



Enterprise's Strategy Choice with Environmental Constraints

Chunjie Yu^(**) and Fengjun An^{***}

^{*}School of Humanities & Economic Management, China University of Geosciences (Beijing), Beijing 100083, China

^{**}School of Business, Linyi University, Linyi 276005, China

^{***}Marxism College, Yanbian University, Yanbian 133002, China (Corresponding author: Fengjun An)

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ABSTRACT

People and the government's demands for enterprise's environmental protection have become more and more strict. Enterprise faces a risk of environmental protection. Environmental constraints have become important factors which must be considered in enterprise strategic management planning. This paper elaborates the relationship between environmental regulation and the competitiveness of enterprise, expounds the factors which influence enterprise's environmental strategy choice. It analyses the influence on enterprise competitiveness while enterprise adopts different environmental management strategies, and proposes different enterprise's strategic choice countermeasures with environmental constraints.

INTRODUCTION

China's economy has increased rapidly during the past three decades while the environmental pollution has become more and more serious. Nowadays, both public and other countries have set a higher criterion for China's environmental quality. Therefore, Chinese government has to adopt many more stringent policies to improve environmental quality which makes it more difficult for enterprises to meet the environmental criterion.

In the past, it was the public that undertook enterprises' environmental pollution cost while in the future enterprises will pay more for environmental protection in avoidance of being halted by the government. The enterprises' income will decrease if the total output stay at the same level as before and more strict policies mean higher environmental treatment cost for enterprises. Therefore, it is necessary to coordinate the contradiction between industrial growth and environmental protection for enterprises in order to produce as many products as possible and reduces resource consumption and pollution meanwhile (Ye & Wu 2010). Thus, it is of much significance for enterprises to check their strategy under the new condition. This paper will elaborate the factors that influenced the strategy choice of enterprise and will propose different enterprise's strategic choice countermeasures with environmental constraints.

RELATIONSHIP BETWEEN ENVIRONMENTAL REGULATION AND ENTERPRISES' COMPETITIVENESS

Researchers from academic circles have done a lot of studies on the relationship between environmental regulation and competitiveness of enterprises in the aspect of theoretical and empirical. They formed two main views: traditional hypothesis and Potter hypothesis. The traditional hypothesis considers that environmental regulation will force enterprises to increase investment for treatment and prevention of pollution, including buying pollution treatment equipment, environmental taxes, paying operation staff and management staff salaries, etc. Increased pollution control costs will not increase the production capacity of enterprises, and it will occupy more productive investment capital (Walley & Whitehead 1994). Therefore, environmental regulation will reduce the manager's work efficiency, impede normal technical innovation, and ultimately lead to reducing productivity of enterprise and declining enterprise's competitiveness.

Potter hypothesis thinks that properly designed environmental regulation can inspire enterprise's innovation and gain more revenue by increasing production efficiency. Compared to enterprises which do not adopt environmental regulation, it may lead to an absolute advantage (Porter & Vander 1995). The advantage comes from "innovative compensation" brought about by product or process innovations, or "first mover advantage" brought about by the enterprise first to take the environment friendly measures. "Innovative compensation" is widespread, because the reducing of pollution often happened with increasing of productivity and resource utilization at the same time.

FACTORS THAT INFLUENCE ENTERPRISES' STRATEGY CHOOSE

Different enterprises faced with environmental regulation constraints would take different environmental strategies in different circumstances; some of them may take positive and cooperative behaviour and some may take negative confrontational behaviour. Internal factors which influence enterprise's environmental strategic choices include enterprise's technical conditions, positioning of business strategy, etc.; external factors which affect environmental strategic choices include intensity of environmental regulation, market conditions and behaviour of competitors, etc.

Benefits From Environmental Technology: Benefits generated by enterprises' improving environmental technologies are the intrinsic motivation that drives enterprises to take positive environmental management measures. If the benefits of enterprise's environmental management are lower than the cost of environmental management of enterprise, the enthusiasm of the enterprise to carry out environmental management will be reduced (Barbera & McConnell 1990). When an enterprise has developed a better environmental performance product, Government departments and regulators should resist or punish bad products to prevent the impact on green environmental products, otherwise enterprises which product environmental products are difficult to obtain expected market returns, which would weaken environmental enterprises' enthusiasm to develop more and better green products (Chen 2011).

