

The Quality of CSR Reporting in SMEs in China Empirical Analysis in Perspective of Ownership Structure

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Abstract

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Purpose

The purpose of this thesis is to investigate how the ownership structure covering ownership concentration, managerial ownership and state-owned shares can affect the quality of CSR reporting in SMEs in China.

Methodology

This study uses quantitative method, including empirically examine the relationship of CSR ranking score with proportion of shares held by top management, major shareholders as well as state. SMEs' CSR reports and vast of literatures are reviewed.

Theoretical background

Our analysis mainly based on Managerial Power Theory, Stakeholder Salience Theory and Agency theory as well as Information Asymmetry theory.

Empirical foundations

The Chinese SMEs listed on SME board of Shenzhen Stock Exchange from 2013-2017 rated by RANKINS are included in the original sample. After adjustments, the final sample includes 628 observations. Based on the data characteristics, the study adopts the fixed effect regression model with cluster robust standard error to test their relationships.

Findings

Our empirical evidences show that the quality of CSR reporting is negatively affected by the engagement of senior managers in SMEs. However, major ownership is not statistically significant correlated to quality of CSR report. No relationship is found between state-owned shares and quality of CSR reporting. We attribute these relationships to contextual background in China and characteristics of SMEs.

KEY WORDS: Corporate Social Responsibility (CSR), Small and Medium-sized Enterprises (SMEs), China, Quality of Corporate Social Responsibility Report, Ownership Structure, Institutional Context

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1 Introduction

1.1 Background

As we have seen, sustainable development has already been the trend throughout the world, with the aim of promoting prosperity while protecting the planet. The authorities have already actively responded to this call. United Nations launched the 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals (SDGs) in 2015 that are universally apply to all, for ending all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind. The goal can be decomposed into four dimensions, namely, economic growth, social responsibility as well as climate change and environmental issues. As for China, the China dairy contamination incident in 2008 together with other business scandals have brought social responsibility of corporations (CSR) to the public. In recent years (2016 onwards), severe environmental problems such as continuous hazy air pollution, which is caused by Illegal discharge of harmful gases in factory, sound another alarm to Chinese economy. Consequently, in order to maintain there a legitimate standing in society, not only Chinese authority but Chinese companies devoted more resources to corporate social responsibility to the point where today.

As CSR is an "exotic" concept for China, most standards and regulation regarding CSR performance are established based on those western-style values. We deem that the definition involves the Chinese institutional context can better reflect CSR in China. So, we define CRS as:

"Corporate social responsibility (CSR) is the systematic disclosure of information about the economic, social and environmental impacts of the organization's decisions and social activities. It is the communication process and carrier of the organization's comprehensive communication with stakeholders, as well as the comprehensive reflection of the concept, action, performance and future plan of the enterprise to fulfill its social responsibility." (Operation Manual for the Guide on Social Responsibility for Industries in China (GSRI-China 2.0)

The main channel for firms to disclose their efforts on CSR is the CSR report. And according to Global Reporting Initiative (GRI), Sustainability reporting can be considered as synonymous with CSR reporting and other terms for non-financial reporting, such as triple bottom line reporting. The Sustainability reporting are defined by GRI as follows:

"A sustainability report is a report published by a company or organization about the economic, environmental and social impacts caused by its everyday activities. The report also presents the organization's values and governance model and demonstrates the link between its strategy and its commitment to a sustainable global economy."

The purpose of CSR report is to help organizations measure, understand and communicate their economic, environmental, social and governance performance, and then set goals, and manage change more effectively (GRI website, 2019). Given that CRS report is the key platform for communicating CRS performance and its impacts, we deem its quality are of great importance for firms.

1.2 Problematization

The traditional value significantly shapes the Chinese CSR, however, its influence on ownership structure as well as CSR performance are under-developed, the imbalance between research on SMEs and large firms are remained to be dealt with. As mentioned by (Visser, 2008), the spirit and practice of CSR are often strongly resonant with traditional communitarian values and religious concepts in developing countries. Given that the economic ideology in China still adheres to the collectivistic notions of socialism. That is, the socialistic philosophy still applies strongly to ownership of means of production (Ralston et al, 1997). Meanwhile, according to the Ministry of Environmental Protection of the People's Republic of China (2006), 80% of Chinese SMEs have pollution problems, which account for 60% of the national pollution (Tang & Tang, 2012). However, most of studies is conducted among large enterprises in developed country, whereas SMEs are under-researched, especially in terms of CSR performance (Fifka et al., 2013; Khan et al., 2019). Last but not least, given that ownership structure is important determinant of CSR performance, not only scarce academic research touch upon them but also the results vary in terms of country as well as type of firms.

1.3 Purpose

We aim to contribute to the research conducted in Chinese context. We base our predictions on the findings and economic arguments of Li and Zhang (2010), Zu and Song (2009) and Khan et al (2019). Relevant research finds support of a strong relationship between ownership structure and firms' credit ratings are studying the US or developed markets, which is why our main contribution is identifying the impact of ownership structure on firms' credit ratings for developing economy. Further, since the unique Chinese culture centered on social relations have been proved to be essential in shaping CSR in China by Whelan (2007), the relevance of this study is further supported.

1.4 Delimiting the Scope

We find that Chinese SMEs are of great value for investigation. China, as the biggest emerging country in the world with vastly different social, cultural, and political structures from the West, and distinctive roles of government and regulation in particular, provides a good sample for broadening cumulative CSR knowledge base (Gao 2009). Studies reckon these unique characteristics of Chinese enterprise enable China to find the most suitable development path for China. When go into the traditional values, it can be reflected in strong managerial power and high level of

centralized power of the hierarchy in organizations, such as top management, the state and the major shareholders, etc. The power endows them more right to speak on business issues, such as CSR activities. Moreover, we deem SMEs in China are deserved to be further studied. SMEs in China warrant special attention due to the vast number of SMEs and their dominant position in the national economy. For example, 99% of ventures in China are SMEs which collectively generate 60% of total industrial GDP and 75% of jobs (China Statistical Yearbook, 2008). Khan et al (2019) examine the effect of state-owned reduction on CSR after the split-share structure reform by empirically investigating the large SOEs listed firms between 2010 and 2015. However, the impact on SMEs are not examined probably due to small proportion of state shares. Therefore, our research intends to test our suppose and also extend the variables from state shares to managerial shares as well as largest shareholders to examine the ownership structure in SMEs.

1.5 Findings and Contributions

Our main finding is that in the Chinese SMEs context, where the motivation for the CSR reporting is passive and disclosure standards are conveyed by morally binding concepts, senior managers have more influence on CSR disclosure compared to state and the largest shareholders. However, this impact is examined to be negative, that is to say the more proportion of shares owned by top manager, the worse the quality of the CSR report is. Which is quite different from the case in large firms, where state hold most controlling rights over CSR disclosure (Khan, 2019). And similar to large scale firms, CSR disclosure is significantly connected with the firm size and financial performance.

In this study, we combine the unique institutional background of China to explore the impact of ownership structure in SMEs on the quality of CSR report. This study makes a contribution to the current literature of CSR. Since the relationship between the quality of CSR reporting and ownership structure in SMEs is unexplored in emerging markets, especially from the perspective of the unique governance system and cultural characteristics. Lastly, China face increasingly social and environmental challenges in recent years, these challenges will lead more stakeholders to demand greater accountability from firms for their impact on society. This pose much pressure on major stakeholders since they determine the CSR disclosure directly as the main decision makers. Therefore, it is essential to identify whether they are supporters or opponents towards CSR activities and thus establish preventive mechanism to avoid them expropriate interest of other stakeholders.

1.6 Outline of the Paper

The reminder of this thesis is built as follows. Section 2 describe the relevant literatures in this field and provides the theoretical background to interpret evidence from model. Section 3 provides an overview of China's institutional background so that an interpretation of the empirical analysis within proper contextual parameters is allowed. Then, we focus on theoretical background that justify our hypotheses. Next section

describes the full spectrum of our models, followed by our results. Subsequently, the result is analyzed and interpreted. The final section discusses the findings as well as limitations and suggests directions for further research.

2 Literature review

In this section, we seek to outline a comprehensive overview of existing empirical research on the relationship between ownership structure and CSR performance. This is provided to establish a link between the information provided in Section 1 and the macroeconomic environment in next section, as well as empirical research in the area. We will provide insight on the effect of ownership structure on CSR performance based on previous empirical findings. The following section begin with the overview of empirical studies on determinants of CSR performance, then more review of the ownership structure as the main determinants are provided.

With regard to the quantitative research on CSR, two types of empirical studies characterize the research in this field. The first one relates to 'explicative studies,' which focus on the potential determinants of CSR disclosure. The second one is interested in the 'impact of CSR disclosure' on business performance. A number of studies have been conducted to examine the correlation of CSR performance and corporate financial performance (CFP) ¹ (i.e., Aupperle et al., 1985; McWilliams & Siegel., 2000; Waworuntu et al., 2014; Orlitzky et al., 2003; Farag et al., 2015).

In addition to corporate performance, the determinants of responsibility reporting are widely examined by scholars. For example, the impact of internal factors like size and industry or external factors like stakeholder pressures on CSR disclosure are frequently investigated (Fifka et al., 2013; Yu & Choi., 2016; Tian et al., 2015; Li et al., 2016; Li and Zhang., 2010; Huang & Zhao., 2016; Ramasamy & Yeung., 2009; Khan., 2010; Reverte., 2009; Perrini et al., 2007). In order to provide an overview of the existing literature regarding determinants of CSR, Fifka et al (2013) examined 186 quantitative studies from all over the world. The finding shows that scholars across regions have taken different paths in empirical research, but indications for a variation in the impact of specific determinants on reporting are weak. Pressure from stakeholders are considered to be a main driver for CSR. Following this stream of research, Yu & Choi (2016) find that stakeholder pressure has a significant and direct impact on the adoption of CSR practices. Similarly, Tian et al (2015) found that not only stakeholder pressure but external ethical leadership¹ have significant and positive impacts on corporate social responsibility implementation based on data from mainland China. Specifically, the positive effect of external stakeholder pressure on corporate social responsibility weakens under a higher level of ethical leadership and strengthens under a low level of

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¹ Corporate Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. Main measures for CFP are revenue from operations, operating income, or cash flow from operations, as well as total unit sales. (https://www.investopedia.com/terms/f/financialperformance.asp)

ethical leadership. Moreover, Li, et al (2016) examines the impact of specific stakeholders on CSR practices and find that the central government, supplier concentration and foreign investors are positively associated with CSR, whereas shareholder concentration and customer concentration are negatively associated with CSR in China. Reverte (2009) analyze how firm size, media exposure and sensitive industries influence CSR disclosure practices by Spanish listed firms. He finds that firms with higher CSR ratings present a statistically significant larger size and a higher media exposure and belong to more environmentally sensitive industries. One possible reason is that large firms are more likely to identify relevant stakeholders and meet their requirements through specific and formal CSR strategies (Perrini et al., 2007). Reverte (2009) also find that neither profitability nor leverage seem to explain differences in CSR disclosure practices. The most influential variable for explaining firms' variation in CSR ratings is media exposure, followed by size and industry.

Given that ownership structure function as a major determinant for CSR disclosure, plus the attention regarding this topic have not paid on either SMEs or emerging economy, we intend to fill this gap. We find that only a few empirical researches examine the ownership structure–CSR relationship directly in developing countries. Li and Zhang (2010) test whether ownership structure has an influence on the level of CSR using 692 manufacturing companies listed in the Chinese stock market in 2007 as sample. They find that for non SOEs ² firms, corporate ownership dispersion is positively associated to CSR. However, reversed relations are found for SOEs since government could control state-owned enterprises through direct interference in SOE management due to higher stakes. Additionally, the largest shareholder can negatively affect CSR performance in non SOEs. Based on a survey method and a small sample, Zu and Song (2009) document that firms smaller in size, state-owned, producing traditional goods, and located in poorer regions are more likely to have managers who opt for a higher CSR rating in China. Soliman et al (2013), using 42 more active Egyptian firms in 2007-2009, observe a significant, positive relationship between CSR ratings and ownership by institutions and foreign investors, but a negative association is seen in shareholding by top managers. A similar result is also found by Mohd Ghazali (2007) using data from larger and actively traded stocks on the Bursa Malaysia, he find that the companies in which the directors hold a higher proportion of equity shares (owner-managed companies) disclosed significantly less CSR information, while companies in which the government is a substantial shareholder disclosed significantly more CSR information in their annual reports.

