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Analysis on Opportunities and Challenges in Information Disclosure of Chinese Corporate Social Responsibility in the Era of Big Data*

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Abstract—**With the rapid development of economy and technology, China has entered a new era of big data. Taking the internet as the soul, data as the resource has become the antecedent of this era. The coming of the big data environment will inevitably change all aspects of information disclosure of corporate social responsibility in the traditional environment. This article starts with related concepts such as big data, analyzes the opportunities and challenges brought by the big data environment to corporate social responsibility information disclosure, and proposes a solution path based on this in order to better promote information disclosure of corporate social responsibility in the era of big data.**

Keywords: big data, corporate social responsibility, information disclosure

I. INTRODUCTION

With the rapid development of modern information technology, internet and cloud computing, human society has entered the era of big data with data and information as the core resources. "It's a revolution," said Gary King, a sociology professor at Harvard University. "Huge data resources have started the process of quantification in various fields. The reason why big data has become an era is that the information explosion in many fields has accumulated to a level that causes change, and each field will be pushed to an unprecedented big data environment.

In China, with the rapid development of economy and technology, it has entered a new era of big data. Big data follows the new Moore's law, and data is showing an exponential growth trend, marking that today's era has moved from IT era to DT era, and all industries have been pushed to an unprecedented era of big data. The arrival of big data will inevitably change all aspects, including the information disclosure of corporate social responsibility in the traditional environment. It can be said that the coming of big data era is not only an opportunity, but also a challenge.

This paper theoretically discusses how to make use of the new advantages of the era of big data, so that enterprises can more actively practice social responsibility, improve the disclosure of social responsibility information, and do exploratory research. This is a new topic, which will provide new ideas for enterprises to fulfill their social responsibilities and improve information disclosure.

II. BIG DATA RELATED CONCEPTS AND RESEARCH STATUS

A. Related concepts of big data

Victor Mayer Schoenberg and Kenneth Cooker (2013) first put forward the new concept of "big data" in the book "big data era: great changes in life, work and thinking". What is big data? Wikipedia is defined as: "Big data refers to the collection of data that cannot be processed in the expected time by our existing technical means." In academia, big data is defined by 4V, that is, variety, volume, velocity and value. Among them, diversity refers to the fact that big data contains a large amount of various types of huge data in the information age, including structured data similar to two-dimensional tables and unstructured data like audio and logs, etc., showing a diversified state. Capacity refers to the huge amount of big data and the integrity of data under it. According to the monitoring of international data company, a global information consulting agency, the global data volume is increasing year by year, doubling every two years. It is estimated that the data volume of 40zb will be generated in the world by 2020. Speed refers to the processing speed of big data is very fast, pay attention to timeliness. The value refers to the potential function of big data, which has the function of "searching for gold in the sand". The value of big data will not decrease with the use, but can be processed continuously, seeking new value in the process of finding problems.

At present, the concept of big data has not been recognized as a unified definition, so this paper regards big data as a mass of data information, a new resource, and focuses on the changes brought by big data to corporate social responsibility information disclosure in the new era, and how to further improve social responsibility information disclosure.

B. Current situation of big data

According to the Research Report of McKinsey, the world's largest strategic consulting company, human beings have entered the era of big data. Big data has become a research hot spot in the field of information technology (Lavalle S, 2011). Ghose A (2012) believes that the whole life cycle of consumer behavior and online public opinion research in the big data environment will integrate internal and external big data to analyze the relationship between consumer behavior in multi-channel, multi-platform and online and offline, and then study consumer behavior preferences, so as to give an early warning of market conditions in real time. Robert LP et al. (2008) believed that social capital and social conditions can reflect the change of network user value, and social capital provides a new perspective for insight into the behavior mechanism of big data environment. Feng Zhiyan et al. (2013) described the research directions of customer insight and marketing strategy, and business model innovation based on big data. However, there are few studies on the disclosure of corporate social responsibility information under big data. Shen Yi, Xu Guanghua (2014) have more representative views. They believe that under the big data environment, the disclosure of corporate social responsibility environment will bring about new changes. Meanwhile, corporate social responsibility information shows new characteristics in the aspects of generation, transmission and storage.

Although the theoretical system of big data is still in its infancy, "big data" has become a synonym of this era. From the "small data world" to the "big data era", we have achieved a leap from quantitative change to qualitative change. Data is the source of information, and data itself is an asset. "Big data" means these assets are becoming very large. Obviously, how to use these assets to serve corporate social responsibility disclosure is a problem that enterprises must face directly in the era of big data.

III. BIG DATA AND INFORMATION DISCLOSURE OF CORPORATE SOCIAL RESPONSIBILITY

Since Maurice Clark (1916) defined the scope of corporate social responsibility, the research on corporate social responsibility has a history of one hundred years. However, because corporate social responsibility will be dynamic with the changes of external social environment, the needs of the development of the enterprise itself, the nature and scale of the industry in which the enterprise is located, its information disclosure will change accordingly.

On the one hand, big data has changed the external environment for corporate social responsibility information disclosure. In the past disclosure of social responsibility information, due to the asymmetry of information and inconsistent quantification standards, many problems occurred. For example, the overall proportion of Chinese corporate social responsibility information disclosure is low, the contents of the disclosure are incomplete and independent, the disclosure methods are not standardized, the timeliness is poor, and the practicality is lacking. Compared

with the disclosure of corporate social responsibility information in the previous environment, the advent of the era of big data will fundamentally change the form of information and facilitate the transformation from "one-dimensional" disclosure to "multi-dimensional" disclosure (Shen Yun, Xu Guanghua et al., 2014).

