

Research on Response Behavior and Effect of ESG Concept in Liquor Enterprises

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Abstract: At a time of rapid economic growth, environmental, social and governance issues are particularly prominent. As ESG's philosophy focuses more on environmental, social and governance issues and is more in line with the requirements of sustainable development, it is recognized by the vast number of participants in economic activities. However, due to the limited research results in ESG field in China and the foreign ESG practice experience, it is not suitable for Chinese enterprises. Although the listed companies in our country have the willingness to respond to ESG concept, they are still in the initial stage in responding to ESG concept due to lack of experience and reference. Guizhou Maotai is a leading enterprise in the liquor industry, but it generally has low scores in various ESG systems and is the enterprise with the lowest MSCI ESG rating among the world's 20 largest market capitalization. Studying the response effect of Guizhou Maotai's ESG concept, we can find out the advantages and disadvantages of the enterprise in the process of responding to the ESG concept, which can provide reference for other enterprises in the liquor industry to respond to the development of ESG concept, and is representative.

Keywords: ESG philosophy, Environmental performance, Social responsibility, Corporate governance, sustainable development.

1. Introduction

China's "14th Five-Year Plan" and "Outline of Vision 2035" call for unswerving implementation of the new development concept of innovation, coordination, green, openness and sharing. Under the severe international and domestic situation, the traditional investment concept of measuring enterprises by financial indicators such as revenue and profit has long been outdated. The concepts of green economy transformation, carbon neutrality, peak carbon dioxide emissions and corporate social responsibility have gradually become the global development consensus. At present, consumers have attached more and more importance to the corporate philosophy behind the products, such as green environmental protection, social responsibility, humanistic care and cultural heritage. In order to continue to win market recognition and grow in the future, ESG investment philosophy focusing on sustainable development has become the only way for the development of enterprises in China.

At present, the ESG information disclosure framework in our country is not perfect enough, and there is no mandatory and normative document for ESG information disclosure in common use in the industry. Only HKEx has ESG information disclosure requirements for companies listed in Hong Kong. Listed companies listed on other exchanges follow the voluntary disclosure principle, and ESG information disclosed by different industries and companies is different, and the authenticity of the disclosed information cannot be guaranteed. Although many listed companies in our country have the will to respond to ESG concepts and disclose ESG information, they are still in the initial stage in responding to ESG concepts due to the lack of norms and references.

China's liquor industry is continuously advancing to the stage of high-quality development. The effect of industry concentration is obvious, and the output value continues to rise. However, as the liquor industry is more susceptible to negative social impact, it has "original sin" under ESG

evaluation standard. On the supply side of raw materials, products are extremely vulnerable to price adjustments and international trade policies. Factors such as soaring energy prices and uncertain climate change will also bring challenges to them. In terms of operation, liquor also faces many difficulties in ESG. For example, the production and recycling of packaging materials have great impact on the environment. How to speed up the lightweight and recycling of packaging materials is an urgent problem for liquor industry. In addition, in its own operation, liquor-making enterprises have the industrial characteristics of high water consumption, high energy consumption and high emissions in the production and brewing process. The national "two-carbon" target requires production enterprises to save energy and improve efficiency, reduce carbon emissions and reduce emissions, which has a greater test on the operating level of liquor-making enterprises. In the lower reaches of the industrial chain, social issues such as product responsible marketing model, digital transformation, advocating healthy life and rational consumption require enterprises to balance economic benefits with social responsibilities.

Therefore, liquor-making enterprises need to put ESG issues at the core of their strategies and operations, and adhere to the challenging commitments, get out of the shackles and create new competitive advantages. As of 2022, a total of 14 liquor listed companies issued ESG/CSR reports, an increase of 3 as compared with 2021. Guizhou Maotai is an enterprise with high ESG rating among the existing liquor enterprises, which is representative of ESG rating in liquor industry. Guizhou Maotai has actively responded to the ESG concept and constructed its own ESG strategic system. This paper aims to analyze the response behavior and response effect of Guizhou Maotai to ESG concept, find out its advantages and disadvantages in the response process, and then provide a reference for the same industry to respond to ESG concept.

