

Promoting Enterprise Green Development with Market Mechanism

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Abstract

Against the backdrop of China's high-quality economic development, green development is the inevitable choice of Chinese enterprise. Promoting enterprise green development needs not only government but also market mechanism. On the economic development and social progress, promoting enterprise green development with market mechanism is the necessary way of socialist market economy with Chinese characteristics and making up for the lack of government administrative mechanism. Considering the macro-background of environmental governance system modernization and dealing with the relation between economy and environment, we can explore the practice path from environmental pollution cost internalization, construction of carbon market, green credit, green government procurement, consumer demand driving, environmental access threshold, sensitivity control of green capital markets, factors influencing corporate reputation and environmental liability insurance mechanism.

Keywords

Enterprise, Green Development, Market Mechanism

1. Introduction

Walking into the new stage of development, more and more attention has been paid to ecological civilization construction. Xi Jinping has creatively put forward the concept of green development which provides theoretical direction for China's high-quality economic development. Green development means green production mode, green life mode, green consumption mode. Construction of green economy with Chinese characteristics needs government, enterprise and public taking part in together. The enterprise is the main body among them. The green production mode of enterprise, in other words promoting enterprise green de-

velopment, is the important part of Chinese green development. Only by promoting enterprise green development successfully, China can get the magnificent goal that improves the ecological environment fundamentally and builds a beautiful China. Promoting enterprise green development needs not only government but also market mechanism. It's necessary to combine visible hand and invisible hand, promoting enterprise green development together.

2. The Necessity of Promoting Enterprise Green Development with Market Mechanism

Promoting enterprise green development needs not only government but also market mechanism. It is the necessary way of socialist market economy with Chinese characteristics and making up for the lack of government administrative mechanism.

2.1. The Necessary Way of Socialist Market Economy with Chinese Characteristics

Since 1992, China has gradually established the status of market in national economy after reform of the socialist market economy starting. In the macro environment of socialist market economy, making full use of market in resource allocation is a major breakthrough that China builds socialism with Chinese characteristics. The market tractive effort will contribute to handling the relation between government and market, change of the economic development mode, change of government functions.

Socialist market economy with Chinese characteristics needs to handle the relation between government and market correctly, unify the effort of government and market. This requires making full use of market mechanism on the basis of government's macro-control. Chinese ecological civilization construction and green development also need government leading and market mechanism. In the process of transforming the mode of economic development, promoting enterprise green development and low carbon production requires market mechanism. Socialist market economy with Chinese characteristics requires making full use of market mechanism and promoting enterprise green development with market mechanism. From 2011 to 2020, Chinese energy intensity totally reduce 28.7%, and the expansion of energy-intensive industry has been effective controlled. China is actively exploring approach of energy conservation and emissions reduction with market mechanism. On July 16, 2021, Chinese carbon market has started national trade, which means Chinese government controls and reduces greenhouse gas emission with market mechanism. For taking into account the overall domestic and international situation, Chinese government has made an important strategic decision to realize carbon peak and carbon neutralization. At the same time, carbon peak and carbon neutralization must stick to the two-wheel driven principle, promote green low carbon technological revolution, deepen reform in energy and related fields, give full play to the role

of market mechanism.

Therefore, promoting Chinese energy conservation and emissions reduction and green development with market mechanism is the important part of Chinese High-quality economic development. As an important body in green development, enterprise green development requires government and market working together. Promoting enterprise green development and Chinese transformation of development mode are the necessary way of socialist market economy with Chinese characteristics.

2.2. Making up for the Lack of Government Administrative Mechanism

Enterprise green development has been the inexorable trend in the process of ecological civilization construction. Although government has played the main role in the process of enterprise green development, its practical result is not very good. With the development of socialist market economy, the enterprise is increasingly pursuing economic benefits, and the deficiency in government administrative management becomes more and more obvious. Government's policies about enterprise clean production and limited environmental behavior maybe don't achieve the desired effect because of the potential rent-seeking in power even pay to pollute. Depending on administration and supervision, government environmental policies can't completely change the enterprise pollution. The single government administrative management model is no longer the efficient path of economy operation and enterprise green development. So, promoting enterprise green development with market mechanism is necessary and irreplaceable so that it can make up for the lack of government administrative mechanism.

