Research on Innovation and Practice of Enterprise Economic Management from the Perspective of Low-carbon Economy

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Abstract: Under the low-carbon economy, the living environment and market demand of enterprises have changed. If enterprises do not change the traditional mode of production and operation, they will not be able to play their own competitive advantages. Therefore, the innovation and practice of enterprise economic management under the low-carbon economy is very necessary. The traditional costs of industrial enterprises include materials, labor, manufacturing costs and various expenses. The low-carbon economic environment puts forward new requirements for the cost content, mainly taking the impact of resource consumption on the environment into account in cost accounting. This paper first analyzes the requirements of low-carbon economy on enterprise cost, then introduces the shortcomings of current enterprise economic management, and finally puts forward the innovation and practice of enterprise economic management from the perspective of low-carbon economy, including establishing a correct development concept, developing clean production, building a green enterprise management ideology and increasing the innovation of enterprise scientific research and development, hoping to provide effective reference for relevant people.

1. Introduction

Enterprises are in the background of low-carbon economy, and the related economic management activities of enterprises need to actively integrate various new technologies, innovative methods and innovative ideas to promote the optimal management of enterprises [1-2]. According to the requirements of low-carbon economy, enterprises can better meet the requirements of low-carbon economy by optimizing their own management methods and promoting the development of enterprises in the process of business development. Under the low-carbon economy, the living environment and market demand of enterprises have changed. If enterprises do not change the traditional mode of production and operation, they will not be able to play their own competitive advantages. Therefore, the innovation and practice of enterprise economic management under the low-carbon economy is very necessary.

2. Requirements of low-carbon economy on enterprise cost

The survival and development of human beings are inseparable from the environment. In order to meet the needs of this kind of survival and development, human beings must constantly transform and process the natural environment to make it more suitable for human real life. With the universal implementation of sustainable development strategy, the development trend of industrial ecology has gradually become a trend in developed countries. Industrial ecologicalization refers to the formation of an organic system similar to the natural ecological chain in the cluster according to the circular mechanism of natural ecology, so as to achieve the dual purposes of economic development and environmental protection [3-4]. The development mode of low-carbon economy requires the healthy development of economy and the reduction of environmental damage, that is, the realization of industrial ecology.

Enterprise low-carbon functional management is the embodiment of low-carbon management and the pillar of enterprise management element system. Low-carbon corporate culture is the unity of taking low-carbon concept as corporate values, taking into account the social, economic and

ecological benefits of corporate output, and has the function of energy conservation and environmental protection. The key element system of enterprise low-carbon management is shown in Figure 1.

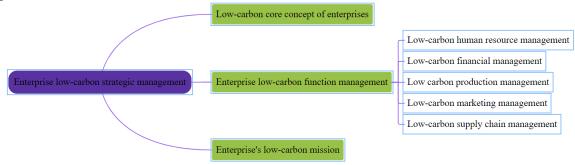


Figure 1 Composition of enterprise's low-carbon management elements system

The traditional costs of industrial enterprises include materials, labor, manufacturing costs and various expenses. The low-carbon economic environment puts forward new requirements for the cost content, mainly taking the impact of resource consumption on the environment into account in cost accounting. Enterprises consume resources to obtain benefits for enterprises, so they must bear corresponding social responsibilities, and enterprises will also incur costs in fulfilling social responsibilities. If enterprises apply the concept of life cycle to calculate carbon footprint, fully consider the composition of enterprise costs in a low-carbon environment, and consider all the costs that may occur afterwards in product design, then enterprises will brainstorm, reduce carbon emissions, and avoid paying a huge price because of environmental factors [5]. Under the background of low-carbon economy, logistics cost is also an important aspect of enterprise cost control. Green logistics must be considered in the transportation of enterprise products to minimize the turnover cost. The green transportation channel opened by the government for transportation enterprises has helped the implementation of green logistics.

Under the low-carbon economy, enterprises should promote the innovation of management mode and establish a scientific and complete management system in their business development. Enterprises should adopt the idea of life cycle to do a good job in cost control, and apply the idea of comprehensive risk management to run low-carbon environmental protection through every link of enterprise operation, so as to enhance the competitiveness of enterprises and avoid green barriers.

3. The deficiency of current enterprise economic management

3.1. Backward management concept

Low-carbon economy will organically combine enterprises, investors and society. For enterprises and investors, in traditional non-low-carbon projects, extensive development can achieve greater benefits in a short time. However, this development mode that separates social benefits is bound to be limited by the environmental carrying capacity, which will be detrimental to the development of enterprises in the long run.