2. Development of ESG in Guizhou Maotai

2.1. Introduction

Sichuan Guizhou Moutai Co., Ltd. is a member of the "Wine, Beverage and Refined Tea" manufacturing industry. The Company's main business is the production and sales of Maotai Liquor and series of liquors. The leading product "Guizhou Maotai Liquor" is one of the world's three most famous distilled liquors, and is also a liquor brand integrating national geographical indication products, organic food and national intangible cultural heritage. The business model of the Company is: purchase of raw materials-production of products-sale of products; The production process of the product comprises the following steps: koji making, wine making, storage, blending and packaging; The sales model is: the company's products are sold through direct selling and wholesale agency channels. In 2021, the Company achieved a total operating income of RMB109,464 million, up 11.71% year-on-year; Total profit was RMB74,528 million, up 12.59% year-on-year; Net profit attributable to owners of the parent company was RMB52.460 billion, up 12.34% year-on-year.

2.2. The development of ESG concept in Guizhou Maotai

Since the release of the first social responsibility report in 2009, Maotai Group has released social responsibility reports for 13 consecutive years. It is the only enterprise in the liquor industry that continuously releases social responsibility without interruption, and has a profound representation in the ESG field of the liquor industry. As can be seen from the social responsibility report released by the Company, the development of Maotai's ESG concept has experienced two stages. The first stage is 2009-2020, which is the initial stage of ESG concept. In 2006, ESG concept appeared for the first time in our country, but the simple understanding of this concept by most enterprises is to assume social responsibility. Therefore, at the present stage, Guizhou Maotai tends to disclose social responsibility reports. The second stage is from 2021 till now. This stage is the development stage of ESG concept in Maotai. With the rapid development of ESG concept in our country, Guizhou Maotai first disclosed ESG bilingual report in 2021, stating from four major aspects: social responsibility issue, corporate governance issue, environmental protection issue and economic responsibility issue. Different from the initial description of merely

assuming social responsibility, Guizhou Maotai's understanding of ESG concept has formed a relatively mature social-environmental-corporate governance system.

3. Analysis on the Response Effect of Guizhou Maotai ESG

The report of Guizhou Maotai ESG in 2021 shows that its corresponding behavior to ESG concept is mainly reflected in four major issues, namely: operating in compliance with laws and regulations in corporate governance and establishing an efficient governance system; In terms of environmental protection, energy conservation and consumption reduction, strengthening the pollution control of water resources and wastes, and paying attention to carbon emissions and ecological protection; In the aspect of social responsibility, it is manifested as safeguarding the rights and interests of stakeholders such as investors and employees, and boosting the rural revitalization; In the aspect of economic responsibility, the performance is to ensure product quality and safety, strengthen scientific and technological innovation and digital transformation to promote the development of the industry.

3.1. Environmental performance

In terms of environmental performance, Maotai Liquor reduces energy consumption such as water resources, increases the intensity of wastewater treatment, and effectively reduces the discharge of pollutants such as wastewater, waste gas and solid waste. In 2021, more than 3,000 tons of scrap paper slag and 142 tons of waste plastic were recovered from third parties throughout the year, reducing the water consumption by about 5 million cubic meters. In 2021, the total amount of wastewater treated was 2,681,000 tons, and the water reuse amount was about 334,000 tons. In the whole year, COD emission was 58.84 tons, emission reduction was 6,951.67 tons, ammonia nitrogen emission was 1.65 tons, emission reduction was 112.83 tons. The completion rate of self-monitoring of total pollutant emission reduction is 100%, and the announcement rate is 100%. In addition, in 2021, a total of about 37.32 tons of hazardous waste were disposed of, of which 3.61 tons of waste engine oil, 11.76 tons of hazardous chemical waste and experimental waste liquid, 9.43 tons of waste lead-acid batteries and 12.52 tons of other hazardous waste were disposed. The harmless treatment rate reaches 100%, and no environmental pollution or damage event occurs.

