

Research on Enterprise Green Accounting Information Disclosure under the Background of Low-carbon Economy

-- Take the Home Appliance Industry as an Example

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Abstract. In order to explore the low carbon economic background of green accounting information disclosure, understand the industry how to adapt to the sustainable development and environmental trends, the article from the overview of the low carbon economy, analyzes the low carbon economy of home appliance enterprise green accounting information disclosure requirements, after according to the current home appliance enterprise green accounting information disclosure problems put forward the specific solutions, including encouraging home appliance enterprise voluntary disclosure of social responsibility information, improve the home appliance enterprise green accounting information disclosure constraint system, improve the home appliance enterprise green accounting information disclosure content, etc. Research shows that the green accounting information disclosure in the home appliance industry plays a key role in the era of low-carbon economy, and helps to improve the sustainability, transparency and credibility of enterprises. However, there are still some challenges, in order to achieve a greener and more sustainable economic development, home appliance enterprises need to further improve their green accounting information disclosure practices to meet the growing demand for environmental protection.

Keywords: Low-carbon Economy; Enterprise Development; Green Accounting; Information Disclosure.

1. Introduction

With the increasing development of global environmental problems, low-carbon economy has become an important development direction in the world. In this new economic background, enterprises no longer only pursue economic profits, but also assume greater social and environmental responsibilities. As a key sustainable operation practice, green accounting information disclosure is becoming one of the key tools for enterprises to adapt to the requirements of low-carbon economy. As an industry highly dependent on resource and energy, the home appliance industry plays an important role in the transformation of the low-carbon economy. With the growing consumer demand for environmentally friendly products and green lifestyles, home appliance enterprises are facing great challenges and opportunities in adapting to market changes and social responsibilities. Therefore, the disclosure of green accounting information in the home appliance industry has become a research field of much attention.

2. Low Carbon Economy Overview

Low carbon economy is a kind of economic development form, guided by the concept of sustainable development, through technological innovation, system innovation, industrial transformation, new energy development and other means, aims to minimize high carbon energy consumption such as coal and oil, thus reduce greenhouse gas emissions, the concept of pursuit in economic and social development and ecological environment protection to achieve a win-win goal. The concept of a low-carbon economy was first proposed in the UK Energy White Paper in 2003. Britain, as the birthplace of the first industrial revolution and an island nation with relatively few resources, is aware of the threat of energy security and climate change to the country. They in the face of import dependence and the threat of climate change, put forward the idea of creating a low carbon economy, the influence of the idea quickly spread to the world, including our country, in August 2010, the National



Development and Reform Commission identified in five provinces and eight cities for low carbon industry construction pilot work, marks the Chinese active in low carbon economic development. By reducing carbon emissions and promoting clean energy and sustainable development, the low-carbon economy has provided strong support for the global ecological environment and economic prosperity.

3. Requirements of Low-carbon Economy on Green Accounting Information Disclosure of Home Appliance Enterprises

3.1. Disclosing the Environmental Responsibility and Green Project Information of Home Appliance Enterprises

First, home appliance companies need to disclose their environmental responsibilities, including clarifying their commitments and goals in reducing carbon footprint, resource conservation and environmental protection, including specific actions taken by companies, such as reducing energy consumption in the production process, reducing waste emissions, and promoting recycling. By disclosing this information, home appliance companies can demonstrate their commitment and progress in sustainability to investors, consumers and regulators. Secondly, the disclosure of green accounting information also requires home appliance enterprises to provide information about green projects, including the investment and achievements made by enterprises in green technology research and development, clean energy adoption, green products and other aspects. The disclosure of such information can help investors assess the sustainability and competitiveness of companies, while also helping consumers understand whether the products they buy meet environmental standards.