Third Plenary Session of the 18th CPC Central Committee has changed the market's basic impact in resource allocation into conclusive impact. This means that market, as the resource allocation way, becomes more and more important in Chinese socialist market economy. What's more, Communist Party of China and government generate deeper awareness and understanding in the law of socialist market development. "Both theory and practice prove that market allocation of resource is the most efficient. It is the general law of market economy that market determines the resource allocation. In fact, market economy is the economy that market determines the resource allocation" (Publicity Department of the CPC Central Committee, 2016).

So if China promotes enterprise green development, it must make full use of market mechanism to make up for the lack of government administrative management model.

3. The Approach to Promote Enterprise Green Development with Market Mechanism

In the process of ecological civilization construction, promoting enterprise green development with market mechanism is an important part. For promoting en-

terprise green development, both government and market need to play a guiding and promoting role. We can promote enterprise green development by environmental pollution cost internalization, the construction of carbon market, green credit, green government procurement, consumer demand driving, environmental access threshold, sensitivity control of green capital markets, factors influencing corporate reputation, environmental liability insurance mechanism.

3.1. Environmental Pollution Cost Internalization

In the process of construction of ecological civilization and environmental governance, the reason of enterprise poor environmental behavior is that enterprise operation conflicts with ecological and environmental benefits in the pursuit of profits. The economic profits sometimes are contradicted with the social profits. As the result, many enterprises pursuit their economic profits so much that ignoring environmental pollution problems. The cost of human resource, material, and machine is usually very clear in the cost accounting, but the environmental pollution cost is not so clear.

In addition, government is the only main body of environmental governance which totally plans all the environmental governance work in the traditional environmental governance system. At that time, enterprises seldom take part in the environmental governance work and become its main body. This leads to the situation that enterprises pollution and government governance. Although government penalizes the pollution behavior of enterprises, enterprises' pollution cost is lower than green upgrading cost, the cost of breaking the law is low, but the cost of keeping the law is high, so that this has seriously hampered the progress of enterprise green development.

Rising the cost of breaking the law and reducing the cost of keeping the law are necessary to promote enterprise green development. So we should take penalties and charges to enterprise poor environmental behavior, establishing and promoting pollutant discharge charge system and emission tax system, so that environmental pollution cost internalization becomes true. What's more, reducing the cost of keeping the law and changing the environmental invest into sustained profits could solve the green upgrading problem better for enterprises.

Therefore, promoting enterprise green upgrading requires solving the problem that the cost of breaking the law is low, the same time the cost of keeping the law is high. Environmental pollution cost internalization would make enterprise to pay a higher price for polluting the environment. At the same time, China should strengthen support to new green environmental protection industry, promoting green creative industry development by green technology, providing social technological support for enterprise green upgrading.

3.2. Construction of Carbon Market

Carbon trading, as a leverage tool in market economy, means that government sets the upper limit for the enterprise greenhouse gas emission and allocates or sells the amount to enterprise so that every enterprise could buy or sell the emis-

sion quota. Carbon trading, as a kind of market mechanism, is a new approach to solve greenhouse gas emission problem, which changes carbon emission with market mechanism and forms carbon dioxide emission trading. This would usefully bring the cost of environment pollution and enterprise other cost together, and leads to environmental pollution cost internalization. Besides, carbon trading could push enterprise taking environmental protection technology to reduce carbon emission, so that it can promote enterprise green development.

Promoting enterprise green development with market mechanism requires controlling enterprise environmental behavior by carbon trading. "Emission trading would encourage enterprise reducing pollution by environmental technology. When pollution governance cost is lower than the emission price, the enterprise could sell their surplus emission at a higher price in the market. Then enterprise could get profits from emission trading. That obviously strengthens the initiative and enthusiasm of enterprise reducing pollution and promoting technology creation" (Wu & Wang, 2010). Therefore, emission trading could have an impact on enterprise green development in green technology and green production. Because of the profits brought from carbon trading, enterprise would promote green development actively.

The premise of realizing carbon emission trading is the construction of carbon market. The carbon market provides a complete trading system for carbon trading. So, from the perspective of energy conservation and emission reduction, promoting enterprise green development must build carbon market. Solving the problem between economic development and carbon reduction depends on carbon market so that China could get coordinated development of economy and environment.