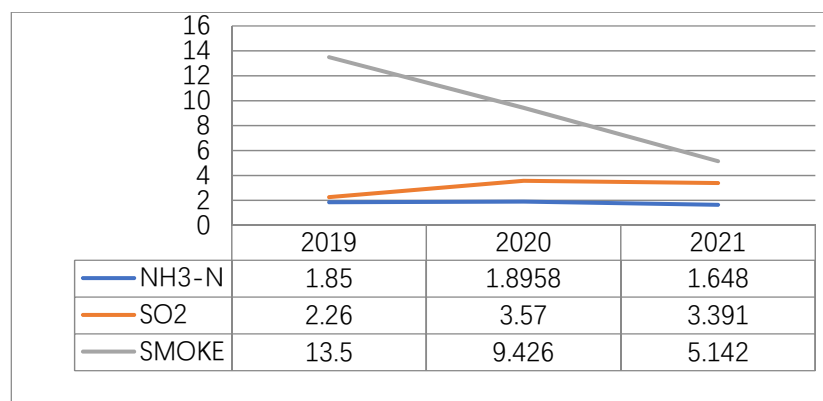


Figure 1. Emission of ammonia nitrogen, sulfur dioxide and smoke (dust) from Maotai in the past three years

Judging from the emission of characteristic pollutants such as ammonia nitrogen, sulfur dioxide and tobacco dust in the

past three years, the emission reduction characteristics of Maotai liquor are obvious. The emission of smoke (powder) dust pollutants has shown a steep drop trend in the past three years. Compared with 2019, the emission reduction in 2021 was close to 50%, and the total emission of SO₂ and NH₃-N increased slowly in the past three years, showing a generally steady trend. It can be seen that the improvement of the

energy use efficiency of Maotai Liquor has brought about significant emission reduction effect of pollutants. Maotai Liquor has made great contribution to reducing the burden on the environment and improving the air quality.

3.2. The performance of social responsibility

3.2.1. Profit distribution

Table 1. Profit Distribution of Maotai in Recent Three Years

Cash dividend payment date	Dividend distribution plan (tax included)	Total cash dividends paid (RMB100 million)	Total share capital (ten thousand shares)
2019-6-28	\$145.39 per 10 shares	182.64	125619.78
2020-6-24	\$170.25 per 10 shares	213.87	125619.78
2021-6-25	\$192.93 per 10 shares	242.36	125619.78

Guizhou Maotai achieved a net profit of 52.460 billion yuan and a dividend of 24.236 billion yuan attributable to the owners of the parent company in 2021, and nearly 50% of the value created was distributed to shareholders. This shows the

importance Maotai attaches to investors.

