

HOW CORPORATE GOVERNANCE IN ESG CREATES SOCIAL VALUE

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Abstract: Since its inception, the concept of Environmental, Social, and Governance (ESG) has become a prominent topic of international discourse. In practice, however, there has been an overemphasis on environmental protection (E) and social responsibility (S) at the expense of corporate governance (G). Moreover, skepticism exists regarding the capacity of corporate governance to generate social value. This paper investigates the interrelationships among E, S, and G within the ESG framework, with a particular focus on the role of corporate governance and the mechanisms through which it creates social value. Our findings are twofold: (1) In accordance with Adam Smith's "invisible hand" theory, the societal benefits arising from a firm's pursuit of shareholder wealth maximization often exceed those generated by direct pursuits of social welfare maximization. Therefore, firms should prioritize the maximization of shareholder returns. The primary objective of corporate governance is to maximize shareholder value, encompassing key elements such as institutional frameworks, human capital, entrepreneurship, and risk management, which collectively form the bedrock for achieving this goal. As social interest and social value are considered equivalent, strong corporate governance that maximizes shareholder returns consequently generates greater social value. Furthermore, given that corporate governance within ESG should not be bifurcated into broad and narrow interpretations, it represents the most fundamental component of the ESG framework. Within ESG, social responsibility (S) encompasses environmental protection (E). (2) Corporate governance inherently creates social value. The transmission mechanism operates as follows: robust corporate governance maximizes shareholder returns, which in turn creates social value through channels such as innovation, taxation, and employment. Looking ahead, regulators, the public, and corporations should return to this foundational principle, concentrating on corporate governance and sustainable development.

Keywords: ESG; Corporate governance; Corporate social value; Adam Smith's theory

1 INTRODUCTION

ESG, an acronym for Environmental, Social, and Governance, originated from the field of socially responsible investing in capital markets and serves as a set of non-financial performance indicators. Since the United Nations Global Compact first introduced the ESG concept in 2004, its scope has progressively expanded, becoming a focal point of research for scholars and a key reference standard for corporations and investors worldwide. The "E" pillar measures a firm's performance in fulfilling its environmental responsibilities, typically focusing on issues such as carbon emissions, resource conservation, waste management, energy consumption, and biodiversity. The "S" pillar evaluates a firm's performance in meeting its social responsibilities, examining its commitments to stakeholders, including employees, consumers, supply chains, and communities. The "G" pillar assesses the performance of corporate governance, commonly covering areas such as the protection of shareholder rights, board independence and incentive structures, CEO competence and motivation, regulatory compliance, risk management, business ethics, and anti-corruption measures.

In line with China's adoption of a new development philosophy and its intensified focus on ecological conservation, the ESG concept has rapidly gained traction. In 2022, the State-owned Assets Supervision and Administration Commission (SASAC) of the State Council established a Social Responsibility Bureau to oversee the fulfillment of social responsibilities by central state-owned enterprises. In 2023, China issued the "Opinions on Comprehensively Promoting the Construction of a Beautiful China," which explicitly called for exploring the implementation of Environmental, Social, and Governance (ESG) evaluations. ESG has thus become a critical tool for measuring corporate social value. Corporate social value is defined as the aggregate level of externalities or influence generated by a firm's activities on its stakeholders and society at large—value that is not directly captured in financial statements [1]. In recent years, China has promoted ESG ratings and has begun to explore the monetary valuation of corporate social value to encourage firms to fulfill their social responsibilities.

Despite the rapid proliferation of the ESG concept, several challenges and points of confusion have emerged. For instance, there is a tendency to excessively focus on the environmental and social pillars of ESG while neglecting corporate governance. This phenomenon manifests in two ways. First, in the ESG rating systems applied to firms, the weighting assigned to corporate governance is often relatively low. Second, the scope of corporate governance within ESG is frequently bifurcated into broad and narrow definitions. The narrow definition, which is often prioritized, concentrates on compliance-related issues like business ethics, while overlooking crucial contract-related aspects of corporate governance. In addition to these issues, there is widespread skepticism about whether corporate governance itself generates social value. This has led to a focus on environmental protection and social responsibility in the pursuit

of corporate social value. It is therefore imperative to clarify the position of corporate governance within the ESG framework and to determine whether it creates social value, thereby enabling government regulators, the public, and corporations to adopt a more informed perspective on the ESG concept.

