

# Analysis on the Path for Enterprises to Improve ESG under the Background of Digital Economy

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## Abstract

**As an important development strategy in China, digital economy has new kinetic energy to accelerate economic operation. Using digital economy to promote the development of ESG of Chinese enterprises has great potential. Facing many problems in the current development of enterprise ESG, such as high disclosure cost, lack of independent disclosure awareness and ability, imperfect mechanism and relevant policies, imperfect localization evaluation system and so on. We can improve the overall ESG disclosure level of enterprises by using digital technology to strengthen publicity, establish a systematic disclosure system and improve the disclosure system.**

## Keywords

**ESG Rating; Digital Economy; Sustainable Development.**

## 1. Introduction

With the advent of the era of digital economy, China is promoting the construction of digital infrastructure focusing on "big data" and "artificial intelligence", building smart cities and digital villages, and strengthening the layout of Building Digital China. Promote the transformation of consumption mode, industrial upgrading and improve people's livelihood through intelligent development.

In this context, enterprises are facing the double test of economic reform at home and abroad. On the one hand, the rapid development of domestic Internet platforms helps enterprises realize supply side structural reform and speed up the iterative renewal of the industry. On the other hand, the facilitation and liberalization of overseas trade have expanded the business scope of enterprises to various fields at home and abroad. Facing the high standards and requirements of international trade, Chinese enterprises also need to consider how to break trade barriers and reduce business conflicts. In the process of moving towards international standards, ESG, as an enterprise performance evaluation standard advocated by various countries, is gradually becoming an important evaluation index for the sustainable development of Chinese enterprises.

ESG is the abbreviation of environment, society and governance. It is a value concept, investment strategy and evaluation tool that pays attention to the performance of environment, society and corporate governance rather than just financial performance. It is an important index used to evaluate the financial value of enterprise sustainable development [1]. ESG involves energy, waste, management governance, social development and other aspects. Among them, e (environmental) represents the positive role of enterprises in environmental protection and climate improvement. S (SOCIAL) stands for safeguarding corporate social responsibility and paying attention to the rights of corporate stakeholders, including salary, human rights equality, anti discrimination, diversification and so on. G (Governance) represents the company to integrate sustainable development into management activities in the process of governance.

ESG developed earlier abroad. The EU systematically listed the three elements of ESG into laws and regulations for the first time in the non-financial reporting directive issued in October 2014. In 2021, the European Commission adopted measures such as the climate authorization act of EU classification and the directive on enterprise sustainable development report. The new EU regulations are developing towards three aspects: unification of standards, increasing the intensity and scope of information phi and leading internationalization [2]. After the United States issued the interpretation announcement ib2015-01 in 2015, ESG policies and regulations were formulated more quickly. In April 2021, the United States passed the ESG information disclosure Simplification Act, which will require listed companies to disclose environmental, social and governance related matters in their annual documents [3].

Compared with foreign countries, China's ESG started late and developed slowly. In June 2018, China Securities Regulatory Commission issued the revised version of the guidelines for the governance of listed companies, which explicitly required listed companies to disclose information on environment, society and corporate governance for the first time. In addition, domestic ESG development mainly focuses on environmental protection and resource conservation under the "double carbon" goal. At the 75th UN General Assembly in 2020, China promised the world to fulfill the goal of "striving to achieve carbon peak by 2030 and carbon neutrality by 2060". Later, in the 2022 government work report, it mentioned "orderly promote carbon peak and carbon neutralization", "resolutely curb the blind development of high energy consumption, high emission and low-level projects", put forward transformation requirements for many industries, further release the national environmental resources reform information, attract clean and environmental protection energy investment, and expand the development scale of domestic ESG.

## 2. Basic Connotation of ESG Concept

The concept of ESG can be traced back to the world outline for Nature Conservation in the 1980s, in which the concept of sustainable development has gradually derived the concept of ESG. In 2005, ESG was first proposed in the study of who care wins. In 2006, unpri took environment, society and corporate governance as important indicators to evaluate the level of sustainable development and established the principle of social responsible investment. Although ESG was proposed earlier, it has not received much attention for a long time. In recent years, with the world's increasing attention to environmental protection, countries have also taken various measures to reduce carbon emissions and save resource consumption. In this context, ESG has also attracted the attention of more enterprises.