The latest research of Khan et al (2019) indirectly offers new perspectives over ownership structure-CSR disclosure relationship in China that we exploit in our analysis. Using comprehensive CSR rating score data as a proxy for approximately 11,000 companies over a timespan of six years, to perform a multiple regression models

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² State-owned enterprises. A state-owned enterprise (SOE) is a legal entity that is created by a government in order to partake in commercial activities on the government's behalf. It can be either wholly or partially owned by a government and is typically earmarked to participate in specific commercial activities (https://www.investopedia.com/terms/s/soe.asp).

on a specification that sets CSR proxy as the dependent variable over several explanatory variables. Khan et al obtain conclusive significant results that firms which reduced state ownership pay less attention to CSR than firms which did not reduce state ownership. The authors explain this result with the stakeholder salience theory (Mitchell et al, 1997). If government as a specific stakeholder attributes power and legitimacy by holding high state ownership, then it will have a greater influence on the firm's management to pursue social goals (Khan, 2019). However, it's worth noting that they only consider the CSR performance of Chinese listed firms and SMEs are misconduct. Indeed, in most of the existing researches, large firms or mixed data including all types of firms are main source of data whereas the focus on SMEs are scarce. This is also supported by Fifka et al (2013), he suggests small and mediumsized enterprises have hardly been considered at all in empirical studies. Although the existing literature shows that their reporting lacks significantly behind that of large corporations, their efforts are a worthwhile subject of research, just like the question of what specific reasons account for their seemingly limited reporting efforts (Fifka et al, 2013). Additionally, Khan et al (2019) investigate only one institutional factor that leads CSR performance toward declining. Our research will bridge this gap and investigate the correlations between ownership structure and CSR disclosure in China as one of the biggest developing countries.

Above all, previous researches could inform and guide the research towards methodologies and framework. In the next section, we start with investigating characteristics of SMEs in China and dig out the contextual reason that could influence this relationship.

3 Institutional background

As we mentioned in literature review, the context factor contents essential variables that should be taken into consideration when empirically examine determinants of CSR disclosure. Not only quantifiable variables that we analyzed in Section 2, such as ownership structure and firm size, etc., but also unquantifiable variables such as social context of China and SMEs must be taken into consideration to establish reasonable hypotheses. So that the results can be analyzed more precisely.

In the following section, we identify Chinese position in the world and the value of investigation. Subsequently, we describe SMEs in Chinese economy from definition to research status regarding CSR of SMEs, either urgent needs or restrictions. It can be seen as a review of practical situation compared to the previous theoretical review. Then how ownership structure evolved in China are presented, which is necessary to navigate our hypotheses.

3.1 Why China

As we mentioned in introduction, the role of economy giant and vest in traditional value make it deserve attention. We illustrate this in more detail below.

Firstly, China is one of the major emerging economy. If we look at the last four decades, without any doubt we can argue that China is the rising economic power of the 21st century, which may be called the Chinese Century. The country accounts for one-third of global growth. At the beginning of 2019, China is one of three largest global economies, including the United States and the EU, the world's largest exporter and has the largest exchange reserve (Yilmaz, 2019).

Secondly, studies that take unique characteristic of Chinese enterprise into consideration are essential for China. For example, Li et al (2016) find that employees present weak demands in CSR in China, while employees have been the driving force of CSR in Western societies. The contradiction suggests the danger in generalizing CSR–stakeholder research findings in developed countries to emerging economies. Recently, there is a growing attention on how the Chinese Confucius concept influence CSR disclosure. Therefore, the Chineseness aspects of CSR is deserved to study.

3.2 Why SME

As we have mentioned in introduction, SMEs function as the dominant role in Chinese economy and their organizational features make them the vulnerable group in CSR disclosure, we start with the SMEs definition in China and then go into more detail in their value of research form both pros and cons.

3.2.1 SME Definition

The Provisions on Criteria for Classifying Small and Medium-sized Enterprises, published in 2011, based on the *SME Promotion Law of China* and *Opinions of the State Council on Further Promoting the Development of Small and Medium-Sized Enterprises*, sets the guidelines for classifying SMEs. (See Table 1)

Table 1. Definitions of SMEs in China

Industries	Employment-	Total assets	Business
	based		revenue
Agriculture, forestry, husbandry and			<¥200m
Fishery production			
Industry	<1000		<¥400m
Construction		<\\$00m	<\\$00m
Wholesale	<200		< ¥400m
Retail	<300		<¥200m
Transport	<1000		<\\$300m
Warehousing	<200		<\\$300m
Post	<1000		<\\$300m
Hotel & restaurant	<300		<¥100m
Information transmission industry	<2000		<¥1000m
Software and information technology	<300		<¥100m
services			
Real estate development		<¥100m	<\\$2000m
Property management	<1000		<¥50m
Leasing and Business Service	<300	<¥1200m	
Others	<300		

Note: SME meet one or more of the conditions.

Source: 'The Provisions on Criteria for Classifying Small and Medium-sized Enterprises'

The guidelines mainly cover the payrolls, revenue and total assets of enterprises (see *Table 1*). Specific criteria apply to the industrial sector, construction, transportation, wholesale and retail business, and hotels and restaurants. The definition of an SME in China is quite complex and can include relatively large firms. In *APEC* (Asia-Pacific Economic Cooperation) economies, the definition of an SME also varies, but is generally most commonly based on the number of employees. SMEs commonly employ 100 to 2000 people varies in sectors. But the vast bulk of SMEs, comprising around 70 percent, employ five people or less or are run by self-employed individuals. SME definition in China depends on the industry category and is defined based on the number of employees, annual revenue, and total assets comprising a company. Consequently, what is regarded as an SME in China may be quite large relative to an SME in other countries. (Liu, 2008). For example, the broad EU define SMEs as having fewer than 250 employees (Morsing and Spence, 2019).

According to Guideline for social responsibility for SMEs in China (2018), SMEs have the following unique advantages in fulfilling their social responsibilities compared with large enterprises:

- 1) The organizational structure and decision-making process of SMEs are relatively simple and direct. They can make decisions more quickly according to the expectations of stakeholders and adjust their business strategies and operations more flexibly.
- 2) SMEs are good at learning, diligent in innovation, can accept new things more easily and respond to new challenges through innovation, and the emergence and development of some SMEs is the result of responding to social challenges.
- 3) SMEs are more closely related to their employees, and it is easier to form enterprise decision-making supported by all or most of their employees, as well as to create a generally recognized corporate culture.
- 4) SMEs' stakeholder relationships are relatively simple and clear, and their social responsibility impact is relatively limited, which makes it easier to focus resources on priorities.

3.2.2 Status Quo of Research within CSR of SMEs

3.2.2.1 Demand for research

SMEs overwhelmed other economy entity by sheer numbers, which means SMEs reach up to 99% enterprise in China. In parallel, SME also constitute a significant part in Chinese economy. SMEs are an important foundation for building a modern economic system and promoting high-quality economic development. They are an important support for expanding employment and improving people's livelihood and have strong development potential. According to the survey data of industrial enterprises above designated size by the end of 2017, the number of SMEs in China is about 376,000. The SMEs in China have the typical characteristics of "56789", contributing more than 50% of tax revenue, more than 60% of GDP, more than 70% of technological innovations, more than 80% of urban labor employment, and more than 90% of enterprises. (Yadi et al, 2019). However, despite the significant role of family-owned SMEs in China's economy, and being key to the future development of CSR, researchers have not paid attention to their CSR cognitions, motivations, and practices. In addition, most researchers have treated CSR as a single dimension and have not explored its internal mechanisms (Xue et al, 2019).

In addition, the uneven research focus on SMEs and large firms pose needs to study SMEs. The corporate social responsibility (CSR) debate has to date been very much focused on multinational corporations (MNCs) and driven primarily by a northern

agenda. Also, existing researches are mainly based on the full sample of enterprises or large enterprises, and there are few studies on SMEs. CSR, however, is of increasing relevance and concern to small and medium enterprises (SMEs), both as suppliers to international companies, as recipients of donor funds and support, and as critical backbones of economic health and vitality in developed and developing countries. As a whole, SMEs have a greater impact on the economy, society and environment than any large enterprises (Guideline for social responsibility for SMEs in China, 2018). Ma (2012) point out that SMEs have recently attracted some attention in the CSR literature, with burgeoning evidence of their positive responsibility inclinations and their strengths and peculiar relational attributes in the context of CSR. Thus, he proposes to focus on SMEs and their peculiarities in relation to CSR to balance the accentuated attention traditionally accorded to MNCs in CSR discussion (Ma, 2012).

Lastly, the organizational features make them the vulnerable group in CSR disclosure. In general, SMEs is established by individual or minority and the scale of employees, assets and business are relatively small. Due to these features, most of SMEs are managed by owner, which means the owner has major rights to make decisions. In this regard, CSR activity is no exception and therefore the quality of CSR disclosure largely depend on the personal perception of the owner (article). Apart from that, the small-scale feature also results in the highly flexible management mechanisms, which can lead to relatively loose regulation about CSR performance. Moreover, SMEs are more likely to be affected by external and internal changes in market and are less competitive than large- scale firms. This characteristic makes them in desperate demand about present good grade in CSR performance and construct new competitive advantage.

3.2.2.2 Obstacle for research

As illustrate above, though SMEs are such a wasteland and are well worth developing, scholars are still remained unconcerned. But what is the reason? Is there any stereotype regarding SMEs? If so, are they reliable or can be justified and further explored?

The internal and external context that SMEs are in result in barriers for academic researches as a whole, these constraints make the whole picture like SMEs are reactive or passive towards CSR.

Firstly, unmeasurable CSR performance and under-investment in CSR are the two problems due to organizational forms. The small scale of both employee and firm size of SMEs make them incorporated in relatively informalized organizational structure and lack formal and separate division for CSR management or CSR are implemented in an implicit way, such as cultural values, organizational practices, word-of-mouth advertising and norms. (Morsing and Perrini, 2009). Consequently, CSR performance cannot be well documented and measured. The other problem is that SMEs are financially constrained due to the operational instability thus have poor credit records and a lack of assets that can be mortgaged. Therefore, they are more likely to investment

to boost economic profit instead of CSR development.

Additionally, lack of external regulation also let SMEs make little of CSR. According to Wang and Liu (2018), the relevant laws and regulations on the social responsibility of SMEs in China are not perfect enough to play the role of supervision, which leads to either the government departments have nothing to rely on when carrying out the supervision of SME or make SMEs less motivated to disclose CSR. It was in the end of 2013 that the first 'Guideline for CSR in SMEs in China' was issued by China Center for SME Corporation and Promotion.

Although there are several limitations for SMEs to implement CSR compared to large firms, some of them are not the case and others may already be improved these years. For instance, there is evidence show that the implicit way of CSR disclosure embedded in SMEs can promote the CSR performance (Stokes and Lomax, 2002). In addition, more and more institutions make an effort to provide synthetical score to make CSR performance measurable, such as the rating score provided by Syntao³ and Rankins Global. Moreover, authorities pour more money on CSR on SMEs as well as financial constraints for SMEs are alleviated these years. We believe the benefit can overweight the limitations as a whole.

3.3 Ownership structure in China

In order to analyze how ownership structure can affect CSR quality, we have to grasp the ownership feature in China, which are shaped by both the transformation of national business system and the shift of authorities' perception on CSR.

The ownership structure is an important factor that can influence the corporate governance, not only does it determine the shareholder structure and the general meeting of shareholders, but also the highest decision-making body. Furthermore, it influences the selection and operation of the board of directors and the board of supervisors, and directly influences the decision-making supervision and incentive mechanisms of enterprises. That is to say, ownership structure determines the composition and operation of corporate governance to a certain extent (Lu & Zheng, 2009).

The ownership structure including the number of different types of shares, the percentage and their relationships in shared companies. More specifically, it includes the ownership attributes, belonging of ownership, equity distribution, Equity liquidity position as well as the relationship among shareholders. etc. The ownership is affected by several factors, which involve the economic development in one country, the

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³ Both of Syntao and Rankins Global are independent consultancy in the field of corporate social responsibility (CSR). Syntao provide 'the key quantitative index guidelines (MQI guidelines) for CSR reporting' and Rankins Global provide 'MCT-CSR report evaluation system'

financial law system, the enterprise organizational structure, and strategy of economic development. etc. Therefore, the ownership varies in different periods of history and operation environment. Then we provide an overview of the evolution of ownership structure in China, which can be divided into three phases:

Stage 1 1980's- 2005 First stage of reform

Before economic reforms, the government was the controlling shareholder and planned all activities, but their financial system was very inefficient. Thus, to compete with the outside world, the Chinese government started transitioning toward market orientation and privatization by taking a significant step to open the Shanghai and Shenzhen stock exchanges in the early 1990s (Wang & Qian, 2011). During this initial stage of reform, the stock market was characterized by a split-share structure, which is a unique characteristic of the Chinese stock market since it was born. It divided shares into tradable and non-tradable shares. This means only a small proportion of individual shares are negotiable and both state shares and corporate shares are not negotiable. This situation was not changed until the split-share structure reform in 2005.