From these observations, we derive the following research questions: (1) How should the role of corporate governance in ESG be correctly understood? (2) Does corporate governance create social value, and if so, what is its transmission mechanism?

To address these questions, this paper draws upon the theories of Adam Smith to argue that corporate governance (G) is the most fundamental component of ESG, and that social responsibility (S) encompasses environmental protection (E). Corporate governance inherently creates social value through a mechanism whereby strong governance maximizes shareholder returns, which in turn generates social value through channels such as innovation, taxation, and employment. Consequently, government regulators, the public, and corporations should return to this foundational principle, placing a renewed emphasis on corporate governance and sustainable development.

This paper is structured as follows: Section 2 provides a literature review. Section 3 analyzes the relationships among E, S, and G and establishes the position of corporate governance within ESG. Section 4 discusses whether corporate governance creates social value and elucidates its transmission mechanism. Section 5 concludes the paper and offers policy recommendations for government, the public, and corporations on how to approach the ESG concept and corporate governance.

2 LITERATURE REVIEW

Since its introduction, the concept of ESG has not only become a major international topic but also a key research area for scholars globally. The theory of corporate governance predates ESG, originating from the principal-agent problem that arises from the separation of ownership and control. Over 200 years ago, Adam Smith articulated the principal-agent problem in *The Wealth of Nations*. The literature most relevant to this paper can be categorized as follows.

2.1 ESG

ESG practices primarily consist of ESG reporting, ESG ratings, and ESG investing. Academic research on ESG has concentrated on defining the metrics for ESG rating systems, identifying the factors that influence corporate ESG performance, and analyzing the economic consequences of such performance.

Regarding ESG evaluation systems, numerous rating agencies and frameworks have emerged both internationally and domestically. Widely used international systems include the MSCI ESG Ratings, the FTSE Russell ESG Ratings, and the S&P Dow Jones ESG Indices. Mainstream domestic systems in China include SynTao Green Finance ESG Ratings, CSI ESG Ratings, Wind ESG Ratings, Sino-Securities ESG Ratings, and Jiahua ESG Ratings. In addition to these capital market-oriented systems, the Chinese academic community has also developed ESG evaluation frameworks, such as the China Listed Company Quality/ESG Index System from Beijing Normal University, the ESG evaluation system from the International Institute of Green Finance at Central University of Finance and Economics, and the corporate ESG evaluation group standard from Capital University of Economics and Business.

Scholars have investigated the determinants of corporate ESG performance from both internal and external perspectives. Internal factors found to influence ESG performance include executive and board characteristics [2], merger and acquisition activities [3], firm performance [4], compensation policies [5], and digital transformation [6]. External factors include economic policies [7], legal and regulatory frameworks [8], public environmental concerns [9], investor attention [10], and the level of digital economy development [11].

Research on the impact of ESG performance has primarily focused on several areas. First is the effect on capital markets. Corporate ESG performance has been shown to influence stock prices, with scholars generally finding a positive correlation [12]. It has also been found to have a negative effect on bond yields [13]. Second is the link between ESG performance and corporate operations. Scholars have identified a positive relationship between ESG performance and firm financial performance [14], and strong ESG performance has been shown to enhance a firm's risk resilience [15]. Regarding firm value, the fulfillment of social responsibility and corporate governance in ESG are positively correlated with firm value, whereas the impact of environmental protection is not significant [16].

2.2 Corporate Governance

The theory of corporate governance originated in the 1870s with the expansion of Western corporations, which led to a separation of ownership and control and the emergence of the principal-agent problem. Modern corporate governance theory was established by Berle and Means in their 1932 book, *The Modern Corporation and Private Property* [17]. They focused on the contractual nature of corporate governance and the principal-agent problem, a work widely considered the landmark of corporate governance theory. The term "Corporate Governance" can also be translated as "corporate regulation". Research in corporate governance theory has primarily focused on its conceptual definition, theoretical evolution, core elements, and evaluation.

