

---

# Compulsory Disclosure of Environmental Accounting Information can Play a Significant Regulatory Role in the Pharmaceutical Industry

Keke Zhang

Shanghai University, Shanghai, China

2441650935@qq.com

---

## Abstract

Pharmaceutical industry, as one of the key industries under the supervision of the state, has brought great benefits to mankind and created huge financial revenue for the country. However, the problem of high pollution caused by pharmaceutical enterprises in the process of production and operation cannot be ignored. Heavy pollution caused by pharmaceutical enterprises has been under the state's key control, but the government's macro-level supervision of pharmaceutical enterprises cannot be timely prevented, which has a certain lag. We should constantly supervise and restrict the operation of enterprises in order to make their production and operation activities appear in our sight. This requires enterprises to disclose environmental accounting information timely and accurately in the process of production and operation, to minimize the actual environmental accidents, and to reduce public doubts about inadequate disclosure of environmental accounting information in the pharmaceutical industry. Faced with the overall disclosure situation of pharmaceutical enterprises, this paper carefully analyzed and summarized the problems reflected in the environmental disclosure of pharmaceutical enterprises in China by searching the relevant data of pharmaceutical enterprises, and then put forward the influencing factors of the poor quality of environmental information disclosure of pharmaceutical enterprises, and put forward suggestions for improvement. At the same time, they give suggestions to the methods and contents of information disclosure in the pharmaceutical enterprises, supplement and improve the information disclosure mode of the enterprises, and enhance the quality of information disclosure. Improving the quality of environmental accounting information disclosure and transparent operation of pharmaceutical enterprises can enable enterprises to assume corresponding social responsibilities and establish a good corporate image.

## Keywords

Pharmaceutical Enterprises; Environmental Pollution; Environmental Accounting; Information Disclosure.

---

## 1. Research Background and Significance

### 1.1 Research Background

Pharmaceutical manufacturing industry is closely related to our daily life. It plays an important role in the health of the public and the steady development of our national economy. It is also an industrial sector which combines traditional technology with modern technology. At the same time, the pharmaceutical manufacturing industry has also been listed as one of the heavy pollution industries in China. Its production and operation activities will produce a large number of wastewater, waste gas and waste residue. Although its output value only accounts for 1.7% of the industrial output value,

its "three wastes" emissions are far higher than the average level. The first problem facing Chinese pharmaceutical enterprises. The environmental pollution incident of Harbin General Pharmaceutical Factory exposed by CCTV in 2011 has aroused a strong response from the society, causing great damage to its surrounding environment, seriously harming the health of employees and residents, and trampling on the relevant environmental laws and regulations in China. However, it is incomprehensible that after the contamination door was exposed, Harbin medicine did not stop operation and rectification, continued to produce drugs, a large-scale advertising bombardment is still strong, which is worthy of our thinking.

Therefore, under such a realistic background, it is very necessary and urgent to study the theory of environmental accounting information disclosure systematically and establish a set of standards which can be used to evaluate the quality of environmental accounting information.

## 1.2 Research Significance

(1) Provide information to stakeholders.

Our government, enterprise investors, enterprise creditors and the public have various links with the interests of enterprises, they constitute the stakeholders of enterprises. Relevant environmental business of an enterprise will have a certain impact on its actual operating conditions and financial indicators, so that external stakeholders will pay attention to the environmental accounting information of the enterprise.

(2) Necessary conditions for sustainable development of society and enterprises

With the enhancement of public awareness of environmental protection and the continuous improvement of environmental requirements, enterprises should consider their own interests while operating and investing, and should put environmental protection in the first place. This is not only the basic premise of sustainable development of enterprises, but also the inevitable requirement of sustainable development of social environment and resources.

(3) Improve the competitiveness of enterprises and promote their own development

Improving environmental protection technology, energy saving and emission reduction, increasing investment in environmental protection, truly and comprehensively disclosing environmental accounting information can not only effectively enhance the international competitiveness of our enterprises, but also set up a positive corporate image, promote the healthy and stable development of enterprises, and achieve the "Five-in-One" Make a positive contribution to the overall layout of the strategy.