After processing the data from the annual report of listed firm in 2004, Song (2005) summarize the features of ownership structure in China in stage one as follows: (1) The ownership types are complicated: There are five kinds of shares in China, including state shares, institutional shares, individual shares, internal employee shares and foreign shares. (2) The ownership is over concentrated to the top one shareholder, which means the average come to 44.14% while the highest can be 88.58% and they nearly own the voting rights of listed companies. (3) Large proportion of state-owned shares. The data shows that the top one shareholder is also owned by state amount to 65% as a whole.

Stage 2 2005-2006 Second stage of reform

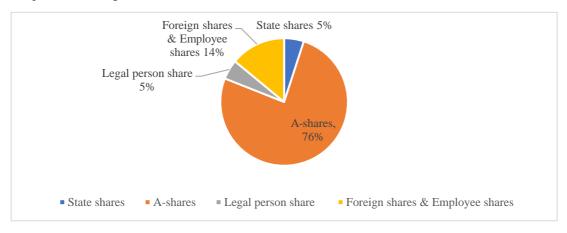
Due to restricted and non-tradable shares, the largest shareholders of state-owned enterprises have insufficient incentives to increase their firms' values in the stock market (Conyon & He, 2014; Firth et al, 2006, 2007). Thus, in early-mid-2005, the China Securities Regulatory Commission (CSRC) abolished the first stage of reform and inaugurated the second stage known as split-share structure reform (Jiang & Kim, 2015). The reform aimed at eliminating the so-called non-tradable shares (NTS), shares held by the State or by politically connected institutional investors, that were issued at the early stage of financial market development (Beltratti et al, 2010).

Stage 3 2006- Today

After this reform, the Chinese government reduced state ownership by selling state shares to the public (Usman et al, 2018), as the state ownership ratio fell from 65.50% in 2006 to 35.28% in 2015 in the list of entrepreneurial sectors (Liao et al, 2014). Gradually, SOEs faced a more competitive environment than before (Barnett, 2007), the main goal of SOEs is not work for social development but towards profit maximization (Wu et al, 2016), thus acquiring market mechanism (Tang et al, 2018). Moreover, a firm with a reduced state ownership comparatively receives less pressure

and is usually more autonomous from government agencies in China (Rathnayake, 2019).

The overview of ownership structure after the reform are illustrated below. The shares of these listed companies are categorized into five types: Tradable A-shares⁴, State shares, Employee Shares, Legal person shares and Foreign shares (H-shares⁵, B-shares⁶ and other shares) (Rathnayake et al (2019). Zhang et al. (2010) document that 60.43 % of Chinese-listed companies are ultimately controlled by the state, which is significantly higher than that of Western countries, such as Germany (6.30 %), France (5.11 %), and the United Kingdom (0.08 %) (Faccio and Lang 2002). The tradable Ashares are the most owned (76%) contrary to State shares and Legal person shares (5%, respectively) by the end of 2017⁷, using 3000 more active enterprises registered on Shanghai, Shenzhen and Hong Kong stock market (Rathnayake et al (2019). As for institutional ownership, in mid-sized firms, China has much lower proportion (32%) compared to those in USA (82%) (Hayat et al, 2018). The foreign ownership hugely increased since China initiated the qualified foreign institutional investor (QFII) scheme in 2002. The foreign institutions are increased from 10 in 2002 to more than 200 active foreign institutional investors participating in the QFII scheme in 2013. For firms with foreign ownership, on average, QFIIs hold 2.5% of shares outstanding (Jin et al, 2016). The comparison of statistics is summarized in Graph 2 below (Also see Appendix. Graph 2).



Graph 2. Percentage of Shares in All Listed Firms in 2017

Data from (Rathnayake et al., 2019).

⁴ A-tradable share is common shares that issued by domestic companies for subscription and trading in RMB by domestic institutions, organizations or individuals

H-shares also known as state-owned shares, refers to foreign-funded shares registered in the mainland and listed in Hong Kong.

⁶ B-share is foreign capital stocks listed and traded on the Shanghai and Shenzhen stock exchanges in China with face value indicated in RMB and purchased and sold in foreign currencies.

Author computation from the database on the official websites of SSE and SZSE exchanges and CSMAR database from 1990 to 23rd July 2018.

In summary, although the state dominant less in Chinese economy after the split-share structure reform, Chinese government still has considerable influence on corporations, especially compared to Anglo-Saxon firms, where it is very rare to hold more than 10% shares (Khan, 2019). Therefore, state still occupies a dominant position in enterprise decision-making, including those related to CSR. The proportion of institutional ownership is similar to those owned by state. The foreign ownership as well as managerial ownership are in far smaller proportion.

As for SMEs, most SMEs in China are start-up enterprises and belong to non-SOEs. The state shares are only in small proportion. And according to Li (2016), 80% companies list on SME Board in China are family enterprise and the share held by major shareholders decrease from 40.76 % to 33.87% during 2009-2014. (Data from Yang, 2016). According to Hayat et al (2018), mean of managerial share ownership in Chinese mid-size firms is quite low, amounting to 2.5%. As Rathnayake et al (2019) mentioned, executive shares, State shares, legal shares, and Negotiable A-shares constitutes four major types of ownership structures. Then our focus in this paper is executive shares, State shares, together with major shares. They are individually considered and examined simultaneously throughout this reasoning.

3.4 CSR

In order to analyze how shareholders can affect CSR using power, it is essential to understand the perception of owners towards CSR. We start with the definition of CSR and their starting point. Then we understand CSR performance from a more general perspective, that is developing and Asian country, to fully grasp Chinese CSR. Finally, we head to CSR in China and explore how CSR quality are shaped by regulations.

3.4.1 CSR Definition

Corporate social responsibility (CSR) and related disclosures have been on the rise in recent years. While governments and international groups have not agreed upon a common definition for CSR (Freeman and Hasnaoui, 2011). The most famous definition of CSR was established by Carroll (1979, 1981, 1983, 1991). Carroll (1979)

described CSR as: "The social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time" (p. 500). In 1991, Carroll propose the concept of Pyramid of Corporate Social Responsibility, which framed CSR in a way that the entire range of business responsibilities are embraced. It is suggested that four kind of social responsibilities constitute total CSR: economic, legal, ethical, and philanthropic (Carroll,1991). Since the later of the 20th century, "Sustainability" or "Sustainable development" became a popularly used notion related to CSR. "Sustainability" includes sustainable development of both the enterprise and the society. Aßländer (2011) updated his

definition of CSR by adding "sustainable development" issue. In his definition, CSR was the way an enterprise treating its internal and external stakeholders ethically or in a responsible manner of international norms; preserving the profitability and integrity of the enterprise as well as creating higher standards of living of people both inside and outside the enterprise, at the same time, achieving sustainable development of the society.

Western-style CSR concepts are widely used by both western and Chinese scholars to conduct research in CSR of China. For example, the CSR concept defined by the Chinese Institute of Labour and Social Security (ILSS, 2004) is 'enterprises should also take stakeholders' benefits into consideration when they pursue to maximize profit for their shareholders', which is similar to the 'The stakeholder approach' (Wang & Juslin, 2009). However, Wang & Juslin (2009) argue that the Western CSR concepts cannot fit the Chinese market well, and CSR concepts have to take Chinese cultural contexts into consideration to be widely disseminated in China and understood better by Chinese corporations and society. Therefore, in this paper we use a new definition of CSR that we mentioned in introduction, incorporating the traditional Chinese culture and philosophy. This concept has already been used to discuss the CSR issues in China ()

Comparing Western and Chinese CSR concept, we find that the former one put more emphasize on ethical behavior of firms and people and more proactive, whereas the Chinese CSR concept are more like a task that required to fulfill and more reactive, for instance, they stress the plan and strategy as well as to communicate with stakeholders, which is out of economic consider instead of ethical. According to the survey of KPMG (2008), the major motivation of release report is for ethical and economic reasons, followed by reputation and brand innovation and learning, as well as employee relations. Syntao⁸ find that compared with foreign enterprises, Chinese enterprises are obviously less motivated to innovate and learn, but more motivated to support government policies and respond to public pressure. Evidence from Yin and Li (2008) support this argument, they find that both the mandatory legislation and the voluntary release of enterprises show a passive and defensive tendency and the release of reports is seen as a public relation means for enterprises to obtain business licenses in China (Yin & Li, 2008). Those differences in CSR perception can have impact on CSR quality.

3.4.2 CSR in Developing and Asian Country

In this section, we present the CSR development in developing countries and Asian countries that may have similar characteristic as China and find the common logics or methodology to proceed our research. We identify five main features in terms of developing countries and Asian countries.

Firstly, in developing countries, CS is most commonly associated with philanthropy or

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⁸ CSR rating institution in China

charity. Business often finds itself engaged in the provision of social services that would be seen as government's responsibility in developed countries. (i.e. through corporate social investment in education, health, sports development, the environment, investment in infrastructure, schools, hospitals, and housing, and other community services) (Visser, 2008).

Secondly, making an economic contribution is often seen as the most important and effective way for business to make a social impact, i.e. through investment, job creation, taxes, and technology transfer (Visser, 2008). This could probably explain why SMEs focus more on economic profit instead of build image through CSR development.

Thirdly, the spirit and practice of CSR are often strongly resonant with traditional communitarian values and religious concepts in developing countries, for example, African humanism (ubuntu) in South Africa and harmonious society (xiaokang) in China (Visser, 2008). Similarly, Welford (2005) also find that many CSR policies are based on localized issues and cultural traditions at a country level.

Fourth, development of CSR is found to be associated with the economic situation in Asian countries. Welford (2005) demonstrate that there is a link between the development of CSR and the economic development of countries after assessing CSR activities in the leading companies in Asia, North America and Europe. However, the result conducted among Asian countries are different. Chapple and Moon (2005) concludes that the considerable CSR variation among Asian countries is not explained by pre-existing levels of economic development but by factors in the respective national business systems.

Finally, Asian firms are rewarded by the market for improving their CSR practice. Cheung et al (2010) assess the CSR performance of major Asian firms based on CSR scores compiled by Credit Lyonnais Securities (Asia). The result shows that there is a positive and significant relation between CSR and market valuation among Asian firms. They further find that CSR is positively related to the market valuation of the subsequent year.

In summary, CSR in developing countries and Asian countries are associated with the national business systems, which means China is of great interests to study since state-dominant is unique feature of Chinese economy. Apart from that, CSR are highly localized compared to other countries that apply the global CSR standard. We deem that the Chinese traditional values impact modern CSR profoundly. Finally, the infrastructure construction, as well as the economic contribution are the main way to achieve the CSR output, which are government's duty in developed countries. This means firms in Asian/ developing countries undertake part of responsibility of government. We can assume that in China, firms receive less attention from state to perform social service, including CSR activities.

3.4.3 CSR in China

3.4.3.1 CSR Development in China

Ever since China opened its doors to the outside world in 1978, it has been changing dramatically and dynamically. With the Chinese economy getting more and more involved in global competition, China has become a dominant party, both in its share of incoming foreign direct investment as well as of developing countries' manufactured exports (UNIDO⁹, 2001: 51). However, China's rapid economic achievements also pose severe social and environmental challenges. Chinese labor standards, workers' rights and environmental protection have become popular topics in different international forums. It is inevitable that the business sector in China has to face the CSR issue. Especially the CSR of Chinese SMEs in the global value chains is under great concern of the international society. (Qi, 2006)

From the beginning of twentieth century, a conjunction of certain internal and external factors has brought CSR to the fore (Tam, 2002; Young and Macrae, 2002; Zu, 2006). Externally, as China has engaged in the global economy through trade and institutional participation (e.g. membership of the World Trade Organization), it has imported global social norms, as it becomes the factory of the world (Zhang, 2006) and a key link in supply chains that feed western consumer markets. From 2005, there came a spate of scandals of violating human rights in business in Chinese corporations as well as global corporations established in China. These events began to bring CSR to the public. Then institutions as well as laws regarding CSR were established. Internally, following the privatization or liberalization of many state-owned enterprises (SOEs), the profit motive was unleashed, and many former SOEs were unburdened of their previous social responsibilities and they became associated with environmental pollution and social negligence in the eyes of the public (Young and MacRae, 2002). Although, China has been adopting aspects of Anglo-American style corporate governance systems, there were no institutions between government and market to constrain antisocial behavior. Hence, national and provincial governments and, in some cases, businesses themselves have looked to CSR to rebuild their social legitimacy. As a result, Chinese listed companies are increasingly keen to signal their social and environmental responsibility to their investors, both at home and abroad. Moreover, as in other countries, governments too have taken CSR initiatives using soft or indirect regulation (e.g. companies listed in the Shanghai Stock Exchange are expected to report their social and environmental impacts) (Moon and Shen, 2010).

There are more and more regulations and initiatives in China over the past decades. Especially the government devoted more sources into CSR development, ranging from promulgating laws and guidelines to strengthen cooperation within China or abroad.

