

**CORPORATE SUSTAINABILITY IN CHINA:
A CONTENT ANALYSIS OF CORPORATE SUSTAINABILITY REPORTS OF
SOES AND NON-SOES**

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Abstract

The main purpose of this thesis was to investigate how corporate sustainability (CS) initiatives undertaken by Chinese multinational corporations (MNCs) change over time, and to observe the relationship between Chinese State-Owned Enterprises (SOEs) and non-SOEs when undertaking CS initiatives. A qualitative content analysis was conducted on 88 CS-related reports issued by 18 Chinese MNCs from 2010 to 2014. The behavioral pattern of each MNC was established based on Hart and Milstein's (2003) sustainable value framework. The results indicated that, incorporating philanthropic initiatives in general and strategic philanthropy in particular can broaden Hart and Milstein's framework to account for the CS performance observed among Chinese MNCs. Second, Chinese MNCs' CS focus remains the same in this 5-year period. Third, the Chinese SOEs show higher commitment towards CS than non-SOEs. Furthermore, Chinese SOEs are more politically sensitive and align their CS initiatives to coercive pressure arising from the government than non-SOEs.

Keywords: corporate sustainability, coercive pressures, philanthropy, strategic philanthropy, MNCs, SOEs, non-SOEs, government

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1. Introduction

For corporations, corporate sustainability (CS) should “not only encompass aspects such as philanthropy and pollution but also a broad range of social, environmental, and governance metrics” (Peloza, Loock, Cerruti, & Muyot, 2012, p.76). The use of CS relies on various combinations of three dimensions—economic, social, and environmental. Although there is an increasing amount of literature about CS, scholars have not reached consensus on its definition and structure. Despite prolific research on CS, its drivers of implementation, and CS variations under different context, the extant CS literature within China’s institutional context is limited. It is not clear, for example, whether Chinese MNCs’ CS focus has changed over the years and whether Chinese SOEs and non-SOEs show differences in their focus and commitment towards CS. Thus, this research sought to investigate how CS initiatives undertaken by Chinese MNCs change over time, and the different CS performances between SOEs and non-SOEs.

Scholars studying CS identify two arguments about why corporations embrace CS. On the one hand, it is the ‘right thing to do’ for corporations to undertake CS initiatives (Rodriguez, Ricart, & Sanchez, 2002; Tozzi, 2012). With the increasing pressure on corporations to meet society’s ethical demands and expectations, CS is perceived as the corporations’ debt to society (Feng, 2010). In other words, CS initiatives help corporations redound upon society. On the other hand, CS helps corporations gain competitive advantage and increase profits (Lindgreen, Swaen, & Maon, 2009; Rodriguez et al., 2002) through cost and risk reduction, reputation and legitimacy

enhancement, innovation, and long-term growth (Hart & Milstein, 2003). A great deal of literature on CS has focused on MNCs in Western countries (Kolk, Hong, & Van Dolen, 2010; Margolis & Walsh, 2003). However, with the growing importance of emerging economies for international business and MNCs, more scholars (Baskin, 2006; Kolk, 2005) are paying attention to the CS performance of MNCs operating in, and from these emerging markets.

Since the Chinese government put forward the ‘reform and open-door policy’ in 1987 and its admission to the World Trade Organization (WTO) in 2001; the economy has transitioned from a planned economy to a market economy. This brought rapid economic growth and the increasing presence of MNCs. In the 11th Five-Year Plan released in 2006 (Fan, 2006), the government put forward the idea for China to build a “harmonious society” and establish a “scientific outlook on development”, which many regarded as a request for Chinese corporations to pay more attention to their CS performance (Marquis & Qian, 2013). Corporations responded accordingly; for example, the number of CSR reports published by Chinese corporations increased from 32 in 2006 to 817 by 2011 (Chan, Michael, & Zhang, 2012), while these are still a relatively small number, they indicate that Chinese corporations are taking increasing steps towards, at the very least, disclosing CS initiatives. In general, CS in China appears to be at an earlier stage than in Western countries.

Despite substantial literature on CS in Western countries, much variation still remains across different institutional environments and its potential impact on practices

and performance (Yin & Zhang, 2012). Furthermore, the research of CS in China is still very limited. Previous research (Gao, 2009; He & Chen, 2009; Kolk et al., 2010) have focused on the analysis of CS from both domestic corporations and MNCs operating in China. One study of Chinese corporations by Qingfen's (2006) found that Chinese companies claim that they are aware of the importance of CSR, but some of them misunderstand CSR and regard CSR as charity and philanthropy. In another study, Gao (2009) analyzed the reports of the top 100 companies in China and concluded that economic issues rather than sustainability seems to be the most pressing issue for Chinese companies. Gao (2011) analyzed 81 CSR reports and found that SOEs are more likely to address social issues than non-SOEs, but non-SOEs seem to be better at addressing the interests of shareholders, creditors, employees, customers, and environmental groups than SOEs.

Further analysis of the CS literature (see section 2) indicates that scholars have overlooked whether Chinese MNCs' CS focus remains the same across the year, what pressures are faced by Chinese MNCs, and whether SOEs' and non-SOEs' CS practices show similarities when they operate in the same institutional environment. The main objective of this study was to fill these gaps and contribute to the current literature of CS within the Chinese context. Specifically, this research focused on Chinese MNCs and analyzed CS initiatives undertaken by these corporations; and to shed light on the similarities and differences regarding the CS focus (i.e. what aspect of CS are important) and CS commitment (i.e. number of CS initiatives) by SOEs and non-SOEs in China

between 2010 and 2014.

Understanding the reason why CS initiatives are undertaken by Chinese MNCs, how they change over time, and the similarities and differences between SOEs and non-SOEs when undertaking CS initiatives, could be done through the application of institutional theory. An important concept of institutional theory is organizational legitimacy, which indicates that organizations conform to the rules and beliefs in the organizational field where they exist to achieve social acceptability and credibility (i.e. license to operate) (DiMaggio & Powell, 2000; Scott, 1995; Scott, 2013). According to institutional scholars (Hearit, 1995; Meyer & Rowan, 1977; Scott, 1995; Scott, 2013), legitimacy is granted on a corporation as it complies with the requirements and demands of key and powerful stakeholder(s). During the legitimizing process, powerful stakeholders work as forces by creating social pressures and restrictions on organizations on how to acquire legitimacy (Scott, 2013). These forces can be in the form of coercive, normative, and mimetic.