Regarding the concept of corporate governance, neoclassical economics views the firm as a nexus of contracts. Owners (shareholders) provide capital, and managers are entrusted by the owners to run the business. Corporate governance can thus be seen as a set of institutional arrangements between shareholders and managers concerning control rights and

residual claims, designed to maximize shareholder returns [18-19]. In 2019, the OECD defined corporate governance as the system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation, such as the board, managers, shareholders, and other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs. Denis and McConnell argue that corporate governance consists of internal and external mechanisms that induce self-interested managers to maximize shareholder value [20].

The evolution of corporate governance theory has progressed through three main stages. The first stage focused on resolving the conflict of interest between external shareholders and internal managers arising from dispersed ownership [21]. The second stage addressed the conflict of interest between large and small shareholders resulting from concentrated ownership [22-23]. The third stage introduced stakeholder theory, which posits that corporate managers should represent the interests not only of shareholders but also of other stakeholders, such as employees, customers, and suppliers [24-25].

The core elements of corporate governance include shareholder governance, board governance, executive governance, compliance management, and risk management. Shareholder governance focuses on ownership structure, large and controlling shareholders, protection of minority shareholder rights, institutional investors, and the allocation of control rights. Board governance examines board size and structure, board independence, board functions and conduct, independent directors, and director incentives and constraints. Executive governance deals with executive characteristics, incentives, capabilities, conduct, power, and turnover. Compliance and risk management involve internal controls, external audits, digital transformation, and risk identification.

In terms of evaluation, scholars have developed various systems to assess corporate governance performance. Nankai University was the first in China to publish a governance evaluation system for listed companies in 2003. Krueger, Sautner, and Starks and Berg et al. have recently provided comprehensive indices and empirical evidence on how institutional investors and rating agencies evaluate governance [11, 26], verifying the positive correlation between high-quality governance and firm value.

2.3 Corporate Social Value

A corporation is both an economic and a social organization. In the course of pursuing economic profit, a firm engages in social behaviors that create social value. Therefore, a firm's total value system should include both the economic value measurable by financial statements (Corporate Economic Value, CEV) and the social value that cannot be measured by them (Corporate Social Value, CSV) [27]. Research on corporate social value has primarily focused on its conceptual definition and measurement methods.

Scholars have defined corporate social value from both broad and narrow perspectives. The narrow view defines social value as the performance generated during the process of fulfilling social responsibilities [28]. The broad view defines it as all value created by a firm other than its economic value. Chinese scholars generally adopt the broad perspective. This paper integrates both views and defines corporate social value as the social performance created by a firm's activities, specifically the aggregate level of externalities or influence on stakeholders and society, which cannot be directly assessed through financial statements [18].

Regarding the measurement of corporate social value, entities like South Korea's SK Group have attempted to create monetized metrics by developing indicator systems. Recent studies by Serafeim and Berg et al. emphasize the use of impact-weighted accounts and divergence in ratings to better estimate these values [11, 27]. Other methods include cost-benefit analysis and economic impact analysis, but each approach faces challenges in accurately measuring social value, leading to a certain degree of error.

This review of the literature reveals a gap in research concerning the interrelationships among E, S, and G within the ESG framework, the position of corporate governance in ESG, and the mechanisms through which corporate governance creates social value. This paper aims to fill this gap, thereby supplementing ESG and corporate governance theories and helping society to correctly understand ESG.

3 THE RELATIONSHIP AMONG E, S, AND G, AND THE POSITION OF GOVERNANCE IN ESG

3.1 Corporate Governance as the Most Fundamental Component of ESG

3.1.1 Adam Smith's "invisible hand" theory: firms should focus on maximizing shareholder returns

In 1776, Adam Smith introduced the theory of the "invisible hand" in *The Wealth of Nations*. On the question of whether the pursuit of individual interest or the direct pursuit of social interest is more effective at promoting the good of society, Smith argued: "By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it. I have never known much good done by those who affected to trade for the public good." Contemporary interpretations by Hart and Zingales suggest that while shareholders may care about social welfare [29], the most effective mechanism for firms is often maximizing value within a governance framework that reflects shareholder preferences. In a market economy, the social benefits generated by an individual pursuing their own self-interest often exceed the social benefits generated by that same individual directly pursuing the public interest.

According to Adam Smith's theory and related neoclassical economic principles, the firm is considered an individual entity. Therefore, the social benefits generated by a firm pursuing the maximization of shareholder returns are often greater than the social benefits generated by a firm that directly aims to maximize social welfare. This principle is

illustrated in Figure 1.