Intensity of Environmental Regulation: When environmental regulators formulate strict environmental regulation standard, and strengthen implementation and supervision of the environmental regulation standard, enterprises' cost of environmental production will be greatly improved. Enterprises have to consider environmental technologies or environmental products as an important factor which can impact enterprises' strategy. As a result of strengthening the environmental regulation, some enterprises may increase technical inputs on environmental protection, some may strengthen environmental public relations, and some will control their impulses on illegal emissions. Varying degrees of environmental regulation standards will lead to different enterprises adopt different behaviour

Enterprise Environment Technical Strength: Different sizes of companies tend to have different sizes of environmental technical strength, and to cope with environmental regulation behaviour strategies are also different. Enterprises of different sizes usually have different environmental technology strength; their behavioural strategies in response to environmental regulation are not the same. The relatively large size enterprises' environment technical strength are

strong, the supervision of their regulatory violations by public and regulators is relatively easy, enterprises themselves also pay more attention to their public image and reputation, and enterprises' opportunity cost which is caused by resisting environmental regulation may be very high. In large enterprises, the losses caused by irregularities will be much greater than the cost of updating technology to protect environment. Small-scale enterprises do not have the comparative advantage of technological upgrading. Their ability to absorb the cost of environmental technology is relatively weak, so they may be desperate to escape environmental regulation.

Consumer's Preferences for Product's Environment Functions: Consumer acceptance of environmental performance of products and the production process has a considerable influence on the market demand for environmental product. When consumers faced with the same function of non environmental products and environmental products, if they prefer environmental products, the motivation of market demand will lead to environmental products obtaining a premium from social acceptance, and this premium will make the enterprises which have comparative advantage in environment technology gaining a unique competitive advantage (Liu et al. 2009). Consumers' environmental preferences will impact on enterprises' production strategic choices.

IMPACT OF ENVIRONMENTAL POLICIES ON ENTERPRISES' STRATEGY

Different enterprises adopt different strategies for environmental management. Environmental strategies can be divided into two categories: positive environmental strategies and negative environmental strategies. Negative environmental strategies are negative coping environmental strategies which passively respond to environmental regulation, and positive environment strategies can be divided into risk aversion environmental strategies and pursue opportunities environmental strategies.

The Influence of Negative Coping Environmental Strategies on Enterprises' Competitiveness: More of enterprises which adopted negative coping environmental strategies to environmental regulation are small and medium-sized polluters. This kind of enterprise compensates for internalizing environmental costs business income through the main business income, so they lack the willingness and ability for environmental treatment. Local governments will also relax the supervision of polluting enterprises for the sake of economic development, which also led to the failure of environmental regulation policy. The failure of environmental regulatory makes enterprises face less pressure from the internalization of environmental costs; enterprises may only need to take smaller costs of obeying environmental regulation. In the short term, this kind of strategy may bring higher

benefits for the enterprise indeed, and make the competitive ability of enterprises get promoted temporarily, especially in areas where income level is not high or shortage of consumer goods. But in the long run, environmental regulation policy will be tightened, and then the enterprises which continue to resist environmental strategies negatively will be up against severe economic and administrative penalties, or be compelled to take environmental treatment; costs of environmental regulatory will rise sharply which poses a serious threat to the competitiveness of enterprises (Ma & Chen 2010).

The Influence of Risk Aversion Environmental Strategies on Enterprises' Competitiveness: Enterprises which take risk aversion environmental strategies establish special pollution treatment facilities or upgrade environmental treatment equipment to meet environmental standards of pollution emissions. Large enterprises have larger scale and output; their increment of unit production cost is less than increment of unit production pollution treatment cost, so they have more cost advantage to upgrade equipment or selecting pollution treatment facilities, and can absorb this part of pollution treatment costs more easily.

Under more and more stringent environmental regulation constraints, large enterprises will obtain more benefits if they choose risk aversion environmental strategies. They get more scale effect of pollution treatment, set up enterprises' images of concern for the environment protection, and improve enterprises' competitiveness.

For the small and medium-sized enterprises which have backward technology, outdated equipment and high levels of pollution, risk aversion environmental strategies are not the best choice. They can take risk aversion environmental strategies by upgrading environmental treatment equipment to improve efficiency and reduce environmental pollution, which can make them meet environmental regulatory requirements, improve the market competitiveness of enterprises and solve the problem of the enterprise survival fundamentally.

Small and medium-sized enterprises with smaller scale and production, so their unit production cost increment is bigger than the unit production pollution treatment costs increment. Small and medium-sized enterprises are less able to absorb environmental costs. Huge cost pressure makes enterprise unable to install pollution treatment facilities and be driven out of the market, or choose end-of-pipe treatment techniques which have a cost advantage, or pay the charges for disposing pollutants. Taking risk aversion environmental strategies can damage those small and medium-sized enterprises' competitiveness and environmental protection goal is difficult to achieve.

