Factors Influencing the Development of Digital Corporate Social Responsibility

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Abstract: In recent years, the lack of social responsibility (SR) has aroused public concern. As the carrier of SR, corporate responsibility has received constant attention. In view of this, this paper studies the influencing factors (IF) of the development of digital corporate (DC) SR from the perspective of IF. This paper briefly analyzes digital enterprise(DE) and corporate SR-related theories and analyzes and assumes the factors affecting the development of DC SR. Finally, through the empirical analysis of the factors affecting the quality of information disclosure in SR reports, it shows that active disclosure of SR information plays a significant role in eliminating the negative impact on enterprises.

1. Introduction

At present, in overseas developed countries, the theme of corporate SR has long been implemented from a simple academic discussion to practical operation. In China, many enterprises blindly pursue profit growth, ignoring that enterprises should bear quality assurance responsibility for their products and SR ethics. At the same time, with the trend of sustainable development concepts, environment-friendly society, and other views becoming increasingly popular, whether an enterprise actively undertakes its SR and whether it discloses its SR has gradually had a more significant impact on the corporate image and corporate influence. This paper studies the IF of the development of DC SR.

As the most active interest organization in the market economy, enterprises have been paid more attention to by stakeholders than just the economic goals of enterprises, but also the performance of their social responsibilities [1]. With the concept of sustainable development getting increasingly attention, the triple bottom line responsibility theory proposed by Logsdon et al. has been recognized by many scholars. This theory believes that corporate behavior should meet the three bottom lines, namely, the economic bottom line, the social bottom line, and the environmental bottom line. Enterprises should not only be responsible for investors and pursue economic goals, but also be responsible for society and the environment [2]. This theory requires enterprises to comprehensively consider various social responsibilities, balance the demands of various responsibilities, and solve the conflicts between different responsibilities.

This paper first summarizes the relevant domestic and foreign literature research on SR information, including the concept of SR, the content form and IF of SR information disclosure,

empirical research, and analyzes the shortcomings of this research field in China, and puts forward the entry point of this study; it clearly defines the main content framework and measurement methods of DC SR information disclosure, and qualitatively analyzes the IF of DC SR information disclosure from the two aspects of external and internal drivers of DEs; The empirical analysis and test were carried out by using the analysis software SPSS method [3-4].

2. Research on the Development of DC SR

2.1. Open DE

Enterprise informatization is the basis of e-commerce, and e-commerce is the driving force of e-government and e-finance. Without enterprise informatization, it does not belong to e-commerce, nor to e-finance and e-government. Therefore, this is a basic component of a digital model, that is an important part of the urban informatization process. Realize the modernization of enterprises driven by informatization and make enterprises develop by leaps and bounds [5].

The development and construction of DEs are based on an integrated enterprise strategic framework, advanced business concepts, information technology, and management methods, which can continue to improve and innovate. Therefore, open DEs have the following characteristics:

Digitization. Digitization itself cannot create a value, just as sound itself has no value. Only when the technology is combined with tradition or other functions can a value be created [6-7].

Collaboration. Establish a good cooperative relationship with partners and share information in the process of business dealings; when seeking partners, the first consideration must be the other party's core competence and whether they have complementary capabilities for the enterprise; the goal of cooperation between the two sides is to win the competitive advantage of the current market environment; in the cooperation stage, both parties can jointly create the corporate culture direction of "win-win market".

Virtualization. Use the form of dynamic alliance to construct a virtual enterprise to complete product design, service, and manufacturing: business processes operate globally. Become the main core technology for building a virtualized enterprise [8]. Therefore, the information and business of cooperative enterprises need to adopt mutually inclusive components, consistent data interfaces, and common business standards.

Agility. Such enterprises adjust their production organization structure with the fastest speed, the lowest cost, and the best flexibility to express their response to market changes. In order to build an agile enterprise, enterprises are required to be highly adaptable to the enterprise itself. They quickly adjust themselves according to market changes and transform the latest technology into the type of products needed in the current market [9-10].

2.2. Relevant Theories of Corporate SR

2.2.1. Stakeholder Theory

The early stakeholder theory was mainly applied to corporate governance to improve the management efficiency of enterprises. In the 1990s, the stakeholder theory combined with the perspective of SR expanded the scope of stakeholders and extended the narrow sense of corporate stakeholders to include government departments, ecological environment, and other indirect economic stakeholders[11].