First, coercive pressure refers to the rules and regulations, which restrain and regularize organization's behavior (DiMaggio & Powell, 2000; Scott, 2013). Liu, Garcia, & Vredenburg's (2014) study on the environmental performance of Chinese-Western joint ventures found that one of the reasons why Chinese SOEs have adopted more social responsible strategies related to environmental protection, is the international and local environmental regulations' pressure. In other words, corporations undertake and disclose CS initiatives as a requirement of the laws and government expectations. Second,

normative pressure refers to both values and norms, which specify how to do things in an appropriate way (Scott, 2013), which means that organizations should know their role in society and carry out appropriate behaviors in their organizational field. Since each industry faces different sustainable development pressures (e.g. manufacturing industry faces human rights issues, and the energy industry faces climate change); CS initiatives undertaken by corporations should be different between industries but very similar across the same industry. Third, mimetic pressure happens when an organization faces challenges to its legitimacy due to the uncertainty and/or ambiguity surrounding new unresolved pressures (DiMaggio & Powell, 2000). Under these conditions corporations will be inclined to imitate a successful model, this is a corporation that was able to resolve the sustainable development pressure.

This study entailed a qualitative content analysis. In order to examine Chinese MNCs' CS practices, 88 CS or CSR reports published by 18 Chinese MNCs (14 SOEs and 4 non-SOEs) between 2010 and 2014 were coded and analyzed with the help of a software called NVivo. All the CS-related initiatives and actions recorded in these 88 reports were coded under categories mentioned by Hart and Milstein's (2003) framework (i.e. pollution prevention, product stewardship, clean technology, and sustainability vision) and categories generated from initiatives found in the reports but not mentioned by Hart and Milstein (2003). By analyzing these MNCs' initiatives and actions, the behavioral pattern of each MNC was generated for the years under study.

Findings indicated that; first, Hart and Milstein's (2003) framework did not seem to

fully capture all the CS activities of the Chinese MNCs in the sample. The data indicates that Chinese MNCs not only undertake initiatives similar to those argued by Hart and Milstein, but they also undertake a large number of initiatives in other areas such as poverty alleviation, health, disaster relief, infrastructure and development, and so on. It seems then that Hart and Milstein's framework can be broadened to account for the CS performance observed among Chinese MNCs.

Second, the Chinese MNCs' CS focus remains the same from 2010 to 2014. Specifically, these MNCs consistently focus on short-term returns arising from internal issues (e.g. pollution prevention and employee care), and then on short-term returns arising from external issues (e.g. product stewardship and disaster relief). Next, Chinese corporations seem to focus on long-term benefits from external issues (e.g. poverty and infrastructure), and the least attention seems to be on long-term benefits accruing from internal issues (e.g. clean technology).

Third, Chinese MNCs in the study sample showed a higher level of CS commitment towards CS than non-SOEs in general. The reason of such behavior appears to be the coercive power of the government. The government pressure has manifested through regulations and laws. More specifically, the stronger the government manifests its sustainability interest through laws, regulations, and guidelines, the greater the difference between the CS commitment of SOEs and non-SOEs.

Broadly this study contributes to the corporate sustainability field within the context of emerging markets, and complements Hart and Milstein's (2003) framework. It

provides empirical evidence of the dominant role that the Chinese government plays in Chinese MNCs' CS practices and performances. Moreover, this study also sheds light on the different CS initiatives and strategies undertaken by Chinese SOEs and non-SOEs, and as well as on the institutional pressure faced by Chinese MNCs regarding CS.

The rest of this study is structured as follows. Section 2 and section 3 consist of the literature reviews on corporate sustainability and institutional theory. Section 4 introduces research questions, sample selection, and data analysis method. Section 5 identifies the main findings of this study. What follows then is the discussion and conclusion of the main findings.

2. Corporate Sustainability

2.1 Definition of Corporate Sustainability

Corporate sustainability cannot be defined without first acknowledging Corporate Social Responsibility (CSR). The concept of CSR is not new, it was first introduced in the 1950s by Bowen and Johnson (1953). Historically, social issues (e.g. philanthropy and employee rights) have been studied under the banner of CSR, and environmental issues under the banner of environmental management (Montiel, 2008). However, in recent years, the study of CSR has evolved to consider not only ethical and social responsibilities, but environmental and economic responsibilities as well (Carroll, 1999; Kolk et al., 2010). In the 1990s with the release of the Brundtland Report (WCED, 1987), the term corporate sustainability (CS), which includes economic, social, and environmental dimensions; began to make its way among academic and practitioners alike. The boundaries between CS and CSR are blurred as both aim at balancing the firm's economic responsibility with its social and environmental responsibilities (Montiel, 2008). In order to reduce ambiguity, hereafter CS will refer to social and environmental responsibility.

The most cited sustainable development concept is from the World Commission on Environment and Development's report from 1987, which defines sustainable development as the process through which society tries to "meet the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p.43). This implies that society should minimize its impact on the environment and

natural resources so that we can pass these resources on to future generations. The principles of sustainable development are embraced by corporations through what is known as CS.

In spite of the increasing amount of research on CS, scholars have not reached consensus on its definition and main constructs. Montiel and Delgado-Ceballos (2014) reviewed CS, corporate social responsibility (CSR) and environmental performance related articles in top academic and practitioner journals from 1995 through 2013. In their research, Montiel and Delgado-Ceballos found that there was no standardized definition of CS. According to Montiel and Delgado-Ceballos, this was due to the different combination of three dimensions—economic, social, and environmental that scholars have used to define it. For example, Marshall and Brown (2003) considered CS solely in terms of the environmental dimension, such as pollution and recycle. However, other scholars (Bansal, 2002; Hart & Milstein, 2003; Szekely & Knirsch, 2005) hold the idea that CS refers to many different broad and complex economic, social, and environmental issues. Szekely and Knirsch (2005) for example, claimed that corporations embracing CS should consider ten issues: economic growth, shareholder value, prestige, corporate reputation, customer relationships, products quality, ethical business practices, sustainable jobs creation, stakeholders' value creation, and attention to the needs of the underserved.

Montiel and Delgado-Ceballos's (2014) literature review reiterated that there is ambiguity on the use and operationalization of CS's dimensions (economic, social, and

environmental). Some scholars (Shrivastava, 1995) use the concept “ecological sustainability” to identify CS only in terms of its environmental dimension. For example, Shrivastava (1995) argued that ecological sustainability can be achieved through “total quality environmental management, ecologically sustainable competitive strategies, technology-for-nature swaps, and the reduction of the impact that populations have on ecosystems” (p.938).

Other scholars (Hall & Vredenburg, 2003) define CS using only two dimensions—social and environmental. Hall and Vredenburg (2003) compared three companies’ sustainable development innovation strategies for coping with climate change. While the environmental dimension consisted of the reduction of greenhouse gases; the social dimension was embedded with the interaction of secondary stakeholders (including safety advocates, local communities, and activists for various causes) (Hall & Vredenburg, 2003).

