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RESEARCH ON CONFIRMATION AND MEASUREMENT OF CORPORATE ENVIRONMENTAL COSTS-BASED ON GREEN ECONOMY

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ABSTRACT

Green economy can effectively solve the issue of environmental damage happened during economic development. Meanwhile, many countries have taken the development of green economy as an economic development mode, in which the protection of ecological and environmental, and the development of economic and social could be simultaneously realized. Since the deteriorating environmental situation has seriously affected the healthy development of human society, the environmental cost management should be incorporated into the enterprise cost management research as soon as possible. This paper mainly studies the theory of natural resources and environmental system in the enterprise cost management theory, discusses the enterprise environmental cost management, confirmation and measurement under low carbon economy, provides new ideas for improving the enterprise environmental cost theory and realizing the sustainable development of economy.

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Related theoretical research. Firstly, in terms of low-carbon economic theory, it is based on low energy consumption, low pollution, low emissions, with an ability to maximize carbon productivity, adapt to climate change, as far as possible slow the negative impact of climate change and along the path of sustainable development of economic form. And its core and goal is to innovate energy technology and system, to reduce the risk of climate warming, to promote the sustainable development of mankind [1, p.126-148]. Since the 1970s, the international community has been concerned about the development of low-carbon economy. The United Nations has adopted the United Nations Framework Convention on Climate Change (1992), the Kyoto Protocol (1997), the Delhi Declaration (2002), the Paris Agreement (2015), and held the 26th Conference of the Parties to the Convention in Glasgow, UK in November 2020, calling for emission reduction, tackling climate change and ensuring sustainable economic development [2]. Low-carbon economy is a new economic development model, which affects the whole cycle of the product production process of enterprises, and its essence is energy conservation and emission reduction. In the EU Climate and Energy Framework for 2030, the Commission proposed in September 2020 to raise the 2030 greenhouse gas emission reduction target, including emissions and removals, at least 55% compared to 1990 [3]. As one of the largest energy consumers, Chinese government also advocates the development of environmental protection industry, new energy industry, ecological economy and circular economy. Low carbon economy requires following the law of ecology to reduce the impact of economic activities on the natural environment to as small the extent as possible. The purpose of low carbon economy is to achieve sustainable economic, social and environmental development.

Secondly, it is the theory of sustainable development. Sustainable development reflects the reflection on the relationship between human own progress and natural environment, and is a product of the development of human society. The concept of sustainable development originally originated from ecology

was proposed in the 1980 by the International Alliance for Conservation of Nature in the World Outline of Conservation, and later added some new connotations to form a comprehensive concept in the fields of economic, social, cultural, technological, and natural environment. In 1987, at the WECD, on behalf of the members, the concept of "Sustainable development" was formally introduced in "Our Common Future" (Our Common Future) [4]. At the United Nations Conference on Environment and Development held in Rio de Janeiro, Brazil in June 1992, a series of documents such as Agenda 21 and the Framework Convention on Climate Change were adopted, which was agreed and recognized by the concept of sustainable development had international significance, meaning that the concept of sustainable development developed from theoretical exploration to the stage of global action [5].

Niu Wenyan (2014) puts forward that the theoretical connotation of sustainable development is extracted from three essential elements, namely, the "power" of development, the "quality" of development, and the "fairness" of development. He emphasized that the sustainable development SD maximization can be achieved when the intersection of dynamics (DS), mass (QS), and fairness (ES) maximize [6, p.410-414]. The theoretical basis of cost management is the sustainable development theory, and also the theoretical basis of environmental cost accounting. While focusing on the state and goals of development, more attentions have been paid to the cultivation and sustainability of development potential for development, and emphasized the endurance and sustainability of development trends. Under the concept of sustainable development, environmental cost accounting is in the three-dimensional "economic-social-ecological" system, and its mission and position is inevitably different from the traditional cost accounting. Therefore, the traditional cost accounting should be revised to meet the needs of environmental cost accounting objectives.