On the other hand, enterprises can strengthen their effective interaction with stakeholders through big data analysis. Stakeholder theory is an important basic theory of corporate social responsibility. In practice, stakeholder communication is an important foundation for corporate social responsibility. To communicate effectively, companies must understand the positions and expectations of key stakeholders. Under the Internet, email, social media, and voice communications make communication between companies and stakeholders more effective and form part of big data. If big data technology is used for stakeholder communication, it will give companies a variety of socially responsible behaviors a fairer "exposure" opportunity, which will be able to balance the interests of various stakeholders and make it easier for companies to strategically manage and Party relationship. Therefore, it can be found that as the core content of technological change, big data will definitely affect the disclosure of corporate social responsibility information in many ways, and there is a close internal relationship between the two.

IV. OPPORTUNITIES AND CHALLENGES FOR CORPORATE SOCIAL RESPONSIBILITY INFORMATION DISCLOSURE IN THE ERA OF BIG DATA

Based on the above analysis, it can be found that the era of big data will have a huge impact on corporate social responsibility related information disclosure, with both opportunities and challenges. On the one hand, the arrival of big data brings huge amount of data resources to the corporate social responsibility information disclosure, facilitates the collection and integration of data, optimizes the original disclosure mode, and brings infinite possibilities for the fair and just disclosure of corporate social responsibility information. On the other hand, every new thing can't have only a good side. When using big data technology, enterprises should also be careful to deal with the corporate social responsibility risk of big data. Information security, privacy disclosure and other issues have also brought challenges to enterprises in fulfilling their social responsibilities and information disclosure.

A. Opportunities for corporate social responsibility information disclosure

1) Conducive to the improvement of the effectiveness of information disclosure

There is a large amount of data in the big data environment. Big data can directly store and analyze the whole data set, and then get the complete data information, which can reflect the real business activities of the enterprise and effectively disclose. In the traditional environment, structured and relational data are the main data, and only a small data set is often taken to predict the whole data, which

is not conducive to the real feedback of data information, and many corporate social responsibility activities cannot be effectively measured.

2) Improving the authenticity of information disclosure

After the data generated in the traditional environment is artificially integrated, the authenticity will be questioned. In the big data environment, the whole data system will operate automatically, without the participation of human, to a certain extent, it can accurately reflect the overall situation of the enterprise, and the accuracy of the content is guaranteed when the social responsibility information is disclosed.

3) Conducive to the diversity of information disclosure sources

There are various carriers and ways of information under big data. Information can be sought in various forms and authenticity of data information can be sought in different information channels. With the continuous innovation of social network, the continuous expansion of social data, as well as the emergence of new data sources such as enterprise content, transaction and application data, to a certain extent, they have broken the limitations of traditional data sources. Enterprises increasingly understand the need to use effective information to ensure the authenticity and security of information.

4) Reducing the cost of information acquisition

The birth of big data can reduce the cost of obtaining data. In the environment of big data, because there are many data collection points and they rely on advanced data extraction technology, which greatly reduces the cost of data acquisition, so that we can "extract" the social responsibility information mixed in business activities with relatively low cost.

It can be seen that big data reform has great significance in promoting the disclosure of corporate social responsibility information. If it can be used well, it will be invaluable.

B. Challenges faced by corporate social responsibility information disclosure

1) The use of big data in social responsibility information disclosure is still in its infancy

The research on corporate social responsibility information disclosure has always been the focus of academic research, but the research on Corporate Social Responsibility Information Disclosure Based on the era of big data is rare. "Big data" has also been mentioned by more and more people since 2012. 2013 is called "big data year". Enterprises gradually extend big data technology to all aspects of enterprise development, but the use of social responsibility information disclosure has yet to be carried out. With the rapid exponential growth of big data, unstructured and uncertain data are also increasing significantly. The application depth and breadth of big data are still in the state of continuous mining, and it is still difficult to disclose the actual application of corporate social responsibility related information.

2) The risk of privacy disclosure of big data in corporate social responsibility disclosure

A lot of information in big data may be closely related to people's daily life, involving private information. In 2012, the New York Times reported that the target company determined the pregnancy period of customers through data analysis, and recommended products related to pregnancy to pregnant women through various channels. This kind of data mining is generally believed to reveal personal privacy. When enterprises use big data to collect various kinds of information, they will, by the way, dig out some private information, such as private social networking, emotional catharsis, life chores, etc. This is not only against ethics and morality, but also lack of organizational credibility, which will make people feel monitored. Information disclosure will affect the rights and interests of stakeholders. Unless this information is originally chosen to be public, it cannot be easily disclosed.

V. CONCLUSION

In the era of big data, data is generated and stored in the whole society, so data storage is also diverse and discrete. Therefore, on the one hand, enterprises can innovate the information disclosure of social responsibility, which means that any behavior that violates the principle of corporate social responsibility is high risk for enterprises. It can be said that big data will bring profound changes to corporate social responsibility in the next few years.

In the era of big data, enterprises can better disclose social responsibility information, which will be a combination of humanities and science, using technology to promote the spread of Humanities and ethics. Although there are few researches on corporate social responsibility information disclosure under big data at present, it is still in the initial stage, but how to make use of big data to achieve better development and innovation, take into account economic and social interests, achieve the improvement of social responsibility information disclosure, as well as big data reform and other intelligent issues of responsibility are worthy of our further exploration.

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