Most scholars (Bansal, 2002; Bansal, 2005; Hart & Dowell, 2010; Van Marrewijk, 2003) include the three dimensions—economic, social, and environmental in their definition of CS, which is also known as the “Triple Bottom Line” (Elkington, 1997). Bansal (2005) for example, claimed that corporate sustainable development should be based on three principles—environmental integrity, economic prosperity, and social equity. Corporate environmental integrity can be achieved through pollution prevention and waste reduction. Social equity refers to stakeholder responsibility such as avoiding child labor, abstaining from socially undesirable products, and not engaging in

relationships with unethical partners. Economic prosperity means value creation which can be achieved by the goods and services that corporates produce. Thus, Bansal (2005) argued that each one of these three principles is necessary for CS.

In this project, the triple bottom line approach was utilized and Pelozo et al.'s (2012) definition of CS was adopted. Based on the GRI (Global Reporting Initiative) framework, Pelozo et al. defined CS as “sustainability not only encompasses aspects such as philanthropy and pollution but also a broad range of social, environmental, and governance metrics” (pg.76).

2.2 Importance of Corporate Sustainability

Arguments around CS often fall in one of two camps—negative and positive views of CS. Some scholars argue that CS is not beneficial, or even harmful to corporations’ competitiveness (Ghisetti & Rennings, 2014). The key premise in this camp is that social and environmental concerns may distract managers’ attention from their main responsibility, which is to maximize corporations’ profit. Furthermore, managers have long associated CS with additional costs, which in return impacts corporations’ competitiveness (Stefan & Paul, 2008). A case in point is Bansal’s (2002) study in which she found that few U.S. corporations have followed the principles of sustainable development. Bansal interviewed managers and analyzed the adoption of ISO 14001, an environmental management system intended to promote sustainable development practices within corporations. Bansal argued that managers resisted the standard, not only

because the cost of certification was high but also because the cost of maintaining the standard was high; thus rendering the standard costly and unattractive.

Contrary to this negative perspective on CS, there are scholars that hold the view that embracing CS is good for corporations (Beard & Hornik, 2011; Feng, 2010; Lindgreen, Swaen, & Maon, 2009; Nidumolu, Prahalad, & Rangaswami, 2009; Rodriguez et al., 2002; Tozzi, 2012) and it is the ‘right thing to do’. With the increasing pressure on corporations to meet society’s ethical demands and expectations, CS is increasing its importance and it is perceived as the corporations’ debt to society (Feng, 2010). In other words, it is the corporations’ duty to be a good corporate citizen.

Corporations take actions such as charitable donations and philanthropic contributions that are only based on their social responsibility instead of their profitability. An example of a corporation acting on this moral duty is Royal DSM, a Dutch-based multinational which distributed vitamins, nutrient mixes, and fortified food to 10 million malnourished people in Nepal, Kenya, Bangladesh, and Afghanistan in 2011. Royal DSM took this initiative because of their social responsibility rather than their profitability as reported by Beard and Hornik (2011). Furthermore, corporations today should also be concerned with environmental ethics. Natural resources are not only a commodity but also part of the ecological environment. Beard and Hornik (2011) claimed that “protecting the environment is more important than profit” (p.92). Thus, delivering on their environmental responsibility not only is right and essential for corporations, but also is corporations’ duty to decrease the environmental pollution and protect the environment.

For example, China Minmetals Corporation (2012), a multinational corporation from China, mentioned in their 2012 sustainability report that they planted approximately 67,000 seedlings on the Sepon mine to achieve their rehabilitation program objective. By doing this, the negative effects such as water and soil erosion resulting from mining can be mitigated.

A third group of scholars argue that CS can help corporations gain competitive advantage and increase profitability (Haanaes et al., 2011; Lacy, Cooper, Hayward, & Neuberger, 2010; Lindgreen, Swaen, & Maon, 2009; Nidumolu et al., 2009; Rodriguez et al., 2002). Indeed, in a study (Haanaes et al., 2011) of more than 3000 business executives and managers from corporations of different sizes and global reach, 70% of respondents claimed that CS helped them gain competitive advantage and outperform their competitors. Besides, studies of philanthropic initiatives indicate that those initiatives can enhance firms' reputation and moral capital (Brammer & Millington, 2005; Godfrey, 2005) and help to attract talent (Sánchez, 2000). In fact, Porter and Kramer (1999, 2002, 2006) coined the term 'strategic philanthropy' to refer to those philanthropic initiatives which integrate a firm specific social perspective into their core strategy and frameworks. In other word, a broad view of CS that includes strategic philanthropy could potentially become a source of opportunity, innovation, and competitive advantage if corporations can find ways to make CS consistent with their core business and strategies (Porter & Kramer, 2006).

In order to explain how different CS focus (i.e. what aspect of CS are important for

the corporation) and offer different competitive advantages and some longer lasting than others, Hart and Milstein (2003) proposed a two-by-two matrix (Figure 2.2.1), which has been employed by a number of scholars to study CS focus of corporations from Western countries. Hart and Milstein took into account two well-known dimensions. One is a firm's need to manage short-term business while simultaneously consider future growth. Another is that firm's need to protect internal organizational skills and capabilities while simultaneously considering external new perspectives and knowledge. Hart and Milstein (2003) argue that the pressures faced by corporations to improve their CS performance are both internal and external.

To address internal pressure, corporations need to focus on their technical core so that they can operate efficiently and reduce risk; as well as the ability to develop technologies and innovate products. The external pressures in favor of CS however come from suppliers and customers, as well as regulators, communities, NGOs, and the media. Corporations have to consider external stakeholders' interests appropriately, or their 'license to operate' will be at risk. Hart and Milstein (2003) argue as well that, in order to capture sustainable development value, short-term business and long-term growth should be taken into account by corporations. Corporations not only have to consider the short-term benefits referring to perform efficiently, but also have to focus on the innovations of tomorrow referring to technology development and growth path of future development (Hart & Milstein, 2003). In summary, with these two dimensions, Hart and Milstein (2003) generated a framework with four different CS foci—cost and risk

reduction (I); reputation and legitimacy (II); innovation and repositioning (III); and growth path and trajectory (IV), which can help explain how CS could drive competitive advantage for corporations.