## 2. Environmental Information Disclosure of Pharmaceutical Companies

Pharmaceutical listed companies are listed companies which mainly engage in chemical pharmaceuticals, biological pharmaceuticals and medical devices. By the end of 2017, we have selected 100 pharmaceutical companies listed in Shanghai and Shenzhen as samples. According to the survey results of 100 sample companies selected in this paper, 71 listed companies have disclosed their environmental accounting information and related contents in the prospectus, accounting for 71% of the total sample companies. The information description has both quantitative and qualitative ways, indicating that enterprises should pay attention to adequately when issuing new shares. There are 69 companies that disclose environmental accounting information in the annual financial report of 2017, accounting for 69%, mainly qualitative description. Environmental accounting information of enterprises has been reflected in periodic reports. Another 26 companies have prepared annual social responsibility reports separately, accounting for 26%. The low disclosure rate of Sample Firms indicates that corporate social responsibility reports need to be strengthened.

### 2.1 Instructions in the Prospectus

(1) Disclosure Ratio

In September 2003, the State Environmental Protection Administration promulgated the Regulations on Environmental Protection Verification for Listed Enterprises and Listed Enterprises Applying for

Refinancing, which regulates the application for listing and financing of heavy polluting industries, and requires relevant departments to pay special attention to enterprises in heavy polluting industries when they apply for listing. Environmental Protection Verification of enterprises. Affected by this, listed companies in the prospectus after 2003 and the disclosure of corporate environmental information before 2003 there is a big difference between the 2003 boundaries of listed pharmaceutical companies as follows:

Table 1. Summary of environmental accounting information disclosure in Prospectus

Prospectus Item	Number of listed companies before 2003 (49 companies)		Number of listed companies after 2003 (51 companies)	
	Number of Companies	Sample ratio	Number of Companies	Sample ratio
risk factor	27	55.1%	48	92.86%
Business and technology	0	0	21	37.5%
Raise funds	1	2.04%	43	76.79%
Management discussion and analysis	0	0	3	5.36%

## (2) Disclosure form

In terms of the disclosure methods of environmental accounting information, most listed companies before 2003 only disclose environmental accounting information in the section of "risk factors and countermeasures". However, the disclosure of environmental accounting information by listed companies after 2003 is not limited to the section of "risk factors and countermeasures", but extended to "business and technology" and "offering" Collect funds and so on. It can be seen that the environmental accounting information disclosed in the prospectus provided by listed companies after 2003 becomes more extensive and rich.

## (3) Disclosures

Among 71 enterprises that disclose environmental accounting information in prospectus, most of them only disclose qualitative environmental information, and the number of samples that disclose accounting information is small. In the qualitative disclosure of environmental accounting information, the 71 sample companies have disclosed the relevant information in a descriptive way, mainly describing the establishment and implementation of the environmental protection system, the treatment of corporate pollutants, environmental risks and environmental protection measures taken by enterprises, providing descriptive information for the public to understand. The present situation of enterprises' environmental protection provides some useful information. From the sample situation, as the time of listing moves backward, sample companies disclose environmental accounting information in Prospectus constantly enrich, deepen the degree of detail, and improve the specific measures of environmental protection.

## 2.2 Explanation in Financial Report

### (1) Disclosure ratio

According to statistics, the proportion of environmental accounting information disclosed in the annual reports of listed pharmaceutical enterprises in 2015-2017 is on the rise. In 2017, 64 of the 100 listed companies selected in this paper disclosed environmental accounting information in the annual reports, accounting for 64%. Because neither the Ministry of Finance nor the SFC has standardized the contents and forms of environmental accounting information disclosure in the annual reports of listed companies, the disclosure of environmental accounting information in the annual reports shows greater randomness.

## (2) Disclosure form

Listed companies choose to disclose environmental accounting information in different positions and ways, which are involved in each part of the annual report. Of the 64 annual reports that disclosed environmental accounting information in 2017, the location of disclosure focused on the Board report and notes, accounting for 28.83% and 16.22% of the total sample, respectively. Environmental information is also involved in the company's basic situation, corporate governance structure, the report of the board of supervisors, and important items.

