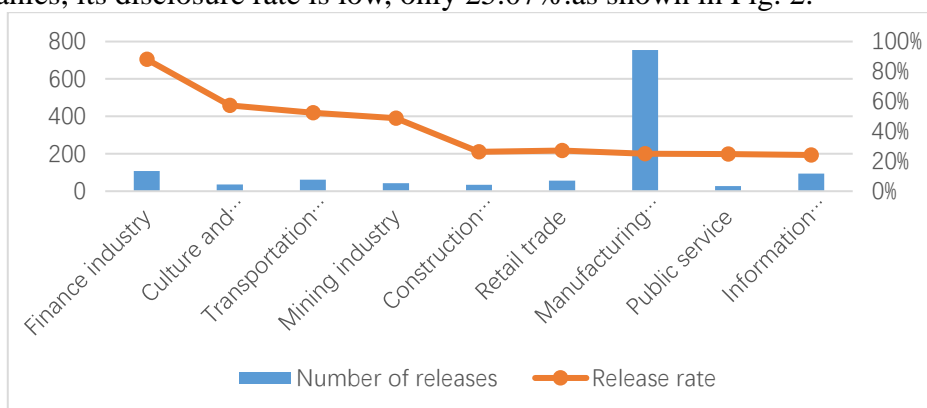


Fig.2 Number and Rate of Social Responsibility Reports Issued by Different Industries

2.1.3 Research Significance

Entering the new era of low-carbon development, a three-in-one ESG system of information disclosure, rating and investment has gradually taken shape. Information disclosure is the foundation. Regular and complete ESG information disclosure can provide market information demanders with basic information about enterprises' fulfillment of social responsibilities, and provide company managers, investors and other major stakeholders with opportunities to understand non-financial issues. Good ESG performance can also effectively reduce corporate debt financing costs^[2]. By actively disclosing information related to ESG, enterprises can improve their reputation and enhance brand value. Relevant studies show that the higher the ESG rating of a listed company, the higher its future return rate will be^[3]. At the same time, ESG information disclosure forces enterprises to pay more attention to ESG input and management, urges enterprises to undertake social responsibilities, thus enhancing the business value of the company^[4] and promotes high-quality development of enterprises. Studies have shown that good ESG performance can improve enterprise performance in uncertain economic policies^[5]. Actively undertaking environmental, social and corporate governance responsibilities and disclosing ESG information have become new factors affecting enterprise competitiveness, and building unified ESG information disclosure standards has become an important means to effectively achieve zero-carbon development.

2.2 Relevant Theoretical Basis

2.2.1 Sustainable Development Theory

The theory can be traced back to the Future of Us report issued by the United Nations Commission on Environment and Development in 1987, which elaborated the concept of sustainable development and put forward the principles of sustainability in the three aspects of

environment, economy and society, believing that economy, society and environment are interrelated and development should be coordinated in all aspects. For example, promoting low-carbon economy, promoting circular economy, developing renewable energy, strengthening environmental regulation, and improving social justice. According to the sustainable development theory, ESG can change the social image and market competition relationship of enterprises through resource allocation, and affect the economic benefits of enterprises in the long run.

2.2.2 Corporate Social Responsibility Theory

The theory of corporate social responsibility can be regarded as an extension of the theory of stakeholders, which includes not only various economic entities related to management, but also the environment and society. ESG is the quantitative measurement of a company's sustainability and social impact. It requires the evaluation model of an enterprise to go beyond the traditional measurement indicators of financial performance and the narrow income determination model in the traditional financial report, and explore new measurement indicators from the perspectives of environment, society and governance. The theory of corporate social responsibility lays a solid theoretical foundation for the popularization and development of ESG concept, and promotes the popularization and development of ESG concept.