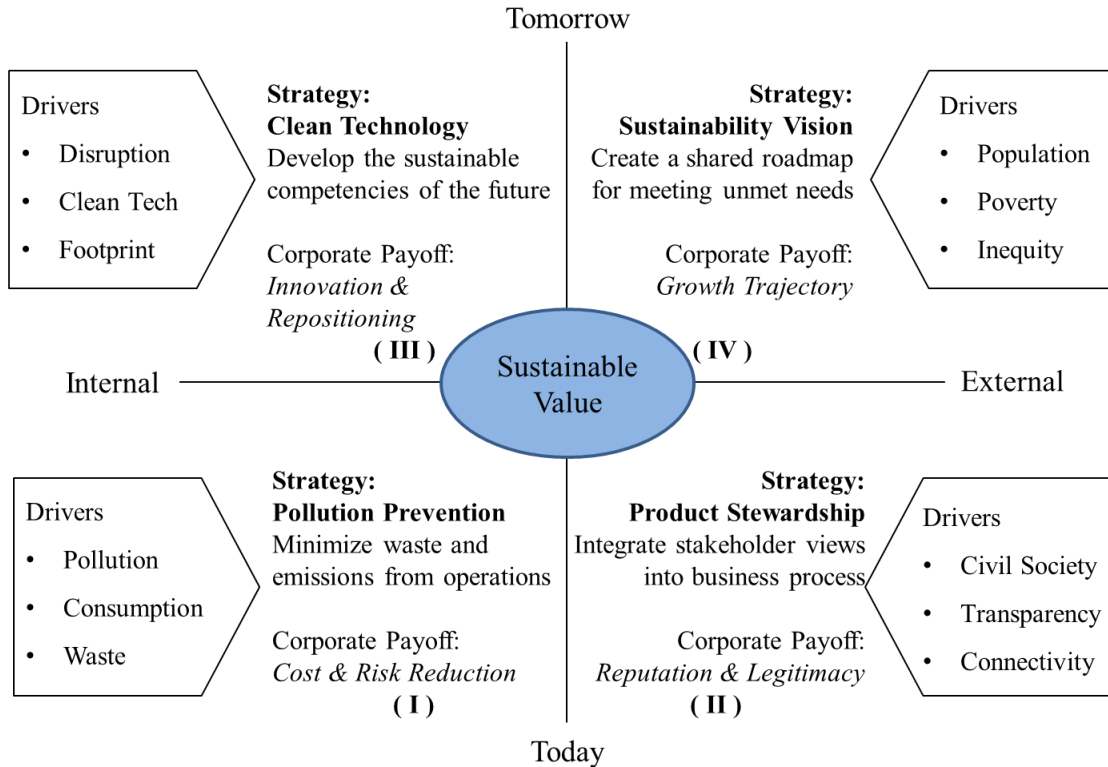


Figure 2.2.1 Hart and Milstein's Sustainable Value Framework (2003, p.60)

First, corporations can reduce cost and environmental risk through the development of capabilities associated with resource management and pollution prevention (Quadrant I, Figure 2.2.1), which are known to increase the profitability of corporations (Hart & Milstein, 2003; Kurapatskie & Darnall, 2013). On this regard, Stefan and Paul (2008) claim that a better environmental performance can help corporations reduce the cost of raising capital and operating. For example, Johnson & Johnson's noted in its 2009

sustainability report that they completed more than 60 energy-reduction projects, representing \$187 million in capital investments, which provided an internal rate of return of 19% (Hannaes et al., 2011). Reaching this win-win situation (i.e. reducing environmental impact and saving money) can be observed in other latitudes, Chinese fishing companies, for example, have been encouraged by the China National Offshore Oil Corporation (2012) to retrofit their fishing vessels to use Liquefied Natural Gas (LNG), this resulted in the fishing companies saving up to 20% on fuel cost and 80% reduction of emissions.

Second, CS helps corporations enhance their reputation and legitimacy (Quadrant II, Figure 2.2.1) (Fombrun & Shanley, 1990; Hart & Milstein, 2003). Reputation attracts employees, customers, investors, and so on. For example, Bhattacharya, Sen, and Korschun (2008) claim that social responsible initiatives help corporations become a contributor to society in more ways than profits, this can attract skilled and talented employees that would in return bring corporations' increased success. On this respect, Lim (2010) claims that group volunteer programs and awareness of the corporation's social responsible initiatives increase employee motivation and productivity. In addition, social responsible initiatives can as well increase customer's loyalty (Lim, 2010) which further enhances the company's reputation. Since corporations and their stakeholders (i.e. employees, investors, regulators and so on) have influence on each other (Chavez, 2011), it is not a surprise that a corporation's legitimacy is intertwined with the perception its stakeholders have on its sustainability performance. In the case of MNEs, considering

today's broad and complex global challenges, these corporations cannot do business alone (Lacy et al., 2010) and are expected to be responsive to host country stakeholders including the government. This is the case of CEOs interviewed by Lacy et al., (2010), who believed that corporations should collaborate with public authorities and governments to address sustainability challenges. For example, the alcohol industry collaborated with different governments to reduce excessive alcohol consumption in society (Lacy et al., 2010).

Third, sustainability leads to corporations' innovation and repositioning (Quadrant III, Figure 2.2.1). Rodriguez et al. (2002) claimed that innovation "has become an essential condition for competitive success" (p.10), because it helps corporations establish different business models that are difficult to imitate and substitute; hence ensuring competitive advantage. Furthermore, Nidumolu et al. (2009) also claimed that the request of sustainability has driven corporate innovation, changing their way of thinking about products and technologies. By doing this, corporations are able to reposition their internal competencies in more sustainable ways. For example, the China National Offshore Oil Corporation (CNOOC, 2012) focused on the development of alternative energy, such as biodiesel technology, to increase their raw material efficiency. CNOOC also focused on innovating new products. Their first batch of 60 motive battery packs powered 40 electric buses for their pilot operations in Tianjin, which in return brought an order of 400 packs of power batteries from US-based Coda Automotive (CNOOC, 2012). By doing this, CNOOC has opened its energy businesses to the

batteries market. Thus, corporations should not only perform well in today's business, but also should think about future development.

Finally, having a clear idea about the growth path and trajectory is beneficial for a corporation's long-term development (Quadrant IV, Figure 2.2.1). Hart and Milstein (2003) believe that there are opportunities for MNCs to generate their growth path in the future because of the growing gap between rich and poor, as well as the unmet needs of people at the bottom of the economic pyramid. The need of the less privileged has been ignored for a long time. Most corporations mistakenly assume that people in these markets with low income don't have money to spend on goods and services, so corporations often overlook business opportunities in such markets. In reality, billions of people are at the bottom of the economic pyramid, and contrary to the common belief, have an immense economic potential (Prahalad & Hart, 1999). Consistent with Hart and Milstein's viewpoint, some scholars (Hockert's, 2014; Prahalad & Hammond, 2002; Prahalad & Hart, 1999) argue that focusing on the unmet needs of low-income populations at the bottom of the economic pyramid can create new profitable markets. Furthermore, the markets at the bottom of the economic pyramid are totally new for MNCs, which will grow rapidly in the early stages (Prahalad & Hammond, 2002). For example, in rural Bangladesh, the average income per individual villager is less than \$200 per year, but they have strong demands for telecommunications services. Customers of these villages spend an average of 7% of their income on telecommunications services, which is a much higher percentage than the money spent by consumers in more

developed markets (Prahalad & Hammond, 2002). Another example from Prahalad and Hammond (2002) is from the Mumbai shantytown of Dharavi where people were willing to spend their income on things which can immediately improve their life quality, such as television sets, pressure cookers, mixers, gas stoves, and telephones. These examples show that the markets at the bottom of the economic pyramid have large unmet needs and they are willing to spend their income. By focusing on these new markets, corporations can grab these business opportunities and gain competitive position as they ensure sustainable development principles are followed.