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⁹ United Nations Industrial Development Organization

Given that they are the major and the most powerful group to raise enterprises' awareness of CSR and therefore shape CSR. It is reasonable to assume that those measures have significant impact on CSR quality. We list several important events in CSR development in China across these years (Yu, 2016). It can be found in *Appendix*. *Table 3*.

3.4.3.2 CSR Regulation in China

In China, we find that only part of listed firm is required to provide CSR, and others are voluntary to present CSR though some incentives are provided by Shanghai Stock Exchange (SHSE).

As affirmed by Lin (2009), CSR requires companies to look beyond minimum compliance with existing laws and beyond shareholder wealth maximization. Under CSR, companies are required to provide safe products while protecting the environment and respecting labor and human rights. For the first time, the 2006 Chinese Company Law explicitly recognizes the term "social responsibility". Article 5 states, "In the course of doing business, a company must comply with laws and administrative regulations [...] and undertake social responsibility in the course of business." The government's initiatives have prompted similar actions on CSR disclosures by the two leading Chinese stock exchanges: the Shenzhen Stock Exchange (SZSE) and Shanghai Stock Exchange (SHSE) issued several guidelines on CSR disclosures in 2006 and 2008, respectively. While the 2006 Shenzhen Guide served as a voluntary guide only, the 2008 Shanghai Guide mandated annual CSR reporting for three types of listed companies (Zheng et al, 2014).

- 1. companies that are listed in the SHSE Corporate Governance Index;
- 2. companies that list shares overseas; and
- 3. companies in the financial sector.

According to 'Guidelines on environmental information disclosure of companies listed on the Shanghai stock exchange' issued by SHSE, those firms are free to form their own CSR report according to their business features, but they are required to disclose at least basic CSR information identified by the Guideline. Social contributions per share is the only measurable index that is suggested to provide. As for those highly sensitive industries, the guideline present higher disclosure requirements as well as time of disclosure. Apart from that, if the relevant environmental information cannot be disclosed in a timely, accurate and complete manner as required by regulations, the institute will take necessary disciplinary measures against the company and relevant responsible personnel according to the seriousness of the case.

However, the rest of the companies can disclose the CSR related information voluntarily. In other words, most of firms are in an easy regulate environment. The regulatory institutions provide some incentives to encourage the engagement of CSR

activities. For example, they stated in guideline that: 'For companies that attach great importance to social responsibility and can actively disclose social responsibility reports, the SHSE will give priority to their selection in the corporate governance section of Shanghai stock exchange and simplify the examination and verification of their interim announcements accordingly'. (SHSE website).

4 Theoretical Background and Hypotheses Development

4.1 Theoretical Background

Managerial Power Theory

Concepts and theories of CSR have been examined and classified by scholars since the mid-1970s. In order to get an overview over the various theories of CSR as well as understand the most significant differences between them, Secchi (2007) review those theories and categorize them into three groups: (1) the utilitarian group; (2) the managerial category; (3) relational theories 10 (Secchi, 2007). Theories included in the managerial group are characterized by the stress scholars place on corporate management, and they consider social responsibility from inside the firm. Managerialists have a firm-centered perspective and, therefore, everything from outside the firm is principally addressed to organizational decision-making. The managerial power theory in managerial category can explain the controlling right of managers. As claimed by the Father of Modern Management, Drucker (1955) affirms that the social responsibility of managers is directly related to the power and authority they have. The managerial power theory was developed by Finkelstein (1992), which constitutes four types of executive power: structural power, ownership power, expert power and prestige power. Structural power, which can be measured by executive share ownership, is related to formal positions within an organization and increases as executives move up the hierarchy. The greater an executive's structural power, the greater is his/her control over others' actions. Grabke-Rundell and Gomez-Mejia (2002) propose that CEOs' structural power over internal directors can allow them to pursue self-interest, including obtaining large pay. By buying firm shares, executives can increase their ownership power, influence board decisions, their performance criteria, and their remuneration levels (Lambert et al., 1993). Finkelstein (1992) argues that prestige power is related to a manager's ability to absorb uncertainty from the institutional environment and emphasizes the role of outside directorships and education as key components of prestige.

In China, the government allocates shares to CEOs based on hierarchical positions (Tenev et al., 2002). As mentioned before, Chinese executive ownership is in low proportion in the total share of enterprise (Lin et al., 2002; Wei, 2000; Zhang, 2003). However, Li et al (2007) suggest that it can still be an important indicator of structural power, which could result in executives' self-serving behavior, such as receiving more pay (Chen et al, 2011). That is, managers are likely to reduce necessary expenditure

^{10 (1)} the utilitarian group, in which the corporation is intended as a maximizing 'black box' where problems of externalities and social costs emerge; (2) the managerial category, where problems of responsibility are approached from inside the firm (internal perspective); (3) relational theories, or those in which the type of relations between the firm and the environment are at the center of the analysis (Secchi, 2007).

such as CSR management, for personal gain. Consequently, the quality of social responsibility reports is hard to guarantee.

Stakeholder Salience Theory

From 1980's onwards, in the era of profit is all that matters, the shareholder theory advocates that the goal of firm is to maximize shareholder value. From 1984 to 1994, Freeman broadened the shareholder theory to the stakeholder theory and updated it continuously. Freeman (1994) claims that enterprises should be responsible for other stakeholders in addition to shareholders. And then, Jones (1995), as well as Donaldson & Preston (1995) refine this theory into the instrumental stakeholder theory, which states that the CSR action taken in the interest of stakeholders ultimately benefits shareholders. i.e. CSR is instrumental (Flammer, 2015). In other words, the stakeholder theory is linked to shareholder value maximization through the impact of the firm CSR activities on its value (Azar & Zhou, 2017). In 1997, Mitchell et al (1997, P 864) questioned the broad definition of Freeman's stakeholder theory (1994) and proposed the stakeholder salience theory. They proposed a new normative theory of stakeholder identification based on three variables:

- 1. Power to influence the firm
- 2. Legitimacy of the stakeholders' relationships with the firm
- 3. The urgency of the stakeholders claim on the firm.

Etzioni (1988, p.59) defines power as the extent to which a party has or can gain access to coercive (physical means), utilitarian (material means) or normative (prestige, esteem and social) means to impose their will. The definition of legitimacy is taken from Suchman (1995, p.574) who defines legitimacy as 'a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions'. Urgency is defined as 'the degree to which stakeholder claims call for immediate attention'. The 'degree' depends not just on time-sensitivity, but also on how 'critical' the relationship is with stakeholder or the importance of their claim (Mitchell et. al, 1997, p.867).

From this stakeholder theory, Mitchell et al (1997) introduce managers' perceptions to develop the stakeholder salience theory. They define 'salience' as 'the degree to which managers give priority to competing stakeholder claims' (Mitchell et. al, 1997, p.854). The more attributes-power, legitimacy, and urgency-stakeholder is perceived to have, the higher their salience. In other words, the greatest priority will be given to stakeholders who have power, legitimacy and urgency. The combinations given seven different classes of stakeholders and description of each stakeholder type or class can be found in *Appendix*. *Table 4*. The seven stakeholder classes can be separated into three groups: Latent, Expectant and High Salience (*Appendix*. *Table 5*.). The corresponding power, legitimacy and urgency are showed in matrix in *Appendix*. *Table 6*, where the colorful shades means the stakeholder have strong specific attribute. For

example, in our paper, the top management are deemed to be the subject of the theory, namely, they respond to those shareholders according to their attributes. The largest shareholder are dominant stakeholders since they are the only stakeholders and have both power and legitimacy. The state can be categorized as the definitive stakeholders since they have power, legitimacy and urgency.

The stakeholder salience theory can not only provide a model to help identify 'who and what counts' but explain some stakeholder behavior. For example, people who have an issue that is urgent to them, but do not have any power or legitimacy are demanding. Those with power and legitimacy are dominant, so the team will report to them and defer to their direction.

Agency Theory

Friedman (1970) asserts that engaging in CSR can lead to the agency problem or a conflict between the interests of managers and shareholders. He argues that managers use CSR as a means to further their own social, political, or career agendas, at the expense of shareholders. According to this view, resources devoted to CSR would be more wisely spent, from a social perspective, in increasing firm efficiency. However, the agency theory perspective has been challenged by other researchers, such as Preston (1978) and Carroll (1979), who outline a corporate social performance (CSP) framework. As exposited by Carroll (1979), this model includes the philosophy of social responsiveness, the social issues involved, and the social responsibility categories (one of which is economic responsibility). An empirical test of the CSP framework is presented in the work of Waddock and Graves (1997), who report a positive association between CSP and financial performance. The CSP model has much in common with the stakeholder perspective, which is the most widely used theoretical framework (McWilliams & Siegel, 2001).

4.2 Hypothesis Development

As we understand how CSR interact with firms, in this section, we will find how ownership structure and CSR are linked through the theory mentioned above in terms of hypotheses.

The ownership structure can not only reflect the difference in the corporate governance structure and efficiency, but also determine the distribution right for the assets, eventually influencing the corporate activities and its financial performance. The impact of ownership to corporate financial performance are widely examined by scholars around the world. In addition, the ownership concentration can measure the discourse power of shareholders on the crucial decisions in the company, including social activities and CSR reporting.

In this study, based on the literature review, three types of ownership structures have been identified for testing their association with CSR disclosure in CSR reports or annual reports. In each case a prediction is formed based on prior literature.

4.2.1 Ownership Concentration and CSR

Dominant shareholders can be regarded as the most important advocators and decision-makers for CSR reporting. Anderson et al (2003) indicate that compared with other minority shareholders, majority shareholders would pay closer attention to the sustainable development of the firm rather than the short-term profits, which can benefit the firm in the long run and help maintain their reputation, probably because the reputation is an important source of sustainable competitive advantage. Besides, Donaldson & Preston (1995) refine the shareholder theory into the instrumental stakeholder theory, stating that the CSR action taken in the interest of stakeholders ultimately benefits shareholders. Moreover, it is suggested that dominant shareholders are more likely to come up strategies that can promote the firm to get involved in more social and environmental practice as well as sustainable information disclosure. They are informed that high-quality CSR reporting can also enable SMEs to win confidence from both internal and external stakeholders.

Even though, as stated above, the literature has identified multiple positive outcomes of major shareholder involvement, there is still evidence showing that SMEs have less interest in CSR compared to large-scale firms due to high disclosure costs. According to Ulrike (2010), compared with large and transnational companies, small and medium enterprises suggest that CSR is the domain of large companies, because it is too bureaucratic, expensive, time-consuming and complicated. Moreover, internal finance constraints can hinder the social activities of small firms (Carpenter & Petersen, 2002). Beck et al (2007) suggest that small firms face larger growth constraints and have less access to formal sources of external finance. According to Beck (2007), SMEs are more constrained by financing and other institutional obstacles than large enterprises due to the difficulties in managing risk and transaction costs involved in SME lending, exacerbated by the weaknesses in the financial systems of many developing countries.

It is suggested that ownership structure is highly concentrated in many countries in the world. The literature supports that a highly concentrated ownership structure brings diverse problems. The main problem is the conflict between the company's management and stockholders (agency problem). Conflicts of interests may also occur between minority shareholders and larger shareholders in highly diversified ownership structure (Claessens et al., 2000; La Porta et al., 1997). The high ownership concentration can also lead to dominant shareholders to damage the interests of other stakeholders on the engagement in the social activities by controlling the management layer. Usually, larger shareholders actively control the company by appointing company director board and executives among their family relatives or close friends. Accordingly, these controlling larger shareholders are about to steal the other

shareholders' rights since minority shareholders have limited control to monitor the majority shareholders effectively (Dyck and Zingales, 2004). Moreover, the corporate supervision from independent directors towards dominant shareholders is subject to high ownership concentration. Furthermore, most SMEs are family firms, and those family-owned firms have little motivation to disclose CSR-related information since high level of ownership concentration offset the information asymmetry and reduce the agency conflicts (Mitchell et al., 2011; Morsing and Spence, 2019). Those small firms also have relatively weak demand for the public disclosure, especially in the excess of mandatory requirements (Chau and Gray, 2002).

Given the active engagement of major shareholders in CSR activity and cost consideration in SMEs, together with the financing dilemma in SMEs, it is reasonable to assume that dominant shareholders who have absolute discourse power in SMEs are not likely to disclose CSR information to maintain the high quality of CSR reports, which is different from large enterprises.

H1: The quality of CSR reporting is negatively affected by the ownership concentration in SMEs.

4.2.2 Managerial Ownership and CSR

According to O'Riordan (2010), the modern perspective of stakeholder democracy implies that senior managers are not simply regarded as agents of shareholder, and tend to take the interests and rights of internal and external stakeholders into consideration to balance the competing interests of all types of stakeholder for the long-term survival of the firm. Besides, some senior executive managers who hold aim to buy out the company play an essential role in building the positive image among the public, establishing stable relationship with investors and avoiding litigations for which they will make great efforts to improve the quality of CSR reports.