3. SWOT Analysis of ESG Disclosure in Manufacturing Industry

3.1 Advantage Analysis

First, reduce production cost and improve resource allocation. Real and effective ESG data can help enterprises identify the energy consumption point and high carbon emission of business activities, help enterprises find changes in production and operation, reduce decision-making risks caused by ignoring environmental and social responsibilities, reduce decision-making errors, and promote high-quality development of enterprises. Second, increase market share and attract high-quality investment. Relevant policy guidance and changes in the development trend of The Times make consumers pay more attention to the environmental protection value and green benefits of products, and high-quality investors will pay more attention to the social responsibility and good corporate governance undertaken by enterprises. Third, enhance the brand image, improve international competitiveness. In the current environmental protection and social responsibility market environment, enterprises actively carry out environmental protection and social responsibility activities can improve their image and reputation, and create a favorable competitive posture.

3.2 Disadvantage Analysis

The disadvantages of ESG report disclosure in manufacturing industry are as follows: first, the activity cost is high. ESG disclosure may require special measuring equipment and equipment, professional implementation personnel, etc. Most manufacturing enterprises have not set up special ESG information disclosure departments. Second, the disclosure consciousness is low, the subject scope is not clear. Many enterprises do not have a good understanding of ESG. There are some problems in ESG reports, such as incomplete disclosure information, more descriptive paragraphs, less objective data, etc. ESG reports may involve the disclosure of multiple subjects, so it is necessary to clarify the subject scope.

3.3 Opportunity Analysis

As a pillar of the real economy, the manufacturing industry has the following opportunities for ESG disclosure: First, there is a trend to promote it. In today's development trend, the international community has increasingly higher requirements for environmental protection, social responsibility and corporate governance. Secondly, scientific and technological progress and the improvement of development level have produced more intelligent production equipment, which can not only help manufacturing enterprises more effectively implement environmental protection and energy saving measures, improve production efficiency and product quality, but also monitor pollution and

improve data accuracy.

3.4 Threat Analysis

The threat of ESG information disclosure in manufacturing industry is mainly reflected in the following aspects: First, the development process of ESG information disclosure in China is short. Due to the lack of a unified framework and key indicators of various data, the contents disclosed by different enterprises are different, which may not be compared and measured, and the objectivity and credibility need to be strengthened. Second, rating agencies may have different rating standards, opacity, subjective differences in assessment, speed of receiving negative news from enterprises and speed of updating rating results, leading to differences in rating results, etc.

4. Relevant Case Analysis

4.1 Introduction of Haier Zhijia

Haier Zhijia Co., Ltd. was established in 1984, formerly known as Qingdao Refrigerator General Factory. It was listed in Shanghai Stock Exchange in 1993 and officially changed its name to Haier Zhijia Co., LTD in June 2019. Haier Zhijia started to issue social responsibility (CSR) report in 2019, and changed its name to Environmental, Social responsibility and governance report in 2021.

4.2 The Significance of Haier Zhijia's ESG Disclosure

According to the information disclosure of ESG, we can understand the shortcomings in the operation process of the company, promote the company to make improvements in sustainable development, promote the sustainable development of the company. For consumers and investors, ESG reports can help them better understand corporate operations, management and risks, reduce information asymmetry and misunderstanding, and enhance the overall credibility. ESG disclosure can also help companies meet regulatory requirements and promote the process of ESG disclosure and report issuance of all market economy entities while obtaining better market recognition and opportunities.

4.3 Problems in Haier's ESG Report

The 2019 report lacks detailed data and indicators to support the effectiveness of its environmental protection plan. In terms of environmental protection, the 2020 and 2021 reports release resource use and carbon emissions through quantitative data from production, operation and manufacturing respectively, providing a more intuitive understanding on the whole. However, each year's report only released this year's environmental protection data, no comparison of the previous year's data, can not directly reflect the change of data. In addition, there are differences between the disclosure indicators in different years. As shown in Table 1.