Hart and Milstein's (2003) framework has been used by several scholars to study CS and CSR. Studies such as those of Kurapatskie and Darnall (2013) and Romero and Lamadrid (2014) are highly consistent with Hart and Milstein's (2003) four quadrants and the correspondent set of sustainability initiatives. Romero and Lamadrid (2014) adopted this framework as a tool to analyze a sample of 292 CSR-related initiatives from 13 Asian countries. Initiatives from different countries were classified according to the four strategies (pollution prevention; stewardship; clean technology; and sustainability vision) to analyze the extent of integration when Asian companies undertake CSR initiatives. Kurapatskie and Darnall's (2013) study also consistently follow the Hart and Milstein's four strategies (pollution prevention; product stewardship; clean technology and innovation; and community focus). Kurapatskie and Darnall (2013) assigned more than 600 initiatives from 50 firms listed in the Dow Jones Sustainability Index across the different quadrants in Hart and Milstein's framework.

2.3 Corporate Sustainability in Emerging Economies

In the past decades, a large number of research on CS has focused on MNCs in Western countries (Kolk et al., 2010; Margolis & Walsh, 2003). However, with the growing presence of MNCs in emerging economies, an increasing number of scholars are paying attention to the CS performance of MNCs from these markets. Examples include the studies of Kolk (2005) on Japanese MNCs, Baskin (2006) on emerging-market companies across Asia, Africa, Latin America, and Central and Eastern Europe, Tsoi (2010) on 21 major stakeholders (academics, auditing firms, government departments, MNCs, supply chain consultancies, non-governmental organizations, and trade unions) from Hong Kong and Mainland China; and more recently Marquis and Qian (2013) on the CSR reporting of publicly listed Chinese firms.

The increasing interest of scholars and practitioners in MNCs from and/or operating in emerging economies is twofold. This weak institutional environment can become the hotbed for unethical practices such as corruption, tax fraud, poor product quality, and environmental problems (Tan, 2009). For example, in 2013, GlaxoSmithKline China (a pharmaceutical and health care product multinational) was reported to bribe Chinese government officials, industry associations, hospitals, and doctors to increase its market share and profits. By doing so, GlaxoSmithKline China's annual volume of business increased from 20 million RMB (i.e. the official currency of the People's Republic of China) to 200 million RMB from 2006 to 2012 (GlaxoSmithKline Bribery Case in China,

2013; GlaxoSmithKline (GSK) Scandal and Bribery in China Explained, 2016).

Second, while the study of CS in emerging economies is influenced by similar research in Western countries, in practice CS initiatives respond to the contextual situations and institutional realities companies face (Campbell, 2007; Yin & Zhang, 2012), hence a corporation's CS performance needs to be studied within the cultural, economic, political, and organizational environments the corporation is embedded in (Marquis, Glynn, & Davis, 2007). A case in point is the study of 50 Asian corporations by Chapple and Moon (2005) in which they found that India's longstanding philanthropic traditions accounted for Indian companies having the highest level of corporate responsibility in Asia. This indicates that despite substantial researches about CS in Western countries, much variation still remains across contexts and its potential impact on practices and performance (Yin & Zhang, 2012).

2.4 Corporate Sustainability in China

2.4.1 Power of the Chinese Government Regarding CS

Since the Chinese government put forward the 'reform and open-door policy' in 1978, the economy has transitioned from planned economy to market economy. This policy brought rapid economic growth and the increasing presence of MNCs¹. It is not a

¹ Up to 2008, China shared 13 per cent of global GDP instead of 5 per cent three decades ago (Cao, 2008). Up to 2012, the average yearly increment of GDP in China was 9.8 per cent (Li, 2013). In 2010, China ranked fifth on foreign direct investment (FDI) in the world, with outbound FDI around \$ 70 billion (Chan et al, 2012).

surprise then that, during this period, corporations paid more attention to short-term profit maximization rather than sustainability principles (Hara, Uwasu, Yabar, & Zhang, 2009). Therefore, Chinese corporations' ethical (e.g. labor rights), social (e.g. food safety), and environmental (e.g. pollution and energy consumption) responsibilities were found to be not as important as their economic responsibilities (Kolk et al., 2010; Tsoi, 2010). An example of economic responsibilities outranking everything else is the Shijiazhuang Sanlu Group's case (one of China's biggest producers of milk powder), who in 2008 sold milk powder tainted with melamine that put approximately 13,000 children in hospital (Dickie, 2008). Another example is the Chinese haze issue, which is often cited to describe China's air pollution coming along the rapid industrialization and economic development. In January 2013, around 1.4 million square kilometers of China were covered by a hazardous dense haze, which affected the health of more than 800 million people (Xu et al., 2013). The Chinese government has realized that these unethical and sustainability problems could lead to social instability. Thus, the government uses regulations and laws as tools that will force corporations to restrict unethical behavior and push corporations to balance their economic growth with the social and environmental responsibilities (Yin & Zhang, 2012).

Furthermore, after China's entry into the World Trade Organization (WTO) in 2001, Chinese corporations have been adapting to economic globalization and becoming an important part of the global market, including sustainability related performance.

Evidence of this is that as many as 259 Chinese corporations and organizations have

participated in the Global Compact (Global Compact, 2016). The UN Global Compact is a United Nations initiative aimed at encouraging companies to align sustainability and social responsibility. While the number of participating corporations is relatively small for the size of the economy, the number has increased over the years. As the importance of Chinese corporations in the global market increases, the pressure from both overseas and domestic stakeholders has increased as well. These factors have effectively promoted the improvement of CS in China. As a term originating in Western countries, CS's guidelines and standards used by Chinese corporations are mainly adopted from Western countries. In a review of 88 CS-related reports, it was revealed that 43 reports followed ISO 26000, and 81 reports followed GRI guidelines. However, standards from Western countries are insufficient to guide Chinese corporations' behavior, because they don't reflect the idiosyncrasies of the Chinese institutional context (Wang & Juslin, 2009). Compared with Western countries, the CSR concept and performance in China are different because of the different norms, values, and business environment (Welford, 2003). Studying CSR under Chinese context should take Chinese cultural contexts and realities into consideration (Wang & Juslin, 2009). Thus, the Chinese government has developed laws and guidelines based on China's characteristic reality, so that, by following these laws and guidelines, Chinese corporations can better engage in CS and report more useful and meaningful information to their stakeholders both overseas and domestic.

