Research on the Functional Mechanism of EDI, Media Attention and Enterprise Development under the Background of "Double Carbon"

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Abstract: Building an ecologically civilized environment, building a green financial system, and improving corporate management are of great significance to the long-term development of the capital market and the country. This article starts from the perspective of corporate environmental information disclosure, introduces media attention, and conducts an empirical study on the operating performance of China's heavily polluting enterprises. The research results show that there is a negative correlation between environmental information disclosure (EDI) and corporate operating performance. When companies conduct environmental information disclosure (EDI), it will lead to a decrease in corporate operating performance, while increased media attention will improve corporate operating performance. At the end of the article, the article summarizes the research content of this article and puts forward relevant prospects to provide relevant ideas for other scholars' follow-up research.

Keywords: Heavy pollution EDI media attention enterprise development.

1. Introduction

Green development is of great significance to the long-term development of the Chinese nation. The report of the 19th National Congress of the Communist Party of China regards "adhering to the harmonious coexistence of man and nature" as the basic strategy for our country's future development. For a long period of time in the past, China's GDP growth mainly adopted extensive methods. Although it brought relatively high economic growth for a period of time, it also brought serious environmental and ecological problems, which had a negative impact on society. Economic sustainability has adverse effects. In recent years, with the continuous deterioration of environmental conditions and increasing media attention, there has been widespread heated discussion on how to strengthen environmental governance and promote sustainable development. It has also attracted attention from all walks of life on the production behavior and pollution emissions of enterprises (Zhou Zhou) Wuqi, 2020). As the main creator of social wealth, enterprises are also the main producers of environmental pollution. Whether the green economy and sustainable development can achieve long-term and good development is directly related to the production and operation of enterprises (Tang Yali et al., 2006). At present, governments of various countries mainly regulate enterprises' pollution emissions and production behaviors through the environmental information disclosure system. However, my country's environmental information disclosure system started late, and there are certain problems in the implementation process. In our country, only heavy-polluting enterprises The release of environmental information data is mandatory only when stocks are issued and when listed companies encounter major social and environmental liability accidents (Wu Hongjun, 2014), while other companies voluntarily disclose environmental information.

According to data from the "Evaluation Report on Environmental Responsibility Information Disclosure of Chinese Listed Companies (2018)", listed companies in my country are currently the main body of environmental information disclosure, but the number of listed companies that disclose environmental information is not large. At the same time, among the companies that make announcements, there are significant differences in environmental information disclosure between different regions and different industries. Although third-party organizations have been introduced to supervise and review environmental information disclosure, the credibility of the disclosed environmental information still needs to be improved. So why do a large number of companies choose not to publish their environmental information data?

For enterprises, operating performance is the most important financial indicator. So will environmental information disclosure have a positive impact on the company's operating performance? Theoretically speaking, environmental information disclosure by enterprises can reduce the direct information asymmetry between information publishers and users, increase the trust of other stakeholders in the enterprise, improve the operating efficiency of the enterprise, and promote the development of the enterprise. But in fact, environmental information disclosure by companies will increase the company's costs (Wu Hongjun et al., 2013). Only when the profits brought by information disclosure exceed the costs, companies are likely to disclose information.

Extensive and continuous media attention to a certain industry or event will often have a greater impact. Domestic research on the impact of media attention on corporate operations and management is relatively in-depth. The more freely the media supervises the industry, the more flexible the capital market will be. The higher the level, the more developed it is (Chen Zhiwu, 2005). Yu Zhongbo et al. (2011) studied the governance mechanism of my country's listed companies from the perspective of earnings management and
believed that media attention will make managers adopt earnings management based on accruals, reduce the adoption of earnings management based on actual operating activities. In the process of operation and management, media attention can reduce the opacity of corporate information. Positive media reports can improve the image and credibility of the company. At the same time, media attention will also affect the company's stock returns. As the media's attention to the company continues to increase, the stock returns of companies next month will be lower than those of companies with low media attention in the current period.