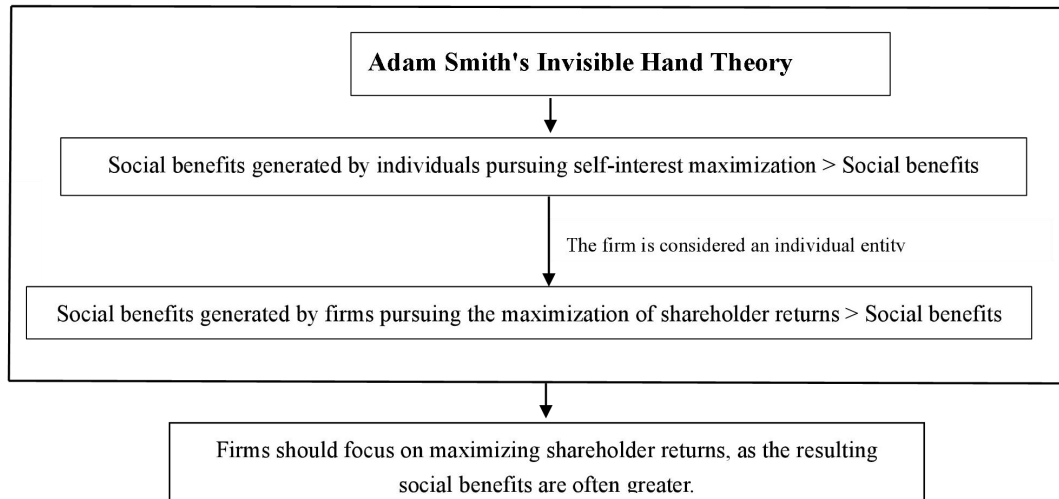


Figure 1 Adam Smith's Theory

An individual's actions typically involve both a motive and a result, which are often inconsistent. When motives and results diverge, greater weight should be given to the result. As Figure 1 illustrates, the social benefits generated under the motive of maximizing shareholder returns are often higher. In a market economy, even if a firm's motives are self-interested, the results are often more beneficial to society. This behavior aligns with market principles and should be affirmed. Therefore, firms should focus on maximizing shareholder returns.

3.1.2 Corporate governance as the cornerstone for maximizing shareholder returns

As established in the preceding literature review, the core objective of corporate governance is to maximize shareholder returns [19-20]. The essence of corporate governance lies in the system of checks and balances among various actors, with contract and compliance as its core components. A contract implies that all of a company's stakeholders have equal standing and reach agreements through negotiation, and these agreements have legal force. Compliance means that a firm's operations must adhere to laws and regulations. Corporate governance serves as the cornerstone for achieving the maximization of shareholder returns because it focuses on strategic objectives and emphasizes institutional effectiveness, the importance of human capital and entrepreneurial spirit, and the critical role of risk management.

First, corporate governance emphasizes institutional effectiveness. This is reflected throughout the entire governance process. For example, corporate governance establishes a series of systems that clearly define the rights and responsibilities of shareholders, the board of directors, and management, creating a mechanism of mutual checks, balances, and coordinated operation. This clear division of rights and responsibilities helps prevent the abuse of power and ensures that corporate decision-making is scientific and rational. Furthermore, an effective corporate governance system provides a company with efficient decision-making mechanisms, long-term development plans, protection of stakeholder interests, and safeguards for risk management and compliant operations, all of which are crucial for the long-term stability and development of the company.

Second, corporate governance stresses the importance of "people." It emphasizes the selection and supervision of talent, such as the selection of board members and the CEO, and the board's oversight of the CEO's management of the business. Talent at every level plays a critical role, affecting the formulation and execution of the company's entire strategy, which in turn influences shareholder returns and sustainable development. Corporate governance also highlights the importance of the "entrepreneurial spirit." It requires the board to fully delegate operational management authority to the CEO, allowing the CEO to fully exercise his or her entrepreneurial spirit in managing the company's operations without interference from the board, subject only to the board's supervision. Moreover, because all parties have equal standing, every individual can fully leverage their entrepreneurial spirit, which is vital for maximizing shareholder returns.

