Analysis on the Impact Factors of Environmental Protection Information Disclosure in the Listed Corporations of China

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Abstract: The article selects 100 listed corporations as samples for statistical analysis from 2009 annual report and social responsibility report in China, mainly researches the influence factors of the environmental protection information disclosure empirically, and finally provides some policy suggestions to perfect the information disclosure of environmental protection in the listed corporations of China in allusion to the problems on it, which aims to effectively improve the overall level of environmental protection information disclosure, so as to boost their sustainable development.

Keywords: Environmental protection; information disclosure; impact factor

1 Present Conditions

1.1 Methods of environmental protection information disclosure

The mainly ways to disclose environmental protection information in China are annual report and social responsibility report [1]. The former is more formal and commonly used method. In the annual report, the related information about environment is disclosed in the board of directors report, the board of supervisors report, the major items and the notes to the financial statements (specific situation see Figure 1) [2]. From Figure 1 we find that most of the environmental protection information could be reflected in the board of directors report and the notes to the financial statements.

![Ways to disclose the environmental protection information in 2009 annual report](image)

**Figure 1. Ways to disclose the environmental protection information in 2009 annual report**

1.2 Existed problems of environmental protection information disclosure

After summarizing, we consider that the problems on the environmental protection information disclosure of listed companies in China are mainly the following aspects:

First, the environmental information disclosure is incomplete and fawn.

Due to the disclosure of the environmental information mainly depends on voluntary, so most of the companies just disclose one or few items, not comprehensive. At the same time, most companies tend to be self-praising, emphasize the positive side in environmental management and protection, but rarely disclose the negative impact of the environment information.

Second, the environmental information disclosure is lack of comparability.

Because some companies disclose environmental information, others not, and some companies disclose more, others less, and different companies disclose different contents and in different ways, it is very difficult for different companies to compare their environmental information correctly, and for users to make their decisions at their will according to these information.

Third, without environment audit, the environmental information is lack of reliability.

Basing on the investigate, only about 10% of the environmental information have been under environment audit in the listed enterprises disclosed environmental information [3], which shows that the reliability of the environmental information is limited, and the disclosed environmental information is either not completely true.

2 Statistical Analysis

2.1 Choice of the factors influencing environmental protection information disclosure

After research and refining, we preliminarily assume the influence factors of environmental protection information disclosure are mainly six items, which are the company scale, the profit ability, the regional economic development, the industry type, whether state-owned holding, the policy constraint of the listed company, and these internal and external factors significantly effect the existence of the information disclosure of environmental...
protection.

2.2 Statistical analysis of the main influence factors

By using the method of statistical analysis, the article collects and counts 100 samples, which are about the companies’ social responsibility report and the annual report listed in 2009. Then we analyzes the relationship between the factors and the level of environmental protection information disclosure of the listed company in the light of the six factors listed above.

(1) Effect of company scale on the environmental protection information disclosure

The company scale could be reflected generally from its sales income each year. From the statistics of Table 1, we could find that, the listed companies with sales income more than 30 billion yuan per year are more inclined to disclose their environmental information than those less than 30 billion yuan.

Table 1. Relationship between sales income and environmental information disclosure in 2009

<table>
<thead>
<tr>
<th>Sales Income</th>
<th>Sales income one year&lt;300 billion yuan</th>
<th>Sales income one year&gt;300 billion yuan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of companies(individual)</td>
<td>64</td>
<td>36</td>
</tr>
<tr>
<td>The number of companies disclosed(individual)</td>
<td>47</td>
<td>12</td>
</tr>
<tr>
<td>Percentage</td>
<td>73.44%</td>
<td>33.33%</td>
</tr>
</tbody>
</table>

In survey we found that the larger size of the listed company, the more stakeholders involved, the more serious the interest conflict among the shareholders such as the creditors and the managers, and the more information they need, including the environmental information. Therefore, in order to meet the requirement of all the stakeholders, the listed company with great scale will disclose information of the environmental performance as more detailed as possible.

(2) Effect of company’s profit ability on the environmental protection information disclosure

This paper mainly adopts the net assets yield rate of a company to consider and reflect its profitability. The higher the net assets yield rate is, the stronger the enterprise's equity profitability is. In our country the index is one of the must-be-disclosed information for the public, so it is very easy to attain.

After the data analysis, we conclude that the higher the net assets yield rate is, the greater the probability of the environmental protection information disclosure and the more complete the content are. The reason is that, in order to make profits, the company is willing to disclose its environmental information finally getting more interest. At the same time, the listed company with great profit ability is more likely to put more resources into the environmental protection work, so it is more likely has the ability to release social responsibility report, disclosing the environmental performance information.

(3) Effect of the development of regional economy on the environmental protection information disclosure

According to the statistics, the proportion(74.14%) of the listed companies disclosed environmental protection information in the areas of GDP more than 600 billion yuan is larger than that(59.52%) in the areas of less than 600 billion yuan. Although the gap is not very obvious and both over 50% on the scale, it preliminarily explains that the development of regional economic, to some extent, promotes the environmental protection information disclosure. That is to say, the listed company in developed regions is more likely to disclose environmental information, and the level of environmental information disclosure is more likely higher.