Nevertheless, according to the agency theory, managers are likely to make unfavorable decisions on the engagement in social activities at the expense of shareholders. The managerial opportunism hypothesis put forward by Preston and O' Bannon (1997) illustrates that managers would acquire more financial benefits by cutting down the expenses on social accountability activities, and thus the corporate social performance would be compromised. In addition, many managers in the survey of Johan, Bert & Nelleke (2003) have indicated that they are not familiar with important CSR tools including a code of conduct, social handbook and ethical training. The investigation of Zu and Song (2009) indicates that although a large number of managers would like to engage in social activities, their involvement is highly connected with the shareholder's expectations of improving financial performance. In addition, as the major decision-makers of CSR reporting, managers of SMEs will consider the disclosure costs and benefits brought by high quality CSR reports. They are normally under great pressure to improve the financial performance and survive in the competing industries rather

than attach great importance to the firm brand or reputation. Besides, considering the difference in the corporate structure and ownership characteristics between large enterprises and SMEs, there are a few literatures that study the role of managers played in the CSR reporting performance from the perspective of empirical research.

Therefore, we suppose that the engagement of senior managers in SMEs has a negative effect on the quality of CSR reports different from the engagement of managers in company groups.

H2: The quality of CSR reporting is negatively affected by the engagement of senior managers in SMEs.

4.2.3 State Ownership and CSR

Although Xiao, He, & Chow (2004) state that firms with higher state ownership are not motivated to attach great importance to the CSR information disclosure, the research of Guo, Sun & Li (2009) indicates that SOEs are much more likely to disclose CSR information than privately-controlled companies and foreign-invested corporations. Wang, Sewon and Claiborne (2008) conclude that the level of CSR disclosure is positively connected with the proportion of state ownership, and state-owned enterprises tend to present more social responsibility-related information to reduce extensive information asymmetry and agency issues. It is suggested that state ownership in China plays a critical role in guiding and promoting CSR reporting.

Furthermore, it is stated that the main function of state-owned shares in SMEs are not profit but to mediate the macroeconomy or implement policy, which means national states have to consider CSR information disclosed as part image of the firm in order to achieve policy goal or establish good role model for other enterprises. Therefore, we hypothesize that the proportion of state-owned shares is positively associated with the CSR reporting performance.

H3: The quality of CSR reporting is positively affected by the state-owned shares in SMEs.

5 Methodology

5.1 Estimated Models

This section presents four regression models. The first, second and third regression model have ownership concentration, managerial ownership, and state-owned shares as the main explanatory variable respectively. The fourth regression model includes all explanatory variables. The control variables in all four models are exactly the same.

 $CSR_{i,t} {=} \alpha_0 {+} \ \beta_1 \ ownership \ concentration \ _{i,t} \ {+} \sigma {\textstyle \sum} \ control \ variables \ _{i,t} \ {+} \epsilon \ _{i,t}$

 $CSR_{i,t}$ is defined as the CSR reporting performance of firm i in the year t. The ownership concentration can be measured as the proportion of shares held by the top one shareholder, followed by the control variables commonly used in the literature and the stochastic error term. The aim of the first regression is to test whether there is a negative relationship between the ownership concentration in SMEs and the CSR reporting performance (H1). β 1 coefficient examines the effect the ownership concentration has on CSR reporting performance. A one unit increase in ownership concentration will lead to a β 1 unit change in CSR.

 $CSR_{i,t} = \alpha_0 + \beta_1$ managerial ownership $_{i,t} + \sigma \sum$ control variables $_{i,t} + \epsilon_{i,t}$

In the second regression model, the managerial ownership is regarded as the main explanatory variable. The aim of the second regression is to test whether the CSR reporting performance is negatively affected by the managerial ownership in SMEs (H2)

 $CSR_{i,t} = \alpha_0 + \beta_1$ state-owned shares $_{i,t} + \sigma \sum$ control variables $_{i,t} + \epsilon_{i,t}$

The third regression has the state-owned shares as the ownership measure. The aim of the third regression is to test whether the state-owned shares can have a positive effect on the CSR reporting performance (H3).

 $CSR_{i,t} = \alpha_0 + \beta_1$ ownership concentration $_{i,t} + \beta_2$ managerial ownership $_{i,t} + \beta_3$ state-owned shares $_{i,t} + \sigma \sum$ control variables $_{i,t} + \epsilon_{i,t}$

The fourth model consists of three main explanatory variables, followed by control variables and the stochastic error term. The aim of this regression is to test whether the relationship between the CSR reporting quality and the ownership structure, managerial ownership and state-owned shares are robust respectively after being affected by other explanatory variables.

5.2 Methodological Approach

Our data are the panel data, so we can use either pooled OLS model (pooled Ordinary Least Square), fixed effect model or random effect model. The fixed effect model can control for unobservable characteristics of different firms that are constant over time (Hamilton & Nickerson, 2003), while the random effect model does not estimate the fixed effect individually for each cross-sectional unit, such as firm. First, in order to choose the most appropriate model, we conduct F-test to examine the pooled OLS model and the fixed effect regression model, and then Breusch and Pagan LM test is used to examine pooled OLS model and the random effect regression. Finally, the Hausman test can be used to examine the fixed effect model or the random effect model, followed by the heteroscedasticity test, winsorizing and multicollinearity analysis

5.3 Data and Sample

In this section, we will explain how we collect data and construct the sample, and the independent variable, explanatory variables and control variables we choose.

In order to assess the evolution of CSR reporting quality in SMEs over the years and better test these hypotheses, we construct a sample of small and medium enterprises listed on SME board of Shenzhen Stock Exchange from 2013-2017. The original sample includes 785 small and medium enterprises. We leave out all financial companies due to their distinctive characteristics since their rating criteria for CSR reporting is different from other industries, and then we exclude SMEs which lack required CSR rating score, financial and governance data. The final sample consists of 628 small and medium enterprises, which is far less than the number of SMEs listed on the Shenzhen Stock Exchange, indicating that a few Chinese SMEs have raised the awareness to engage in social activities and discretionary CSR reporting.

The data about corporate financial and governance information are obtained from China Stock Market and Accounting Research database (CSMAR), the most leading financial and economic database in China, which can provide official financial and non-financial information of all listed companies and thus commonly be used as the authoritative data source for accounting and finance studies.

The CSR reporting performance is measured by RANKINS (RKS) CSR rating score. According to earlier studies, there are different methods to measure the CSR reporting performance, mainly including comprehensive index designed by research scholars, and CSR reporting rated by the professional and authoritative organization.

At the beginning, we intend to design an index to evaluate CSR reporting performance mainly from the perspective of environment and human rights as other scholars do. For instance, Farag, Meng, & Mallin (2015) design a comprehensive social, environment

and ethics disclosure index to assess the corporate social performance. Hillman and Keim (2001) developed a CSR performance criterion that includes six categories and thirty-two different social performance indicators, involving environment, human rights, corporate governance, employee relations, community, diversity, and product-related social issues. Lan et al (2013) design DSCORE as the dependent variable, which involves the corporate structure and statements of social strategies and firm objectives. However, we find that it is difficult to develop a totally objective evaluation system and evaluate consistently since the CSR performance measurement is normally based on the subjective assessment and reporting criteria and content vary from each other significantly. Besides, it is very time consuming and challenging to finish evaluating all firms in our sample within limited time period.

Finally, in order to ensure objectivity and improve efficiency when measuring corporate social performance, we decide to choose the RANKINS (RKS) CSR rating score as the CSR reporting performance measurement indicator for its scientific and compelling CSR performance measurement criteria, because RANKINS is an authoritative independent CSR-rating organization in China, which can be regarded as the KLD database in China. RKS has developed a sophisticated CSR reporting measurement system, referring to GRI3.0 (Global Reporting Initiative), SDG (Sustainable Development Goals), DJSI (Dow Jones Sustainability Indices) and other authoritative guidelines. The RKS CSR rating score is determined by four main components (macrocosm, content, technique, industry) as well as fifteen first-level components (see Table 6) based on the expert investigation method (Delphi method). Therefore, RANKINS CSR rating score of listed firms in China has been widely adopted by academic research in corporate social responsibility and non-financial information disclosure (Marquis, Qian 2014). For instance, McGuinness et al (2017) analyze the relationship between corporate social performance, female leadership and foreign equity ownership levels for state-invested firms with RKS providing annually CSR ratings.

5.4 Variable Definition and Descriptive Statistics

The variable definition is illustrated in the *Table 7*.

5.4.1 Dependent Variable

As we mentioned before, the CSR reporting performance is measured by the RANKINS CSR rating score. The RKS CSR rating score is presented on a scale of 0-100. The company with the score of 100 is considered to have the highest CSR quality. In general, the average RKS CSR rating score from 2013 to 2017 is 39.21, and the maximum value and minimum value are 63.12 and 24.77 respectively, suggesting that the CSR reporting performance of SME varies from each other significantly (*see Figure 1*).

The evolution of overall CSR reporting quality, and evolution of CSR reporting performance in the sensitive and non-sensitive industries separately from 2013-2017 are shown in *Graph 2*. The CSR rating score gradually increased from 36.87 to 41.40 over the years. The score in the sensitive industries is higher than that in the non-sensitive industries, which is consistent with the statement of Watts and Zimmerman (1978) that company in sensitive industries will attempt to choose the disclosure policies which most contribute to eliminating political interference and to producing a decrease in costs such as taxes, fees and regulated charges. It is also suggested that companies in the highly sensitive and polluting industries are forced to comply with stringent government regulations. In this way, these companies are expected to disclose more social and environmental information in order to minimize government sanctions (Deegan and Gordon, 1996).

5.4.2 Main Explanatory Variables

In our paper, ownership concentration, the proportion of shares in managerial ownership and the proportion of state-owned shares can be expected to explain CSR reporting performance in Chinese SMEs.

The bar graph illustrates the ownership structure in the SMEs which disclose social performance information from 2013-2017(see Graph 3). The proportion of shares held by the top one shareholder was relatively stable, which was about 32.6%. The proportion of share in managerial ownership increased from 13.3% in 2013 to 13.8% in 2014, which implies that senior managers intended to further control the company activities, including the CSR reporting performance. The proportion of state-owned shares remained 1% over the years, indicating that state capital is not an important financing source for the SMEs in China, compared with that in the large companies (see Figure 3).

The *ownership concentration* can reflect the extent to which dominant shareholders can manipulate the company activities, covering the CSR reporting performance. The ownership concentration in the study can be represented by 'the ownership concentration ratio of shares held by the top one shareholder'. The higher the ownership concentration, the higher the voting right for the important decisions on the engagement in corporate social activities. In the *Figure 1*, the highest proportion and the lowest proportion of shares owned by the most dominant shareholder are 69.7% and 10.3% respectively, while the average proportion is 32.8%, which means that SME shareholders have significant differences in the control towards company and discourse power.

The proportion of shares in managerial ownership indicates the degree to which senior managers in SMEs can control the company. The managers with higher equity of the company are likely to be empowered more discourse power. According to the managerial power theory, executives can increase their ownership power, influence

board decisions, their performance criteria, and their remuneration levels by buying firm shares (Lambert et al., 1993). From the *Figure 1*, we can find that management shareholding is very common in SMEs, as the average proportion equals to 13.9%, and the maximum proportion and minimum proportion are 55.8% and 0% respectively. This also shows that the proportion of manager's shareholding varies from each other significantly.

The proportion of state-owned shares can explain the extent to which the government can encourage or force the firm to focus on CSR reporting and to improve its reporting quality. The result shows that the average proportion of state-owned shares in SMEs is only 1.1%. Although the highest figure is 33.3%, most SMEs are not funded by the state capital (see Figure 1).

5.4.3 Control Variables

Creditor leverage is expressed by debt to equity ratio that can evaluate whether the capital structure of a company is stable and reasonable and can measure the extent to the debt financing or the interests of creditors can be guaranteed by the equity capital. Roberts (1992) argue that since creditors can provide financial resources necessary for the continued operation of a corporation, the greater the degree to which an enterprise relies on debt financing resources, the greater the degree to which the enterprise manager would be likely to satisfy creditor expectations concerning a corporation's role in social activities. The quality of CSR-related information disclosure is also expected to be improved to maximize the benefits of creditors. Barako, Hancock & Izan (2006) also conclude that the level of CSR information disclosure is positively linked with the leverage ratio. In the *Figure 1*, the average debt-to-equity ratio is 0.879, which shows that the debt financing to equity capital of most SMEs is rational, although there is a highly-leveraged firm with the debt-equity ratio that is 4.409 and a firm with the lowest leverage ratio that is 0.041.