Confirmation and measurement of enterprise environmental costs from the perspective of low-green economy. Cost is the same study as economics and accounting, but from different perspectives. Qian Wenjuan (2018) noted that the definition of cost in Cost Management is the resources consumed or abandoned to achieve a particular purpose. In economics, people study not only the costs incurred in the production process of enterprises, but also the costs incurred before and after the production process and the costs incurred between enterprises, between enterprises and society, and between internal organizations [7, p.182-183]. In this paper we want to discuss the cost management environmental cost as a technical tool to solve the economic problems in the economic development. The confirmation of enterprise environmental cost needs to combine the actual situation of the enterprise, to start from the environmental protection concept of low-carbon economy, to analyze the production and operation activities of the enterprise, as well as to confirm the environmental cost of the enterprise.

Cost accounting based on the green economy. Environmental costs are the cost of being responsible for the environment and being required to manage the impact of corporate activities on the environment. Enterprises with resource consumption as the main focus attach great importance to the reduction of environmental costs. In the environment of low carbon economy, the environmental requirements of energy enterprises become very high. In order to reduce the control cost of the environment, enterprises must use the various process production links of accounting enterprises to accurately control the investment of resources. Based on the perspective of low-carbon economy, accounting is not a change of accounting method, but a great change of accounting content. Here we take power companies as an example to list what should be included in environmental costs during production:

- 1) Depreciation expense of the equipment.
- 2) Equipment maintenance fee.
- 3) Treatment fee for waste pollutants.
- 4) Research and development costs on environmental protection.
- 5) Other environmental protection expenditures

In the process of confirmation and measurement of environmental costs, two main problems are needed to be solved. One is that the accounting subjects have to be standardized and unified. The other is that the environmental costs should be capitalized or cost-oriented. The recognition of environmental costs should first establish a unified measurement specification to facilitate management and comparability of data between enterprises. The environmental cost account is the profit and loss account of the current environmental cost and the comprehensive accounting system issued by the United Nations Statistics Agency (1993), defining the environmental cost as the loss due to the quantity consumption and quality of environmental resources [8]. The 15th meeting of the United Nations International Accounting

and Reporting Standards Intergovernmental Expert Working Group (ISAR) first proposed in the Position Announcement of Environmental Accounting and Reporting that the environmental that cost should be measured as the period cost and capitalization conditions should be capitalized [9]. Wang Yan and co-workers (2012) proposed that environmental costs flow economic interests into the enterprise through the following ways directly or indirectly, a) improving the ability of other assets owned by the enterprise, the production safety, and production efficiency. b) reducing or prevent pollution from future production and operation activities. c) protecting the environment [10, p.8-10].

Relevant recommendations. Enterprise pollution emission accounting system should be established as soon as possible. Overall, the confirmation of carbon emission costs and the determination of measurement are more complex. Carbon emissions costing require matching accounts to count these measurements. It is required to be included accurately and promptly in accounting statements. From the perspective of low-carbon economy, it will become very meaningful to build the enterprise carbon emission accounting system.

Conclusions. Under the promotion of low-carbon economy, enterprises should assume the corresponding environmental responsibilities. The internalization of external environmental costs is an inevitable trend, including establishment an environmental cost accounting system and gradually internalizing the external costs that should be borne by the enterprise. It can reduce the impact of large profit fluctuations on enterprises in the centralized external environmental costs in the future.

Including environmental costs into enterprise accounting costs can help enterprises to establish environmental awareness, so as to force enterprises to improve their production mode, optimize the industrial structure to ensure reduced energy consumption, and finally achieve the purpose of environmental protection. From the perspective of low-carbon economy, the development of enterprise environmental cost accounting work is facing profound challenges in the transformation period, especially by taking certain measures to optimize and adjust their own environmental cost accounting work. Taking the sustainable development as the goal can solve the problems existing in the environmental cost accounting of enterprises, implement the preventive management of enterprise environmental cost accounting, and promote the unity of enterprise economic and social benefits to a direct extent.

So, I think as the country vigorously advocates a green economy, government departments, enterprises, and the public must actively respond to the call of the state and clarify their rights, responsibilities and obligations. Government departments must vigorously support and supervise enterprises to prevent business activities that cause major environmental pollution. Once discovered It is absolutely serious to deal with rectification. For the sake of its own reputation and long-term development, enterprises must also consciously reduce pollution and emission reduction, and the public must also play a good role in supervision and contribute to the creation of a green environment.

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