

Research on The Impact of Environmental Information Disclosure on Performance---A Case Study of Listed Steel Companies

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Abstract: This article first introduces the concept of environmental information disclosure and financial performance. Then it reviews and summarizes relevant domestic and foreign scholars' literature. Then it uses 50 listed companies in the A-share listed steel industry in 2014-2017 as a research sample. Conduct empirical analysis and discuss the impact of environmental information disclosure on corporate financial performance. This paper draws a conclusion that the disclosure level of environmental information of listed companies in the steel industry is positively correlated with their financial performance. At the same time, the company pays more attention to environmental protection, the easier it is to get support from stakeholders, and brings better benefits to the company.

1. Introduction

China has been reforming and opening for more than 30 years. China has now reached the transition period from industrialization to post-industrialization. In the past, the extensive economic growth mode that used to produce reckless use of resources and discharge pollutants has harmed the development of our country at this stage. Enterprises are not only the source of wealth creation, but also the important group that produces pollution. Therefore, it is particularly important to deal with the relationship between enterprise development and its environmental impact. Enterprises shoulder the important responsibility of protecting the environment.

In accounting, enterprises mainly through the disclosure of environmental information, thereby strengthening the supervision of environmental management of enterprises from all walks of life, to fulfill the responsibility of environmental protection, but the quality and level of environmental information disclosure are uneven. At the same time, the impact of environmental information disclosure on the wealth creation of enterprises is increasingly valued by enterprises. Therefore, it is particularly important to study the impact of environmental information disclosure on corporate wealth creation.

2. Literature Review

A.H. Fatima et al (2015) concluded that stricter supervision, such as Malaysia's mandatory environmental information quality requirements in 2007, has led to an increase in the number of environmental information reports reported to companies and an improvement in the quality of environmental information reports.

Xianbing Liu et al (2009) considered that the environmental sensitivity and scale of enterprises are important factors affecting the efforts of environmental information disclosure at present.

Cheng-Li Huang, Fan-Hua Kung (2010) considered that under such review, enterprises tend to disclose more environmental information to improve their legitimacy. At the same time, managers of enterprises with higher market share tend to give higher value to environmental performance, and are more willing to voluntarily disclose information to the public.

Environmental information disclosure is generally on the rise, but the distribution of disclosure content is hierarchical, and there is more selective disclosure. Enterprises' environmental sensitivity,

scale and government policies have a significant impact on environmental information disclosure. As for the impact of environmental disclosure on financial performance, scholars have not yet reached a conclusion on the correlation between them. Different scholars hold different views and lack systematic research. Therefore, there is still a lot of research space in this field.

3. Institutional Background and Theoretical Analysis

In 2017, the total consumption of crude steel in China increased slightly compared with 2016, and the downstream industry showed a steady growth trend. The price of iron and steel products will remain stable in 2018, and the performance of the cyclical sector (iron and steel enterprises are cyclical industries) will be more stable than in 2017, and there will be almost no sharp rise or fall.

In June 2017, the Ministry of Environmental Protection issued a letter to solicit opinions on 20 revised national pollutant emission standards and put forward new special emission limits. In July 2017, the Classified Management List of Fixed Pollution Source Discharge Permits (2017 edition) clearly stipulates that the requirements of steel industry's discharge permits shall be issued before 2018. It can be found that the state pays more attention to the pollutant emission of the iron and steel industry, and the pollutant emission link of the iron and steel industry is facing unprecedented high pressure.

From the perspective of environmental disclosure in iron and steel industry, the level of disclosure has increased year by year, but it is still low. Environmental information disclosure mainly through social responsibility reports, the level and content of environmental information disclosure are uneven, so it is difficult to compare with the same industry, and the comparability is low. Many iron and steel companies do not quantify environmental information disclosure, only simple narrative, lack of organization, such as only through a large text description, no specific data support, no icons and other intuitive description, it is difficult for information users to extract important information from it.

Based on the analysis of the previous relevant theories and the induction and study of the conclusions of different scholars, this paper puts forward hypotheses:

Hypothesis 1a: The higher the level of environmental information disclosure, the higher the financial performance.