The construction of carbon market is an important choice of Chinese government to meet the economic development and environmental protection needs. In the sense of economic theory, "When the ownership is clear and protected in the perfect market, efficiency loss caused by external problems could be solved by market itself. It means that market mechanism could adjust itself to be better. As to the external problem, environmental pollution, as long as the owner of the right to pollute is specific, trading which takes this right as object must opens between polluters and victim in a perfect market. This leads to the balance between the right price and social damage effect, and the balance between private marginal cost and social marginal cost. So as long as environmental capacity resource property rights is clear and protected, market could overcome its negative externality difficulties by emission trading, forming market balance price and realizing the optimal configuration of environmental capacity" (Zhang & Peng, 2011). So construction of carbon market, carbon trading in market, will totally improve enterprise green level and promote enterprise green development. The construction of carbon market means carbon trading with market mechanism to get energy conservation and emissions reduction and green development. The construction of carbon market needs trading demand and trad-

ing environment resulted from government's policies. Carbon trading management institutions guide, coordinate and supervise the carbon trading. At the same time, strengthen market regulation and oversight is necessary to promote market orderly operation. The construction of carbon market must improve trading rules and system, strengthen certification management, implement the third-party certification system to guarantee effective market mechanism.

3.3. Green Credit

Green credit is the powerful booster of promoting enterprise green development.

First, green credit is that financial institutions regard it that enterprise's environmental detection, pollution control effect, ecological protect are qualified or not as important standard in the process of loan project audit. In the green credit, enterprise's environmental impact is an important factor closely related to getting loan.

Secondly, green credit puts forward a series of standard to enterprise's environmental impact. This would lead to the consequence that screening the enterprise applying for a loan, so that market mechanism would be an economic leverage which guides enterprise's environmental protect investment. The green credit would adjust and distribute economic benefits again, provide favourable credit capital for environmental protection enterprise. This is not only conducive to the development of environmental protection enterprise, but also form environmental capital barrier for enterprise with high pollution and energy consumption. Green credit has an obvious impact on the capital chain of the enterprise with high pollution and energy consumption, so that it could achieve the goal that adjusting industrial layout to green development.

Therefore, green credit raises the threshold of enterprise loan, and regards environmental detection, pollution control effect, ecological protect as the most important standard for enterprise loan project audit. Green credit uses economic leverage to guide environmental protection. This economic leverage internalizes enterprise's pollution costs to get the governance in advance goal. From the perspective of financial development, commercial banks channel capital into environmental protection enterprise with differentiation price, so that it can enhance the ability to control risk and improve business performance. At the same time, with the establishment of environmental threshold in the credit field, no financial support for limit and obsolete new project could cut off the lifeline of economy of high pollution and high energy consumption enterprise. Therefore, if the enterprises especially the restaurant pollute the environment or produce a large amount of rubbish by mistake, they will lose the chance to get loan for their business development. This method would not only contribute to enterprise green development but also promote ecological civilization construction.

3.4. Green Government Procurement

Promoting enterprise green development with market mechanism must change

the relation between government and enterprise so that it would form cooperative mode of operation.

Under the condition of making full use of market mechanism, we can get the government and enterprise cooperation by green government procurement. In government procurement, what must be considered carefully is not only quality and efficiency, but also the environmental influence of government procurement. The government procurement should take the social public environmental interests as the starting point and foothold, and prohibit the purchase of environmental pollution destructive products to support environment-friendly products. By the green government procurement, government procurement will be closely aligned with social interests. At the same time, it can form the green procurement standards which produce the important influence to the enterprise product supply.

In green government procurement, change in demand results in the change in supply. So that enterprise would adjust supply structure and quality to market demand change. This fully demonstrates the impact of demand on supply in Economics. Therefore, green government procurement will promote the green upgrading and transformation of enterprises under the green demand condition.

At the same time, green government procurement requires that procurement criteria need to be defined to consistent with the interests of social public environment. This means that green government procurement requires that the procurement must be selective and restrictive. These requirements create barriers to entry for enterprises. As the result, green government procurement exerts pressure from market demand to enterprises that do not meet environmental standards, and provides preferential policies with inclination to enterprises that meet environmental standards. So, green government procurement will promote enterprise green development.

3.5. Consumer Demand Driving

From the perspective of economy, demand and supply interact with each other. In the underdeveloped productivity society, the impact from supply to demand is stronger than the impact from demand to supply. However, with the development of industrial civilization, social productivity rises rapidly, and the supply ability of social goods has been enhanced. There's the problem of overproduction in capitalist society. The relation between supply and demand is no longer the relation that Ford thought about, enterprises can produce any product as long as they like to put on the market, and no enterprise will produce and put product on market without conducting market research. Market research becomes an important project in marketing. All of these means that market demand has more and more important impact on product supply and enterprise.

