

The Action Mechanisms of Environmental Compensation Promoting Enterprises' Green Development

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Abstract: To address climate change, environmental protection and corporate operations are considered to require collaborative development. Based on the principle of environmental compensation, this study analyzes the direct and indirect mechanisms of action on enterprises' green development. The research finds that environmental compensation directly promotes enterprises' green development from multiple dimensions, including corporate reputation, sustainable concepts, and strategic management. Meanwhile, environmental compensation can indirectly facilitate the transformation of enterprises toward green development by enhancing ESG performance and promoting technological innovation.

Keywords: Corporate Finance, Environmental Compensation, Green Development, ESG Performance, Green Innovation

1. Introduction

Faced with global warming, the collaborative development of economy and environment is regarded as an inevitable trend. It is a production form driven by scientific and technological innovation, featuring high efficiency, high quality, and sustainability [1]. Emphasizing the green and low-carbon development path, it focuses on the organic integration of ecological protection and resource conservation. As energy consumers and direct emitters of pollutants, enterprises are key targets in the process of green development, and their environmental management behaviors comprehensively affect the ecological environment [2]. However, according to the theory of rational economic man, the environmental

management of enterprises is regarded as a strategic behavior by many decision-makers, who fail to recognize the opportunity costs brought by environmental compensation. Therefore, the relationship between environmental compensation and the environment-friendly development of enterprises is considered to have important exploratory value and significance.

Environmental compensation is regarded as an important practice for enterprises to implement the concept of green development, which is related to the goals of innovation-driven and high-quality development emphasized by economic-environment collaborative development [3]. Environmental compensation of enterprises is not only a manifestation of fulfilling social responsibilities, but also may promote the green transformation and efficiency improvement of enterprises through optimizing resource allocation, stimulating innovation motivation and other ways, thus promoting economic-environment collaborative development. The action mechanism of this process still needs to be deeply explored, which is the focus of this paper.

In view of these, under the trend of advocating economic-environment collaborative development, this paper focuses on exploring whether environmental compensation can promote the green development of enterprises, and the action mechanism of environmental compensation promoting the green development of enterprises.

2. Literature Review

The green development of enterprises has attracted extensive attention from scholars,

and numerous factors influencing the high-quality development of enterprises have been widely discussed. These influencing factors are categorized into internal and external factors. Internal factors include managers' environmental awareness [3], digitalization level [4], technological innovation [5], green investment [5], etc., while external factors mainly involve environmental regulations [6], consumers' green preferences [7], tax incentives [8], and public opinion supervision [7]. These factors have been confirmed to directly or indirectly affect the green development of enterprises.

The impact of environmental compensation on enterprises has also been widely discussed, with three main perspectives existing. Some scholars have found that increasing environmental compensation expenditure can optimize environmental performance, and environmental performance is positively correlated with financial performance [3,5,7]. However, other scholars argue that increasing environmental compensation expenditure will inhibit enterprise recruitment, which is considered to have a crowding-out effect on business activities [9]. Meanwhile, neutral views support the lagging effect of environmental compensation: although current environmental compensation has no significant impact on enterprise performance, it has a significant promoting effect in the first lag period [8].

In summary, although numerous factors affecting the green development of enterprises have been identified, and the impact of environmental compensation on enterprises has been confirmed to show different relationships, discussions on environmental compensation as a factor influencing enterprise green development are relatively limited.

3. Action Mechanisms Analysis

3.1 The Direct-Action Mechanism of Environmental Compensation

The environmental compensation of enterprises is defined as various expenditures in the form of currency, physical objects, technology, etc., made by enterprises in accordance with legal regulations or agreements to make up for, restore, or reward the environment itself, damaged subjects, or

ecological protection behaviors after causing damage to the ecological environment or consuming environmental resources due to the development and utilization of environmental resources or engaging in production and business activities. Such expenditures include environmental protection investments, sewage charges, greening fees, and technological innovation investments [3]. The increasingly strict environmental regulations have made these expenditures an important component of enterprise operating costs.

There is a significant correlation between environmental compensation and the green development of enterprises. First, from the perspective of corporate reputation, environmental compensation expenditures help enterprises establish a good environmental protection image, thereby enhancing their recognition and acceptance in the competitive market. Since consumers are often willing to pay a premium for products with a good environmental reputation, enterprises can expand their market share and enhance their brand value, which forms the market foundation for corporate green development. Second, according to the stakeholder theory, by paying environmental compensation to fulfill environmental responsibilities, enterprises can more easily obtain the recognition and support of stakeholders such as the government, investors, and communities. As a result, the social environment faced by enterprises is optimized, and financing costs are reduced, laying a resource guarantee foundation for corporate green development. Third, the production processes of enterprises are optimized through environmental management practices, thereby improving resource utilization efficiency, which is manifested in the improvement of total factor productivity. This is emphasized by the concept of sustainable development and is an important indicator of corporate green development. Finally, based on strategic management, the investment in environmental compensation costs enables enterprises to emphasize long-term value creation rather than short-term profit orientation. The more inclusive development model formed by organizational structure optimization and management innovation will promote the

coordinated development of economic and ecological benefits.

From the perspective of direct effects, environmental compensation promotes the coordination of economic and environmental benefits of enterprises and strengthens green development from the dimensions of corporate reputation, stakeholders, sustainable concepts, and strategic management.