On how ESG affects the development of enterprise value in China, due to the inconsistency of current evaluation standards, systematic theoretical results have not been formed. Most of the current views are empirical analysis based on the data of listed companies. Zhou fangzhao, pan WANYING and Fu Hui believe that under other equal conditions, companies with good ESG performance have strong anti risk ability, so investors have obvious preference for them, showing a positive relationship between corporate responsibility and investor preference [4]; Yu Xiaohong and Wu Wenjing believe that although the short-term performance of social responsibility will affect the enterprise value and produce a negative relationship, the long-term impact is still a more obvious positive relationship [5]; Zhang Lin and Zhao Haitao believe that the different caliber of measuring ESG, the source of samples and whether comprehensive evaluation will affect the relationship between enterprise ESG performance and enterprise value. However, for enterprises with small scale and good environment, a good ESG can have a greater positive impact on enterprises [6]. It can be seen that there is indeed a conflict between ESG performance and profitability in the short term, but the long-term data results still prove

that enterprises can obtain higher enterprise value through ESG performance and bring development opportunities in all aspects.

In addition to simple quantitative standards, it is also necessary to pay attention to the changes in the market environment, which may force enterprises to incorporate ESG into enterprise comprehensive management, so as to help enterprises adapt to policy requirements and attract investors, so as to achieve the goal of long-term development. Zhang haoxu, Ruan min and Guo Pei believe that independent institutional investors and long-term stable institutional investors pay more attention to factors such as value and responsibility when investing, and pay great attention to the long-term sustainable development ability of enterprises [7]. Li Jinglin, Yang Zhen, Chen Jin and Cui Wenqing believe that enterprise ESG performance and its three dimensions can significantly improve enterprise performance and innovation level. In addition, the ESG performance of enterprises in highly environmentally sensitive industries and its three dimensions have a more obvious impact on enterprise performance [8]. Finally, it will also have an impact on overseas trade. Guo Zihao, Cai Yinhui and Zhou Qi believe that ESG will have a certain impact on the country's import and export trade, and good ESG performance can enhance the country's foreign image [9].

Therefore, according to the current research results, better ESG performance will indeed promote the improvement of enterprise value, especially in some enterprises with strong environmental sensitivity, better corporate responsibility will bring greater development space for enterprises. Presenting better ESG information disclosure results can prove the potential strength of the enterprise, improve the reputation of the enterprise, increase the attraction to investors and help the enterprise expand its scale.

### 3. Development Status of Enterprise ESG

From the perspective of asset scale, the global ESG asset scale is gradually growing. According to the data of the global sustainable investment alliance, the asset scale of ESG in 2020 exceeded US \$35 trillion, accounting for one third of the total asset management scale in the world. It is expected to exceed US \$41 trillion and US \$50 trillion by 2022 and 2025. According to the statistics of GSIA (global sustainable investment alliance), in 2020, the ESG products of the United States and the European Union were US \$12017 billion and US \$17081 billion respectively, accounting for 48% and 34% of the total local assets under management. It can be seen that ESG has a large scale of assets, and most of its contribution comes from European and American markets. Considering China's carbon peak target of 2030 and the introduction of various policies to guide enterprises to take low-carbon actions, China's ESG scale will also enter a stage of rapid development.

In terms of the number of ESG rating agencies, the number of ESG rating agencies worldwide is large, but there are few domestic agencies. At present, the number of ESG rating agencies in the world has exceeded 600 (only about 20 in China). Among them, famous foreign rating agencies include KLD research and analysis company (KLD), Morgan Stanley Capital International (MSCI), sustainalytics, Thomson Reuters, FTSE Russell, S & P Dow Jones and vigeo eiris, and about 20 domestic rating agencies include Shanghai Huazheng index information service Co., Ltd., business Dao ronglv and Harvest Fund [10]. Obviously, compared with the development of ESG rating abroad, there are fewer ESG rating agencies in China, and the rating system still needs to be improved. Moreover, the domestic ESG rating method is still in its infancy, and the evaluation standards are not clear.

From the disclosure of ESG report, there are few companies that have been disclosed in China, and the companies in the environmental protection industry account for a large proportion. According to the ESG questionnaire survey report of A-share companies on March 11, 2022, by the end of 2021, 1147 A-share listed companies had disclosed ESG related reports. In fact, most

enterprises worry that ESG performance will have an adverse impact on enterprise development, especially for small and medium-sized enterprises, ESG development will restrict profitability and income generation to a certain extent. In addition, even a good ESG performance may not bring obvious goodwill to the enterprise, but once the performance is poor, it is likely to face the risk of punishment. Therefore, at present, most of those who choose to disclose the report are concentrated in listed A-share companies and some enterprises with strong energy connection.

According to various data, the development scale of ESG is gradually expanding, and various industries at home and abroad are actively promoting relevant development and comprehensively improving the ESG process. However, it should be noted that despite the impact of international development and the guidance of domestic government policies, the development of ESG in China also shows an upward trend. However, facing the situation of late start and slow development, especially the concerns of some enterprises about the results of ESG disclosure, has also become one of the restrictive factors.

