



Research on Environmental Accounting Information Disclosure in the Era of Artificial Intelligence

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Abstract. With the continuous development of society, information technology has become an indispensable part of the work of enterprises, and the arrival of the combination of industry and finance, also needs to rely on information technology. As a product of information technology, artificial intelligence has been standing in the forefront of science and technology. Since the dual carbon goal was written into the government report of the two sessions of China in 2021, environmental accounting as a new accounting direction has been raised to a new height, which also points out the direction for the development of environmental accounting. In this context, as the focus of environmental accounting work, environmental accounting information disclosure has become a hot issue, how to combine it with artificial intelligence, will become a difficult point. In this paper, artificial intelligence and environmental accounting are combined, and social responsibility is taken into account to analyze information disclosure so as to provide relevant reference for innovative enterprises.

Keywords: artificial intelligence · environmental accounting · information disclosure

1 Introduction

The development of information technology has brought about the transformation of the way of working in society, thus leading the development of accounting work, and the promoting role of enterprises is significant. Environmental accounting is an important field of accounting development, and also the outcome of social and economic development. As a new direction, so is environmental accounting. In the 21st century, with the development of information technology, artificial intelligence is coming. Effective use of artificial intelligence technology can carry on the arrangement and analysis of environmental accounting information, thus improving the objectivity and authenticity of accounting information disclosure, at the same time, according to the analysis of the data and information feedback, it can also exert impact on enterprises' management decision. On October 24, 2021, China proposed to build a green, low-carbon and circular economic system. In this context, environmental accounting information disclosure

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becomes an important content in the field of environmental accounting research under artificial intelligence.

2 Artificial Intelligence and Environmental Accounting

2.1 Artificial Intelligence

Artificial intelligence, first proposed in the 1940s, is a product of the development of computers and an important sub-field. In essence, artificial intelligence technology requires computers to simulate human thinking and behavior, and then help human complete some activities that only human can complete, as to liberate productivity. In the 1990s, artificial intelligence technology developed rapidly and was widely used in financial accounting, marketing, enterprise management, financial data analysis and other work fields in just a few decades, and achieved good application effect in practice [1].

2.2 Environmental Accounting and Intelligence

According to the study of Schaltegger, an authoritative expert on environmental accounting, it can be concluded that environmental accounting is the product of the development of accounting and considered as an important branch. Its functions are basically consistent with traditional accounting, but its influencing factors have certain characteristics. ISAR adopted its first international guide to environmental accounting in 1998, which provides guidance on the recording and reporting of environmental accounting, focusing on issues such as environmental costs and liabilities. After entering the 21st century, various countries' accounting steering committee and other institutions have issued environmental accounting standards and other documents suitable for their own development according to previous research.

Based on the development of artificial intelligence and environmental accounting, in the work efficiency and safety, the traditional environmental accounting are behind the intelligent environmental accounting, of course, the professional competence of personnel also put forward higher requirements. That is, environmental accounting personnel should not only have solid professional foundation, that is basic financial skills, but also learn computer technology, and be able to skillfully operate financial system software and understand its principle [2].

2.3 The Impact of Artificial Intelligence on Environmental Accounting

Artificial intelligence is the product of technological development. With the proposal of the concept of industry and finance integration, enterprise financial information and non-financial information will be integrated, requiring resource sharing, which requires artificial intelligence to make a match, so there is a new connection between environmental accounting and artificial intelligence, and their main connection is shown in Fig. 1.

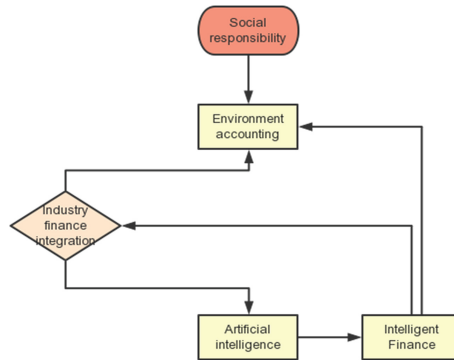


Fig. 1. The connection between artificial intelligence and environmental accounting under the integration of industry and finance

3 The Environmental Accounting Information Disclosure Under Artificial Intelligence

3.1 Weak Artificial Intelligence Thinking of Environmental Accounting Personnel

Though AI started earlier, it still belongs to the emerging things. As its popularity is mainly embodied in the manufacturing enterprises, the management is not in-depth enough, and most financial personnel have the traditional thinking, accustomed to the using of relatively backward financial software for accounting and simple financial office software, thus, the AI smart financial systems seems strange. This directly leads to the advantages of artificial intelligence can not play out, the progress of industry and finance integration is also affected to some extent. The AI financial system needs to be integrated as a whole, integrating all departments and all work links. If there is a problem, the final result will have errors. Of course, for some simple financial work, AI can be highly efficient to complete. Therefore, environmental accountants should not only strengthen the learning of environmental accounting standards, but also correct their attitude, keep pace with the times and keep up with the pace of artificial intelligence.