2.2.2. Pyramid System of SR

Professor Carroll proposed a pyramid model of economic responsibility, legal responsibility,

ethical responsibility, and charitable responsibility from the bottom, as shown in Figure 1.
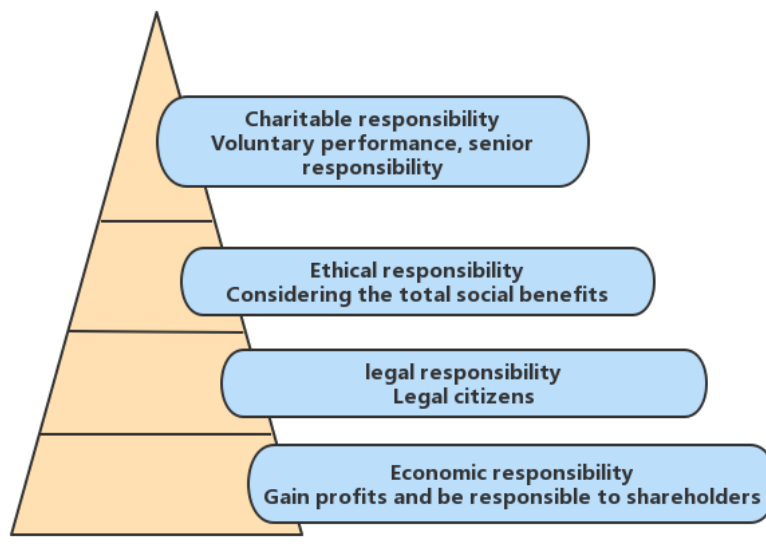

Figure 1: Pyramid model of SR

In fact, the level of corporate SR is constantly changing in the development process of enterprises themselves. In the early stage of enterprise development, the most basic demand of enterprises is to pursue profits to obtain survival capital. Enterprises also take economic responsibility as the most important responsibility. With the growth of enterprise economic scale, enterprises will focus on establishing good trading relationships and obtaining goodwill and support. At this time, what they can undertake is not only economic responsibility, but also ethical responsibility in the future. The pyramid model of SR is constructed from the perspective of enterprises in turn, and its importance is also discussed from the perspective of enterprises, which is more practical and can lay a foundation for the development of corporate SR theory [12].

2.2.3. Information Symmetry Theory

Asymmetric theory means that in a market economy, everyone has a different understanding of information. Those who have enough information tend to have advantages, while those who do not have enough information tend to be at a disadvantage. If such information can be obtained as easily as possible and is associated with corporate SR information, it will be deleted [13].

3. Theoretical Analysis and Research Hypothesis of IF

3.1 External IF

Generally speaking, enterprises with large scale, central enterprises and heavy pollution industries are more likely to be concerned by people from all walks of life, so the pressure on stakeholders is greater. The impact of stakeholder pressure on the quality of corporate SR report information disclosure can be reflected, to a certain extent, by the size of the enterprise, the nature of the enterprise, and industry factors[14-15].

Laws and regulations. Based on the theory of organizational legitimacy, enterprises can survive in society only if they meet the requirements of law and regulation and social norms. At this stage, China's SR report disclosure adopts the combination of voluntary disclosure and mandatory

disclosure. The legal rules of IF can be measured and studied through disclosure willingness[16]. As China has not yet issued a standardized standard for the preparation of SR reports, voluntary disclosure of SR reports in terms of format and content is very arbitrary, which can be more or less auspicious. Therefore, this paper believes that the mandatory disclosure of SR reports is more complete and comprehensive in content, so it puts forward hypothesis 1.

Hypothesis 1: Compared with voluntary disclosure of SR reports, mandatory disclosure of SR reports has a higher quality of information.

Registrations. Even if we live together in a country and the overall environment is different, unfortunately, there is a big gap in the degree of regional marketization and legal environment. In China, the regional economic development in the east and west is uneven, and the degree of marketization is also different. Compared with the west, the east has a higher degree of standardization and a stricter economic environment. According to the empirical analysis of A-share listed companies in Shenzhen Stock Exchange, the higher the degree of marketization, the better the corporate governance environment[17]. Transnational research shows that the structure of corporate control is determined by the governance environment, which in turn affects the quality of information disclosure of listed companies. At the same time, the higher the degree of marketization, the more developed the economy, the more perfect the capital market, and the more fierce the market competition, the higher the information transparency of the company is required. To gain competitive advantage, enterprises should not only maintain good relations with shareholders, but also actively maintain good relations with stakeholders who provide social resources. Obtain superior resources according to the signal transmission mechanism. Therefore, hypothesis 2 is proposed.