In the past three decades, the Chinese government has put forward numerous CS-related laws, regulations and guidelines to force and/or guide corporations to

implement strategies that can balance the economic growth with social and environment impacts. Examples of these are the Environmental Protection Law of the People's Republic of China (Zhonghua Renmin Gongheguo Huanjing Baohu Fa, 1989) enacted in 1989. This regulation is the cardinal law for environmental protection in China. Another example is the Labor Law of the People's Republic of China (Zhonghua Renmin Gongheguo Laodong Fa, 1995) which was formulated to protect workers' rights and interests, and establish and safeguard a suitable labor system for the socialist market economy. A further law is the China CSR Reporting Guideline (Zhong et. al, 2009) that aims at providing Chinese corporations with a complete framework for disclosing CSR information.

Regarding CS, there are three issues which are of the highest concern to the Chinese government. The first one is labor (i.e., employee care and safety management). As a country with a large population, China's labor is oversupplied so that some companies focus more on profit maximization rather than employee rights, which results in a variety of labor issues such as wage arrears; low wages; and overtime. A well-known example is the 13 suicide attempts at a manufacturing plant in China owned and operated by the Foxconn Group, one of the largest electronic production manufacturers in the world. These suicide attempts occurred between January and May of 2010, and resulted in the death of 10 employees (Chan & Pun, 2010). Foxconn was accused of neglecting employees' rights by paying low wages and creating a work environment where employees had to work over time to earn more money. This resulted in employees'

job-related burnout and suicide.

In 1995, the Labor Law of the People's Republic of China (Zhonghua Renmin Gongheguo Laodong Fa, 1995) was enacted. This law indicates how corporations should contribute to guarantee labor rights, such as promote employment, conclude labor contracts with employees, clarify working hours, protect occupational safety and health, establish minimum wage and wage level, provide supervision and inspection, clarify legal responsibility of corporations, and so on. The promulgation of this law could be interpreted as the increased concern of the Chinese government on labor issues.

Acknowledging the Labor Law only provides a legal foundation for labor protection, the Chinese government further promulgated another law in 2008, named the Labor Contract Law of the People's Republic of China (Zhonghua Renmin Gongheguo Laodong Hetong Fa, 2008). In this law, the government further protects labor rights by improving labor contracts and defining the rights of workers and the obligations of employers in labor contracts. While early on the government put special interest on making China a prime destination for manufacturing on the back of cheap labor; more recently the government seems to acknowledge that working conditions could rise without compromising the role of the Chinese manufacturing capacity. Jiaxing and Yangon (2015) for example reported that despite "hourly manufacturing wages in China have risen by an average of 12% a year" (p.66) since 2001; China's share of global exports has increased continuously for clothing (from 25% to over 40%), electronics (from less than 10% to 35%) and other merchandise (from 10% to 20%).

The second most pressing sustainability issue for the Chinese government is environment (i.e., pollution prevention). Environmental pollution in China is a severe problem. The rapid economic development in the last 30 years has led to serious environmental problems. In China, the cost associated with the treatment of industrial pollution in 2005 was RMB 238.8 billion, which was equal to 1.3% of the country's GDP (Wang & Juslin, 2009). To address these environmental problems the Chinese government has enacted a series of laws to reduce pollution. Examples like the Water Pollution Prevention Law of the People's Republic of China (Zhonghua Renmin Gongheguo Shuiwuran Fangzhi Fa, 1984), enacted in 1984 and further amended in 2008, focusing on water pollution, the Air Pollution Prevention Law of the People's Republic of China (Zhonghua Renmin Gongheguo Daqiwuran Fangzhi Fa, 2000), enacted in 1988 and further amended in 2000, and the Solid Waste Pollution Prevention Law of the People's Republic of China (Zhonghua Renmin Gongheguo Gutifeiwu Wuran Huanjing Fangzhi Fa, 2004), enacted in 1995 and further amended in 2004.

Another factor that has impacted the environment is that of energy. China is the second largest energy consumer in the world, and is facing serious energy shortages. Energy shortages are mainly caused by the inefficient energy utilization and material waste. As a result, the Chinese government formulated several laws and regulations to push corporations to reduce consumption and improve resources utilization. Examples like the Energy Conservation Law of the People's Republic of China (Zhonghua Renmin Gongheguo Jieyue Nengyuan Fa, 2008) enacted in 1998 and further amended in 2008,

focused on reducing energy consumption and improving resource utilization. The Renewable Energy Law of the People's Republic of China (Zhonghua Renmin Gongheguo Kezaisheng Nengyuan Fa, 2006), enacted in 2006, also assisted in energy conservation by focusing on developing renewable energy and increasing energy supply.

Since the 21st century, the Chinese government has promulgated other laws and regulations to further force corporations to be more responsible. On this respect, in 2006, the State Environmental Protection Administration and Supervision Ministry of China put forward the Regulation and Punishment of Environmental Violations (Huanjing Baohu Weifa Xingwei Chufen Zanxing Guiding, 2006). This regulation clarified both the government and corporations' environmental responsibility. Moreover, it further specified the specific punishment on environmental violations.

The third sustainability issue for the government is poverty alleviation (e.g., infrastructure & development). The success on poverty reduction in China is well documented. Based on the \$1 per day benchmark, China's poor population fell from 730 million in 1981 to 106 million in 2005, and poverty incidence fell from 73.26 per cent in 1981 to 7.95 per cent in 2005 (Taylor & Li, 2012). To achieve these results, the role of the government has been instrumental. The government's clear objective and determination in eliminating poverty, as well as its capacity in allocating plenty of resources for poverty alleviation, has been identified as a key factor behind the remarkable gains on poverty alleviation (Wu & Cheng, 2010).

The government-led poverty alleviation in China can be divided into three periods;

1986-1993; 1994-2000; and 2001-2010. Around 1986, poverty alleviation was marked with a number of central government initiatives and programs. For example, in 1986, the government established a specialized government agency, named “State Council’s Leading Group for Economic Development in Poor Areas”, to assist poor areas and people living under poverty conditions. In 1993, the Leading Group was renamed “State Council’s Leading Group for the Development of an Oriented Poverty Alleviation Program” (Wu & Cheng, 2010, p.632). The main responsibilities of the Leading Group are setting national policies and strategies for China’s poverty alleviation, and aligning the poverty alleviation initiatives with local governments. At this point, the government also implemented large-scale poverty alleviation projects in selected poor areas.