3.2. Disclose the Carbon Emission Information of Home Appliance Enterprises

First, the disclosure of carbon emission information enables investors, consumers, and other stakeholders to fully understand the environmental performance of home appliance enterprises. Through transparent disclosure of corporate carbon emission data, people can evaluate their achievements and commitment in carbon management and emission reduction, thus making more targeted choices to invest, purchase products or cooperate with enterprises, which helps to encourage enterprises to actively take emission reduction measures to improve their sustainability and market competitiveness. Second, the disclosure of carbon emission information helps regulators to supervise the environmental compliance of enterprises, and the government and regulators can use these data to ensure that companies comply with environmental regulations and carbon emission restrictions, so as to strengthen the effectiveness of environmental policies. Most importantly, carbon emission information disclosure is a way for companies to fulfill their social responsibility and promote a low-carbon economy. The active disclosure of carbon emissions data by home appliance companies shows their willingness to take environmental responsibility and take active actions in reducing their carbon footprint, improving energy efficiency and adopting clean energy.

3.3. Disclosure of the Energy Conservation and Emission Reduction Situation of Home Appliance Enterprises

Disclosure of energy conservation and emission reduction can deliver to investors and consumers their commitment and efforts in environmental protection. By providing detailed information, home appliance companies can clearly demonstrate their energy-saving measures in product design, manufacturing and operation, as well as carbon emission reduction results, which helps to enhance corporate credibility, attract more investment and consumer support, and promote sustainable operations. Secondly, the disclosure of energy conservation and emission reduction situation provides opportunities for home appliance enterprises to improve and innovate themselves. Through a comprehensive understanding of energy conservation and emission reduction, companies can identify potential areas of improvement and develop more effective emission reduction strategies, which will

help improve production efficiency, reduce energy consumption and reduce costs, while also setting a benchmark for sustainable development in the competitive market.

4. Problems Existing in the Green Accounting Information Disclosure of Home Appliance Enterprises under the Background of Low-Carbon Economy

4.1. The Concept of Independent Disclosure of Home Appliance Enterprise Social Responsibility Report is Insufficient

In the context of low-carbon economy, home appliance enterprises should assume more social responsibilities, especially in reducing carbon emissions and promoting sustainable development. However, many home appliance enterprises still lack voluntariness and initiative in their social responsibility reports, treating them more as an obligation of regulatory compliance rather than a proactive initiative. This reflects the lack of concept of environmental protection and sustainability, often only meeting the minimum statutory requirements, and does not really regard the disclosure of green accounting information as the core mission of the enterprise. This lack of autonomy and enthusiasm will lead to limitations in implementing environmental protection measures and delivering their commitments, and affect their sustainability and competitiveness in the era of low-carbon economy.

4.2. The Green Accounting Information Disclosure System of Home Appliance Enterprises is Not Perfect

Under the background of low-carbon economy, home appliance enterprises are faced with the problem of imperfect green accounting information disclosure system. This problem is more significant in home appliance enterprises, because their products and businesses are closely related to resource consumption and carbon emissions. Home appliance enterprises need effective systems to ensure the accuracy, reliability and consistency of information disclosure to meet the needs of investors, regulators and consumers. However, the current system still has shortcomings in its definition, standardization, and regulation. The lack of clear industry standards and guidelines makes information disclosure inconsistent between enterprises and it difficult to compare and evaluate. In addition, regulatory systems need to be stricter and more transparent to ensure that companies comply with environmental regulations and policies.

4.3. The Green Accounting Information Disclosure Content of Home Appliance Enterprises is not Complete Enough

In the context of low-carbon economy, home appliance enterprises are faced with the problem of incomplete content of green accounting information disclosure. Many home appliance enterprises still have insufficient disclosure of green accounting information, and fail to provide enough detailed data and information to fully display their green business practices, including the lack of key environmental information on carbon emissions, resource use efficiency, product life cycle analysis, recycling and sustainable procurement. Incomplete information disclosure makes it difficult for stakeholders to fully understand the environmental initiatives and performance of enterprises, thus limiting the assessment and supervision of corporate sustainability.