Table 2. summary of environmental accounting information disclosure in annual reports

	Item	Number of enterprises	Percentage of samples	Form of disclosure
Annual financial report	Basic situation of the company	1	1%	qualitative
	Corporate governance structure	8	8%	qualitative
	Board Report	32	32%	Quantitative and qualitative
	Report of the board of supervisors	1	1%	qualitative
	Important matters	3	3%	qualitative
	Notes	18	18%	Quantitative

## (3) Disclosures

In view of the fact that the environmental accounting information disclosure in the sample company's annual report is concentrated in the Board report and the annotations to the statement, the disclosure of the two parts is mainly investigated in the study of the disclosure content. In the board report, "management discussion and analysis" and "future development prospects" are two chapters of qualitative disclosure, while "future development prospects" are more. "Investment" chapter is more quantitative.

### 3. Problems of Environmental Accounting Information Disclosure Quality of Listed Pharmaceutical Companies

#### 3.1 The Contents and Methods of Environmental Accounting Information Disclosure are not Standardized, and the Comparability is Poor.

The purpose of environmental accounting information disclosure is to urge enterprises to strengthen environmental awareness, promote enterprises to take the initiative to assume the corresponding social responsibility, to meet the needs of external information users. However, from the point of view of the current problems of environmental accounting information disclosure in China, there is no uniform information disclosure method and content, which makes information disclosure more arbitrary, less systematic, more subjective, content is not uniform, no targeted.

#### 3.2 Inadequate Disclosure of Environmental Accounting Information

Although the "Guidelines" issued by the Ministry of Environmental Protection put forward specific requirements for enterprises to disclose environmental accounting information, because the guidelines are still draft for advice, and the binding force is limited, the standardization of enterprises in practical operation is not strong. Few companies can fully disclose environmental accounting information in accordance with the requirements of the Guidelines. Most enterprises describe it in a narrative way. Accountable environmental accounting information is also in the form of non-monetary information. Especially for the environmental protection effect, few companies turn non-monetary information into monetary information. Dew level is not high.

### **3.3 The Reliability of Environmental Accounting Information is not Strong**

Enterprise's environmental information is mainly issued through prospectus, annual financial report and social responsibility report. According to the law of our country, prospectus and annual financial report must be verified by the third party. But there is no relevant regulation for the important carrier of enterprise's environmental accounting information disclosure, social responsibility report. Therefore, although enterprises promise to provide guarantee for the environmental accounting information disclosed by them, it is still difficult to guarantee the reliability of their reports because of the absence of certification agencies.

## **4. Suggestions for Improving the Environmental Accounting Information Disclosure System of Pharmaceutical Enterprises in China**

### **4.1 Improve Laws and Regulations and Improve Disclosure System**

China should actively draw lessons from the advanced experience of the developed countries such as the United States and Japan in the legislation of environmental accounting information disclosure, and make great efforts to explore and perfect relevant environmental laws and regulations as soon as possible, so as to standardize and unify the mode and content of environmental information disclosure of Chinese enterprises, so as to make it true in the disclosure of environmental information. To achieve "rule-based, law-based," to improve China's environmental accounting information disclosure system to provide policy support and reference.

### **4.2 Accelerate the Training of Environmental Accounting Talents to Meet the Needs of Social Development**

Environmental accounting is a comprehensive subject, which combines accounting, environmental science and environmental economics and many other disciplines. China should actively speed up the cultivation of environmental accounting personnel, improve the knowledge structure of accounting practitioners, improve their comprehensive quality, constantly explore and practice in environmental accounting practice, and improve themselves in practice. Specifically from the following aspects: First, in Colleges and universities to increase the relevant courses or specialties of environmental accounting, to train a number of environmental accounting professionals, while giving the field of environmental accounting more investment and attention. The second is to strengthen the on-the-job accounting personnel's professional training, through continuing education, on-the-job training and other ways to enable them to grasp the theory and practical operation system of environmental accounting, and after learning to conduct a rigorous assessment to meet the needs of actual work. Thirdly, relevant polluting enterprises should take into account the needs of environmental accounting when recruiting accountants, select appropriate professional counterparts of environmental accounting, better ensure the quality of environmental accounting information disclosure, and bear the corresponding social responsibility.