China's industrial sector still lacks sufficient understanding of the far-reaching significance of industrial ecological development [6-7]. Because China's environmental protection is not strong enough, and the legal system of environmental pollution sanctions is not perfect, enterprise pollution cannot be severely punished. The expenses that enterprises need to pay for pollution discharge are much less than the compensation expenses required for actual environmental pollution, that is, the expenses for enterprise pollution control are higher than the compensation expenses, which leads to external uneconomical phenomenon, which leads enterprises to pay compensation expenses rather than ignore the environment. However, the ideas of management and leaders in many enterprises are outdated and difficult to adapt to the development of the times. The innovative ideas and crisis ideas are only in words, but not in consciousness, or they are in consciousness and difficult to guide practice.

3.2. Backward economic management strategy

Low-carbon concept will promote the strategic transformation of enterprises, and from the perspective of strategic concept, it will change the traditional thinking mode dominated by gaining competitive advantage and improving resource capacity. At present, due to the limitation of their own or enterprise vision, enterprise economic managers are often unable to formulate enterprise economic management strategies according to the economic development environment, which eventually leads to the backwardness and unrealistic enterprise economic management strategies [8]. When many enterprises make strategic planning, they can usually only analyze the data information of profit, cost and investment income at the macro level, and various economic management details are rarely taken into consideration. However, in the face of this series of factors, it is often difficult for lagging management methods to make effective and reasonable responses, which will adversely affect the business development of enterprises.

3.3. The organizational structure of economic management is not perfect

Management control is an important index reflecting the executive power of enterprise management. In the traditional management mode of enterprises, there are problems in the management organization structure and management system, which leads to unsatisfactory management control in the process of enterprise management, and it is difficult to effectively achieve management objectives. Therefore, the imperfect economic management mechanism of enterprises leads to the mutual shirking of responsibilities among departments, and finally the enthusiasm of employees in enterprises decreases greatly.

4. Innovation and practice of enterprise economic management from the perspective of low-carbon economy

4.1. Establish a correct concept of development

For enterprises, in order to adapt to the low-carbon environment to the greatest extent in today's rapid economic development, it is necessary to change the original financial management mode as soon as possible and establish a low-carbon financial concept. For the overall interests of enterprise development, the development of low-carbon economy has a profound positive impact [9]. We should first realize that low-carbon economy has a positive impact on improving the enterprise environment. In practical work, fully understanding the low-carbon economy will bring both opportunities and challenges to the financial management of enterprises. Therefore, financial managers should bring the negative impact of low-carbon economy into the risk assessment system.

We should raise managers' awareness of innovation, and make it clear that management is actually productivity and science, and economic management innovation is an important guarantee and core driving force for enterprise management and development. Only by making full use of the innovative ideas of employees, especially managers, can we promote technological innovation in economic management and enable enterprises to achieve a top-down innovative atmosphere. To reduce the consumption of resources and economic losses, enterprises must adopt scientific and environmental protection methods in fund-raising and fund operation, and take ensuring the smooth operation of enterprises as the basis to minimize idle and useless funds so that funds can give full play to their own value. In addition, low-carbon investment emphasizes that enterprises should not only invest in short-term benefits, but also invest in low-carbon environmental protection projects, develop low-carbon industries and achieve sustainable development of enterprises.

4.2. Develop cleaner production

In order to truly conform to the trend of low-carbon economic development, enterprises must take source control. Cleaner production can promote enterprises to rationally develop resources so as not to make them exhausted, and maintain the purification capacity and carrying capacity of the environment. Because of the public nature of the environment, it is easy to be ignored by people, so destruction is inevitable. Carbon trading is a market mechanism to promote greenhouse gas

emission reduction and reduce carbon dioxide emission. Carbon dioxide is the largest amount of greenhouse emission reduction, so carbon trading generally refers to carbon dioxide trading [10]. Enterprises should develop cleaner production, actively use the carbon trading market and reduce the overall operating costs of enterprises.

The full life cycle cost recognition of cleaner production products can be divided into four stages: cleaner product design, cleaner product production, green marketing and after-sales service. According to the concept of cleaner production, adopting the idea of product life cycle to confirm the cost of enterprises in low-carbon environment will make the cost information more comprehensive and accurate. The cost confirmation of each stage of the product life cycle is shown in Figure 2:



Figure 2 Life cycle cost confirmation process of low-carbon environmental products

In the low-carbon economy environment, enterprises should mainly take clean production as the leading idea and increase after-sales operations such as waste recycling, pollutant treatment and environmental protection. In a low-carbon environment, it will increase the components of environmental protection equipment purchase, green process introduction, resource utilization efficiency improvement, resource waste reduction, waste product recycling, resource recycling, quality control, green information input, product packaging, green product promotion and green logistics, etc. The specific reasons depend on the process flow and nature of the enterprise.

