Research on Influencing Factors of Carbon Accounting Information Disclosure

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Abstract：As of April 2018，476 A－shares traded in the Shanghai Stock Exchange and the Shenzhen Stock Exchange of six energy－intensive industries are selected as research samples. According to their carbon accounting information disclosure of the situation analysis from 2015 to 2017，it can be seen that the five influencing factors，such as the size，development ability，equity characteristics，market approval，whether the company is in a pilot city of carbon emissions，are correlated with the level of carbon accounting information disclosure，while the effect of profitability on the level of carbon accounting information disclosure is not correlated.
Keywords：carbon accounting；accounting disclosure；energy－intensive industries；influencing factors

1. Introduction

At present，the growth rate of China's energy consumption industry is gradually slowing down，and a low－carbon economy has become the development goal of all countries in the world. ? However，the current situation of carbon accounting information disclosure of Chinese enterprises is still not optimistic，especially for energy－intensive industries. ? Based on the summary of relevant research literature on carbon accounting at home and abroad，it can be understood that the current research on carbon accounting information disclosure mainly focuses on the theoretical discussion of the way of disclosure and content，while the empirical research on carbon accounting information disclosure is relatively lacking，although some are involved，the sample selection lacks pertinence. ? Therefore，this paper selects the high energy－consuming industry as the research object，explores the key factors affecting the level of carbon accounting information disclosure，and puts forward some pertinent suggestions

accordingly.

2. Influencing factors and research design of carbon accounting information disclosure

2.1 Influencing factors

(1)Company size and carbon accounting information disclosure

Under general conditions, the larger the company size is, the larger the scope of the company business is, and the more products and services the company can provide for society and the public. Under this condition, the company will show more enthusiasm for carbon information disclosure, which can help it establish a favorable social image.

(2)Return on equity and carbon accounting information disclosure

Restricted by information asymmetry, a majority of buyers, unable to tell the product quality, are willing to pay an average price, thus finally resulting in "bad money drives away good money." Hence, companies with a good return on equity are more likely to disclosure more carbon accounting information, through which market buyers can deepen their knowledge of these companies.

(3)Growth and carbon accounting information disclosure

The growth of a company is a critical factor deciding the company's development prospects. The stronger the company's growth, the more funds and support are needed to support the company's robust development. Therefore, the stronger the growth of a company is, the more likely it will disclosure as comprehensive and detailed information to the public as possible.

(4)Whether a company is state—held and carbon accounting information disclosure

The ultimate controller of a state—held listed company is the country, which is thus influenced by national policies to a more considerable extent. As to a non—state—held listed company, it strives to realize its economic interests. Therefore, the chances are high for the carbon accounting information disclosure level of a non—state—held listed company to be lower than that of a state—held one.

(5)Market recognition of the listed company and carbon accounting information disclosure

In a market—oriented economy, a company's economic benefits can directly influence the company's market recognition. Therefore, listed companies from the high—energy—consuming industry, to gain more market support, tend to disclose carbon accounting information actively.

(6)Whether the company is located in the low—carbon policy pilot city and carbon accounting information disclosure

In response to the requirement of sustainable development, companies in low—carbon policy pilot cities are faced with stricter supervision and control stipulated by regional green development policies. This might force companies to actively pursue upgrade and transformation and disclose carbon accounting information of higher quality to get adapted to regional development.

According to the above discussions, this paper proposes the following six possible influencing factors：

H1：The company size is related to corporate carbon accounting information disclosure.

H2：The profitability of a company is related to the disclosure of corporate carbon accounting information.

H3：The company's growth is related to the disclosure of corporate carbon accounting information.

H4：Whether the company is state — controlled is related to carbon accounting information disclosure.

H5：The company's market recognition is related to the disclosure of carbon accounting information.

H6：Whether the company is in a low—carbon pilot city is related to the disclosure of carbon accounting information.

2.2 Research design

2.2.1 Variable design

The explained variable of this paper is the carbon accounting information disclosure level. Referring to the measurement method of the information disclosure level, the "carbon disclosure index (CDI)" is established.

The explaining variables of this paper include (1) company size (SIZE); (2) return on equity (ROE); (3) growth (GROWTH); (4) equity

characteristics（GOV）；（5）market recognition（EPS）；and（6）whether the city is a low－carbon pilot city（CITY）.

2.2.2 Model building

According to the above analysis，this paper adopts the CDI as the explained variable，and the company size，return on equity，growth，equity characteristics，market recognition，and whether the city is a low－carbon pilot city as explaining variables to build the multiple linear regression model.

3. Empirical research and result analysis

3.1 Multiple regression analysis

Through multiple linear regression model analyses，it's clear that the SIG value of the five variables，namely，SIZE，GROWTH，GOV，EPS，and CITY，is all 0.000，meaning that these five variables pass the significance test at the significance level of 1%，which is consistent with the influencing factors. The SIG value of ROE is 0.605，which fails to pass the significance test，meaning that the influence of return on equity on the information disclosure level is not significant. This is inconsistent with the influencing factor.

3.2 Analysis of empirical research results

H1：The company size and carbon accounting information disclosure level are positively correlated.（Company size is the influencing factor.）

H2：The company's return on equity and carbon accounting information disclosure level are positively correlated.（Profitability is not the influencing factor.）

H3：The company's growth and carbon accounting information disclosure level are positively correlated.（Company's growth is the influencing factor.）

H4：The carbon accounting information disclosure level of a state－held listed company is higher than that of a non－state－held one.（Whether it is a state－controlled enterprise is an influencing factor）

H5：The higher the market recognition is of a listed company from the high energy－consuming industry，the higher the carbon accounting information disclosure level of the listed company will be.（Market recognition is the influencing factor.）

4. Conclusion

This paper adopts 476 companies listed on the A－share market in Shanghai and Shenzhen and from the high－energy－consuming industry in China as research samples to statistically analyze their carbon accounting information disclosure over three years from 2015 to 2017，and the potential influencing factors are empirically analyzed to obtain the following conclusions finally：

First，most listed companies from the high－energy－consuming industry have disclosed their carbon accounting information，but their overall disclosure is still at a low level. There are many defects with their information disclosure method and content. For example，the quantitative information disclosure is inadequate，the qualitative information disclosure is too formalized，disclosure of substantial content is lacking，and a unified set of standards for accounting information disclosure has not yet been put in place. As to the causes of these defects，companies have failed to undertake their main responsibilities to implement these requirements，and their carbon accounting information disclosure lacks transparency. On the other hand，China's carbon accounting is still in the initial development stage，calling for a unified set of disclosure standards and strict disclosure requirements.

Second，empirical analysis results show that the influence of variables on the disclosure level can be ranked in descending order：equity characters，whether the company is in a low－carbon policy pilot city，market recognition，company size，and growth. The insignificant influence of the variable，return on equity，on the carbon accounting information is not verified.

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