Table 2. Relationship between GDP and environmental information disclosure in 2009

<table>
<thead>
<tr>
<th>GDP</th>
<th>Areas of GDP more than 6000 billion yuan</th>
<th>Areas of GDP less than 6000 billion yuan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items</td>
<td>The total number of companies(individual)</td>
<td>58</td>
</tr>
<tr>
<td>The number of companies disclosed(individual)</td>
<td>43</td>
<td>25</td>
</tr>
<tr>
<td>Percentage</td>
<td>74.14%</td>
<td>59.52%</td>
</tr>
</tbody>
</table>

The reason lies in three points. On one hand, the listed companies in developed areas generally think highly of their overall level and comprehensive competitiveness, along with the strengthening of environmental protection consciousness, the level of their environmental protection information disclosure improving correspondingly. On the other hand, as the developed areas being rich and the public with higher awareness in environmental protection construction, for improving the society’s overall level, it is an inevitable trend to prefect the information disclosure of environmental protection. Finally, the environmental protection department in the developed areas will develop relatively strict environmental protection policy, so the companies have great external pressure to distribute social responsibility report and disclose more environmental information.

(4) Effect of different industry types on the environmental protection information disclosure

In this paper, we divided 100 listed companies into eight categories, just as Figure 2 showed.

As the results of the analysis, the number of the heavy polluted industries disclosed the environmental information accounts for more than half of all heavy
polluted industries (including chemical industry, coal industry, water and electricity producing and supplying industry etc., which are generally considered as heavy pollution industry\(^\text{(4)}\). Public social services, paying much attention to the public image, also account for nearly half, while “other business” account for less than a quarter. So we can basically conclude that, the polluted industries are more likely to disclose environmental information, only when enhance the environmental protection ability, can they get support from our country, fulfill their social responsibility and decrease the environmental risk.

(5) Effect of state-owned holding on the environmental protection information disclosure

In the 100 samples, 38 of them are state-owned holding companies, almost 90% of which disclosed information on environmental protection in 2009 years, and with relatively high level information disclosure.

In general, the state-owned listed companies disclose more and better than non-state-owned holding companies on the environmental protection information. As the state-owned listed companies benefit more from the country policy, undertaking heavier social responsibility than foreign investment and private capital, thus strongly have the responsibility to release social responsibility report and disclose more information on environmental performance. Furthermore, state-owned listed companies are directly supervised by the nation on the environmental protection information disclosure, so it is an obligation to disclose the relevant information effectively.

(6) Effect of policy constraint on the environmental protection information disclosure

As for specific industries, such as the environmental protection industry, the high polluted industry and the national nuclear energy industry, etc., our government carry on mandatory regulations on the environmental information disclosure, leading them to implement in accordance with the relevant provisions. As the statistics reflected, as long as this kind of industries, almost close the information of environmental problems, and strictly follow the procedures prescribed by the state. So, national compulsory policy to some degree improves the level of environmental information disclosure.

3 Conclusions

According to the hypothesis and the statistical analysis, we concludes generally that:

(1) There is a positive correlation between the company scale and the level of environmental information disclosure.

(2) There is also a positive correlation between the company profitability and the level of environmental information disclosure.

(3) The development of regional economy helps stimulate the level of environmental protection information disclosure of the listed companies in the same area to some extent.

(4) There is obvious difference among the different types of industries on the level of concerns and disclosure about environmental protection information.

(5) The level of environmental information disclosure by the state-owned enterprise is higher.

(6) Policy constraint does good to improving the level of environmental information disclosure.

4 Suggestions

Combining with the statistical analysis above and the actual need of the environmental management, we suggest the following steps to strengthen the disclosure of environmental performance of the listed company:

4.1 Raising the environmental protection awareness of the public and companies is vital.

The mass media could help improve public attention of environmental protection, make investors care about the benefit of investment and risk from the angle of recognizing environmental protection information. Therefore, we must cultivate the environment awareness of investors and operators through the mass media. Then the relevant organizations should help set the environmental factors as standards of investment and evaluation, and replace the end management by preventing and comprehensive management. As the public, we should increase service life of the product, reduce unnecessary material waste and develop the effective circulation utilization as far as possible. We can reuse the waste to solve the load problem of terminal treatment. Our law also can require and promote the listed companies disclosing environmental information through reducing the environment cost, which does good to enhance their positive attitude towards the environmental information disclosure.

4.2 The government should strengthen the guidance for the listed company and draft relevant...
regulations to supervise and manage the environmental condition of the listed company.

The government should formulate some corresponding policies to guide the listed company doing well the work of disclosing the environmental information. In order to make the listed companies a unified criterion, avoiding split asunder, our government should set up some regulations to strengthen the supervision and management of environmental protection of the listed company, and clearly list the contents, format, time, forms of the environmental information disclosure. Especially, we should strictly deal with heavy pollution industry and develop more strict disclosure rules, even some penalty to the specified enterprise not conforming regulations.

4.3 The most effective measure is reinforcing the enforcement of environmental regulation and management.

The government environmental protection organization should specifically formulate enterprises’ environment responsibility, urge them to carry on effectively and circulatingly economic management. And the government environmental protection organization should associate with the securities to take action for supervising and urging the enterprise seeking their suitable economy development mode, in order to reduce resources and energy consumption, decrease the pollution.

The listed company has a significant impact on our national economic and social development, it is the vital force of sustainable development strategy. It is high time for us to realize the responsibility of protecting environment, and put it into the business operation. From now on, our enterprises should strengthen the responsibility of environmental information disclosure, advance clean and energy saving development, effectively make a significant contribution to a harmonious and healthy society.

References