3.2.2. Staff Structure Ratio

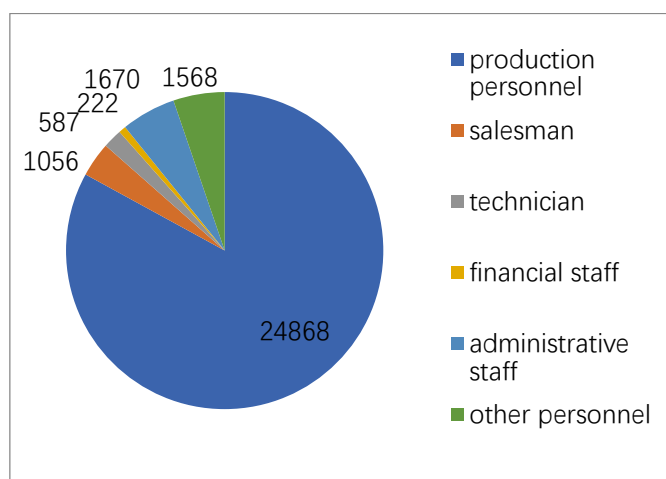
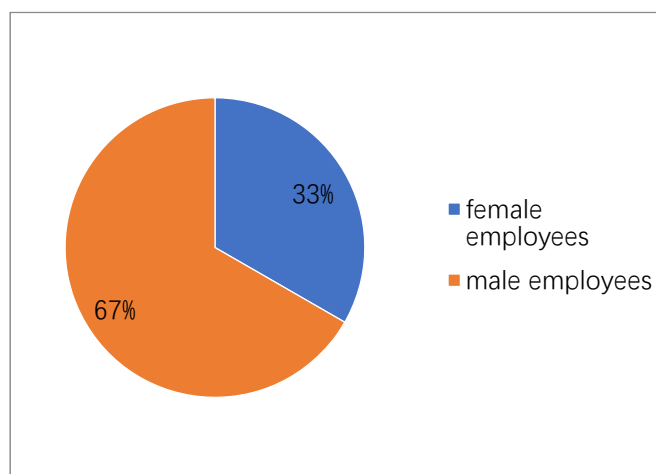


Figure 2. Gender Proportion of Maotai 2021 Staff Figure 1-5 Structure of Maotai 2021 Staff

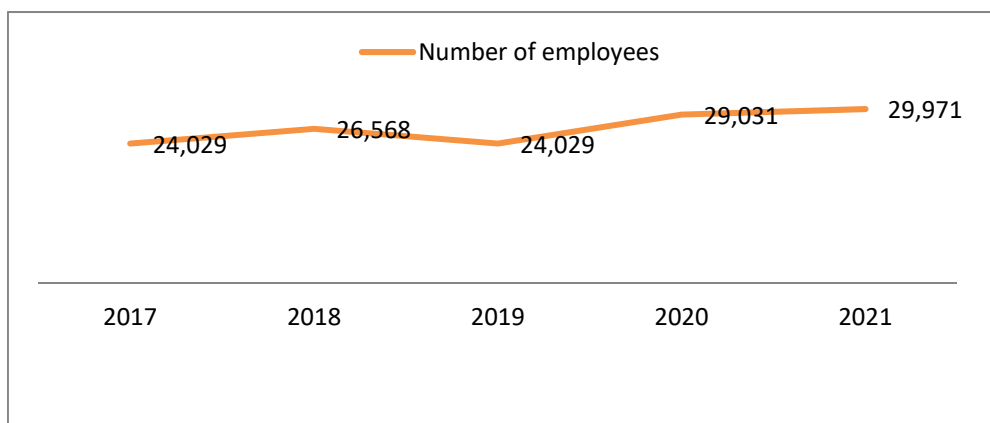


Figure 3. Ratio of Total Staff of Maotai in Recent 5 Years

With the expansion of the company, the number of employees of Guizhou Maotai increased year by year, up 24% as compared with 2017. In addition, the employment structure of the enterprise remained basically unchanged. From the gender proportion of employees in 2021, the gender proportion was 67% and 33%, respectively, which is in line with the industry characteristics. In addition, regarding the

staff structure, the proportion of production staff is 83%, with the lowest proportion being technical staff. This shows that there is no gender discrimination in the employment of Guizhou Maotai and the employment structure is stable.

3.2.3. Production safety performance

Table 2. Production Safety Performance Indicators of Maotai in Recent 4 Years

index	2018	2019	2020	2021
More than a large fire accident (up)	0	0	0	0
More than large production safety accidents (cases)	0	0	0	0
Work-related mortality rate (per thousand)	0	0	0	0
Serious injury rate due to work (%)	0	0	0	0