So, in the socialist market economy, the production of enterprise, social product and service suppliers, more and more affected by consumer demand. As Engels said, compared to ten universities, social demand is more likely to promote the development of science and technology. In the market, consumer de-

mand has an important impact on promoting enterprise's change of developmental model.

Consumers should establish green consumption and green life concept, and put this concept into the practical action. The choice of consumers, green consumption and green life, will effectively push enterprise to change developmental model and walk towards green enterprise. Based on the above, promoting enterprise green development with consumer demand driving, is the practical use of economic theory of the relation between supply and demand.

3.6. Environmental Access Threshold

At present, under the condition of socialist market economy in China, the income gap between different enterprises is obvious. This income gap leads to the phenomenon that capital flows to monopolistic enterprises. The monopoly maintains the existence of high profits by build enter threshold with technology, administration and other factors. It's very necessary for high profits enterprise to build enter threshold so that it can limit or stop the others to compete with them.

Promoting enterprise green development, must make full use of the limiting effect of business enter threshold in market mechanism. Market mechanism automatically adjusts enterprises' environmental behavior by setting environmental enter threshold, specified industry environmental standard and barriers. The green development enterprise gets the qualification to enter the market to produce and service, by contrast, the unqualified enterprise will lose the qualification.

Establishing environmental enter threshold, forms new environmental behavior limited mechanism to enterprise. On the other hand, it drives some enterprises starting their green change. This contributes to optimization of industry layout and national economic structure.

3.7. Green Evaluation Indexes in the Capital Markets

For some listed enterprises, establishing and improving green evaluation indexes in the capital markets could produce constraint function to enterprise environmental pollution behavior and encourage green behavior. "The capital markets will react negatively to the enterprises poor environmental performance. These enterprises will be penalized by the capital markets if they disobey environmental controls or evade environmental responsibilities. This will cause the enterprises' share price to fall and the market value to decrease. By contrast, the enterprises favourable environmental performance would be propagated to get the capital markets encouragement so that their share price and market value rise" (Peng, 2007).

So, establishing and improving green evaluation indexes in the capital markets could affect the environmental behavior of enterprises. The change of the green evaluation indexes has a direct influence on enterprises' share price in the capital

markets, what's more, it even be related to the operating condition of enterprises. As we can know from this, green evaluation indexes would produce limited and encouraged effect to promoting enterprises green development in capital markets.

A series of constraints and monitoring mechanisms to enhance the sensitivity of green evaluation indexes is necessary to promote enterprise green development. Both government and market form constraints and monitoring mechanisms in capital markets, could ensure that the green environmental behavior is reflected truly in capital markets, so that green evaluation indexes give full play to the role of restraint and monitoring.

3.8. Reputation Capital of the Enterprises

As is known to all, reputation capital of the enterprises is very valuable intangible wealth. The reputation capital of the enterprises that established in daily production and operation may lose suddenly. For example, Shijiazhuang Sanlu Group Co. Ltd used to get the honor of "Most Competitive Brand in the market" "China Famous Brand" "Chinese top 100 enterprises". However, all of the honor was lost because of the Sanlu Milk Powder Scandal, so that all the work was lost. So, for any enterprise, the reputation capital of the enterprises is invisible life-line. Once the reputation capital is lost, the enterprises will work towards die.

The reputation capital is so important that enterprises must try their best to establish and promote reputation capital. If we want to promote enterprise green development with market mechanism, we can make full use of the demand of enterprise of establish reputation capital, bringing reputation capital of enterprises and enterprise green development together. On this basis, for promoting enterprise green development reputation capital establishment mechanism is necessary.

Therefore, bringing the reputation capital of enterprises and enterprise green development together will strongly promote enterprise green upgrading and transformation. This needs both government and market exerting their influence to adjust evaluation system of reputation capital of enterprises to the demand of construction of ecological civilization. It must increase the proportion of green degree of enterprise in the evaluation system of reputation capital of enterprises, and take green degree of enterprise and environmental behavior as the most important assessment factors, promoting green degree factor into evaluation system of reputation capital of enterprise by policy of government, economics of market and consumption concept of consumers, so that we can promote enterprise green development by the demand of reputation capital of enterprise.