From 1994 to 2000, the government established a clearer target for poverty alleviation and increased fiscal input to poor areas. In 1994, the government put forward the 8/7 Poverty Reduction Plan (Wu & Cheng, 2010,), with the objective to solve the living problems of 80 million people in the last seven year of the 20th century. During this period, the central government put RMB 124 billion into poverty alleviation, which represented 5% to 7% annual government fiscal expenditure at that time (Tan & Ke, 2016). The third stage of China’s poverty alleviation was from 2001 to 2010. The government indicated three goals for the poverty alleviation activities at this stage—to solve poor population’s basic clothing and food problems, to improve rural poor’s infrastructure and living conditions, and to improve poor areas’ environment and resource usage for sustainable development. Furthermore, at this stage, the central

government put forward the Outline of China's Rural Poverty Alleviation and Development Plan for 2011 - 2020 (Zhongguo Nongcun Fupin Kaifa Gangyao, 2004), which objective was to accelerate the development of poverty areas and promote common prosperity. An important goal for this period is to improve the infrastructure of poor rural areas, which can promote local economic development. This poverty alleviation outline mainly focuses on farmland and irrigation conservancy, drinking water safety, household electricity improvement, transportation, poverty areas' dangerous building reconstruction, and so on. These plans set goals to be achieved by the end of 2015; the irrigation and water conservancy in the poverty areas and remote Western villages was targeted to be improved so that people in these areas could drink clean water. The household electricity shortage issue of poor areas was another problem to be resolved as well. The goal to reconstruct eight million dangerous buildings from poor villages was also scheduled to be achieved by the end of 2015. Chinese corporations responded rapidly, many corporations have undertaken initiatives to support poverty alleviation. For example, from the data, CNPC (China National Petroleum Corporation, 2011) donated RMB 2 million to help the Xishui of Guizhou Province and Hengfeng of Jiangxi Province with road construction.

2.4.2 CS in China

Despite numerous laws and regulations, the Chinese government also put forward several guidelines to better guide Chinese corporation's behavior. In its 11th Five-Year

Plan released in 2006 (Fan, 2006), the government put forward the idea that China should build a “harmonious society” and establish “scientific outlook on development (i.e. sustainable development)”. To this end the Chinese government has come up with three CSR reporting guidelines. These include the Guidelines for the State-owned Enterprises Directly under the Central Government control on Fulfilling Corporate Social Responsibilities released in 2007; the Guidelines for the preparation of corporate social responsibility reports (CASS-CSR1.0) released in 2009 (Zhong et al., 2009); and the CSOEs Harmonious Development during the 12th Five Year Plan Outline for the Implementation of the Strategy released in 2011 (News Center of COMAC, 2011). These guidelines help corporations not only report but also work out strategies which can balance the economic growth with the social and environmental impacts (See, 2009). While these guidelines are not mandatory, they signal the increasing concern the government is giving to the social and environmental performance of corporations (Marquis & Qian, 2013). Chinese Corporations responded accordingly, the number of corporations joining United Nations Global Compact (2016), which is an organization that requests companies to follow universal reporting principles, has increased from 10 in 2006 to 120 in 2010. In addition, the number of CSR reports published by Chinese corporations increased from 32 to 817 from the year 2006 to 2011 (Chan et al., 2012). While these are small numbers; they still signal the increasing willingness of Chinese corporations to disclose their sustainability performance.

This level of disclosure has triggered the interest of practitioners and scholars alike

for CS in China. Scholars' attention on CS in the Chinese context is mainly about the following topics (see Appendix A for a summary of most areas studied), philanthropy and charity performance, economic performance, environmental performance, different CS performance between State-owned enterprises (SOEs) and non-SOEs, and stakeholders' influence on CS performance.

Regarding philanthropy and charity performance, Chinese corporations seem to have contributed mainly to society through philanthropy. Chan et al. (2012) found that many young corporations contribute to society through philanthropy; this is through donations of money or resources. In Kolk et al.'s (2010) study of large retailers operating in China (both Chinese and non-Chinese corporations), it indicated that all the Chinese retailers reported their philanthropic activities. Interestingly, some Chinese corporations claimed being aware of the importance of CS, but misunderstood the meaning of CS or had a narrow understanding of it (Qingfen, 2006). Qingfen's (2006) survey on the initiatives of 890 corporations in China including State-owned, privately owned, and multinationals found that most corporations equate corporate responsibility with charity and philanthropy. Through philanthropy, corporations can build better relationships with stakeholders and in doing so they could win increased support and enhance their firm's reputation in return (Berman, Wicks, Kotha, & Jones, 1999; Godfrey, 2005; Porter & Kramer (1999, 2002, 2006; Saiia et al., 2003.) takes this argument further, they refer to this relationship between philanthropic giving and corporate benefits as 'strategic philanthropy'. Porter and Kramer (2006) argue that socially responsible behavior that is

consistent with corporations' core business and adapted to the external competitive environment, can potentially become a source of opportunity, innovation, and competitive advantage. Thus, strategic corporate philanthropy should not be ignored when scholars study corporate sustainability, especially for Chinese corporations.

Regarding reporting and disclosure, Chinese corporations are accustomed to report their economic performance rather than environmental and social performance. In a study of top 100 corporations in China in 2007, Gao (2009) summarized four types of social issues as economic, legal, ethical, and philanthropic. Gao also counted the times each issue was mentioned in these corporations' official websites. The results; economic issue was mentioned 326 times, while legal issue was mentioned 127 times, ethical issue was mentioned 155 times, and philanthropic issue was mentioned 266 times, indicated that economic performance seemed to be the issue of greatest concern to Chinese corporations.

Environmental responsibility is the third topic. While it is well known that rapid economic growth results in environmental degradation, Chinese corporations' environmental responsibility is still in its early stages (He & Chen, 2009) and more regulatory pressure may be needed on this respect. See (2014) noted that China passed two laws in 1989 and 2003 to control pollution and protect the environment. An additional pressure on Chinese corporations to increase their environmental performance is the presence of business associations, such as the China Business Council for Sustainable Development, the local arm of the World Business Council for Sustainable

Development that promotes CS in China. However, most members of this council are subsidiaries of Western MNCs, and many domestic corporations and Chinese MNCs do not seem to engage in self-regulation (See, 2014). This lack of interest on environmental performance maybe an inadvertent consequence of a dominant cost cutting strategy among Chinese corporations that put extra pressure on the company to survive (He & Chen, 2009). This situation seems different only in some environment related industry. As an example of Liu's (2014) study, Chinese state oil companies have adopted more and more CS strategies related to environmental protection because of the force of international and local environmental regulation and the pressure from partners of Western oil companies.

Another topic is the CS performance of State-owned enterprises (SOEs) and non-SOEs. In Gao's (2011) study of 81 CSR reports of listed companies in China in 2007, SOEs are more likely to address social issues of "sustainable development of economy and society", "safety in production", "environmental protection", "charity" and so on, (p.275) than non-SOEs. Gao (2011) argued that SOEs are more politically sensitive than non-SOEs, hence they may be more inclined to address these issues that are part of the Chinese government agenda. However, non-SOEs seem to be better in addressing the interests of shareholders, creditors, employees, customers, and the environment than SOEs (Gao, 2011).