## **4. Enterprise ESG Development Dilemma**

### **4.1. It is Costly and Difficult for Enterprises to Disclose ESG Data**

According to the analysis of ESG related report data in recent years, the cost for enterprises to disclose ESG information is high. At the same time, with the ESG disclosure guidelines of various regions and some exchanges across the country and the insufficient ESG data of Chinese enterprises, it is difficult for enterprises to disclose ESG information.

In terms of ESG guidelines, the specific guidelines and standards increased year by year by regulators and some exchanges have increased the difficulty of ESG disclosure. For example, in 2021, as required by the ESG report guidelines of HKEx, the enterprise ESG information disclosure is helpful for investors' decision-making, and the management needs to emphasize the importance of ESG in daily management; According to the latest version of the report guidelines, except for the ESG report obtaining independent assurance as a recommendation, all other disclosure matters must meet the mandatory disclosure requirements of "interpretation without disclosure". Once the requirements of information collection are not met in the daily management of the enterprise, it is difficult to complete the quality and scale of information disclosure that the enterprise needs to achieve.

### **4.2. ESG Awareness is Generally Insufficient, Lacking Awareness of Independent Disclosure of ESG Information and Relevant Professional Ability**

At present, many listed companies in China lack awareness of ESG concept and lack awareness of independent disclosure of ESG information. The concept of ESG investment in China was introduced relatively late. At this stage, the concept of ESG has not been popularized among investors. Chinese listed companies, investment institutions and other market subjects generally lack awareness of the concept of ESG, do not have a deep understanding of ESG, and lack the ability to identify the environment and risks. Especially for some investors, they lack professional ability to evaluate and build, and ESG related products are less active in the Chinese market. In addition, at present, China's ESG investment information disclosure system mainly focuses on encouragement and guidance rather than compulsion. Many Chinese enterprises also lack the awareness of independent disclosure of ESG information.

At present, the concept of ESG is becoming an important criterion for judging the sustainable development ability of enterprises, and more and more people begin to pay attention to the performance of ESG. At this time, abandoning ESG practice may mean losing the qualification to compete for overseas orders and the favor of foreign investors. In short, although the ESG

disclosure of Listed Companies in China is increasing year by year, the overall proportion is still very low.

#### **4.3. ESG Disclosure Mechanism and Relevant Policies have not been Improved, and the Information Disclosure Environment is Poor**

At present, China still lacks relevant policies on ESG information disclosure mechanism, the development of enterprise ESG lacks clear guidance at the regulatory level, and the overall enterprise ESG information disclosure environment is poor.

On the one hand, due to the lack of ESG related laws and regulations system support, the listed companies have insufficient information disclosure. For example, some ESG information involving trade secrets is difficult to disclose due to the loss of orders or the attack of competitors after considering disclosure; Or some listed companies consider short-term interests and believe that they cannot obtain direct financial returns by disclosing ESG information.

On the other hand, listed companies and bond issuers in the capital market lack relevant information disclosure guidelines and unified, standardized and specific disclosure standards, resulting in weak comparability and quantification of ESG investment. Most of the disclosure subjects are only those with good performance of ESG, and the concealment policy is adopted for some problematic subsidiaries. Even if you choose to disclose, the content that can be disclosed is very limited. The integrity, accuracy and timeliness of ESG disclosure are not up to standard. The overall ESG information disclosure environment in the Chinese market is poor. For investment institutions, there are fewer dependent data that can judge enterprises, and the lack of information sources leads to data distortion or imperfection.

#### **4.4. The Localization ESG Evaluation System is not Yet Perfect**

The early ESG evaluation originated in European and American developed countries. Later, with the gradual maturity of ESG concept, its theory entered China's capital market and spread to all countries around the world. Up to now, there are nearly 100 global ESG evaluation institutions, among which the influential ESG evaluation institutions have built their own complete ESG evaluation system, resulting in uneven evaluation in all countries and no global unity. As China's localized ESG evaluation system is not yet perfect, and domestic rating system research institutions lack effective information disclosure and dissemination channels, listed companies mostly quote the ESG evaluation indicators of foreign ESG evaluation institutions. However, from the results released by rating agencies, the same company may choose different rating agencies in different periods, and the rating results may be different. On the one hand, the reason is that ESG concept not only considers the financial field, but also pays attention to external impact, and the evaluation standard of external impact is difficult to be unified. On the other hand, it is due to the choice of different rating methods; In addition, there will also be subjective judgment factors in the actual process of participating in the evaluation, so that the rating results may not be the same. The uneven evaluation system forms different evaluation processes and results, which is not conducive to investors' decision-making based on ESG rating results.