Hypothesis 2: Compared with other regions, the quality of SR report information disclosed by economically developed regions is higher.

3.2 Internal IF

In terms of enterprise characteristics of internal factors, it can be seen from the above theoretical analysis and current situation analysis that: industry factor is an important influencing factor; the quality of the certified SR report is high. The larger the enterprise is, the more stakeholders such as suppliers and employees are involved, and the more attention they receive[18]. With the attention of the government, the media, and many stakeholders, enterprises have to disclose more information about the responsibilities of the society and shape the image of a positive and responsible company.

According to the social contract theory, in order to maintain social status, reputation and improve remuneration, the stronger the profitability of the enterprise, the more willing executives are to actively disclose more SR information, which can be used as a basis[19].

The basic information asymmetry theory, in the environment where SR has attracted much attention, in the face of doubt and accountability, enterprises need to disclose their social responsibilities to solve the problem of information asymmetry. However, there is a cost for enterprises to undertake and disclose SR. Without the requirements of laws and regulations, enterprises with poor performance tend to bear no or as little SR as possible; however, enterprises with good performance will tend to assume SR and show their strong profitability in the situation of information disclosure. Therefore, hypothesis 3 is proposed[20].

Hypothesis 3; Corporate profitability: positively related to the quality of information disclosure in SR reports.

4. Empirical Analysis of Factors Influencing the Quality of Information Disclosure in SR Reports

4.1 Design Model

According to the theoretical analysis and research assumptions, the model is established as follows:

$$CSRDI = \beta0 + \beta1 * Law + \beta2 * Zone + \beta3 \ln size + \beta4 * ROE + \phi$$

β 0 is a constant term, β 1- β 3 is the coefficient of each corresponding explanatory variable, β 4 is the coefficient of control variable, φ Is the residual.

4.1.1 Interpreted variable

This paper mainly studies which factors affect the quality of SR report information disclosure. Therefore, the quality of SR report information disclosure is an explanatory variable, and each influencing factor is an explanatory variable. The natural logarithm of an enterprise's total assets can measure its size. The profitability of the enterprise is expressed by the return on equity. It is generally believed that the level of enterprise management can be reflected by the return on net assets. Financial risk is reflected by financial leverage, that is, asset liability ratio.

4.1.2 Control variables

This paper selects the place of listing and the year of publication as control variables. Because this paper mainly analyzes the data of listed companies, which are from Shanghai Stock Exchange and Shenzhen Stock Exchange, it is set as a dummy variable, and the data analysis results are shown in Table 1 and Figure 2.

Table 1: Data analysis results

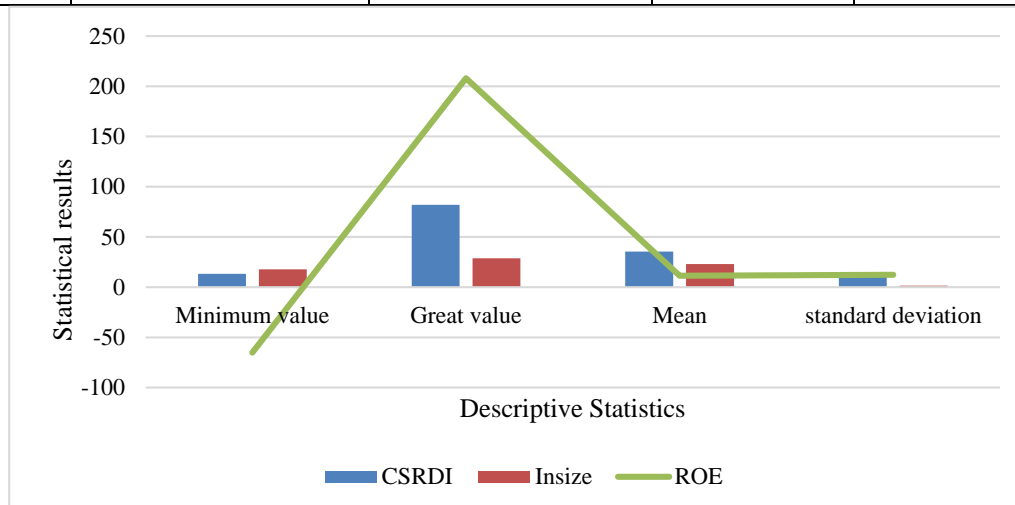|	Minimum value	Great value	Mean	standard deviation
CSRDI	13.33	81.88	35.47	13.39
Insize	17.8	28.67	23.04	1.42
ROE	-65.17	207.98	11.4	12.29