3.2 Imperfect Environmental Accounting System Under Artificial Intelligence

First of all, the environmental standards of accounting itself is still in the formulation and perfecting stage, more system are based on financial and accounting system, but no such perfect system and will not be able to achieve effective operation, or if exist the environmental accounting system, but poor ability to execute and post match is not reflected, this makes the environment accounting system become a mere formality. Environmental accounting is not connected with artificial intelligence, finance is not connected with other departments, and the ability to share resources is not reflected. Secondly, the using of environmental accounting also needs to adapt to the information management system. Information system is just one of them. With the help of artificial intelligence, the application of information system will greatly improve the efficiency

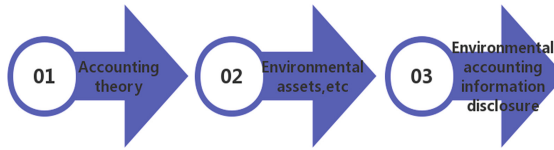


Fig. 2. Environmental accounting system at present

and effect of environmental accounting work, but enterprises are more likely to use the old financial information system. Only by achieving the integration of industry and finance, realizing the resource sharing and organic combination of financial data and business data, we can adapt to the intelligent requirements of environmental accounting [3] (Fig. 2).

3.3 Inadequate Disclosure of Environmental Accounting Information

Society is pay much attention to accounting information disclosure problems, the environmental accounting information disclosure, at present the enterprise environment accounting information disclosure content rarely, the way is more onefold, and mainly to do in paper. The information feedback is too simple, the key is not outstanding, embodied in disclosure of discharge content mainly happened in the past, Less likely to reflect future environmental expenditures [5]. Moreover, just a few companies disclose their carbon emissions for the core issue. This results in some important policy-related messages going unanswered.

4 Suggestions on Improving Environmental Accounting Information Disclosure Under Artificial Intelligence

4.1 Learning and Mastering Artificial Intelligence Technology

Learning and mastering artificial intelligence technology is one of the main means to improve accounting information disclosure. At present, more colleges and universities of higher education have combined artificial intelligence with liberal arts, as to cultivate compound talents, so the recruitment trend in the future will also be biased towards professional compound talents. Only by this way, the relevant enterprises can quickly realize the updating the knowledge system of internal financial personnel. In addition to school training, the relevant enterprises also need to carry out training, increase the times and intensity of training, help realize artificial intelligence environment accounting talents. Only the level of intelligent technology of financial personnel has been improved, the effectiveness of human-computer cooperation within the enterprise can be reflected, and then give full play to many advantages of intelligent financial accounting. As for environmental accounting personnel themselves, they need to constantly update their theoretical knowledge and skills. Only in this way can they get rid of the identity of data entry and really help enterprise managers improve the quality of enterprise decision-making.

4.2 Establishing Intelligent Information Management System

Strengthen the artificial intelligence construction of enterprises, effectively realize resource sharing, and improve decision-making ability. At the same time in the intelligent management information system, budget management, cost management, internal control management, risk management can be the enterprise's various production and operation links the processes for comprehensive management. The business functional departments of the enterprise are united [4], truly achieve the combination of industry and finance. Only in this way can we realize the effective improvement of enterprise value.

4.3 Strengthening the Disclosure of Corporate Environmental Performance Information

The main content of environmental accounting are environmental cost, environmental performance, and so on. In accounting, environmental accounting needs natural capital, its content is also difficult to measure and accounting, need to replace some new attributes. For environmental information that can be monetized and measured, environmental assets, environmental liabilities and other items can be added to the balance sheet to reflect it, as to facilitate timely disclosure of environmental impact information of enterprises [5]. Environmental responsibility information that cannot be measured in monetary terms is called environmental performance information. This kind of information can be disclosed in independent environmental reports in diversified ways, for achieving various corporate environmental performance such as carbon emission reduction, and intuitively reflect social responsibility.

5 Conclusions

With the continuous development of science and technology, the combination of artificial intelligence and liberal arts is an inevitable trend of the development of The Times. Of course, it does not necessarily mean that traditional accounting will be eliminated. On the contrary, artificial intelligence is based on traditional accounting. Intelligent environmental accounting liberates the working pressure of financial personnel under the background of the traditional era, thus can creating more value for enterprises. This paper analyzes the environmental accounting information disclosure under artificial intelligence, and finally draws corresponding suggestions. Of course, the development of environmental accounting is not mature, its application still has strong limitations, and the combination with artificial intelligence will take a long time to explore. However, for most enterprises, it is necessary to have a certain vision that timely reform their own systems and development direction, which is the long-term condition for the survival and development of enterprises.

References

1. Chen Bo. Exploration on the Transition from Financial Accounting to Management Accounting in the Era of Artificial Intelligence [J]. *Industry and Technology Forum*, 2020, 19(16): 225-226.
2. Liu XIANliang. Research on the Transformation Method of Enterprise Financial Accounting to Management Accounting: Based on the Application Model of Deloitte Financial Robot [J]. *China Economics and Trade*, 2018(3): 196–197.
3. Li Yun. Application of Intelligence in Financial Accounting [J]. *China Industry & Economy*, 2022(10): 50-52.
4. Zhou Rong. Transformation from Financial Accounting to Management Accounting under Artificial Intelligence Environment [J]. *Administrative Assets and Finance*, 2022(04): 79-81.
5. Gao ZHIying. Construction of Environmental Accounting System for Electric Power Enterprises under “Double Carbon” Goal [J]. *Renewable Resources and Circular Economy*, 2021(14): 11–15.

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