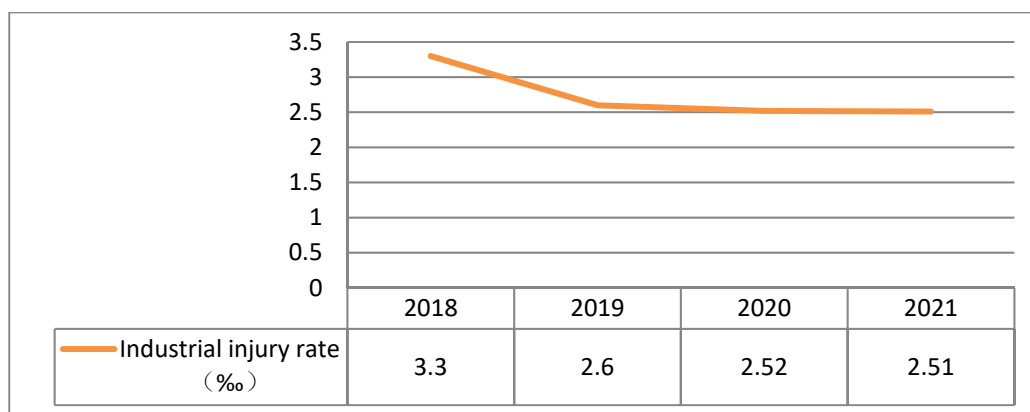


Figure 4. Work Injury Rate of Maotai in Recent 4 Years

Guizhou Moutai's work-related injuries were mainly concentrated in the production of products. From 2018 to 2021, the work-related injury rate of Guizhou Moutai decreased year by year. The landmark indicators of more than a large number of work-related safety accidents (accidents) and work-related mortality rate (per thousand) were all zero,

indicating that Maotai Liquor had the courage to assume staff responsibilities and actively adopted safety training and other measures to effectively control the work-related injuries.

3.2.4. Supplier management

Table 3. Management of Guizhou Maotai Suppliers in 2021

index	2021
Number of cooperating suppliers (units)	502
Number of suppliers reviewed during the Reporting Period (s)	502
Number of Vendors Punished (s)	seven
Number of supplier trainings (times)	70

Maotai Liquor strictly complies with the requirements of the Measures for the Administration of Suppliers, and promotes the work of supplier access, hierarchical management, assessment and evaluation, etc. In 2021, Guizhou Moutai reviewed 502 cooperative suppliers, with a review rate of 100%. It trained suppliers 70 times a year and punished suppliers 7 times. It shows that Maotai liquor is beneficial to ensure the supply capacity and quality of suppliers, strengthen the supervision of suppliers, supervise and urge the rectification, and prevent the risk of product quality.

3.3. Corporate governance performance

In 2021, Maotai held two shareholders' meetings and passed 15 resolutions, all of which were conscientiously

implemented. The Board of Directors held a total of 13 meetings. At present, the Board of Directors of the Company consists of 6 directors, of which 3 are independent directors and 1 is staff director. The Board of Directors of the Company consists of five special committees, namely, strategy, audit, risk management, nomination, remuneration and assessment, among which the Audit Committee held 4 meetings, the Nomination Committee held 1 meeting, the Strategy Committee held 1 meeting and the Risk Management Committee held 1 meeting. Each committee has a clear division of labor, clear powers and responsibilities and operates effectively. In addition, all six Board members attended the meeting in person in accordance with the relevant regulations, without undue absence. The specific performance of duties is shown in the following table:

Table 4. Duty Performance of Maotai Board

Names of Directors	Are they independent directors	Participation in the Board of Directors				Attendance at general meetings
		Number of Board Members Required for the Year	Attendance in person	Number of communications participants	Number of delegates	Attendance at general meetings
Ding Xiongjun	no	six	six	five	0	0
Li jingren	no	13	13	11	0	20
Lu Jinhai	be	13	12	12	one	one
Xu dingbo	be	13	13	12	0	one
Zhang jingzhong	be	13	13	11	0	2
Fu Zhigang	no	13	13	11	0	2