Hypothesis 1b: The higher the level of environmental information disclosure, the lower the financial performance.

4. Model Selection

Table 1 List of major variables

Variable classification	Variable name	Variable code
Explanatory variable	Environmental Information Disclosure Index	CED
control variable	Assets scale	SCALE
	Asset-liability ratio	DA
	Increase rate of operating profit	GROWTH
Interpreted variables	Weighted average return on net assets after deduction of recurring gains and losses	ROE

After determining the variables, this paper uses multiple linear regression model to verify the impact of environmental information disclosure on corporate financial performance, and constructs the following structure:

$$\text{Model: ROE} = \beta_0 + \beta_1 \text{CED} + \beta_2 \text{SCALE} + \beta_3 \text{DA} + \beta_4 \text{GROWTH} + \varepsilon$$

β_0 is a constant term and β_i ($i=1, 2, 6$) The regression coefficients of each variable, ε are random errors.

5. Empirical results

Table 2 Dependent variables: Return on net assets (ROE)

Model	Non-standardization coefficient		Standard coefficient	t	Saliency
	B	Standard error	β		
(constant)	8.079	50.790		.159	.874
SCALE	-.123	2.307	-.006	-.053	.958
DA	-49.839	13.220	-.405	-3.770	.000
GROWTH	22.243	8.509	.265	2.614	.011
CED	.371	.136	.290	2.731	.008

Based on the data of 30 listed iron and steel enterprises in Shanghai Stock Exchange from 2014 to 2016, this paper explores and verifies the impact of environmental information disclosure level on financial performance of iron and steel enterprises through SPSS test. This paper establishes a model, which takes financial performance as explanatory variable, net asset returns as representative, environmental information disclosure level as explanatory variable, asset size, asset liability ratio and business income growth rate as control variable to measure the impact of explanatory variable and explanatory variable. The results are as follows:

In iron and steel enterprises, the quality level of environmental information disclosure has a positive effect on the financial performance of enterprises. The higher the environmental information disclosure index, the higher the return on net assets. The higher the level of environmental information disclosure, the more social responsibility it takes to publish, the more attention it receives from all walks of life, and the image of enterprises will be enhanced accordingly, so it may have a positive impact on enterprises, and then improve the level of financial performance.

In terms of control variables, asset-liability ratio has a negative impact on financial performance. The higher the ratio of assets to liabilities, the lower the rate of return on net assets. The average asset-liability ratio of iron and steel enterprises is generally higher than that of other industries, so the leverage effect is more obvious. Therefore, the enterprises with higher debt ratio in iron and steel enterprises may be too high in all enterprises. In addition, the debt ratio is higher, the financial risk is higher, and the financing of enterprises is more difficult, which makes the financial performance smaller. Development ability has a positive impact on financial performance, that is, the higher the growth rate of business income, the better the development ability. The development ability is the embodiment of the enterprise's comprehensive ability. The stronger the comprehensive ability, the higher the financial performance. Asset size is not related to financial performance. Large-scale assets may obtain more favorable resources, get more attention and benefit financial performance, but they may also cause idle resources, slow capital turnover and poor efficiency of asset utilization; small-scale assets may be difficult to meet the needs of enterprises' production and operation, thus making financial performance low, but also may have high utilization rate of resources and flexible operation. Therefore, asset size and financial performance are not necessarily linked.

6. Conclusion

This paper reviews and summarizes the relevant literature of domestic and foreign scholars, and takes 30 listed iron and steel enterprises listed on A-share in Shanghai Stock Exchange from 2014 to 2016 as samples. Through empirical analysis, this paper discusses the impact of environmental information disclosure on financial performance of enterprises. This paper draws a conclusion: The level of environmental information disclosure of Listed Companies in iron and steel industry has a positive impact on their financial performance. Among the control variables, asset-liability ratio has a negative impact on financial performance, development ability has a positive impact on financial performance, and asset size has no inevitable relationship with financial performance.

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