4.3. Building a green enterprise management ideology

In business management, enterprises must clarify the relationship among enterprise development, environmental protection and energy use, and show the value of low-carbon economic development at the level of value system and cultural system. For example, enterprises can introduce a new generation of information technology such as big data, strengthen the pertinence of financial management-related work, and use it to establish a financial "risk point" detection and supervision mechanism, find risk points in time and put forward corresponding countermeasures to prevent problems before they happen. When the scientific and reasonable internal control system is completed, it should be strictly implemented in the implementation to promote the full realization of the system functions, provide strong guarantee for the effective financial work of enterprises, and also make the new accounting system and financial internal control system promote each other and develop healthily in enterprises.

Under the background of the information age, the development of enterprise-related construction can not be separated from the support of information technology, and the role of information technology in enterprise management is becoming more and more prominent. At the same time, the whole market form is constantly developing and changing, and accurate grasp of real-time

information can support the stable development of enterprises. To improve the awareness of low-carbon management in enterprises, we should start from different aspects such as development management, talent management and financial management, and comprehensively and systematically cultivate the awareness of low-carbon management in enterprises, especially in energy conservation and emission reduction. At the same time, economic managers should also pay attention to the scientific allocation of different economic resources to ensure the effective implementation of economic management countermeasures and provide conditions for the stable operation of economic management institutions.

4.4. Increase the innovation of scientific research and development in enterprises

Enterprises need to establish an information management system reasonably, store all kinds of financial statements and data information in the information database reasonably, do a good job in information collection and information decision-making, build a data analysis system, and uniformly process all kinds of manual operations through machines to optimize the efficiency of data analysis and data processing. While introducing new technologies and new equipment to innovate economic management methods, enterprises should also analyze comprehensive benefits and reflect on energy consumption, so as to avoid unbalanced benefits after applying new methods and ensure the efficient operation of new production management methods.

Traditional supply chain management takes customers as the center, aims to meet customers' needs while minimizing the total cost, and rarely considers energy and environmental issues. Supply chain management in a low-carbon economy should be coordination and cooperation from an ecological perspective, and its goal is to make the whole supply chain realize low-carbon environmental protection, energy saving and high efficiency, so as to ensure the environmental competitiveness of enterprises. In the process of scientific research and innovation, enterprises need to fully investigate the market and develop products that meet market demand according to market demand, so as to ensure the irreplaceable position of enterprises in the tide of global trade.

5. Conclusions

Under the low-carbon economy, enterprises should promote the innovation of management mode and establish a scientific and complete management system in their business development. Enterprises should adopt the idea of life cycle to do a good job in cost control, and apply the idea of comprehensive risk management to run low-carbon environmental protection through every link of enterprise operation, so as to enhance the competitiveness of enterprises and avoid green barriers. This requires enterprises to be based on reality, all staff to participate in economic management innovation activities, establish innovation consciousness, optimize innovation theory, enrich innovation methods, improve economic management innovation system, build an economic management innovation atmosphere, and boost the steady development of economic management innovation enterprises by increasing scientific and technological research and innovation of enterprises.

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References

- [1] Tang Yuan, Shao Yunfei, Chen Yijun. Research on the latest innovative methods and practices of scientific and technological innovation [J]. Scientific Management Research, 2018, 36(1):4.
- [2] Xu Yingying, Qi Liangqun, Xu Xiaowei. Research on the decision-making mechanism of enterprise technological innovation model under the background of low-carbon economy-based on

- the perspective of carbon tax policy [J]. Logistics and Management, 2018, 27(9):9.
- [3] Liu Nanfeng, Fan Lili. Research on carbon asset identification of enterprises from the perspective of low-carbon economy [J]. Ecological Economy, 2016, 32(10):4.
- [4] Campiglio, Emanuele. Beyond carbon pricing: The role of banking and monetary policy in financing the transition to a low-carbon economy[J]. Ecological Economics, 2016, 121(8):220-230.
- [5] Lizana J, Manteigas V, Chacartegui R, et al. A methodology to empower citizens towards a low-carbon economy. The potential of schools and sustainability indicators[J]. Journal of Environmental Management, 2021(284):284.
- [6] Hou P, Xu M. Industrial Economic Benefit Analysis of Marine New Energy Development under Low Carbon Economy Background[J]. Journal of Coastal Research, 2020, 103(1):1014.
- [7] Zhao Liming, Chen Zhezhi, Liu Jiayue. Evolutionary game between local governments and tourism enterprises in a low-carbon economy [J]. Tourism Journal, 2015, 30(1):11.
- [8] Yin Xiaoyue, Wang Juan. Research on the innovation and practice of economic management of pharmaceutical enterprises under the new situation [J]. Printing and dyeing auxiliaries, 2017, 000(1):25.
- [9] Xue Jing. Analysis of the supporting effect of fiscal and taxation policies on independent innovation of enterprises [J]. Technical Economy and Management Research, 2015(7):5.
- [10] Wu Yinghuan. Research on the application of big data in enterprise marketing management innovation [J]. Economics, 2021, 3(6):54-55.