### **4.3 Establish an Environmental Accounting and Auditing System, and Strengthen Social and Government Supervision of Environmental Accounting Information**

The purpose of environmental information disclosure is mainly to meet the needs of all stakeholders, and the information disclosed must meet the reliability of information in order to be used by decision makers. If information is not reliable, it will not only help to make decisions, but also lead to erroneous judgments. At present, China's environmental accounting is mainly based on enterprises as the main body of accounting, accounting for the implementation of enterprises' social responsibility for social resources and environment. Starting from their own interests, enterprises often do not fully and faithfully disclose the fulfillment of social responsibility for resources and the environment. The enterprises disclose positive information such as environmental protection honors, pollutant discharge standards and so on, but we see that there are many imperfect places not disclosed at the same time, which has a serious impact. The reliability of enterprise environmental accounting

information. Therefore, we must establish a multi department joint environmental accounting information disclosure regulation and authentication system.

#### 4.4 Increase the Disclosure of Quantitative and Predictive Information

In order to enrich the content of environmental information disclosure of enterprises in China and enable stakeholders to obtain the most authentic and comprehensive operating conditions of enterprises, it is necessary to follow the principle of combining quantitative information with qualitative information, giving consideration to both unfavorable information and favorable information, and to include certain predictive environmental information, such as business activities. Environmental information such as environmental assets, liabilities, costs and benefits should be scientifically and effectively measured and accounted for and disclosed in the financial statements. The disclosure of predictive information, such as environmental protection plans, energy conservation and emission reduction targets, and environmental pollution control measures, not only sets up a positive image of the enterprise, but also strengthens the investment determination of stakeholders, strengthens external supervision, and better promotes the win-win situation of enterprise economic take-off and harmonious development of environmental protection.

To sum up, pharmaceutical enterprises should, on the basis of strictly abiding by existing laws and regulations, strengthen the training of environmental accounting knowledge of accounting practitioners or recruit relevant environmental accounting professionals; improve the environmental awareness of managers and employees and the awareness of environmental information disclosure of managers, and actively take the initiative to the enterprise environment. Business accounting and disclosure; strive to explore and form its own feasible environmental information disclosure model, standardize the disclosure methods and contents, improve the quality of disclosure; strengthen internal constraints and external supervision to ensure the authenticity and comprehensiveness of information disclosure; set up a long-term strategic objectives, from increasing environmental governance efforts Starting with the active and comprehensive disclosure of environmental information and the effective implementation of environmental laws and regulations, we should establish a positive image of enterprises, enhance their sense of social responsibility and enhance their external competitiveness so as to ensure the harmonious and sustainable development of economic growth and environmental protection.

#### References

- [1] Matthew Dennis, Hiip James. Considerations in the valuation of urban green space: Accounting for user participation[J]. *Ecosystem Services*,2016,21.
- [2] Qiao Zhao. Evaluation on the quality of environmental accounting information disclosure of pharmaceutical listed companies [D]. Central South University, 2012.
- [3] Yao Yao. Research on environmental accounting information disclosure of small and medium pharmaceutical enterprises [D]. Hebei University, 2016.
- [4] Chen Xin ha Pharmaceutical Group environmental accounting information disclosure issues [D]. Jiangxi University of Finance and Economics, 2016.
- [5] Yamin Zeng, Edward Lee, Junsheng Zhang. Value relevance of alleged corporate bribery expenditures implied by accounting information[J]. *Journal of Accounting and Public Policy*, 2016,35 (6).
- [6] Jeong Tai Kim, Marija S. Todorovic. Corrigendum to “Towards sustainability index for healthy buildings—Via intrinsic thermodynamics, green accounting and harmony” [J]. *Energy & Buildings*, 2016, 111.
- [7] Diane Mayorga, Ken T. Trotman. The effects of a reasonable investor perspective and firm's prior disclosure policy on managers' disclosure judgments[J]. *Accounting, Organizations and Society*,2016,53.