Firm Size is highly associated with the CSR reporting performance (Brammer, Brooks & Pavelin, 2006; Mallin & Michelon, 2011). We use the natural logarithm of total assets as a proxy for firm size (Waddock & Graves, 1997). According to Meek, Roberts & Gray (1995), large companies would be subject to greater regulatory and social pressure from the public. Reverte (2009) also illustrates that larger enterprises are more likely to get involved in social activities than relatively small firms since big companies are expected to assume more social responsibilities. In our sample, the average value of total assets equals to 9.76 billion CNY(1.41billion USD), , with the range between 0.72 billion CNY(0.1 billion USD) and 116 billion CNY(16.76 billion USD), presenting that there is a significant difference in the total assets of SMEs due to their different level of development, especially in different industries.

Moreover, the *economic performance* can be regarded as one of the most important factors for enterprises including SMEs to disclose social responsibility information and

to enhance the quality of CSR reporting, considering comprehensively the disclosure costs and the benefits. As mentioned by Farag, Meng, & Mallin (2015), the corporate social responsibility performance is determined by financial performance, and the better the financial performance, the worse the corporate social performance disclosure. In comparison with transnational companies, SMEs are more susceptible to the weak financial performance for its survival, so they would make great efforts to minimize spending including CSR reporting disclosure costs. We choose *ROA ratio* (return on assets) as the measure of economic performance, because it can evaluate the overall economic performance effect covering both the effect on saving costs and the impact on improvement of productivity, compared with other financial indicators, such as Tobin's Q and ROE (return on equity). The Figure 1 shows that the highest ROA ratio and lowest ROA ratio are 0.250 and -0.117 respectively, so there is also a conspicuous difference in SMEs' earning ability.

The corporate governance structure can also play a non-negligible role in the quality of CSR reporting. Thus, we control for governance effects, such as the board size, the proportion of independent directors in the board, and duality that is the chairman of the board being the firm's CEO.

Board size is an important indicator that can reflect the corporate governance structure and efficiency. In our sample, we find that the average number of board members in SMEs is 8.49. The maximum and minimum figure are 5 and 12 respectively (see *Figure 1*). As SMEs become more and more mature, some external interest groups such as financial institution directors, suppliers and retailers intend to participate in the board to gain more benefits. While the board expansion can assimilate experts and professionals to come up with strategies involved in the social, environmental, political and philanthropic matters and to advance CSR reporting, some gray directors can benefit from the governance of social issues in contamination prevention and human rights protection solved by other competent board members without paying any time and money cost, leading to the reduction in governance efficiency. The communication efficiency may also be compromised as the conflicting opinions can derive from board members with different interests due to CSR issues concerning a large number of stakeholders.

Unlike dominant shareholders and senior managers, *independent directors* are not directly get involved in the operation of companies, so their opinions and attitudes towards the CSR reporting is more independent, objective and neutral, and are able to provide more beneficial and effective advice on the improvement of a firm's social, environmental and ethical performance as well as the quality of CSR reporting. Independent directors can also prevent majority shareholders and managers from avoiding assuming corporate social responsibility and concealing information that will damage the interests of other stakeholders. Therefore, it is necessary to guarantee the percentage of independent directors in the board. We find that the average percentage of independent directors to all directors in SMEs is 37.9%, which suggests that most

SMEs comply with the independent director regulations issued by Chinese Securities Supervision Commission that this proportion should not be lower than one-third. While the minimum proportion is only 33.3%, there is also a relatively small firm that the independent directors to all board members accounts for 60% (see *Figure 1*).

Lattemann, Fetscherin, Alon, Li, & Scheider (2009) find that enterprises in which the position of the chair of the board is separated from that of CEO are more willing to engage in social activities. We take the *duality*=1 if the chairman of the board is also the company's CEO. The *Figure 1* presents that the board chair and CEO are the same person in 29.5% SMEs.

5.5 Diagnostic Test and Variable Correlations

In this section, we will conduct the diagnostic test to choose the most proper regression model based on our data structure and to mitigate the influence of heteroscedasticity, extreme values and multicollinearity. Finally, we will analyze the regression result.

5.5.1 Diagnostic Test Pre-estimation

F-test

F-test can be adopted to analyze whether the pooled OLS model or the fixed effect regression model should be chosen as the regression model based on the data characteristics. From the *Figure 4*, we can reject the null hypothesis in all models (significant at the 1% level) and consider the fixed effect regression model as the more proper model. We can also assume that the pooled OLS model does not take the heteroscedasticity into consideration.

Breusch and Pagan Lagrange-multiplier (LM) test

LM test is commonly used to examine the random effect model and the pooled OLS model. The test results also show that the null hypothesis in all models can be rejected (significant at the 1% level) and the random effect model should be chosen (see *Figure 5*).

Hausman test

When it comes to the examination between the fixed effect model and the random effect model, the Hausman test is a good choice. The null hypothesis is that difference in coefficients in fixed effect model and the random effect model is not systematic. From the *Figure 6*, we can reject the null hypothesis (significant at the 5% level), so the fixed effect model should be regarded as the most proper estimation method in our study.

Heteroscedasticity

The wrong conclusion is likely to be made if there is heteroscedasticity in the panel data and we do not take it into consideration. First, the variables including CSR rating score, firm size and board size are transformed to the natural logarithm to reduce the influence of heteroscedasticity and increase the validity of the data. Furthermore, we conduct the heteroscedasticity test, finding that heteroscedasticity is present in the data (see Figure 7). Therefore, we should make the conclusion from the fixed effect regression model with cluster robust standard error classified by the firm.

Winsorizing

Ghosh & Vogt (2012) state that more robust statistics can be achieved by winsorization. Following the previous treatment of outliers, the continuous variables, including CSR, ownership concentration, managerial ownership, state-owned shares, firm size, board size, the proportion of independent directors and ROA, are winsorized at the 1% and 99% percentile to leave out extreme values and to mitigate the effect of spurious outliers.

5.5.2 Correlation Analysis

Multicollinearity can also make the regression conclusion invalid. There is a flaw if we analyze the variance inflation factor (VIF) through the multicollinearity test, because the multicollinearity test is likely to treat the panel data as the cross-sectional data. We then do a correlation matrix instead. The correlation matrix in *Figure 8* indicates that the correlation coefficient of the board size and proportion of independent directors is -0.636. The correlation coefficient of leverage and firm size is 0.508. The correlation coefficients of other variables are all lower than 0.4, suggesting that the severe multicollinearity is not present in the data.

In the correlation matrix, we can also find that CSR reporting score is negatively associated with the proportion of shares held by the top one shareholder that is statistically significant. We also find a negative and significant relationship between CSR rating score and the proportion of shares in managerial ownership. By contrast, the CSR reporting score is positively and statistically significant associated with leverage ratio in SMEs. Although the relationship between CSR rating score and stateowned shares in SMEs turns out to be insignificant, we need to further conduct robust regression to exclude the influence of other factors on the CSR rating score.

In addition, the CSR reporting score is significantly connected with the firm size and board size. There is also a weak significant relationship between the CSR rating score and the proportion of independent directors and duality respectively. Thus, these variables should be controlled for the analysis of factors affecting the CSR reporting performance in SMEs.

6 Empirical Results

Because heteroscedasticity exists in our panel data, the wrong conclusion is likely to be made based on the models without robust standard error in the *Figure 9*. Therefore, we decide to analyze the relationship between CSR reporting performance and three ownership measures covering ownership concentration, managerial ownership and state-owned shares of Chinese SMEs based on the fixed effect regression model with cluster robust standard error in *Figure 10*. We have the ownership concentration as the main explanatory variable in model 1, the managerial ownership as the explanatory variable in model, the state-owned shares in model 3. The model 4 consists of all three explanatory variables and control variables. As noted in the *Figure 10* (the fixed effect model with cluster robust standard error), four models are highly significant with adjusted R2 of 0.18, 0.20, 0.18 and 0.20.

For model 1 in the *Figure 9*, the coefficient of ownership concentration is negative and weakly significant, while in the model with robust standard error (*Figure 10*), we find that although the ownership concentration is not statistically significant, the result is still consistent with the sign in the hypothesis 1. One possible explanation for the insignificant coefficient could be the influence of autocorrelation of disturbance term of the same individual in different years. Dominant shareholders in SMEs can be supposed to have an indirect control of corporate social activities rather than direct control and absolute discourse power. Moreover, CSR reporting performance can be negatively affected by the ownership concentration from the theoretical perspective. The most dominant shareholder in SMEs has no crucial impact on the quality of CSR reporting with the magnitude of -0.192, compared with the -0.327 of managerial ownership in model 2.

For model 2 in the *Figure 9* and *Figure 10*, the coefficient of the proportion of shares in managerial ownership is found to be negative and significant(p<0.01), suggesting that the higher the proportion of shares in managerial ownership, the lower the CSR rating score, which is consistent with the second hypothesis that the CSR reporting score is negatively affected by the engagement of senior managers with strongest discourse power. The regression result of the model 2 indicates that an increase of the proportion of shares in the managerial ownership with one percent reduces the CSR rating score by 0.327, holding everything else equal. In model 4, there is also a negative and significant association with managerial ownership and CSR reporting. Thus, their relationship is robust and consistent with the result that we document in the model 2. The coefficient absolute value of managerial ownership is much higher than that of ownership concentration and state-owned shares, indicating senior managers in SMEs can control the quality of CSR reporting to some extent.

The relationship between CSR reporting and the proportion of state-owned shares are not statistically significant in the model 3. It is reasonable to conclude that the state

capital almost has no impact on the CSR reporting performance in SMEs, considering the magnitude of -0.090, which is much lower than that of the other two ownership measures.

In terms of firm characteristics, the firm size is positive and statistically significant in all models, indicating that an increase in the firm size can increase the CSR rating score by 0.112 when covering all ownership measures in the model 4. It can demonstrate the finding of Reverte (2009) that firms with higher CSR ratings present a statistically significant larger size. We assume that relatively larger ones among SMEs have raised the awareness to attach the importance of the CSR reporting performance caused by the higher attention from stakeholders.

We also find a negative and significant relationship between ROA and CSR reporting score in model 1 and model 3(p<0.05), implying that the CSR reporting level is negatively affected by ROA when taking the ownership concentration and state-owned shares as explanatory variables. The higher the financial performance, the worse the CSR reporting. While in model 4 adding the managerial ownership variable, the relationship between ROA and CSR reporting score is not statistically significant, showing that their relationship is not robust. Besides, there is a negative but not statistically significant relationship between leverage ratio and CSR reporting.

When it comes to the board characteristics, the coefficients of board size and duality are not statistically significant both in *Figure 9* and *Figure 10*, although they can have a positive or negative effect on the CSR reporting performance according to early studies. However, different from the proportion of independent directors in *Figure 10*, its coefficients in models in *Figure 9* are statistically significant and positive, indicating that the cluster robust standard error can eliminate the autocorrelation of the same individual in different time.

7 Analysis and Interpretation

This final section first presents main conclusion and discussion. Following the implications of our analysis, then suggestions are provided. Finally, limitations of our thesis and direction of further research are illustrated.

7.1 Final Results and Discussion

The aim of this study is to explain how ownership structure involving ownership concentration, managerial ownership and state-owned shares can affect the CSR reporting performance of SMEs in China. We examine their relationships by the fixed effect regression model with cluster robust standard error. We conduct this study based on the Chinese market partly because the relationship between the quality of CSR reporting and ownership structure in SMEs is unexplored in the Chinese context, and partly because of the uniqueness of the Chinese governance system and cultural characteristics.

In the first hypothesis, we aim to find a negative relationship between CSR reporting performance and the ownership concentration. However, our result indicates that there is no statistically significant relationship between them, but we can further explain their relationship from the theoretical perspective. As mentioned by Waddock and Graves (1997), as the costs of social activities involving investment in contamination prevention and control as well as philanthropic activities exceed the potential benefits of the high-quality CSR reporting, dominant shareholders are likely to make decisions unfavorable for the CSR reporting to maximize their own wealth. Besides, Chinese SMEs do not have to comply with stringent legislation for mandatory CSR reporting, and the discretionary CSR reporting is mostly motivated by the public pressure rather than ethical purpose. The Chinese SMEs normally face less competition than large brands, thus weak demand for establishing reputation through good CSR performance, so the top one shareholder may unwilling to allocate more resources on the improvement of CSR performance.