Third, corporate governance underscores the importance of risk management. Beyond institutions and people, corporate governance also emphasizes risk management as a critical factor in a company's operations. A company can only achieve long-term success by effectively identifying and managing risks. Since the core of corporate governance is contract and compliance, the entire governance process prioritizes the legal enforcement of contracts and the compliant operation of the business. To ensure compliant and efficient operations, corporate governance establishes a series of risk identification and control mechanisms to safeguard the company's safe and efficient functioning.

Because the core objective of corporate governance is to maximize shareholder returns and it encompasses essential elements such as institutions, talent, entrepreneurial spirit, and risk management, it serves as the cornerstone for achieving this objective. Therefore, combining this with the conclusion from Figure 1, we can infer that good corporate governance enables the maximization of shareholder returns, which in turn generates greater social benefits. Social benefit can be understood as the total externality generated by a firm's actions on relevant participants and society. As can be seen from the earlier definition of corporate social value, it measures the degree of this externality on

stakeholders and society. Thus, social benefit and social value can be treated as equivalent. In other words, good corporate governance enables the maximization of shareholder returns, thereby generating greater social value.

3.1.3 The scope of corporate governance in ESG should not be differentiated into broad and narrow concepts

Currently, in both theory and practice, the content of corporate governance within ESG is often distinguished as broad and narrow. Narrow corporate governance in ESG primarily includes aspects related to compliance, such as commercial bribery and business ethics. Broad corporate governance encompasses all topics within the theory of corporate governance. From a systemic perspective, and considering the original intent of the ESG concept—to measure a company's capacity for sustainable development in the capital market—the preceding analysis shows that corporate governance is the cornerstone for maximizing shareholder returns and is thus crucial for corporate sustainability. Therefore, the scope of corporate governance within the ESG concept should not be divided into broad and narrow categories, as such a distinction is not meaningful.

Based on Adam Smith's theory, we know that firms should focus on maximizing shareholder returns. The core objective of corporate governance is to achieve this maximization, and it includes essential elements like institutions, human capital, entrepreneurial spirit, and risk management, making it the bedrock for this goal. As social benefit and social value are equivalent, good corporate governance can maximize shareholder returns and thereby generate greater social value. Furthermore, because the concept of corporate governance within ESG should not be bifurcated, corporate governance is the most fundamental component of ESG.

3.2 The Relationship Between Social Responsibility (S) and Environmental Protection (E)

Corporate social responsibility refers to the protection of stakeholders [24]. Since environmental protection is included within the scope of stakeholder protection, social responsibility encompasses environmental protection. Therefore, S in ESG should include E. When a company fulfills its social responsibilities, environmental protection is an indispensable part. A company with good corporate governance will naturally prioritize compliant operations and risk management, anticipate risks in advance, and adopt various measures to reduce negative environmental impacts, such as reducing carbon emissions, optimizing waste management, and improving energy efficiency.

In summary, the relationship among environmental protection, social responsibility, and corporate governance in ESG is as follows: corporate governance is the most fundamental component, and social responsibility includes environmental protection.

4 THE TRANSMISSION MECHANISM OF SOCIAL VALUE CREATION BY CORPORATE GOVERNANCE

The preceding analysis has established that good corporate governance can maximize shareholder returns, thereby generating greater social value. This indicates that corporate governance can create corporate social value. Its transmission mechanism is illustrated in Figure 2.



Figure 2 The Transmission Mechanism of Social Value Creation by Corporate Governance

Figure 2 shows that as the level of corporate governance improves, shareholder returns increase, which in turn leads to higher corporate social value. Shareholder returns primarily create social value through the transmission mechanisms of innovation, taxation, and employment.

4.1 Maximized Shareholder Returns Create Social Value Through Innovation

When shareholder returns are higher, corporate profits are greater, and investor confidence in the firm increases. This lowers the firm's resource constraints and enhances its risk resilience. In such circumstances, the firm is more willing to engage in innovative activities. Because innovation has strong externalities, it creates social value [30]. The externality of innovation is also known as the "spillover effect." If the costs or benefits of an innovative activity automatically "spill over" to other entities, the activity is said to have externalities. The externalities of innovation manifest in three areas: technological, market, and profit externalities. Technological externalities refer to the fact that the outcomes of innovation, whether new products or new processes, contain new technological knowledge. This new knowledge has the non-rivalrous and non-excludable characteristics of a public good, thus generating externalities. Market externalities are demonstrated when innovators create market opportunities for related firms. Profit externalities mean that the benefits of a firm's innovation cannot be fully captured by the innovator and will spill over to firms in other sectors, allowing them to profit as well [31]. Since corporate social value represents the extent of externalities generated by a

firm's actions, a higher level of innovation and stronger resulting externalities lead to greater corporate social value. This demonstrates that maximized shareholder returns create social value by enhancing innovation.