4.4. Home Appliance Enterprises Lack of Consistent Green Accounting Standards

In the context of low-carbon economy, home appliance enterprises are faced with a prominent problem, that is, the lack of consistent green accounting standards. At present, the lack of green accounting standards enables different enterprises to use different indicators and methods to measure and report environmental performance. This inconsistency makes it difficult for investors, regulators and stakeholders to compare the environmental performance of different enterprises, and also reduces the effectiveness and credibility of information disclosure. Moreover, the lack of consistent standards

and guidelines also hinders regulatory oversight and policy making because they struggle with developing universally applicable environmental standards and regulations.

4.5. The Future Sustainability Planning of Home Appliance Enterprises is Insufficient

Home appliance enterprises are characterized by their long product life cycle, which is closely related to resource use and energy consumption. Therefore, it is crucial for future sustainability planning. However, many home appliance companies fail to fully consider and integrate environmental and sustainability factors into their long-term strategies, including the lack of clear goals and visions, green design and production plans for future products, and strategies to address environmental regulations and market demand. Insufficient future sustainability planning will lead to difficulties in adapting to future environmental and market challenges, and also hinder their sustainability and competitiveness in the era of low-carbon economy.

5. Optimization Measures of Green Accounting Information Disclosure of Home Appliance Enterprises under the Background of Low-Carbon Economy

5.1. Home Appliance Enterprises are Encouraged to Voluntarily Disclose Their Social Responsibility Information

In the era of low-carbon economy, the disclosure of green accounting information is crucial for home appliance enterprises, which not only helps to improve the sustainability and market competitiveness of enterprises, but also provides transparency and credibility for investors and consumers. One of the important optimization measures is to encourage home appliance enterprises to voluntarily disclose social responsibility information to demonstrate their commitment to environmental protection and sustainable operation. First of all, home appliance enterprises should encourage employees to participate in the voluntary disclosure of social responsibility information, covering their environmental advocacy and sustainable behaviors, such as energy conservation and emission reduction, resource conservation, recycling, etc. The active participation and demonstration of employees will have a positive impact on the green image of home appliance enterprises and increase the sustainability of the enterprise. Secondly, home appliance enterprises should voluntarily disclose environmental protection information about products, such as energy efficiency grade, carbon footprint, and material sustainability, so as to encourage consumers to shop wisely and choose more environmentally friendly products, so as to promote the market to a greener direction. Finally, home appliance enterprises should also voluntarily disclose the environmental protection of their supply chains, including suppliers' environmental policies, energy efficiency, carbon emissions and other information, so as to encourage enterprises to cooperate with suppliers and promote the sustainability of the entire supply chain.

5.2. Improve the Green Accounting Information Disclosure and Constraint System of Home Appliance Enterprises

Improving the constraint system of home appliance enterprises can improve the quality, accuracy and consistency of information disclosure, and then meet the needs of low-carbon economy. First of all, the government and regulatory agencies should formulate clear regulations and policies to stipulate the standards and requirements for green accounting information disclosure of home appliance enterprises. These regulations and policies can force enterprises to disclose information in accordance with the prescribed standards, and set up corresponding punishment mechanisms to ensure the compliance of enterprises. In addition, the government can provide incentives such as tax incentives to encourage enterprises to actively fulfill their social responsibilities and disclose green accounting information. Secondly, in order to ensure the independence and credibility of information disclosure, an independent regulatory agency can be established to be responsible for reviewing and supervising the green accounting information disclosure of home appliance enterprises. It can formulate audit standards and conduct independent audit to verify whether the disclosed information of enterprises is

true and compliant. Finally, home appliance enterprises should actively cooperate with stakeholders, such as consumers, investors, environmental protection organizations, etc., to establish a transparent information disclosure mechanism. Companies need to proactively share environmental performance data, sustainability plans, and progress of environmental projects with these stakeholders, which will help build a more open and responsible corporate image, and provide more information for society and the market to assess the sustainability of companies.