In the second hypothesis, we conclude that the quality of CSR reporting is negatively affected by the engagement of senior managers in Chinese SMEs. The managerial power theory can provide a plausible explanation of this finding. Grabke-Rundell and Gomez-Mejia (2002) state that the structural power (executive share ownership) over internal directors of senior managers is likely to motivate them to pursue self-interest rather than engage in social activities for the sustainable development both in the firm and in society. It is suggested that as the pivotal decision-makers on CSR reporting, the senior managers in SMEs have not raised the awareness to assume social and ethical responsibility and to improve the quality of CSR reporting due to the costs on these social activities, especially in unstable economic situation in SMEs compared with

large enterprises. This result also supports the notion of Stakeholder Salience Theory, Finkelstein (1992) argues that the prestige power is related to a manager's ability to absorb uncertainty from the institutional environment. Affected by the Chinese traditional culture and value, Chinese companies tend to convey CSR information in an implicit way to reduce uncertainty. For example, they prefer to use rhetorical expressions rather than standards or indexes that apply by developed country. Because of the loose management control system and relatively flexible CSR reporting communication mechanism in SMEs, the CSR report can be easily controlled by senior managers. Their attitudes and perception toward CSR reporting can directly influence its content and integrity.

In the third hypothesis, no relationship is found between state-owned shares and CSR quality. This can be explained by the fact that most Chinese SMEs are not funded by state capital compared with those large enterprises. As we mentioned in the characteristics of SMEs, Chinese government tend to distribute more money in large firms than SMEs to encourage them operated in a more social friendly way, such as reduce sewage disposal. Moreover, it is true that there is no uniform guideline promulgated by the Chinese government for mandatory CSR reporting of SMEs, while companies of western developed countries report their CSR performance strictly according to GRI (Global Reporting Initiative). Chinese transnational countries are also likely to comply with GRI for its clearer and more unambiguous CSR information disclosure standard. In this regard, the quality of CSR reports of Chinese SMEs can be easily influenced by the different standards of the CSR report chosen by themselves.

7.2 Implication

Based on our findings, we intend to give some advices to the government and Chinese SMEs to improve quality of CSR reporting.

As we mentioned before, Chinese companies are less motivated to improve CSR reporting for ethical purpose, but more likely to support government policies and respond to the public pressure. If firms are not punished by severe penalty for not complying with CSR regulation, they are likely to pay the fine rather than deal with the burden of implementing CSR (Ariely, 2009). After reviewing the reporting standards applied by SMEs, we find that more than twenty guidelines are covered. However, different types of guidelines bring difficulty in regulating. Given that government are the major and the most powerful group to raise enterprises' awareness of CSR, governments are expected to weed out those guidelines out of date and limited the range of guideline can be used for the CSR report. Stringent regulation system can be developed to provide necessary punishment for SMEs that escape social responsibility or those with low CSR quality. Moreover, the positive and discretionary CSR performance of Chinese SMEs could be given the tax reduction to some extent, or some other incentives.

In terms of the internal control of the CSR report in SMEs, since the engagement of senior managers in Chinese SMEs can negatively affect the quality of CSR reporting, it is important to come up with strategies and regulations to rationalize the ownership structure by limiting the equity incentive for managers, which can curb senior manager's excessive control for the company. In addition, the independent directors who are not directly associated with the benefits of the company should also play an essential role in preventing senior managers from damaging the interests of other stakeholders in CSR reporting, getting firms fully involved in social activities and promoting the quality of CSR report. Furthermore, the CSR reporting communication mechanism of SMEs should be further enhanced, encouraging more stakeholders including employees, customers and minority shareholders to engage in the CSR reporting activity. In this way, the resources on CSR reporting can be better allocated.

8 Conclusion

Based on the RANKINS rating score for the CSR report quality, our research aims to explore the impact of ownership structure in SMEs on quality of CSR report, combining with the unique institutional background of China. In China, the overall regulatory environment for CSR reporting are lax. On the other hand, the firm characteristics of SMEs make major shareholders and management give priority to economic profits, while the engagement in social activities is less motivated and reactive. Furthermore, the decision-making power on the CSR report of SMEs is highly concentrated in executives, who may have limited knowledge or negative views towards social responsibility. Above all, these factors have led to the overall reporting quality in SMEs are lower than that of large companies in developed countries. In order to figure out how CSR performance can be influenced by ownership structure under such social context, we conduct quantitative analysis.

Through analysis of CSR performance in Chinese SMEs, we find that the quality of CSR disclosure is deeply influenced by social factors, including traditional values, business systems, regulations, etc. Our main findings regarding CSR disclosure in SMEs are summarized as follows: (1) disclosure information is incomplete and irregular; (2) the motivation for CSR reporting is rather passive, and most firms present report out of policy pressure; (3) Regulatory environment are relatively easy and disclosure standards are conveyed by concepts that are morally binding instead of legally binding.

Using the sample of 628 SMEs listed on Shenzhen Stock Exchange, we empirically examine the relationship between the ownership structure and the CSR report quality. After controlling the company-specific factors that can explain CSR based on previous literature, we found that (1) Even though prior literature indicates that the state ownership can positively affect the CSR performance, their impact on CSR quality of SMEs in our study is very limited. (2) Though the largest shareholder has the absolute control power of SMEs, our result suggests that he or she has not yet influenced the quality of CSR disclosure significantly. (3) The involvement of top management is detrimental to the quality of CSR reports. (4) Another finding is that the firm size of SMEs does matter for CSR performance, which is consistent with previous research results. In other words, compared with large companies, the small scale of SMEs does result in low quality of CSR report.

We also combine the social context factors to account for the empirical results. This has implication for firms and governments to further improve the quality of CSR disclosure. For SMEs, strong corporate governance should be established, and relevant incentives can also be applied to executives, preventing them from sacrificing other stakeholders' interest with self-interested motives. For the government, it is necessary to pour more money to SMEs in the development of social responsibility. Another

possible way to stimulate the engagement of SMEs in CSR is to link the quality of CSR report with tax reductions or lower listing requirements as incentives. We believe that the evidence revealed by this study is of great significance for other emerging economies in the world, especially those social contexts are different from that of developed countries.

Overall, this study makes a contribution to the current literature of CSR. Since the relationship between the quality of CSR reporting and ownership structure in SMEs is unexplored in emerging markets, especially from the perspective of the unique governance system and cultural characteristics. Lastly, China face increasingly social and environmental challenges in recent years, these challenges will lead more stakeholders to demand greater accountability from firms for their impact on society. This pose much pressure on major stakeholders since they determine the CSR disclosure directly as the main decision makers. Therefore, it is essential to identify whether they are supporters or opponents towards CSR activities and thus establish preventive mechanism to avoid them expropriate interest of other stakeholders.

9 Limitation

Although this paper provides meaningful research results, several aspects limit the current research. Firstly, since only a small part of Chinese SMEs has implemented CSR reporting available for the public, our sample is limited by the SMEs whose CSR reporting performance can be rated by RANKINS, which cannot fully reflect the CSR reporting level of all Chinese SMEs. Besides, although we tend to analyze the influence of ownership structure on the quality of CSR reporting, we have not taken some ownership measures into consideration, such as foreign equity, equity restriction ratio, and ownership dispersion ratio. These ownership measures can also have an impact on the CSR reporting performance. Li and Zhang (2010) find that corporate ownership dispersion is positively associated with CSR reporting in Chinese non-state-owned firms. Secondly, although we take the social context into consideration, we did not quantify those factors and examine their statistical effect on CSR performance. Third, we mainly examine the proportion of state shares, managerial shares as well as the largest shares and analyze their pros and cons over CSR quality, however, we did not propose an optimal ownership structure that can maximize the quality of CSR report.

10 Further Research

The paper has explored how CSR performance can be influenced by ownership structure under Chinese social context. Further research work is still needed in this area. First, future studies can be conducted on a larger scale, focusing on SME CSR reporting in developing countries or Asian countries based on our theoretical study. Secondly, based on the firm characteristics of SMEs and institutional background of China as we mentioned, future studies are expected to involve foreign equity, equity restriction ratio, and ownership dispersion ratio to fully grasp the impact of ownership structure on CSR performance. Third, it is important to explore the optimal percentage of different type of shares that can maximize quality of CSR reporting. Another interesting topic to investigate further, is build models to measure culture influence as well as other institutional factors to strengthen our result.

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List of Abbreviations

APEC Asia-Pacific Economic Cooperation

ASEAN Association of Southeast Asian Nations

CSR Corporate Social Responsibility

CSRC China Securities Regulatory Commission

CSMAR China Stock Market and Accounting

Research database

GDP Global Domestic Product

CFP Corporate Financial Performance

EU European Union

GRI Global Reporting Initiative

KLD Kinder, Lydenberg and Domini database

MNC Multinational Corporation

NTS Non-tradable Shares

OLS Ordinary Least Square

QFII Qualified Foreign Institutional Investor

SDG Sustainable Development Goals

SHSE Shanghai Stock Exchange

SME Small and Medium Enterprises

SOE State-owned Enterprise

SZSE Shenzhen Stock Exchange

RKS RANKINS

Appendix A- Figures of Empirical Model

Figure 1: Descriptive analysis

VARIABLES	Mean	Standard Deviation	Minimum	Maximum
CSR Rating Score	39.21	8.35	24.77	63.12
Ownership concentration	0.328	0.145	0.103	0.697
State-owned Shares	0.011	0.046	0	0.333
Managerial Ownership	0.139	0.157	0	0.558
Leverage	0.879	0.793	0.041	4.049
Firm size	9.760	1.630	0.721	11.600
Duality	0.295	0.456	0	1
Board size	8.490	1.580	5	12
Independent Director	0.379	0.057	0.333	0.600
ROA	0.057	0.059	-0.117	0.250

N=628

Figure 2: the evolution of CSR reporting performance in Chinese SMEs

CSR	2013	2014	2015	2016	2017
Overall	36.87	37.57	39.55	40.42	41.40
Sensitive	37.30	38.51	40.57	41.65	42.03
Non-sensitive	36.51	36.76	38.59	39.42	40.81

Figure 3: the evolution of CSR ownership structure in Chinese SMEs

	2013	2014	2015	2016	2017
Ownership concentration	32.6326%	32.6244%	32.6276%	32.6380%	32.6017%
Managerial ownership	13.2978%	13.8155%	13.8196%	13.8971%	13.9626%
State-owned shares	1.0098%	0.9972%	1.0004%	1.0459%	1.0976%

Figure 4: the result of F-test

F-test	Hypothesis	P-value	Statistically significant?	Result
Model 1	pooled OLS	0.0000	yes	reject
Model 2	pooled OLS	0.0000	yes	reject
Model 3	pooled OLS	0.0000	yes	reject
Model 4	pooled OLS	0.0000	yes	reject

Figure 5: the result of LM-test

LM-test	Hypothesis	P-value	Statistically significant?	Result
Model 1	pooled OLS	0.0000	yes	reject
Model 2	pooled OLS	0.0000	yes	reject
Model 3	pooled OLS	0.0000	yes	reject
Model 4	pooled OLS	0.0000	yes	reject

Figure 6: the result of Hausman test

Hausman test	Hypothesis	P-value	Statistically significant?	Result
Model 1	Random effect	0.0300	yes	reject
Model 2	Random effect	0.0034	yes	reject
Model 3	Random effect	0.0035	yes	reject
Model 4	Random effect	0.0425	yes	reject

Figure 7: the result of Heteroscedasticity test

Heteroscedasticity	Hypothesis	P-value	Statistically significant?	Result
Model 1	Not present	0.0000	yes	reject
Model 2	Not present	0.0000	yes	reject
Model 3	Not present	0.0000	yes	reject
Model 4	Not present	0.0000	yes	reject

Figure 8: Correlation Matrix

		1	2	3	4	5	9	7	8	6	10
П	CSR rating score	1.000									
2	Ownership concentration	-0.097**	1.000								
8	State-owned shares	0.056	0.070*	1.000							
4	Managerial ownership	-0.109***	-0.155**	-0.169***	1.000						
5	leverage	0.173***	0.077*	0.079**	**860.0-	1.000					
9	Firm size	0.283***	0.093**	0.078*	-0.100**	0.508***	1.000				
7	Board size	0.134***	-0.037	0.146***	-0.095**	0.074*	0.110***	1.000			
∞	Independent directors%	-0.068*	0.040	-0.054	0.008	-0.024	-0.011	-0.636**	1.000		
6	Duality	-0.067*	0.055	-0.073*	0.052	-0.005	-0.023	-0.280***	0.207***	1.000	
10	ROA	-0.004	.0068*	-0.023	0.035	-0.346***	0.092**	0.020	0.012	0.020	1.000