4.2 Maximized Shareholder Returns Create Social Value Through Taxation

When shareholder returns are higher, corporate profits increase. Consequently, the firm's tax payments also rise, boosting government revenue. The increase in fiscal revenue then generates value through government procurement and transfer payments. The externalities of government transfer payments are primarily realized by reducing income inequality among residents, promoting fiscal equalization across regions, and influencing local government public services. Studies by Dyreng et al. and Gallemlere et al. have shown that regulatory frameworks and tax systems moderate corporate behavior and inequality [8, 32]. Transfer payments can stimulate competition in the supply of public goods, thereby promoting the equalization of public services across regions. Therefore, maximized shareholder returns create social value by increasing tax contributions.

4.3 Maximized Shareholder Returns Create Social Value Through Employment

As shareholder returns increase, the scale of the firm expands, and the demand for labor also rises, leading to an increase in job positions. This can absorb a large amount of the labor force and create new employment opportunities. The increase in job positions and opportunities generates a certain externality by addressing the issue of resident unemployment. Therefore, maximized shareholder returns create social value by expanding the firm's scale and thereby increasing employment opportunities, which further enhances corporate social value.

In conclusion, the higher the level of a firm's corporate governance, the higher its shareholder returns will be. Higher shareholder returns generate externalities through innovation, taxation, and employment, thereby creating social value. Thus, a firm's internal governance generates external social value. This shows that since corporate governance itself creates social value, the implementation of the ESG concept should not involve an excessive pursuit of environmental protection and social responsibility at the expense of corporate governance. Instead, corporate governance should be placed in its rightful, foundational position.

5 CONCLUSION AND IMPLICATIONS

5.1 Conclusion

Amidst the growing interest in ESG research in China, this paper addresses the phenomenon of excessive focus on environmental protection and social responsibility at the expense of corporate governance in practice, as well as the skepticism surrounding whether corporate governance creates social value. It focuses on clarifying the position of corporate governance within ESG and its transmission mechanism for creating social value, leading to the following conclusions.

First, corporate governance (G) is the most fundamental component of ESG. According to Adam Smith's "invisible hand" theory, the social benefits generated by a firm pursuing the maximization of shareholder returns often exceed those from a firm directly pursuing the maximization of social interest. Therefore, firms should focus on maximizing shareholder returns. The core objective of corporate governance is to achieve this goal, and it encompasses essential elements such as institutions, human capital, entrepreneurial spirit, and risk management, making it the cornerstone for this objective. Since social benefit and social value are definitionally equivalent, good corporate governance, by enabling the maximization of shareholder returns, generates greater social value. Furthermore, because the scope of corporate governance within ESG should not be bifurcated, corporate governance stands as the most fundamental component of ESG. Within ESG, social responsibility (S) includes environmental protection (E).

Second, corporate governance creates social value. Its transmission mechanism is that good corporate governance maximizes shareholder returns, which in turn creates social value through channels such as innovation, taxation, and employment. Therefore, corporate governance itself generates social value, and government regulators, the public, and corporations should not overlook governance when pursuing corporate social value.

In summary, these two conclusions indicate that within ESG, there should not be an excessive focus on E and S at the expense of G. The focus should not be solely on a firm's fulfillment of social and environmental responsibilities; rather, it should return to the foundational importance of corporate governance.

5.2 Implications

5.2.1 For government regulators

As the ESG concept has become associated with sustainable development and social responsibility, the Chinese government has issued a series of policies to guide companies in disclosing ESG information and implementing ESG management, and to encourage investors to engage in responsible and ESG investing, with the aim of building an ESG ecosystem. In future practice, the government's approach to ESG development should prioritize the following aspects.

