

Environmental Accounting Information Disclosure: A Summary

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Abstract: With the development of human economy, environmental problems are becoming more and more prominent. Environmental accounting and its information disclosure are also attached great importance to by scholars and enterprises all over the world. As enterprises, they have the responsibility to disclose environmental accounting information. This paper mainly reviews the domestic and international environmental accounting information disclosure literature, and analyzes it from the perspective of stakeholders, ecological development and social responsibility, and provides reference for future environmental accounting information disclosure.

1. Definition and Connotation of Environmental Accounting and Information Disclosure

Environmental accounting, also known as green accounting, participates in economic activities as a medium of participation in evaluation in the outline of ecological development. It began in the book *Pollution Control Transform Research of Social Costs* by F.A. Beams in the early 1970s [1]. Rob Gray's *Green Accountant* in 1991 pushed the study of environmental accounting into an important research topic in the field of accounting [2]. He pointed out that "Green Accounting is a kind of accounting about the increase and decrease of man-made assets and natural assets, and is the most important accounting for the conversion between them", and emphasized the conversion between the two. Later generations have made supplementary and in-depth research on it, forming two important points of view: first, green accounting as a measurement tool, has the role of recording; second, green accounting as a management tool, serving the needs of the overall enterprise management. Generally speaking, for the research of environmental accounting, the relevant definitions and connotations have reached the same extension in the main idea, but the concepts are different. The main differences lie in the composition of the relevant fields, the expression of the content and the related research [3]. Environmental accounting information refers to environmental protection, pollution prevention and elimination, environmental resource utilization, and other financial information related to the environment, including environmental assets, environmental liabilities, environmental benefits, environmental expenditures, and environmental performance. Environmental accounting information disclosure refers to the behavior of listed companies to disclose information such as environmental pollution and environmental protection investment to the public in the form of statements and announcements in a certain period of time while complying with laws and policies and satisfying their own strategic plans (Song Ziyi, 2012).

2. Overview of Environmental Accounting Information Disclosure Abroad

In the early 1970s, British scholar F.A. Beams' *Pollution Control Transform Research of Social Costs* and J.T. Marlin's *Pollution of the Accounting Problems* marked the beginning of the theoretical study of environmental accounting. The American Association of Certified Public Accountants (AICPA) published *Environmental Repair Liabilities* in the 1990s, which explained in detail the confirmation, measurement and disclosure of environmental accounting liabilities. Joanne Wiseman (1982) based on the statistical study of environmental information disclosure in the annual reports of 26 listed companies in environmentally sensitive industries, summarized the contents of environmental accounting information disclosure as economic factors, pollution status, lawsuit

events and other environmental information, totaling 16 items. This achievement contributed a frame of environmental accounting information disclosure with detailed contents for reference. Stand [4]. Dennis Patten, Greg Trompeter (2003) believes that the environmental accounting information disclosed by listed companies in their annual financial reports should include at least the following three aspects: environmental risks, relevant environmental laws and regulations, environmental pollution control, and these three. Detailed aspects have been divided [5]. Loureiro et al. (2013) argue that the government plays a key role in environmental accounting information disclosure, and media reports on ecological environmental damage further promote the government to develop more policies and prepare sufficient margin to deal with potential ecological risks [6].

3. Summary of Domestic Environmental Accounting Information Disclosure

Ge Jiashu et al. (1992) first introduced the related summary of environmental accounting from abroad, and introduced in detail the western model related to environmental accounting accounting and disclosure [7]. Meng Fanli (1999) proposed that the environmental accounting information disclosed by enterprises should include environmental performance information and environmental financial impact information: the former mainly includes the compliance of enterprises with environmental laws and regulations, the development of environmental governance, environmental quality and waste utilization, etc. The latter is the impact of environmental activities of enterprises and environmental protection measures taken on the balance sheet and income statement [8]. Hua Xingxia et al. (2017) pointed out that there are currently two views on the development of environmental information disclosure mode: one is to add environmental accounting information items to traditional financial statements, such as building a complete accounting statement system composed of environmental accounting information and financial accounting information; Another view is to disclose environmental information separately, that is, to design an "environmental accounting statement" independent of the three major statements, including the main body of the statement and the notes to the statement [9]. Zhan Mengyu (2017) is based on the US General Motors Corporation in the automotive industry and Shanghai Automotive Group Co., Ltd. and its subsidiary Shanghai General Motors. Comparing the contents and methods of environmental accounting information disclosure between China and the United States in the automobile manufacturing industry, it is found that the listed companies in the United States are based on qualitative and quantitative disclosure of environmental accounting information, with currency as the unified unit of measurement. It is reflected in the accounting statements; the accounting information disclosure of listed companies in China is mainly based on qualitative content, and does not form a unified measurement model [10].

4. Perspective of Environmental Accounting Information Disclosure

4.1 Stakeholder Perspective

With the increasing importance of environmental issues, business investors, business managers, employees, government and other stakeholders want enterprises to disclose the information they need by publishing environmental financial reports.

The users of environmental information are the direct motivation of information disclosure, and determine the content of disclosure. From the information needs of the above stakeholders, the external information provided by enterprise environmental accounting should include two aspects: environmental accounting elements information and environmental resources performance information. The information of environmental accounting elements mainly reflects the accounting information that can be quantified by the company and should be reflected in the financial statements as environmental factors. The environmental resource performance information mainly reflects that the enterprise cannot be reflected as a formal project in the financial statements, but the accounting information related to environmental factors that can be disclosed in other forms is mostly qualitative or quantified by physical and technical indicators.