Figure 2: Descriptive Statistics

It can be seen from the descriptive statistical chart that the highest score of corporate SR report is

81.88, and the lowest score is only 28.67. Not only is the gap between the maximum and minimum values large, but also the standard deviation is large, which indicates that there is a large gap between high-quality and low-quality SR reports. The average value is only 34.67, which shows that the overall quality of China's SR reports is low.

4.2 Robustness Test

In order to further verify the reliability of the research results in this paper, the robustness test is conducted in the following way. The profitability index is re measured with the total return on assets (ROA). Use the shareholding ratio of the top ten shareholders to re represent the equity concentration, and use the financial lever coefficient (DFL) to re-measure the financial risk. Establish model 2.

$$CSRDI = \beta 0 + \beta 1 * Law + \beta 2 * Zone + \beta 3 \ln size + \beta 4 * ROA + \beta 5 * DFL + \beta 6 * Scale + \phi$$

Among them, β 0 is a constant term, β 1- β 4 is the coefficient of each corresponding explanatory variable, β 5、β 6 is the coefficient of control variable, φ Is the residual. ROA=net profit/average total assets; DFL=profit before interest and tax/[profit before interest and tax - interest - preferred stock dividend/(1-income tax rate)]. The re regression results are shown in Table 2.

Table 2: Robustness test

Model 2 Variables	Standard error	t	Collinearity statistics	
			tolerance	VIF
LAW	8.235	2.835	0.713	1.324
Zone	0.956	2.121	0.875	1.114
Insiee	1.246	8.675	0.532	1.864
ROA	0.443	0.653	0.964	1.056
DFL	0.030	-3.646	0.878	1.278
Scale	0.023	1.745	0.804	1.247

4.3 Discussion

The research conclusion shows that, among the influencing factors of digital corporate social responsibility information disclosure, the level of social responsibility information disclosure is significantly related to the size of the enterprise, financial risk, equity nature, and the size of the board of supervisors, but the level of social responsibility information disclosure is not significantly related to profitability, corporate growth, equity concentration, and the proportion of independent directors.

The maximum logarithm of the enterprise scale is 28.67, the minimum is 17.8, and the standard deviation is 1.42, indicating that the gap between enterprise models is not large. The highest return on equity is 207.98%, the lowest is -65.17%, and the standard deviation is 12.29. This shows that there is a large gap in the profitability of China's top: chemical companies, some of which are nearly twice as profitable and some of which are more than half as profitable.

The lowest asset liability ratio is 0.78%, almost no liabilities are involved; As high as 94.44%, almost all assets come from liabilities, which shows that there is a large gap between the financial risk levels of different listed companies. The average 52.76% is consistent with the 50% level of listed companies, which indicates that the asset liability ratio of most listed companies remains at a normal level.

In the model, the shareholding ratio of the top ten shareholders and the quality of social

responsibility report information disclosure are significant at the level of 1%, indicating that the quality of social responsibility report information disclosure is significantly affected by equity concentration. Returns on total assets and financial leverage have no significant impact on the quality of social responsibility report information disclosure, indicating that profitability and financial risk level have little impact on the quality of social responsibility report information disclosure. The regression results of other variables are also consistent with the above, so it can be inferred that the model and conclusions in this paper are robust and effective.

5. Conclusions

This paper studies the IF of the development of DC SR, and has achieved good results, but this paper also has shortcomings and limitations, and there are other IFS that need to be explored in the aspect of IF. With the deepening of SR survey, the coverage of information disclosure will increase due to the economic impact of SR data release. Research on the impact of economic impact on financial reputation and enterprises can be obtained from SR reports. Only by letting enterprises know the benefits brought by the disclosure of SR information, can they better drive enterprises to independently provide high-quality SR reports from an internal perspective.