3.9. Environmental Liability Insurance Mechanism

Environmental liability insurance is also called green insurance, which regards legal liability of the insured's environmental behavior as insured object. At present, here's no sound environmental liability insurance mechanism in China.

This is also the blank fields of Chinese insurance development. Comparing with the situation in China, the environmental liability insurance mechanism is more and more mature in Occident. It's difficult to make sure the insurance price and the enormous risk takes away insurance company's enthusiasm. "For the small enterprise, environmental liability is often overlooked, and regarded as trouble not profits. For big enterprise, they have enough capital and business mechanism to manage environmental risk so that they lose the point of buying insurance for their environmental behavior, so environmental liability insurance is difficult to produce spontaneous market" (Chen & Xia, 2011).

However, environmental liability insurance is useful to promote enterprise green development in spite of the difficulty. For example, in American mature environmental liability insurance market, environmental liability insurance plays an important role in enterprise's environmental behavior risk diversification, incentive risk prevention, environmental risk monitoring. Because enterprise pays for their environmental behavior to insurance company, they will avoid environmental claims. Once enterprise has environmental claims, it means that enterprise and the insurer have a claim relationship. This would lead to the sharp rise in premiums so that enterprise must pay more premiums of environmental liability insurance next year.

Therefore, establishing and promoting compulsory environmental liability insurance for enterprise environmental behavior will have an obvious influence on environmental risk reduction. This would promote enterprise green development.

4. Conclusion

Generally, walking into a new stage of development, China pursues balance of high-quality environmental protection and high-quality economic development. Promoting enterprise green development with market mechanism is an important step of Chins transforming economic development mode. On the basis of government macro-control, promoting enterprise green development with market mechanism is the inevitable requirement of socialist market economy with Chinese characteristics and making up for the lack of government administrative mechanism. Socialist market economy with Chinese characteristics requires government and market working together. Recent years China's achievements in energy conservation and emission reduction have illustrated government dominance and market vitality. The continuous improvement of the national carbon market reflects government's strategy choice that promotes green development with market mechanism. The single government administrative management model shows its deficiency which depends on the cooperation of government and market to make up for the deficiency. Market mechanism will effectively standardize Chinese environmental governance and green development route.

Exploring the effective approach of promoting enterprise green development

with market mechanism could start from environmental pollution cost internalization, construction of carbon market, green credit, green government procurement, consumer demand driving, environmental access threshold, sensitivity control of green capital markets, factors influencing corporate reputation and environmental liability insurance mechanism. This is practice exploration of improving market mechanism in socialist market economy with Chinese characteristics, especially in the background of China actively responding to climate change and doing a good job of carbon peak and carbon neutrality, the construction of carbon market in an important strategy for enterprise to get balance between economic benefits and ecological benefits. Green credit, as an important part of green financial policy, has an obvious impact on adjustment of industrial structure with market mechanism.

Of course, this research is just exploring the approach of promoting enterprise green development with market mechanism. With practice develops, market mechanism will continuously improve and the approach of promoting enterprise green development will continuously come to diversification. These need further research. At least, according to the determination that China is committed to Paris Agreement and actively participates in global environmental governance, the research about carbon peak and carbon neutrality should be more detailed. The construction of carbon market would be an important topic in the future which provides theoretical direction for green development. So, there are still some deficiencies in this paper, which need to be improved in future research.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Chen, D. M., & Xia, Z. R. (2011). Model Comparison of Environmental Pollution Risk Management and Function Orientation of Environmental Liability Insurance. *Fudan Academic Journal (Social Sciences)*, 4, 86.
- Peng, H. Z. (2007). Influence Factor Analysis of Enterprise Green Behavior. *Jinan Academic Journal (Philosophy and Social Sciences)*, 2, 55.
- Publicity Department of the CPC Central Committee (2016). *Xi Jinping's Important Speeches Offprint* (p. 62). Beijing: Study Publishing House, People's Publishing House.
- Wu, P. Z., & Wang, Q. (2010). Economic Analysis of Emission Trading. *Chinese People Resources and Environment*, 5, 54.
- Zhang, L. F., & Peng, Y. Y. (2011). The Research Progress of Emission Trading Mechanism. *Economic Trends*, 4, 136.