First, the positioning of ESG should be accurately understood. In practice, there is sometimes a tendency to conflate corporate ESG with sustainable development. The two differ in their focus and content. ESG focuses on the more micro-level issues of corporate governance, social responsibility, and environmental protection, whereas sustainable

development focuses on broader, macro-level issues of technology, economy, society, and the environment [33]. Regulators should not equate ESG with corporate sustainable development, thereby avoiding an excessive pursuit of ESG construction and performance. They should always be clear about the positioning of ESG as a reference standard for investors in the capital market.

Second, avoid an overemphasis on E and S at the expense of G. As concluded in this paper, corporate governance is the most fundamental component of ESG, and it also generates social value. A singular focus on E and S often yields lower social value. Therefore, regulators should not overly stress environmental protection and social responsibility, which can add burdens to a firm's production and operations. Instead, they should return to the fundamentals, emphasizing corporate governance and sustainable development.

Third, exercise caution when formulating ESG evaluation systems and sustainable disclosure standards. On one hand, the standards in these systems and guidelines should not be more stringent than existing ones. China has clear laws, regulations, and standards concerning social responsibility and environmental protection. When designing ESG evaluation systems or disclosure standards, regulators should not set standards that are stricter than existing ones, such as the Environmental Protection Law of the People's Republic of China or the Integrated Emission Standard of Air Pollutants. The design of such systems and standards should primarily aim to guide firms to focus on important issues and promote their development. On the other hand, since corporate governance is the cornerstone for maximizing shareholder returns and the most fundamental component of ESG, regulators should also give corporate governance a prominent position when designing evaluation systems, guiding firms to pay greater attention to it.

Fourth, adopt the reduction of transaction costs as a fundamental principle to guide corporate sustainable development. A firm's transaction costs include not only the explicit costs incurred during transactions but also the implicit costs that arise from various factors during operations. Since transaction costs directly affect a firm's profitability and market competitiveness, reducing them is crucial for its sustainable development. Regulators should design policies based on the principle of lowering corporate transaction costs, providing a more inclusive institutional environment, and helping firms reduce costs and increase efficiency. When requiring firms to focus on environmental protection and social responsibility, the potential impact on their transaction costs should be fully considered.

5.2.2 For the public

In addition to government regulators, the public also plays a supervisory role over corporations. China has enacted relevant laws and guidelines, such as the Interim Measures for Public Participation in Environmental Impact Assessment and the Guiding Opinions on Promoting Public Participation in Environmental Protection, to encourage public involvement. When supervising companies, the public should express opinions rationally, pursue objective facts, and not follow hearsay. The public should understand that a firm's primary goal is to maximize shareholder returns and that corporate governance is the most fundamental component of ESG. They should not impose an excessive burden of social responsibility on firms. The public should also adopt an inclusive attitude; as long as a firm's decisions do not cause harm to society, it should not be subjected to moral high-jacking that could hinder its development through public opinion.

5.2.3 For corporations

The development of ESG has attracted the attention of many entrepreneurs. Some companies have invested heavily in ESG initiatives without a deep understanding of the concept, while others are perplexed about the significance of disclosing ESG reports and participating in ESG ratings. For their future development with respect to ESG, companies should focus on the following aspects.

First, develop a profound understanding of the importance of corporate governance. In their production and operational activities, or when practicing the ESG concept, companies must always grasp the fundamental position of corporate governance within ESG and its role as the cornerstone for achieving the goal of maximizing shareholder returns. In practice, companies must emphasize institutional effectiveness, the importance of human capital and the entrepreneurial spirit, and the significance of risk management and compliant operations. They must unwaveringly pursue the goal of maximizing shareholder returns and sustainable development, and prioritize corporate governance.

Second, cultivate an awareness of opportunity cost. Opportunity cost arises from the scarcity of resources. When people use a resource for a particular purpose, they forgo the opportunity to use it for other purposes. The highest-valued foregone alternative is the opportunity cost of the chosen use [34]. Every production and operational activity has an opportunity cost. In their ESG initiatives, companies should fully consider opportunity cost and not invest blindly just to follow the ESG trend. They should compare the returns generated by the investment in ESG initiatives with the maximum returns that could be generated if the same funds were applied to other operational activities. An investment should only be made if the comparison shows that the ESG initiative yields a greater return. Therefore, in ESG construction or production and operations, companies should always consider opportunity cost to make more scientifically sound and effective decisions.

COMPETING INTERESTS

The authors have no relevant financial or non-financial interests to disclose.

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