Table 1 Emissions during production and operation

Target/year	2020
Discharge of harmful waste per unit (kg/unit)	0.009
Greenhouse gas emissions per unit (kg CO ₂ e/unit)	0.91
Target/year	2021
Output value of ten thousand yuan hazardous waste discharge (kg/ten thousand yuan)	0.087
Greenhouse gas emissions per ten thousand yuan of output value (kg/ten thousand yuan)	15.29

As for the resource consumption data in the manufacturing process, describing the total combined energy consumption, two data were used in the 2020 report, while only one total combined energy consumption (MWH) was retained in 2021. When describing unit consumption, the 2020 report used energy consumption per unit (KWH/unit), while the 2021 report changed to comprehensive energy consumption per 10,000 yuan of output value (KWH / 10,000 yuan). As for unit water resources and packaging consumption, in 2020, packaging consumption of a single product (kg/unit) is used, and in 2021, packaging consumption of ten thousand yuan of output value (ton/ten thousand yuan) is changed. It is difficult to compare the data of each year due to the

disunity of the units, and Haier intellectuals did not make relevant explanations for this. As shown in Table 2

Table 2 Resource usage in manufacturing process

Target/year	2020
Total comprehensive energy consumption (tons of standard coal)	74801.28
Total combined energy consumption (MWH)	607911.4
Energy consumption per unit (KWH/unit)	2.81
Packaging consumption per unit (kg/unit)	1.83
Target/year	2021
Total combined energy consumption (MWH)	1178667
Comprehensive energy consumption of ten thousand yuan of output value (KWH/ten thousand yuan)	53.58
Consumption of packaging (ton/ten thousand yuan)	0.03

In terms of social contribution, compared with that in 2010, more information related to safeguarding employees' rights and interests has been added in terms of employees' social contribution. However, the composition of employees' education level and the problems of employee welfare and human rights protection are not explained in detail, and most of them are described in words, which is not conducive to intuitive comparison. In addition, there is no clear explanation on the amount of R&D investment and the number of R&D personnel.

4.4 Suggestions on Improving ESG Information Disclosure

4.4.1 Accelerate System Construction and Improve Disclosure Standards

At present, the system of needle ESG information disclosure is not perfect, so we need regulatory departments to provide policy guidance and introduce detailed disclosure rules. To encourage non-listed companies to voluntarily disclose ESG information, the regulatory authorities need to issue relevant laws and regulations, include major ESG violations into the early warning and delisting mechanism of listed companies, and build institutional safeguards to ensure the effective implementation of ESG information disclosure of listed companies.

4.4.2 Quantify Disclosure Requirements and Emphasize Information Effectiveness

Unlike financial information, ESG information is difficult to be disclosed through unified financial indicators. The disclosure of written narration is easy to cause problems such as unclear disclosure scope and invalid information, which increases the difficulty for investors in collecting information. Improving the disclosure requirements of quantitative information is helpful to guide the standardization of ESG information disclosure of enterprises, reduce the asymmetry of information, provide effective information for investors, and improve the ESG management of enterprises.

4.4.3 Highlight the Role of the Board of Directors and Incorporate ESG into Corporate Governance

The board of directors plays a leading and supervising role in the process of corporate governance, which can promote the smooth development within the company from the board level. For example, relevant training should be organized regularly for senior managers of listed companies to gradually solve the problem of insufficient understanding and attention to ESG information disclosure. At the same time, local governments can introduce incentive measures to subsidize local listed companies to hire third-party institutions to provide consulting services such as ESG management improvement and “carbon neutral” practice path, so as to enhance listed companies' ability to disclose ESG information and practice ESG development concepts.

5. Conclusion

With the “double carbon” goal officially proposed in 2020 and the opening of the national carbon market in 2021, the international attention to ESGs and the increasing demands from investors can be predicted that the implementation of the information disclosure system of ESGs in China will be more strict and the scope of disclosure subjects will be broader in the future. This paper takes Haier

Zhijia in home appliance manufacturing industry as an example, analyzes the current situation and problems existing in its ESG disclosure, and finally gives some suggestions, hoping to provide certain references for Chinese manufacturing enterprises to explore in the field of ESG.

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