Influence of Environmental Strategies of Opportunity on the Enterprises' Competitiveness: Enterprises which take

environmental strategies of opportunity are usually high pollution of big enterprises at a higher economic and social development level or leading enterprises in the industry. Because this kind of enterprises in the face of environmental litigation risk and gradually increasing pressures from consumers, market, investors, banks and insurance companies, enterprises' environmental strategies gradually change from negative coping environmental strategies or risk aversion environmental strategies to environmental strategies of opportunity. Enterprises taking environmental strategies of opportunity can not only reduce the products' harm to environment, and can minimize the output of waste, pollution emissions and processing costs at the end of the product life, which ensure sustainable utilization of resources and good ecological environment.

DIFFERENT ENTERPRISE'S STRATEGY CHOICE WITH ENVIRONMENTAL CONSTRAINTS

Different enterprises have their own actual circumstances and organizational culture, which make them adopt different strategies for environmental management. The corresponding relation between enterprise's environmental strategy choice and pollution control approaches adopted by enterprise are as follows: negative coping environmental strategies-take end-of-pipe treatment techniques or pay the charges for disposing pollutants; risk aversion environmental strategies-upgrading equipment or establish special pollution treatment facilities; and environmental strategies of opportunity-environmental technology innovation (Ma & Chen 2010).

Small and Medium-sized Enterprise's Strategy Choice with Environmental Constraints: For small and medium-sized enterprises, adopting negative coping environmental strategies may be beneficial in the short term, but is not a best choice in the long run. Environmental regulation policy will tend to be stricter. If enterprises adopt negative coping environmental strategies to resist environmental regulation, they will face severely financial and administrative penalties or be forced to conduct pollution control. Sharply increasing of regulation cost will pose a serious threat to small and medium-sized enterprise's survival.

For small and medium-sized enterprise taking risk aversion environmental strategy is not very economical, it also requires government adopt effective environmental regulation policies to small and medium-sized enterprises. In the environmental regulation government should not only provide enough incentive for small and medium-sized enterprises but should also help SMEs to overcome economic and non-economic factors that restrict enterprises to promote ability of pollution control (Guo 2007). At the same time, small enterprises should also carry out technological

innovation actively and enhance the competitiveness of enterprises to respond to environmental control requirements and achieve sustainable development.

Medium and Large Enterprise's Strategy Choice with Environmental Constraints: Rational scale of enterprise is beneficial to the improvement of the environmental technology efficiency. Medium and large enterprises are suitable to adopt risk aversion environmental strategies, which can make pollution emissions meet environmental standards through establishing special pollution treatment facilities or upgrading environmental treatment equipment.

Larger enterprises' environmental costs account for the smaller proportion of the total cost, selecting upgrade equipment or establishing pollution treatment facilities have more cost advantages, and enterprises can absorb this part of cost easier. Medium and larger enterprises to choose risk aversion environmental strategies can also set up enterprises image of concern for the environment protection, reduce environmental risks, and make environmental protection and competitiveness of enterprises improved.

Large-scale Enterprise's Strategy Choice with Environmental Constraints: For large enterprises, they should adopt positive environmental strategies. Enterprises at a higher economic and social development level with high pollution or leading enterprises in the industry are more suitable for taking environmental strategies of opportunity (Li 2012). In this type of enterprise, market driving factors become important influence factors of enterprise's environmental management decisions. Such enterprises regard environmental protection as an opportunity for innovation, and look for chances caused on the process of positive environmental treatment to improve enterprises' profitability and market position.

Enterprises which carry out positive innovation on environmental products and processes is that type of enterprise described in Porter hypothesis, they compensate for the cost of environmental regulation by innovation and may obtain certain positive benefits. Related studies have confirmed that the independent research and development on environmental treatment has a significant contribution to promote environmental technology efficiency, technical innovation has a significant negative effect on the environmental technology efficiency, and technology import is an important approach to improve environmental technology efficiency.

CONCLUSIONS

Different enterprises will adopt different environmental strategies in different circumstances when they face environmental regulation constraints. Environmental technology benefits, intensity of environmental regulation, enterprises' technical strength, consumers' preferences for product environ-

mental performance, and other environmental factors will affect enterprises' environmental strategy choice. Different enterprises adopt different environmental strategies, negative environmental strategy is negative coping environmental strategy, and positive environment strategy can be divided into risk aversion environmental strategy and environmental strategy of opportunity.

For small and medium-sized enterprises, adopting negative coping environmental strategies may be beneficial in the short term, but is not a best choice in the long run. For big enterprises, they should take positive environmental strategy. Larger enterprises are suitable for taking risk aversion environment strategy through establishing special pollution treatment facilities or upgrading equipment to make pollution emissions meet environmental standards. Large enterprises with high pollution or leading enterprises in the industry are more suitable for taking environmental strategies of opportunity. They can compensate for the cost of environmental regulation and obtain advanced competitiveness by innovation in environmental treatment.

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