N=628

^{***} p<0.01, ** p<0.05, * p<0.1

Figure 9: Fixed effect model

	Model 1	Model 2	Model 3	Mod	el 4
	ownership	Managerial	State-owned	All	ownership
	concentration	ownership	shares	meas	ures
Ownership variables:					
ownership concentration	-0.192*			-0.11	.1
	(-1.684)			(-0.9	62)
Managerial ownership		-0.327***		-0.30	9***
		(-3.647)		(-3.3	,
State-owned shares			-0.090	-0.07	
			(-0.705)	(-0.5	87)
Firm characteristics:				0.04	0
Leverage	-0.018	-0.018	-0.023	-0.01	
	(-1.256)	(-1.231)	(-1.535)	(-1.2	31)
Firm Size(log)	0.119***	0.116***	0.130***	0.112	2***
	(8.478)	(8.888)	(10.098)	(7.89	2)
ROA	-0.246**	-0.157	-0.238*	-0.15	19
	(-2.031)	(-1.288)	(-1.957)	(-1.3	02)
Board characteristics:					
Board size(log)	0.062	0.067	0.057	0.075	5
	(0.977)	(1.070)	(0.905)	(1.19	01)
Independent directors%	0.414**	0.401**	0.399**	0.41	5**
	(2.196)	(2.153)	(2.111)	(2.22	29)
Duality	-0.013	-0.011	-0.013	-0.01	0
	(-0.662)	(-0.566)	(-0.642)	(-0.5	33)
constant	0.798**	0.830**	0.516	0.939)**
	(2.125)	(2.379)	(1.488)	(2.48	32)
N	628	628	628	628	
R-Square	0.194	0.212	0.190	0.214	4
Adj.R-Square	-0.11	-0.09	-0.12	-0.09)

^{*} p<0.1, ** p<0.05, *** p<0.01

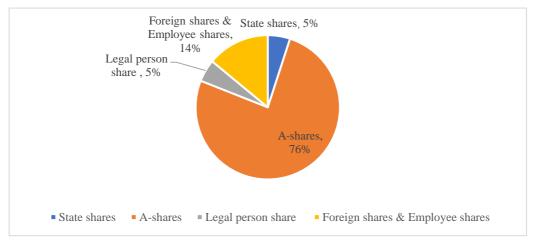
Figure 10: Fixed effect model (cluster robust)-classified by the firm

	Model 1	Model 2	Model 3	Model 4
	Ownership	Managerial	State-owned	All ownership
	concentration	ownership	shares	measures
Ownership variables:				
ownership concentration	-0.192			-0.111
	(-0.925)			(-0.489)
Managerial ownership		-0.327***		-0.309**
		(-2.610)		(-2.287)
State-owned shares			-0.090	-0.074
			(-0.904)	(-0.747)
Firm characteristics:				
Leverage	-0.018	-0.018	-0.023	-0.018
	(-1.291)	(-1.193)	(-1.518)	(-1.190)
Firm Size(log)	0.119***	0.116***	0.130***	0.112***
	(6.087)	(6.154)	(7.281)	(5.496)
ROA	-0.246**	-0.157	-0.238**	-0.159
	(-2.083)	(-1.350)	(-2.025)	(-1.344)
Board characteristics:				
Board size(log)	0.062	0.067	0.057	0.075
	(0.512)	(0.544)	(0.459)	(0.611)
Independent directors%	0.414	0.401	0.399	0.416
	(1.372)	(1.359)	(1.297)	(1.412)
Duality	-0.013	-0.011	-0.013	-0.010
	(-0.486)	(-0.408)	(-0.475)	(-0.383)
constant	0.798	0.830	0.516	0.939
	(1.268)	(1.586)	(0.963)	(1.487)
N	628	628	628	628
R-Square	0.194	0.212	0.190	0.214
Adj.R-Square	0.18	0.20	0.18	0.20

^{*} p<0.1, ** p<0.05, *** p<0.01

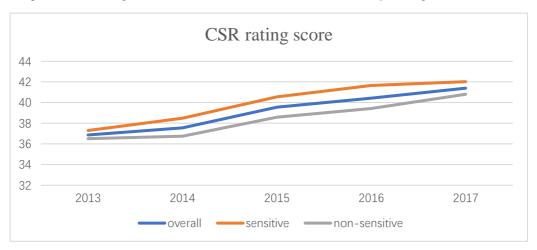
Appendix B- Graphs of Overview of Ownership Structure

Graph 1. Percentage of Shares in All Listed Firms in 2017

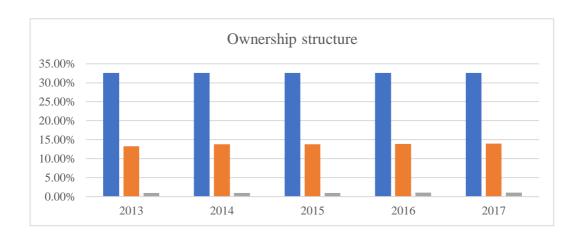


Data from Rathnayake et al (2019).

Graph 2: CSR rating score in Sensitive and Non- sensitive industry during 2013-2017



Graph 3: Ownership structure in Chinese SMEs in 2013-2017



Appendix C- Tables of Definitions

Table 1. Definitions of SMEs in China

T. 1. 4.*	Е 1 .	T 4 1 4	D :
Industries	Employment-	Total assets	Business
	based		revenue
Agriculture, forestry, husbandry and			<¥200m
fishery production.			
Industry	<1000		<¥400m
Construction		<\\$800m	<\\800m
Wholesale	<200		< ¥400m
Retail	<300		<¥200m
Transport	<1000		<¥300m
Warehousing	<200		<\\$300m
Post	<1000		<¥300m
Hotel & restaurant	<300		<¥100m
Information transmission industry	<2000		<¥1000m
Software and information technology	<300		<¥100m
services			
Real estate development		<¥100m	<¥2000m
Property management	<1000		<¥50m
Leasing and Business Service	<300	<\\1200m	
Others	<300		

Note: SME meet one or more of the conditions.

Source: 'The Provisions on Criteria for Classifying Small and Medium-sized Enterprises'

Table 2. Important events in CSR development in China from 2006 to 2018.

2006	"Take social responsibility" are addressed by the newly-revised Company law for
	the first time
	The Chinese government began to sign cooperation agreements on social
	responsibility with the governments of developed countries.
2007	Social responsibility initiative was issued by 1400 Enterprises with foreign
	investment in China
	'The Labor Contract Law of the People's Republic of China' are enacted
2008	'China Industrial Enterprises and Industry Association Guidelines on Social
	Responsibility' are published
	'Guidelines for Enterprise Society Responsibility' in Shanghai Pudong New Area
	Upgraded to Shanghai Local standard

	'Guiding Opinions on the Implementation of Social Responsibility by Central Enterprises' are published
2009	Convening the First Central Conference on Corporate Social Responsibility
2010	China Association of Foreign Contractors issued the first voluntary standard for overseas social responsibility construction of Chinese Enterprises
	Holding the Annual Conference on Social Responsibility of Central Enterprises to Promote Central Enterprises to Be the Model of Responsibility
	The Chinese delegation participates in the revision and improvement of ISO 26000
2011	'Handbook on the Implementation of Social Responsibility Guidelines for Chinese Industrial Enterprises and Industrial Associations' are published
	Publish the "Twelfth Five-Year Plan" Harmonious Development Strategy of Central Enterprises to Promote the Integration of Social Responsibility into the Development Strategy of Central Enterprises
2012	Ministry of Commerce issues Guidelines on Social Responsibility of China's Foreign Contracting Engineering Industry
	Social responsibility has been included in the key areas of management promotion of central enterprises to promote the strengthening of social responsibility management of central enterprises
2013	Guidelines on China's Social Responsibility for Foreign Mining Investment
	The First Guidelines on Social Responsibility of Small and Medium-sized Enterprises in China
	Convening a working conference on the social responsibility of central enterprises to determine the key work of central enterprises
2014	Solicit opinions on 'three national standards of social responsibility'
	Guidelines on the Implementation of Social Responsibility by Online Trading Platform Operators
2015	Three national standards on social responsibility were officially issued and implemented on January 1, 2016.
	Launching the Research on the Strategic Planning of Social Responsibility of Central Enterprises in the 13th Five-Year Plan
2016	The Charity Law of the People's Republic of China has been approved and implemented
	China Huadian Corporation Publishes the First Greenhouse Gas Emission Report of China's Central Enterprises

SASAC issues Guiding Opinions on Better Implementation of Social Responsibility by State-owned Enterprises 'Guidelines on Social Responsibility in the Electronic Information Industry' are issued China's Country Program for Implementing the Sustainable Development Agenda Golden Bee Global CSR2030 Initiative Releases Action Plan 2017 The first national CSR report with Chinese-funded enterprise associations as the main body was released Promoting entrepreneurship for the first time by the Central Committee Guidelines for the Compilation of Social Responsibility Reports of Foreign-funded Enterprises in China The SFC promulgates a new version of corporate governance guidelines for listed 2018 companies to strengthen social responsibility and information disclosure requirements The First International Symposium on Corporate Social Responsibility Promotes Multi-Party Cooperation between Enterprises, Universities and Research Institutions 'Report on the Development of Social Responsibility of Foreign-invested Enterprises in China (1978-2018)' are published

Table 3. Description of Each Type of Stakeholder

Stakeholder type	Feature
Dormant	Possess power to impose their will through coercive, utilitarian or symbolic
Stakeholders	means, but have little or no interaction /involvement as they lack legitimacy
	or urgency.
Discretionary	Likely to be recipients of corporate philanthropy. No pressure on managers
Stakeholders	to engage with this group, but they may choose to do so. Examples are
	beneficiaries of charity.
Demanding	Those with urgent claims, but no legitimacy or power. Irritants for
Stakeholders	management, but not worth considering. Examples are people with
	unjustified grudges, serial complainers or low return customers.
Dominant	The group that many theories position as the only stakeholders of an
Stakeholders	organization or project. Likely to have a formal mechanism in place
	acknowledging the relationship with the organization or project e.g. Boards
	of directors, HR department, public relations.
Dangerous	Those with powerful and urgent claims will be coercive and possibly
Stakeholders	violent. For example, employee sabotage or coercive/unlawful tactics used
	by activists. Note that Mitchell et al. identify these stakeholders, but don't
	require them to be acknowledged & thus awarded legitimacy (ibid, p.878).
Dependent	Stakeholders who are dependent on others to carry out their will, because
Stakeholders	they lack the power to enforce their stake. For example, local residents &
	animals impacted by the BP oil spill. Advocacy of their interests by
	dominant stakeholders can make them definitive stakeholders.
Definitive	An expectant stakeholder who gains the relevant missing attribute. Often
Stakeholders	dominant stakeholders with an urgent issue, or dependent groups with
	powerful legal support. Finally, those classed as dangerous could gain
	legitimacy e.g. democratic legitimacy achieved by a nationalist party.

Table 4. Three groups of Stakeholders

Type of group	Dimensions and Response
Green Latent stakeholders	one attribute, low salience. Managers may do nothing about these
	stakeholders and may not even recognize them as stakeholders.
Amber Expectant	two attributes, moderate salience. Active rather passive. Seen by
stakeholders	managers as 'expecting something'. Likely higher-level
	engagement with these stakeholders.
Red Definitive stakeholders	all three attributes, high salience. Managers give immediate
	priority to these stakeholders.

Table 5. Matrix of Stakeholder Salience

Group	Туре	Power	Legitimacy	Urgency
Latent	Dormant		Authority	Exercise
Low salience	Discretionary	Rights		Voice
	Demanding	Action in favor	Access	
Expectant	Dominant			Exercise
Moderate salience Active rather than	Dangerous Dependent		Authority	
passive stakeholders		Action in favor		
High salience	Definitive			
Non or potential stakeholders		Action in favor Rights	Authority Access	Exercise Voice

Table 6: RANKINS CSR rating criteria

	Main components	First-level components		
a	Macrocosm	Strategy, governance, stakeholders		
b	Content	Economic performance, labor and human rights, environment,		
		justice of operation, consumers, community engagement and		
		development		
С	Technique	Content equilibrium, information comparability, report		
		innovation, credibility and transparency, normalization,		
		accessibility and effectiveness of information transmission		
d	Industry	Criteria vary in different industries		

Table 7: Variables Definition

Dependent variable:	
CSR	The natural logarithm of the Rankin's CSR performance rating
	score
Explanatory Variables:	
Ownership Concentration	The concentration ratio of shares (the proportion of shares held by
	the top one shareholder)
State-owned Shares	The proportion of state-owned shares
Managerial Ownership	The proportion of shares in managerial ownership
Control Variables:	
Leverage	the ratio of Debt to Equity
Firm Size	The natural logarithm of total assets
Board Size	The natural logarithm of the number of board members
Proportion of independent	The proportion of independent directors to all board members.
directors	
Duality	Dummy=1 if the chairman of the board and CEO are the same
	person
ROA	The ratio of the net income divided by average total assets

Table 8: Definition of sensitive industries

Sensitive	energy industry, metal industry, chemical industry, pharmaceutical industry,
Industry	construction industry, machinery manufacturing industry, mining industry and
	transportation industry
Non-	retail industry, social service industry, social service industry, agriculture industry,
sensitive	food and beverage industry, clothing industry, electronics industry, information
Industry	technology industry, printing industry, real estate industry and media industry

Source: The environmentally sensitive industries defined by environmental protection industry classification management directory of listed companies issued in 2008 and industry classification guidelines of listed companies issued in 2018.