2. Research Design

2.1. Sample selection
This article selects heavily polluting listed companies in Shanghai and Shenzhen stock exchanges as the research object. The data disclosure of listed companies is relatively comprehensive and easy to collect. Heavy polluting companies occupy an important position among the main bodies of listed companies in my country. Their dependence on resources and environmental quality requirements are relatively high requirements in aspects such as green development. Under the current policy call for green development, whether heavily polluting enterprises can organically integrate the concept of green development with actual business management and environmental protection work has received widespread attention from all walks of life. At the same time, it is of great concern to stakeholders. Said that the financial performance and environmental responsibility performance of heavily polluting enterprises are of great significance to their economic decision-making. To this end, the article uses 2015 to 2018 as the observation years, and selects ten sample indicators including the Environmental Information Disclosure Index (EDI), media attention, and corporate financial performance, and 485 observation objects for research and analysis. The data of this article comes from the China Financial News Database of Listed Companies (CNRDS), annual reports of listed companies, sustainable development reports of listed companies, social responsibility reports of listed companies, China Development Briefings, and other relevant data are collected and organized through the Guotai'an database.

2.2. Variable design
2.2.1. Explanated variable
business performance. In the existing literature, corporate operating performance is mainly measured by earnings per share (Zhang Junrui et al., 2003), return on net assets (Lau, 2016), return on net assets, etc. This article selects return on net assets as a measure of corporate performance. This indicator can reflect the company's profitability, capital structure and other information, and can better reflect the company's operating performance (Tian Xinjia, Zhang Guangmei).

2.2.2. Explanatory variables
Media attention. In the current Internet and multimedia era, the media occupies an extremely important position in the information dissemination process and is the main mechanism for current information dissemination (Wang Xi et al., 2019). At the same time, the media is also an important decision-making in the current external governance mechanism, which can reduce the cost of enterprises. Information asymmetry with stakeholders and other members of the public and improve information transparency (Gong Guangming et al., 2014), thereby improving the credibility of enterprises, conducive to gaining the trust of investors, increasing the investment received by enterprises, and promoting the development of enterprises. Production and marketing management to increase business performance of enterprises. Based on data from the China Financial News Database of Listed Companies (CNRDS), this article mainly collects the number of times a company has been reprinted on the Internet and in newspapers. The number of reprints means the degree of media attention the company has received (Chen Kejing, 2016). In order to ensure For the integrity of the final data, this article selected all reprinted information of the company.

Environmental Information Disclosure Index. The contribution of enterprises in environmental protection can be reflected through the environmental information disclosure index. Currently, for enterprises, whether to disclose environmental information is an important corporate strategy (Yin Jianhua et al., 2020). Enterprises can improve their reputation and establish a good corporate image by publishing environmental information quality reports, which in turn can help enterprises improve their financial performance (Freedman, M. et al., 1992). Current research on the calculation of corporate environmental information disclosure index, according to whether it can be expressed in currency is divided into monetized disclosure index and non-monetized disclosure index (Wu Jianfeng et al., 2015). According to whether information disclosure is mandatory or fee-based, it is divided into "hard disclosure" and "soft disclosure" (Feng Liyan et al., 2016), or classified according to the three dimensions of significance, comparability and reliability (Wu Jianfeng et al., 2015). Based on (Wu Jianfeng et al., 2015), this paper constructs the monetary environmental information disclosure index and non-Monetary environmental information disclosure index, and then calculate the total environmental information disclosure index.

2.2.3. Control variables
Assets and liabilities. The asset-liability ratio is an important indicator that reflects the capital structure of a company. According to many domestic and foreign studies, companies with lower debt ratios tend to have stronger profitability. At the same time, low debt ratios also reflect that companies have strong solvency and performance. The lower financial risks of an enterprise can easily attract the attention of investors and can bring more capital inflows to the enterprise.

Enterprise size. Enterprise size is mainly measured by the logarithm of total assets. Enterprises with large enterprise scale tend to have relatively strong assets, strong company strength, and strong economic strength. They can make large-scale investments in the company's production and operation and other activities, and enrich the The company's talent structure and business structure can also improve the company's innovation capabilities and make it easier to attract foreign investment.

Number of people on the company’s supervisory board. Enterprises of different sizes have certain differences in the size of their supervisory boards. The actual operation cost and time of a small supervisory board are relatively low, which can improve the administrative efficiency of the enterprise and is more suitable for today's ever-changing industry conditions. Large-scale supervisory boards, on the other hand,
are more comprehensive in terms of staffing and can give more full and detailed consideration to the company's overall strategic management. At the same time, they can effectively conduct accounting supervision and reduce earnings management.