3.4. Performance of economic responsibilities

3.4.1. Improve product quality

Table 5. Main Performance Indicators of Maotai Industry Chain in 2021

Entrance gate	The bad use rates of sorghum and wheat were all 0
Process control	The qualified rate of the products in the packaging process after one-time sampling inspection reaches 99.999%
Product pass	The batch inspection coverage rate, the qualified rate of the packaged finished products after random inspection and the qualified rate of the products leaving the factory are all kept at 100%
Service level	100% customer complaint resolution rate; The customer satisfaction of Maotai-flavor Liquor Company was 89 points, 2 points higher than that of the previous year, and the customer complaint resolution rate was 100%.

Guizhou Maotai has built its own product quality system from the raw material side-production-after-sales service side, and has promoted the whole-chain quality control work from the aspects of purchase quality, process quality, product quality and service quality, continuously improving the quality control system, and ensuring consistent excellent product quality and service quality. In 2021, the company's production of wine and koji was generally stable and the process was controllable. The production of soy sauce flavor and the proportion of teams that finished soy sauce flavor achieved a "double improvement".

3.4.2. Transformation of scientific and technological achievements

In 2021, the investment in research and development of Maotai liquor was 190 million yuan, up 43.94% year-on-year, 57 patents were applied and 8 patents were granted; Obtaining 4 international leading scientific and technological achievements appraisal and 1 international advanced scientific and technological achievements appraisal; Published papers included 5 in SCI and 1 in EI. Guizhou Maotai has continuously increased its investment in scientific and technological innovation, improved its management mechanism, optimized its platform construction, strengthened the introduction, training and use of talents, promoted the transformation and application of achievements, and injected a strong impetus to high-quality development.

4. Summary and Suggestions

4.1. Summary and problems

Maotai's ESG Report, which was first released in 2021, shows us how Guizhou Maotai is implementing the corporate vision of "Building an International First-class Enterprise and Shaping a World First-class Brand". It also further recognizes Guizhou Maotai's reverence for the natural environment and business order, its respect for the expectations of stakeholders, and its efforts to create more opportunities and more sustainable growth space for future development. At the same time, it also exposes its fatal ESG problem, which lacks focus on important issues, is relatively simple to disclose, the focus of the problem is not strong, and the overall quality is not high.

From the perspective of use, the ESG report of Maotai Enterprise is mainly disclosed to stakeholders: shareholders, consumers, employees, distributors, suppliers, etc. The core demands of shareholders are return on investment, the core demands of consumers are product quality, the core demands of employees are career development, the core demands of distributors are policy support, the core demands of suppliers are compliance and trustworthiness, and the core demands of environment are environmental protection. Maotai's ESG report identifies a total of 24 substantive issues in four major

areas around the demands of stakeholders. The corporate governance section contains 5 issues, the economic responsibility section also contains 5 issues, the environmental responsibility section contains 7 issues, and the social responsibility section contains 7 issues.

On the whole, the 24 topics cover all aspects of ESG indicators and give a substantial amount of space to each topic. The corporate governance section emphasizes the optimization of the governance structure and the improvement of the remuneration system, highlighting the construction of the internal control system. The topic of "Operation according to law" emphasizes the handling of legal disputes, legal review of corporate regulations, economic contracts and major decisions, and the crackdown on rights-safeguarding activities such as the production and sale of fake goods. Business ethics issues emphasize the anti-bribery and anti-corruption efforts. The part of economic responsibility includes improving the quality of Maotai, promoting the whole-chain quality control, increasing investment in scientific and technological innovation, promoting the construction of "Smart Maotai" and participating in the construction of industry standards. The environmental responsibility part includes environmental control, water resources management, energy conservation and consumption reduction, carbon emission management, pollution control, "green supply chain" building, Chishui River ecological protection, etc. The social responsibility section contains the content of investors' rights and interests and social contributions that investors in the secondary market are most concerned about, as well as the content of mutual benefit and win-win of partners, staff growth and customer responsibility.