5.3. Improve the Disclosure Content of Green Accounting Information of Home Appliance Enterprises

In the context of low-carbon economy, the green accounting information disclosure of home appliance enterprises should be more detailed and comprehensive to meet the needs of the society and the market for environmental protection information. First of all, home appliance enterprises need to improve the disclosure of the green performance of their products, including providing information on energy efficiency, environmental protection certification, material sustainability, product life cycle analysis and so on. Enterprises can adopt standardized environmental protection labels and certification to help consumers identify environmentally friendly products. By disclosing the environmental protection characteristics of products in detail, consumers can have a clearer understanding of the greening degree of products, so as to make more environmentally friendly purchase decisions. Second, home appliance enterprises should provide information about the green performance of the supply chain, such as environmental policy for suppliers, energy efficiency, carbon emissions, such as disclosure, by revealing the environmental protection of supply chain, enterprises can emphasize its sustainable procurement and supply chain management efforts, at the same time also can encourage suppliers to adopt more environmental protection. Finally, enterprises should disclose detailed information about environmental protection projects and initiatives, including environmental protection projects, carbon neutral plans, clean energy adoption, etc., so as to demonstrate their commitment and actions in environmental protection to investors, consumers and stakeholders, so as to provide more support for the realization of low-carbon economy.

5.4. Develop and Follow Independent Green Accounting Disclosure Standards

Independent green accounting disclosure standards can provide a clear framework and guidelines to make information disclosure consistent and comparable, which helps to enhance the sustainability, transparency and credibility of enterprises, while also providing reliable environmental information for investors and stakeholders. First of all, home appliance enterprises should actively participate in the formulation of green accounting standards, which means that enterprises should cooperate with industry associations, government agencies and environmental organizations, together for home appliance industry green accounting disclosure standards, these standards should consider the special environmental problems, such as energy efficiency, product life cycle analysis, resource use, etc. By actively participating in the standard setting, companies can ensure that the standards are more practical and practical. Second, home appliance companies should ensure that they strictly follow the established green accounting standards, including internal control and audit processes, to verify the accuracy and compliance of the information. Enterprises need to establish clear processes and mechanisms to ensure the accurate and timely disclosure of green accounting information, and also need to conduct independent audit to verify the authenticity of the disclosure.

5.5. Develop a Sustainable Green Accounting Information Disclosure Planning

Companies should develop long-term strategies to ensure that green accounting information disclosure is aligned with its sustainable development goals.

First of all, home appliance enterprises to establish a clear green accounting information disclosure goals, such as clearly defined enterprise in environmental protection and sustainability goals, such as reducing carbon emissions, improve energy efficiency, promote sustainable procurement, etc., these goals should be consistent with the enterprise's core values and strategy, ensure information

disclosure and sustainable development direction. Secondly, enterprises should formulate a detailed green accounting information disclosure plan, including the content, schedule and responsible person of clear disclosure. Companies need to ensure that information disclosure is systematic and continuous to meet the market and social demand for sustainable information. At the same time, disclosure plans should also take into account the needs of different stakeholders to ensure the diversity and universality of information. Finally, enterprises can establish monitoring and feedback mechanisms to regularly evaluate the effect of green accounting information disclosure to ensure that the predetermined sustainability goals are met. The feedback mechanism should include supervision and review of information disclosure, as well as verification of the quality and accuracy of information, and through continuous improvement and revision of information disclosure plans, enterprises can adapt to changing environmental protection and market needs.

6. Conclusion

In the era of low carbon economy, the enterprise is no longer just the pursuit of economic profits, more to assume social and environmental responsibility, actively adopt the practice of environmental protection and sustainable management, home appliance industry as an important resource and energy consumption industry, in adapt to the environmental protection and sustainable trend plays a key role, need to pay more attention to the green accounting information disclosure. Through the study of the home appliance industry, it can provide useful experience and inspiration for other industries, help enterprises to better adapt to the trend of low-carbon economy, improve their sustainability and competitiveness, and at the same time contribute to the construction of a more environmentally friendly and sustainable future economy.

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