3.2 The Indirect-Action Mechanism of ESG Performance

Environmental, Social, and Governance (ESG) performance comprehensively evaluates environmental compensation and corporate green development, potentially serving as a mediating mechanism between them [10].

On the one hand, environmental compensation promotes corporate ESG performance. From the perspective of ESG's environmental principles, enterprises' environmental compensation directly supports and enhances their performance in the environmental dimension, such as reducing carbon emissions, lowering wastewater and exhaust gas discharges, and improving energy utilization efficiency. From the stakeholder perspective, enterprises' environmental compensation behaviors demonstrate their full environmental responsibility and initiative, thereby gaining the recognition of stakeholders, which strengthens the social principles of ESG. In terms of governance, the standardized decision-making mechanisms and information disclosure systems formed by environmental compensation management improve corporate governance performance. Therefore, investments in environmental costs comprehensively enhance corporate ESG ratings by improving the performance of the three ESG dimensions respectively.

On the other hand, improved ESG performance promotes corporate green development. For example, good ESG performance strengthens the mutual trust between stakeholders (such as the government and investors) and enterprises, which is conducive to enterprises receiving public policy support and social resource favoritism. Meanwhile, good ESG performance increases reputational assets, helping enterprises attract more high-quality talents and obtain

low-interest financing more easily. These factors lead to improved resource allocation efficiency, thereby enhancing operational performance and competitiveness, and ultimately promoting corporate green development.

In summary, environmental compensation comprehensively enhances ESG performance by strengthening enterprises' environmental protection, social reputation, and management performance. Subsequently, good ESG performance promotes corporate green development by gaining community support and favoritism, attracting talents, and facilitating financing. Therefore, ESG performance serves as a crucial bridge through which environmental compensation promotes corporate green development.

3.3 The Indirect-Action Mechanism of Technological Innovation

Technological innovation is regarded as a strategic transformation for enterprises to address climate change challenges [5], and it may play a mediating role between environmental compensation and corporate green development.

On the one hand, environmental compensation can drive corporate technological innovation, especially green technological innovation. According to the Porter Hypothesis, environmental regulations prompt enterprises to increase expenditures on environmental restoration, thereby fostering green technological innovation. Although enterprises cannot generate sufficient revenue to cover environmental compensation costs in the short term, the benefits derived from green innovation far exceed the compensation payments in the long run. Meanwhile, technological changes enable enterprises to form differentiated competitive advantages. Environmental compensation is generally classified into two categories: restorative and preventive. The cost pressure from ecological restoration payments forces enterprises to engage in green innovation for revenue generation, offsetting the crowding-out effect of costs. Preventive compensation acts more directly on corporate green innovation, often manifested as proactive technological upgrading and innovation driven by environmental regulations to avoid

administrative penalties. From restorative to preventive compensation, enterprises shift from passivity to initiative, both of which promote green technological innovation.

Technological innovation can promote corporate green development. According to the technological innovation theory, green technological innovation not only addresses environmental degradation but also helps enterprises break through technical bottlenecks in specific fields and form competitiveness. The dynamic capability theory suggests that green innovation enhances enterprises' ability to identify, acquire, and restructure opportunities amid environmental changes, enabling them to maintain adaptability and flexibility in the social technological revolution. This is manifested in enterprises' behaviors as the breakthrough of specific technical problems spills over to strengthen their overall technological innovation capabilities. Enterprises transform from factor input dependence to innovation-driven profit models, improving total factor productivity and achieving green development.

Based on the above analysis, first, whether through proactive environmental investment or passive environmental restoration, enterprises facing cost pressures will choose to engage in technological innovation for revenue generation, thereby strengthening technological innovation. Then, technological innovation in a specific problem spill over to enhance the overall technological innovation capability of enterprises, further improving total factor productivity and promoting greener development. Therefore, environmental compensation ultimately promotes corporate green development by stimulating technological innovation.

4. Conclusion and Implications

To address climate change and achieve the balance and synergistic development between environmental protection and enterprise growth in business activities, it is considered necessary to clarify the relationship between environmental compensation and enterprise green development. Therefore, this paper analyzes the connection between the two from the direct and indirect action mechanisms of environmental compensation on enterprise green development. The study finds that

environmental compensation can directly promote enterprise green development from multiple dimensions such as corporate reputation, sustainable concepts, and strategic management; meanwhile, environmental compensation can indirectly promote enterprise green development by improving enterprise ESG performance and promoting enterprise technological innovation.

Based on the above research results, the following insights are proposed: First, from the enterprise perspective, it is necessary to seek the optimal balance point between environmental protection and economic benefits. Enterprises should actively respond to the call of public environmental protection policies, strive for technological innovation, actively promote green transformation, and achieve the integration of ecological benefits, economic benefits, and social benefits. Second, the government plays the role of supervision and guidance in enterprise environmental protection and compensation, and should implement differentiated management according to different situations of enterprises: for enterprises whose profits are insufficient to bear environmental protection expenditures, they should be ordered to suspend operations for rectification; for enterprises whose profits can cover environmental protection costs, they should be urged to carry out pollution prevention and control and increase environmental protection investment. In addition, the government should improve the enthusiasm of enterprises to implement environmental protection behaviors through incentive measures such as financial subsidies and tax preferences, and guide enterprises to transform to a green development model.

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