Walden (1997) conducted a survey on the level of environmental information disclosure in annual reports. The survey found that after the 1989 Alaska cruise ship leak, Alaska's environmental information disclosure increased significantly due to the impact of the incident and public policy pressures [11]. Halme and Huse (1997) explored the relationship between environmental information disclosure and corporate governance variables, industry variables, and national variables, and found that industry variables are the main factors explaining environmental information disclosure [12].

4.2 From the perspective of ecological development

Eco-economic development is to seek the coordinated development of economic growth, ecological environment improvement and resource conservation. The Eighteenth National Congress of the Communist Party of China brought ecological civilization into the overall layout of "five in one" and in the 13th Five-Year Plan, ecological civilization was first written into the five-year plan. In 2015, China restarted the green "GDP 2.0" accounting system, emphasizing the measurement of ecological damage cost and pollution control cost. As an important part of ecological economic development and green "GDP2.0" accounting, environmental accounting has important practical significance for the research of its accounting system disclosure.

Lin Xiaohua (2012) adopts Logistic regression model, based on the correlation between environmental accounting information disclosure and financial status, and thinks that the level of environmental accounting information disclosure is significantly positively related to enterprise scale and profitability, but not significantly related to debt level and development ability [13]. Nyilasy et al. (2014) found through follow-up research on more than 300 enterprises that on the one hand, the sales volume of enterprise products is directly proportional to the image of its green brand; on the other hand, enterprises in developed countries can voluntarily disclose more accurate environmental accounting information, reflecting that government supervision and public awareness of environmental protection play a very important role in enterprise information disclosure [14]. An Fangfang (2016) compared the disclosure of environmental accounting information between PetroChina and BP, objectively faced the gap, and proposed solutions such as government-led, third-party audit, and strengthening the measurement of Asset Retirement Obligation [15]. Xie Yunan (2017) discloses environmental accounting information through financial statement notes, social responsibility report and board report, and discloses the costs of sewage disposal, resource compensation and greening through management fees. Non-monetary disclosures account for the vast majority of non-monetary disclosures through non-operating income accounting for energy-saving subsidies, environmental subsidies, and special incentives [16].

4.3 Social responsibility Perspective

Social responsibility refers to the obligation of enterprises to pursue long-term goals that are beneficial to society. It mainly includes environmental protection, active participation in social public welfare undertakings, and providing products and services to poor areas. This requires enterprises to change the traditional concept of pursuing profit maximization as a business goal, taking into account environmental protection, taking the road of sustainable development, and actively conducting environmental accounting information disclosure to the outside world.

Li Fei (2016) pointed out that corporate social responsibility accounting information disclosure includes external and internal drivers. The external drivers mainly include the government and stakeholders, while the internal drivers mainly include the internal requirements of corporate development and the pressure of market competition [17]. Liu Honghai (2017) pointed out that social responsibility is the ethical basis for corporate environmental information disclosure and the key to building a corporate environmental information disclosure mechanism. Social responsibility and ethics have always been the theoretical logic and ideal vision of corporate governance. The construction of corporate environmental information disclosure mechanism should be guided by contemporary recognized ethical norms, and strive to better fulfill the fiduciary responsibility and make the enterprise healthy and sustainable development [18].

5. Review and Trend of Research

Through the research status at home and abroad, it shows that the disclosure of environmental accounting information in foreign countries is more perfect, and the disclosure model is more thorough. However, the level of environmental accounting information disclosure in China is not high, and quantitative information disclosure is insufficient. In recent years, China has introduced relevant laws and regulations on environmental accounting, and various scholars have also achieved certain results, but there are still many problems in information disclosure.

At present, China has not yet introduced a specific accounting system for environmental accounting information disclosure, so the environmental information disclosure of enterprises is often arbitrary, and the amount of information disclosed by each enterprise is quite insufficient, incomplete, non-standard and lack of comparability, which is far from meeting the needs of users of environmental accounting information. In the future development, China should strengthen the construction of relevant accounting regulations and standards for environmental accounting information disclosure, and point out the current status of environmental accounting information disclosure, and enhance its operability.

As the main driving force of social industrialization, enterprises have become executioners who destroy the ecological environment while promoting social and economic development. Therefore, enterprises should consciously and actively assume the corresponding social responsibility to protect the environment, and strengthen the construction of environmental accounting information disclosure of enterprises themselves. All walks of life should increase publicity on environmental protection, strengthen corporate environmental awareness, and enhance corporate social responsibility to protect the environment. At the same time, enterprises should fully understand the close relationship between environmental benefits and economic benefits, strengthen the implementation of environmental accounting information disclosure, and actively disclose environmental accounting information.

At present, the initiative of enterprises to disclose environmental accounting information is not strong, and they often only choose to disclose the beneficial environmental performance information of enterprises themselves. This requires supervision from all walks of life to promote enterprises to disclose environmental accounting information comprehensively and accurately. In the future, China should strengthen the supervision of environmental accounting information disclosure. Only under effective supervision can we ensure the effective and standardized development of environmental accounting information disclosure.

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