A Research Review of Corporate Green Accounting Information Disclosure

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Abstract. Environmental issue is always a hot topic in the world. Many countries has begun to study the green accounting since the last century. This review focuses on the problems and solutions to the implementation of green accounting information disclosure, shedding some light on the development of green accounting in China. By discussing the difference between China and other developed countries in the process of implementation of green accounting information disclosure, this study gets some suggestions for the implementation of green accounting information disclosure in China, which includes establishing a reasonable green accounting system and improving enterprises’ environmental responsibility, also, obtains the differences in the development of green accounting between China and other countries at the end of this paper.

1. Introduction
Over the last several decades, accounting information disclosure has become as an important topic in accounting research. With the deepening public concern about environmental protection awareness, people no longer only pay attention to the authenticity of accounting information, but begin to pay attention to whether enterprises make corresponding contribution to environmental protection, and green accounting emerges as the times require.

Green accounting, also known as environmental accounting, with the purpose of providing the environmental information of accounting theory and method, exams the relationship between economic development and environmental resources on the basis of related environmental regulations and laws (Shaley, 2016). As a new crossed field of environmental science, accounting and economics, green accounting is widely concerned by scholars and the general public. Researchers in other countries pay more and more attention to the disclosure of green accounting information, while China’s scholars also show great enthusiasm and make some contribution to the research of green accounting information disclosure. Floyd and Paul (1971) suggest that corporates should disclose the information about resource cost damaged in production and provide disclosure on pollution cost in the financial statements, which is the beginning of green accounting information disclosure research. In China, study on green accounting information disclosure started when Ge and Li (1992) explain the definition of green accounting and analyze the reasons of the appearance of green accounting. Since
there are no relevant accounting standards and systems which have been established, the disclosure of green accounting information is still under study and exploration. In the following sections, first, we will talk about the international development of green accounting information disclosure and then we will discuss China’s researches on green accounting information disclosure. Finally, we will give some suggestions on the implementation of green accounting information disclosure in China, besides this paper will contribute to the current literatures and provide a reference for the future researches.

2. Research on green accounting information disclosure

Many scholars in the world make the related discourses on the definition of green accounting, but they fail to reach a unified conclusion. Rubenstein (1991) argues that green accounting is the accounting of expenditures on these resources based on the common practice of resource managers and resource owners in order to facilitate transactions and public benefits, to create wealth for future uses, and to conserve resources. Gray (1992) regards that green accounting is an accounting related to the increasing and decreasing of man-made and natural assets, most importantly, it is the transformation between the two assets. Qiao (2001) notes that green accounting is an accounting system related to relevant environment information which is required to convey to stakeholders of corporates, generally all the information will be measured with money or non-money.

2.1. Research on green accounting information disclosure

Through reviewing the related literatures of green accounting information disclosure, we summarize the problems and solutions during the period when scholars study for the green accounting.

2.1.1. Difficulties in research on green accounting information disclosure. On the one hand, the public is short of awareness about environment accounting. Serafy (1997) points out that green accounting information should be disclosed in rich countries for these countries take environment pollution problems into consideration all the time. This study explains that green accounting can only ensure the sustainability of income and will be treated as a step to realize ecological sustainability. Moorthy and Yacob (2013) point out that large companies and small, median enterprises often ignore environment issues, and small enterprises are more likely to accept green accounting for these relevant accounts will be popular with investors. Because of being lack of environmental awareness and ethical education, the implementation of green accounting information disclosure turns out to be failed in small and median enterprises in Malaysia (2013).

On the other hand, common and professional standards are missed in the process when corporates compile and disclose environment information. Khoirina (2016) conducts a research in Semen Gresik Hospital, concluding that it is difficult for them to communicate the result of waste management activities, related costs, and environmental activities since there are no specific guidelines of green accounting. Cho, Martin and Patten (2012) use data from a sample of Fortune 500 US firms to examine the potential explanations for the corporates to decide to disclose environmental capital expenditures amounts, and finally they find that corporates are willing to disclose environmental capital expenditures amounts as a strategic tool to solve the political risk they faced in operating activities.

2.1.2. Solutions to facilitating green accounting information disclosure. First, the government attaches great importance to the disclosure of green accounting information. Among these governments, the United States Environmental Protection Agency (EPA) has done a great deal of work on environmental accounting, especially its book Introduction to Environmental Accounting: A Tool for Business Management, which makes a clear explanation for the definition of environment accounting; Justin (2008) reflects that British Standards Institute (BSI) works for a standard of measuring carbon emissions; the British Environment Ministry issues a document in 1992 which is suitable for all the corporates and plays a role of standardization for its enforceability as a government document.
Second, international organizations dedicate more attention to the development of green accounting information disclosure. In 1972, the United Nations convenes the Conference on Human Environment in Stockholm, after that the accounting of environmental resources is divided into macro and micro aspects. Since 1990, environmental accounting issues have become one of the major topics for each session of ISAR. In March 1993, the EC National Ministerial Environment Council promulgates a plan named as EU-Management and Audit Scheme (EMAS), which is widely regarded as the first international document on environment management system (Liu, 2014).