In addition, for China's listed companies, the evaluation criteria of ESG performance can not be compared with foreign countries, and the difference of development stage and industry situation will inevitably lead to the difference of results. Its information disclosure environment and basis are also different, and the ESG rating of domestic enterprises can only learn from some evaluation indicators in line with China's national conditions, and some foreign evaluation standards have poor adaptability in China. Therefore, the development of ESG needs to pay equal attention to internationalization and localization, learn from each other, and build

a localized, systematic, universal and inclusive China ESG evaluation index system based on the actual situation of Chinese enterprises and the development of national ecological policies.

## **5. The Realistic Path of Digital Economy to the Development of Enterprise ESG**

Under the traditional mode, enterprises generally help the society to establish the concept of ESG development by more standardizing enterprise ESG information disclosure and strengthening media publicity, so as to expand the impact of ESG on enterprises. Nowadays, with the rapid development of global digitization and informatization and the gradual maturity of digital technologies such as artificial intelligence, digital economy will provide a new way to promote the development of enterprise ESG.

### **5.1. Digital Economy Reduces ESG Development Cost**

With the support of digital technology, digital economy can effectively improve the production capacity of information and reduce the cost of ESG information acquisition and information dissemination. In addition, the great potential of digital technology can effectively strengthen the connection between technology and enterprises. For example, data synchronization systems such as multi-party data platforms based on blockchain can promote the information integration between enterprises and different departments such as regulators, exchanges, rating agencies and investors, and ensure the maximum openness and fairness of information, so as to reduce the information asymmetry between enterprise development ESG team and regulators and some exchanges, reduce the cost and difficulty of ESG information search, and enable enterprises to timely and accurately obtain and meet the requirements of ESG report preparation guidelines required by regulators and some exchanges in the current year.

### **5.2. Strengthen ESG Publicity on Digital Platform**

Through the platform system under the digital economy, strengthen media publicity, strengthen the ESG investment awareness of institutional investors, improve the identification and prevention ability of market subjects to ESG related environmental factors, and support and encourage listed enterprises and other enterprises with international competitive advantages to actively carry out ESG investment practice. Under the current "double carbon" background, it is also necessary to increase enterprise innovation and expand the product supply and investment scale of ESG investment.

### **5.3. Improving ESG Disclosure System in Digital Economy**

With the help of different ESG investment institutions, we can further improve the information system of ESG and regulatory institutions, and promote the institutionalization of ESG investment, decision-making and regulatory institutions, so as to further promote the integration of ESG and regulatory institutions, Promote the unified ESG information disclosure system of Listed Companies in China, and establish and improve the unified disclosure framework.

ESG information disclosure system mainly includes three aspects: disclosure requirements, disclosure contents and disclosure objects. In terms of disclosure requirements, it is necessary to consider whether to adopt mandatory or semi mandatory system according to the local market form, industry risk and responsible investment atmosphere to ensure the integrity and authority of ESG information disclosure; In terms of disclosure content, we should clarify the key information that must be disclosed and more detailed relevant disclosure indicators formulated by different industries; In terms of disclosure objects, we should pay attention to the ideas of expanding from large enterprises to small and medium-sized enterprises and from polluting industries to other industries, and implement the ESG information disclosure system.

Therefore, we can integrate the above three factors, use digital technology to gradually form an ESG information disclosure index database, integrate enterprise ESG disclosure information and guidelines, and then regulators can promote the indexation and quantification of enterprise ESG disclosure from top to bottom.

#### **5.4. Help Optimize the Localized ESG Rating System in the Era of Digital Economy**

The era of digital economy needs new ESG rating system indicators, so as to promote enterprises to make rational use of mathematical technology and help enterprises comprehensively improve ESG. Therefore, based on China's national conditions and the development of corporate social responsibility, and according to the new requirements put forward in the era of digital economy, that is, comprehensively considering the new impact of digital technology on enterprises in terms of environment, society and management, designing corresponding secondary and tertiary evaluation indicators, effectively quantifying the positive and negative effects of enterprises using digital technology to achieve sustainable development, so as to establish and optimize China's localized ESG rating system.

In addition, with local rating agencies as the main body, relying on research institutions such as scientific research institutes and other information and data monitoring service institutions, they jointly constitute the participants in China's ESG investment evaluation. Combined with the background of the digital economy era, they jointly organize to build a set of localized ESG index system and rating index, and build a localized ESG database to strengthen the third-party certification of ESG.

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