On the whole, the Guizhou Maotai ESG Report enables us to further realize the awe of the natural environment and commercial order of Guizhou Maotai and the efforts and efforts to create more opportunities and more sustainable growth space for future development. However, the following problems also exist:

(1) Each issue is of equal concern and has no focus

Compared with the global wine companies such as Diageo, the ESG Report of Guizhou Maotai has a fairly regular agenda and has allocated equally important attention to each agenda. As a matter of fact, wine-making enterprises are large users of water, with high energy consumption, large grain demand, large wastewater discharge and high pollution load. However, in the environmental protection section with high importance, the Guizhou Maotai Report only gives descriptive measures, without quantitative water-saving indicators. In this regard, the disclosure of Guizhou Maotai is relatively simple, with no importance issue matrix and no focus.

(2) The data lack credibility and some data are distorted

For the data disclosed by Maotai, such as "annual water consumption reduction of about 5 million cubic meters", "annual COD emission reduction of 6,951.67 tons" and "ammonia nitrogen emission reduction of 112.83 tons", the benchmark and calculation method are not given, which lacks credibility. Even the ESG report on sulfur dioxide emission concentration is inconsistent with the information disclosed in the annual report. The data disclosed by Maotai ESG are lack of assurance and certificates issued by third parties.

(3) The disclosure of negative information is less and the disclosure content is not fixed

Guizhou Maotai has been responding to ESG concept for more than ten years. It has disclosed a lot of ESG related information, but the company has not disclosed enough negative information. For example, in terms of social responsibility information disclosure, the company only provides the work injury rate, but does not explain the reason too much. In addition, in terms of staff structure, gender composition will be disclosed in 2021, not in 2020, and staff age structure will be disclosed in 2020 and not in 2021. It is reasonable to suspect that Maotai only discloses indicators with better performance.

(4) Insufficient quantitative disclosure and lack of comparability of data

Guizhou Maotai has disclosed many qualitative descriptions in response to ESG concept. For example, in corporate governance, it only describes the need to fight against commercial bribery and moral corruption, and does not mention specific measures and achievements in this regard. In the social responsibility, it is mentioned to improve various insurance benefits such as staff rights and interests, medical expenses and maternity allowance, and to improve staff's medical security level and anti-risk ability. How to improve, how to prove the improvement, lack of comparable description.

4.2. Recommendations

(1) The enterprise level should increase the disclosure of imperfections

At present, China's A-share market does not have a corresponding policy basis, mandatory disclosure is not required, and a unified paradigm has not been formed. All enterprises disclose ESG information on a voluntary basis, so more enterprises prefer to avoid the heavy and focus on disclosing the parts with good performance. The real

deficiencies are not disclosed, and ESG reports are more biased towards face engineering. However, only when enterprises are brave enough to accept the supervision and criticism from all walks of life, can they achieve better sustainable development and continuously improve the overall strength of the entire enterprise. On the contrary, if we blindly hide and evade its shortcomings, we will not only be unable to explain the problem, but may also create a bigger hidden danger.

(2) At the regulatory level, a unified ESG paradigm should be formulated as soon as possible

China's A-share market regulators should standardize ESG information management and formulate ESG information disclosure standards as soon as possible. The ESG concept is in line with the current economic and social development trend. At present, although most enterprises in our country actively disclose the ESG report. However, due to the lack of uniform standards, it is difficult to compare with the information in the same industry and the disclosure content is inconsistent, which greatly discounts the ESG information disclosed by enterprises. A perfect ESG information disclosure and management system can solve this problem.

(3) The market should actively respond to ESG

In order to respond positively to ESG's philosophy, the Company must pay a capital cost. Only when the capital market responds positively to ESG-performing enterprises and enterprises see that the revenue is proportional to the cost, will more enterprises have the motivation to pay for improving their ESG performance. A perfect capital market can promote healthy competition among enterprises and promote the long-term development of enterprises, environment and society.

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