Third, green accounting information disclosure has developed with the attention of professional accounting groups. In June 1995, American Institute of Certified Public Accountants (AICPA) issues the documents on Environmental Re- median Liabilities raised by the environment accounting group, which includes accounting and auditing methods for environment accounting information disclosure. In June 1997, International Federation of Accountants (IFAC) puts forward a draft for the comment about environment issues during the process of auditing in the financial statement, including environment protection laws, assessment corporates’ environment risk and relevant internal control. In February 2000, The Institute of Chartered Accountants in England and Wales (ICAEW) discusses a series of problems raised in the process of auditing due to the environment changes. These problems include auditing procedure, experts’ opinions and risk assessment and so on.

Through analyzing on the solutions to solving the problems of green accounting information disclosure, can see the significant development of green accounting with the help of various groups.

2.2. **Research on green accounting information disclosure in China**

In this section, mainly concentrate on the disclosure of green accounting information in China. Problems and suggestions for the implementation of green accounting information disclosure are the most important parts we will talk about in the following statement.

2.2.1. **Difficulties in the implementation of green accounting information disclosure.** There are many difficulties in the green accounting information disclosure, which can help us to understand why green accounting developed slowly and late in China.

First, the general theory of green accounting is not enough for scholars to study. Green accounting is a controversial topic for the lack of basic accounting theory such as accounting hypothesis, accounting measurement and accounting methods (Chen, Wang and Zhou, 2006). Besides, the existing theory of green accounting information disclosure still has incongruous aspects to the relevant regulations (Xu, 2014). We also have many difficulties in green accounting measurement. Zhang et al (2011) conduct a pilot study for the first time estimating the values of China’s forest resources, which is a new attempt at green accounting measurement.

Second, government hasn’t taken specific measures to encourage companies to implement green accounting information disclosure. Du, Wang and Wu (2014) find that carbon dioxide emissions and environmental regulation has inhibited economic growth in some provinces in China. Environment issues are rarely involved in Chinese laws and regulations on the green accounting information disclosure of enterprises (Liu and Zhu, 2013).

Third, entrepreneurs are biased toward environmental protection. Maximizing profits is the goal of firms’ operating activities. Entrepreneurs choose to disclose information of corporate social responsibility (CSR) activities when they can get the potential benefit from the voluntary disclosure (Dhaliwal et al., 2011). Mao (2013) notes in his paper that companies tend to emphasize the benefits while ignoring environmental concerns and the construction of green accounting.

2.2.2. **Suggestions for the implementation of green accounting information disclosure.** Combining international practical experience and China’s situation, summarizes some feasible suggestions for the implementation of green accounting information disclosure in China.

A reasonable system of green accounting is eagerly needed in China. First, institutions and organizations related to accounting need to redefine green accounting, giving a clear concept of green
accounting to the public. Second, reserve the conditional accounting theory such as accounting hypothesis, accounting factors and accounting methods to the greatest extent so that enterprises can accept it in a short time (Yang, 2013). Third, strengthen the supervision of green accounting in order that the implementation of green accounting information disclosure can work well.

In addition, enterprises’ environmental responsibility should be established. Government can afford responding reward for those enterprises which disclose the information of green accounting voluntarily. What’s more, we should choose a few financial employees to strengthen their environmental protection consciousness according to the scale of enterprises and then we realize our goal of implementation of green accounting information disclosure step by step.

3. Conclusion

This review focuses on the problems and solutions of green accounting information disclosure process in the world, and sheds some light on the implementation of green accounting in China. Through the comparison of the research, we can find several notable differences of green accounting information disclosure between China and other countries. These differences are as follows.

Chinese research focuses on the theory interpretation while international research focuses on wild fields. Such as in December 1997, “Corporate Environmental Accounting and Reporting at the Enterprise Level” was published, which introduces the framework of green accounting information disclosure; in February 1998, the report of the 15th conference of International Society for Astrological Research (ISAR) covers the definition of the concept of green accounting, environmental costs and environmental accounting confirmation, measurement, disclosure and other content.

The degree of attention that China and international governments pay to green accounting is different. In China, studies on green accounting develop individually while international researches obtain some positive support from government institutions. Such as in the USA, government requires firms to disclose the contents about environment protection while the firms disclose financial information; In Canada, Canadian Institute of Chartered Accountants (CICA) publishes a series of reports about accounting researches, which enriches and improves related principles and fundamentals of green accounting information disclosure; In England, The Association of Chartered Certified Accountants has been active in green accounting researches, besides, providing directed suggestions for green accounting information disclosure and launching the Environmental Report Reward program so that corporates would be willing to disclose the information about environment protection.

We can see some differences between China and other countries that Chinese government doesn’t keep eyes on the environment protection over the past decades. While in other countries, the government has shown enough enthusiasm and attention to the study of green accounting, which has made certain progress in the theory and practice of green accounting. The Chinese government needs to actively learn from other countries’ experience in the implementation of green accounting.

This study serves literatures on the development of green accounting information disclosure at home and abroad, and then finds that international governments, organizations and social communities spend more time and energy on this research than China’s. Besides, the methods of international green accounting theory is completed and mature, from which inspiration is obtained on how to implement green accounting information disclosure in China. Since Chinese green accounting develops late and hasn’t got enough attention, China now has a long way to go for the information disclosure of green accounting.

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