

Virtual Modularization Strategy of Corporate Social Responsibility in Manufacturing Industry

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Abstract: In view of the trend of the application of corporate social responsibility (CSR) management in manufacturing industry, this paper innovatively puts forward the virtual modular corporate social responsibility management method, and explores the possibility of comprehensive optimization of modularization method and manufacturing corporate social responsibility. This method will be beneficial to the analysis of virtual modularization dynamic mechanism in the implementation of corporate social responsibility management in manufacturing industry, and can help manufacturing supply chain node enterprises to improve the cooperative performance ability of corporate social responsibility through virtual modularization management, and optimize the organizational model of modularization application in supply chain enterprises. The application of modular virtual enterprise of supply chain social responsibility is compared.

Keywords: Manufacturing; Corporate social responsibility; Virtual modularization; Enterprise strategy

1. Introduction

In his study of corporate social responsibility, Friedman believes that the only responsibility of enterprises is profit maximization. [1] this has aroused the discussion of many economists. At present, it has become a trend to implement modular management of supply chain in manufacturing industry, and the concepts of virtual enterprise and virtual manufacturing are used to optimize the joint management of manufacturing industry. There are three problems in the market competitive advantage of modular virtual enterprise: first, what will bring competitive advantage to modular supply chain node or virtual enterprise; second, the relationship between the competitive advantage of supply chain virtual enterprise and its social comprehensive benefit, including the relationship with its corporate social responsibility; third, the sustainable problem of supply chain virtual enterprise competitive advantage and corporate social responsibility sharing and win-win situation. These aspects are actually related to the input and output of corporate social responsibility. Both manufacturing and supply chains need social reputation, government and market support. The competitive advantage of enterprises needs the direct support of the use of internal and external resources and capabilities. [2] most of the small and medium-sized supply chain nodes have few inherent resources, so it is difficult to deal with complex environmental conditions alone, and they are often unable to bear corporate social responsibility in the supply chain alone. Corporate social

responsibility is not only a conscious undertaking by enterprises, but also a certain requirement for corporate social responsibility from the society, the government and the market. And there is more and more research.

For the nodes of manufacturing supply chain, the boundary problem of corporate social responsibility has become a practical problem in manufacturing industry. There are many enterprises in the supply chain, and the concept, action, rhythm and feedback ability of each enterprise in the undertaking of social responsibility are different. It will cause some enterprises to hitchhike when they fulfill their corporate social responsibility. Moreover, due to the bullwhip principle of supply chain information processing, the information of corporate social responsibility will be distorted, which will lead to the failure of the information incentive mechanism of corporate social responsibility in the whole supply chain.

2. Research on the Boundary of Enterprise Social Responsibility Application in Manufacturing Industry

2.1. Analysis of current social responsibility of manufacturing enterprises

At present, many enterprises have different views and practices on corporate social responsibility. It can be divided into about two categories. The first is to regard profit maximization as corporate social responsibility; the second is to consider profit maximization and social responsibility as social responsibility. Corporate social

responsibility may become the propaganda tool of enterprise marketing. Corporate social responsibility may also be a tool to avoid government regulation. Corporate social responsibility may also be a remedial tool for government failure. Of course, there are also many entrepreneurs pay attention to reward society, the purpose of running enterprises is to bear social responsibility. These will have an impact on the competitiveness of enterprises.

2.2. Research on the minimum boundary theory of corporate social responsibility in manufacturing industry

On the one hand, manufacturing enterprises want to enhance their core competitiveness, on the other hand, in order to reasonably bear corporate social responsibility, they must carry out collaborative design of these two aspects. The corporate social responsibility of corporate departments should shrink to these fields and form a new corporate boundary of corporate social responsibility. At this time, enterprises only focus on corporate social responsibility that is helpful to core competitiveness, while reducing investment and commitment to social responsibility in other fields. In this way, the win-win and good mutual feed between corporate social responsibility and core competitiveness can be realized.

There are several aspects to be considered when enterprises shrink to the smallest enterprise boundary. One is the matching of core resources and core competitiveness. The other is the matching between the main areas of corporate social responsibility and the core competitiveness. In this way, the concept of corporate core social responsibility is deduced. The relationship between the domain of corporate core social responsibility and the core resources is also deduced from the evolution of the field of corporate core social responsibility. This is the change of the business scale of the enterprise, which is the tangible boundary of the management scale of the enterprise. This is the specific application of modular thinking method in the boundary of corporate social responsibility. The modularization of enterprises not only has the modularization of resources and capabilities, but also has the research significance of modularization of corporate social responsibility. The modularization of corporate social responsibility can improve the efficiency and effect of modularization in manufacturing industry, and also provide the basis for the modularization path of virtual enterprise.

3. Organization Analysis of Modularization Application of CSR in Manufacturing Industry

Professor Badlwin and Clark of Harvard University published their paper "Management in the Modular era" in Harvard Business Review in 1997. They think that today's industry has entered the modular era of modular

design, modular production and modular consumption. Japanese economists Yoshihiko Aoki and Yoshihiko Ando have pointed out that in the era of industrial 4.0, the essence of manufacturing structure was modularization. A module refers to a semi-autonomous subsystem that forms a more complex system or process by interacting with other subsystems in accordance with certain rules (Aoki Changyan, 2003). The author believes that the modularization of manufacturing corporate social responsibility includes the modularization decomposition of manufacturing CSR and the modular integration of manufacturing CSR.

Aiming at the virtual modularization of corporate social responsibility in manufacturing industry, we can study the resource modularization of corporate social responsibility and the modularization of corporate social responsibility. The author thinks that the modularization application of social responsibility in manufacturing industry should mainly do the modularization decomposition of corporate social responsibility ability and realize the clear minimum boundary of corporate social responsibility from the enterprise scale. The modularization application of social responsibility of virtual enterprise ability is mainly to do the modularization integration of corporate social responsibility undertaking, and try to form the invisible boundary of the best ability of virtual enterprise social responsibility undertaking. The modularization integration of corporate social responsibility ability is guided by the modularization integration of corporate social responsibility resources. In the practical management of enterprises, it is necessary to determine the organizational model of enterprise modularization. [5] Manufacturing enterprise management and virtual enterprise management are similar at some times, sometimes different. The modularization of social responsibility of manufacturing enterprises is relatively solidified, and the modularization of social responsibility of virtual enterprises is more flexible and free. According to the characteristics of scientific systematization of management, the module system of corporate social responsibility in manufacturing industry can be divided into the physical module of corporate social responsibility, the processing module of corporate social responsibility and the value module of corporate social responsibility. This provides a multi-level orientation for the modularization of social responsibility management in manufacturing industry.

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