Audit opinions. The audit opinion reflects the authenticity and credibility of the company's financial statements, and is of great significance to the company's stakeholders in making relevant economic decisions. An unqualified audit opinion can often increase the credibility of the company's finances and contribute to the company's market Financing. Developing a better impact. In this article, the audit report with unqualified opinion is set to 1, and other audit reports are set to 0.

Shareholding ratio of the largest shareholder. In the existing research on the shareholding ratio of the largest shareholder, the existence of the largest shareholder can optimize the company's management structure, reduce the company's management costs, and improve the performance of the company. But at the same time, there may also be adverse effects. The controlling shareholders of the company may use their control rights to seek certain personal gains, which will damage the rights and interests of small and medium-sized shareholders.

Equity concentration. Different equity properties have different effects on the profitability of the company. Among national stocks, there is a negative correlation between the company’s profitability and the proportion of corporate legal person shares, and a positive correlation with legal person shares. However, overall, the equity The degree of concentration is positively related to the profitability of the company. The higher the concentration of ownership, the better the effect on the business performance of the company.

Development capabilities. Development ability reflects the operating status of the enterprise. Good development ability has a certain degree of influence on the future business goals of the enterprise. At the same time, it can attract the capital inflow of investors, expand the enterprise’s reproduction capacity, and improve the enterprise's sustainable development ability. This article selects the main business income growth rate of the previous period as a measure of development capabilities.

This article uses multiple linear regression models for variable analysis.

Model 1:  
\[ ROE = \alpha_0 + \alpha_1 EDI + \Sigma \alpha_i CONTROLS + \epsilon \]

Model 1 is constructed to analyze the impact of environmental information disclosure, corporate performance, where \( \alpha_1 \) represents the impact of environmental information disclosure index on corporate performance, and \( \Sigma \alpha_i CONTROLS \) represents the impact of each control variable.

Model 2:  
\[ ROE = \beta_0 + \beta_1 MEDIA + \Sigma \beta_i CONTROLS + \epsilon \]

Model 2 is constructed to analyze the impact of media attention on corporate performance, where \( \beta_1 \) represents the impact of media attention on corporate performance.

Model 3:  
\[ ROE = \chi_0 + \chi_1 EDI + \chi_2 MEDIA + \Sigma \chi_i CONTROLS + \epsilon \]

Model 3 is constructed to analyze the impact of environmental information disclosure index and media attention on corporate performance.

3. Research Conclusions and Prospects

3.1. Research conclusion

This article takes heavy-polluting enterprises in Shanghai and Shenzhen stock markets from 2015 to 2018 as the research object, and conducts relevant research on the relationship between environmental information disclosure index and media attention and the financial performance of enterprises. During the research process, the authenticity of the data is fully guaranteed to ensure the rigor of the model, multiple control variables are introduced for related research. The research conclusions are as follows:

There is a certain negative correlation between the environmental information disclosure index and corporate financial performance. Although the environmental information disclosure index can reduce the information opacity between companies, stakeholders and society, and enhance the social credibility of companies, companies are still conducting environmental information. The process of disclosure will add more additional costs. For smaller companies, it is difficult to make up for the costs through the additional benefits brought by environmental information disclosure, so it generally reflects a downward trend in corporate financial performance.

There is a certain positive correlation between media attention and corporate performance. As media attention continues to increase, companies will receive more social attention, information transparency will continue to improve, and the company's influence will continue to expand, thereby improving the company's financial performance.

3.2. Outlook

As the awareness of ecological civilization continues to be deeply rooted in the hearts of the people, various environmental protection policies are continuously issued, and production technology continues to improve, all sectors of society are paying more and more attention to corporate social responsibilities. However, for enterprises, the core of the enterprise The interest is how to improve the business performance of the company. Therefore, the proper balance between how the company further strengthens its social responsibility and improves its business performance is an important focus in current business management and deserves further in-depth research. In the process of relevant analysis, this article only studies the type of enterprise, environmental information disclosure and media attention as a whole, and does not conduct in-depth subdivisions. Therefore, in the subsequent research process, the size, size and quality of the enterprise can be considered. Types, methods of environmental information disclosure, and positive reports and negative reports that the media pay attention to are classified and studied to specifically refine the impact of different internal factors on corporate financial performance.

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