References

[1] Nath A, Kumar R, Behura A K, et al. Corporate Social Responsibility For Sustainable Development[J]. Indian Journal of Environmental Protection, 2019, 39(6):545-550.

[2] Wang Y. Analysis of Huawei Corporation's Ethics and Corporate Social Responsibility[J]. Modern Economics & Management Forum, 2022, 3(1):43-47.

[3] Elamer A, Khatib S, Abdullah D F, et al. The development of corporate governance literature in Malaysia: a systematic literature review and research agenda[J]. Corporate Governance: The International Journal of Business in Society, 2022, 22(5):1026-1053.

[4] Wissenberg A. The Challenge of Digitalization - Revolution or Evolution[J]. International Fiber Journal, 2019, 33(3):8-9.

[5] Bray P. Enterprises embrace AV[J]. Av Unications for Business, 2019(JUN.-JUL.):6-8.

[6] Agrawal V. Avaya Year Ender Note[J]. PC Quest, 2019, 32(1):58-59.

[7] Farquhar C. A digital sign of the times[J]. Av Unications for Business, 2019(JUN.-JUL.):21-21.

[8] T. S. Deepu, V. Ravi:Modelling of interrelationships amongst enterprise and inter-enterprise information system barriers affecting digitalization in electronics supply chain. Bus. Process. Manag. J. 28(1): 178-207 (2022)

[9] Xueqi Zhao, Xiaozhe Sun, Longwen Zhao, Yibing Xing:Can the digital transformation of manufacturing enterprises promote enterprise innovation? Bus. Process. Manag. J. 28(4): 960-982 (2022)

[10] Kam Pui Liu, Weisheng Chiu, Jie Chu, Leven J. Zheng:The Impact of Digitalization on Supply Chain Integration and Performance: A Comparison Between Large Enterprises and SMEs. J. Glob. Inf. Manag. 30(1): 1-20 (2022)

[11] Leandro Feitosa Jorge, Elaine Mosconi, Luis Antonio de Santa-Eulalia:Enterprise social media platforms for coping with an accelerated digital transformation. J. Syst. Inf. Technol. 24(3): 221-245 (2022)

[12] Bokolo Anthony Jr.:Managing digital transformation of smart cities through enterprise architecture - a review and research agenda. Enterp. Inf. Syst. 15(3): 299-331 (2021)

[13] Igor Perko:Hybrid reality development - can social responsibility concepts provide guidance? Kybernetes 50(3): 676-693 (2021)

[14] Victor Chang, Weishuang Zhang, Chang Xiong:The Strategic View and Development of Corporate Social Responsibility: The Case Study of Samsung. Int. J. Strateg. Decis. Sci. 10(1): 105-130 (2019)

[15] Jiang Hu, Xuetao Li:Construction and Optimization of Green Supply Chain Management Mode of Agricultural Enterprises in the Digital Economy. Int. J. Inf. Syst. Supply Chain Manag. 15(2): 1-18 (2022)

[16] Saurabh Rana, Dheerendra Mishra:Provably secure authenticated content key distribution framework for IoT-enabled enterprise digital rights management systems. Int. J. Ad Hoc Ubiquitous Comput. 36(3): 131-140 (2021)

[17] Canan G. Corlu, Anita Goyal, David Lopez-Lopez, Rocio de la Torre, Angel A. Juan:Ranking enterprise reputation in the digital age: a survey of traditional methods and the need for more agile approaches. Int. J. Data Anal. Tech. Strateg. 13(4): 265-290 (2021)

[18] Yoshimasa Masuda, Alfred Zimmermann, Matt Bass, Osamu Nakamura, Seiko Shirasaka, Shuichiro Yamamoto: Adaptive Enterprise Architecture Process for Global Companies in a Digital IT Era. Int. J. Enterp. Inf. Syst. 17(2): 21-

43 (2021)

[19] Olli Kuusisto, Jukka Kääriäinen, Kai Hänninen, Martti Saarela:Towards a Micro-Enterprise-Focused Digital Maturity Framework. Int. J. Innov. Digit. Econ. 12(1): 72-85 (2021)

[20] Aastha Behl, K. Rajagopal, Pratima Amol Sheorey:Implementation of Enterprise Resource Planning (ERP) Systems in the Gig Economy: Revolutionizing the Digital Transformation. Int. J. Inf. Syst. Model. Des. 12(4): 21-41 (2021)