The final topic is that of stakeholders and their influence of CS performance. It is an effective way for corporations to take CS initiatives to generate profit for shareholders

and satisfy the legitimate demands from the stakeholders in the countries where they operate. CS strategies can enhance firm image and achieve long-term business objectives (Zhang et al., 2014). For example, in a survey of the senior executives from Guangdong province, Chen and Wang (2011) concluded that if corporations take CS initiatives, they can improve current and future financial performance. In doing so, they satisfy stakeholders, even though corporations input resources in taking CS initiatives. Thus, in return, internal stakeholders are willing to make contribution to corporations, and external stakeholders can see the good corporate image (Chen & Wang, 2011). Specifically, Yin et al.'s (2013) study revealed that the best CSR practices for each primary stakeholder were ensuring satisfactory financial returns for shareholder, providing competitive wages and welfare for employees, public-private partnership with government, investing in community education for community stakeholder, ensuring product quality and service excellence for customers, building a win-win partnership with suppliers, and ensuring a green workplace or factory for environmental stakeholder.

In summary, scholars have noticed the importance of CS, especially in Western countries. Correspondingly, literature on CS also focuses on corporations from Western countries (Gao, 2011). However, as mentioned previously, despite substantial research on CS in Western countries, much variation remains across different institutional environments and its potential impact on practices and performance (Yin & Zhang, 2012). As a result the research of CS in emerging economies is still very limited. China's institutional environment and its domestic MNCs is an interesting research setting to

better understand CS practice in emerging economies. Previous research conducted in China (Gao, 2009; He & Chen, 2009; Kolk et al., 2010) has focused on the analysis and comparison of CS between both domestic and MNCs operating in China, or on CS from MNCs operating in China. There is limited literature on observing and explaining how CS initiatives undertaken by Chinese corporations change over time. Besides, despite the increasing reporting on CS in China, only very few studies (Gao, 2011) are concerned with the influence between Chinese SOEs and non-SOEs when undertaking CS initiatives. Thus, in order to fill these gaps and broaden the literature of CS in China, this research concentrated on the top MNCs founded in China and provides a profile of CS performance. More specifically, this study analyzed why CS initiatives were undertaken by Chinese MNCs, how they changed over time, and shed light on the influence between Chinese SOEs and non-SOEs when undertaking CS initiatives. The analysis was based on Hart and Milstein's (2003) sustainable value framework to identify strategies of CS and establish the behavioral pattern of each MNC.

3. Institutional Theory

Modern organizational theory assumes that the field where organizations exist and operate (organizational field) is diverse and tries to explain organizational differences both in structure and behavior (Child & Kieser, 1981). Oliver (1991) considers both the convergent insights of institutional and resource dependence theories, and argues that organizations' strategic responses may vary from passive conformity to proactive manipulation when they face different institutional pressures. Specifically, organizations' strategies are influenced by both the context of the institutional environment such as external pressures, demands, and expectations; and the motives of organizations such as seeking legitimacy and/or self-interest. Therefore, Oliver (1991) proposes five types of strategic responses: acquiescence, compromise, avoidance, defiance, and manipulation. Acquiesce strategy entails alternative forms (i.e. habit, imitation, and compliance) when organizations accede to institutional pressures to enhance their legitimacy and social support (Guerreiro, Rodrigues, & Craig, 2012). Compromise strategy involves balancing, pacifying, or bargaining with external constituents, which refers to a lower degree of compliance than acquiescence, and organizations are more active in promoting their own interests (Albu, Albu, & Alexander, 2014; Oliver, 1991). Avoidance strategy refers to organizations' attempt to avoid the necessity of conformity via concealing their nonconformity, buffering themselves from institutional pressures, or escaping from institutional rules or expectations (Oliver, 1991). Defiance strategy refers to the dismissal of institutional pressures to conform and even a decision to challenge and attack them in

a public manner (Jamali, 2010). Manipulation strategy is the most active level of resistance to given institutional demands and expectations because it involves coopting institutional constituents, influencing values and criteria, or controlling institutional pressures (Albu et al., 2014; Oliver, 1991).

However, while organizations seem to exercise strategic discretion under institutional pressures, why do organizations still become similar? Startling homogeneity exists in organizational practices and behaviors. Some scholars (Brouthers, O'Donnell, and Hadjimarcou, 2005; DiMaggio & Powell, 2000) have tried to explain homogeneity instead of differences. DiMaggio and Powell (2000) claimed that organizational fields always show large diversity both in institution and form at the beginning stage of their life cycle. Subsequently, as soon as the field is well established, organizations operating in the same field will be pushed into homogeneity. To understand an organizations' behavior as the result of the external environment, scholars (DiMaggio & Powell, 2000; Flier, Van Den Bosch, & Volberda, 2003; Husted & Allen, 2006; Lee & Rhee, 2007; Levy & Rothenberg, 2002; Oliver, 1991; Tihanyi et al., 2012) have often relied on institutional theory. Institutional theory considers the process by which schemes, rules and norms become authoritative guidelines for organization behavior resulting in organizations becoming more and more similar, which is known as isomorphism (DiMaggio & Powell, 2000).

An important outcome of institutional isomorphism is organizational legitimacy. Suchman (1995) 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 definition” (574). Legitimacy is a resource required by organizations in their operation (Hearit, 1995), which indicates that organizations must conform to the rules and beliefs in the organizational field where they exist to achieve social acceptability and credibility (DiMaggio & Powell, 2000; Meyer & Rowan, 1977; Tilling, 2004; Scott, 1995; Scott, 2013). Specifically, a legitimate organization’s values and actions correspond with social actors’ values and expectations (Galaskiewicz, 1985). By complying with the institutions in an organizational field, organizations can be perceived as legitimate by the government and their stakeholders. Thus, a legitimate organization can ensure its license to operate, which means that organizations by being responsive to pressures from government and key stakeholders is able to acquire their endorsement for current and future projects (Deephouse, 1996; Merckelsen, 2011). Failing to acquire the social license to operate could result in an increasing oversight over the organization’s operations by regulators (Sarker, 2013). Therefore, organizational legitimacy can ensure an organization’s license to operate and its long-term development.

According to institutional theory, in an organizational field, institutions work as forces by creating social pressures and restrictions on organizations. Organizations that strongly fit with the institutional pressures will become isomorphic over time. These pressures can be in the form of coercive, normative, and mimetic pressures (DiMaggio & Powell, 2000). First, coercive pressure refers to the rules and regulations, which can restrain and regularize organization’s behavior (DiMaggio & Powell, 2000; Scott, 2013).

The institutional logic underlying this is that organizations conform to laws and regulations because of the fear of sanctions (Scott, 2013). In addition, not only the presence of regulations and laws are important, but also the capacity of the state to enforce these regulations and monitor organizations' behavior is required. Campbell (2007) claimed that corporations are more likely to operate in socially responsible ways when they face stronger regulatory frameworks and enforcement mechanisms. For example, in a study of 19 MNCs in China from 2001 to 2007, Tan (2009) found that MNCs may adopt inconsistent or negligent socially responsible practices in their emerging host markets operations because of the incomplete legal and regulatory framework in these emerging markets. Besides, Western MNCs with good CSR practices in their home countries didn't perform as well in China, as many got implicated in CSR related scandals such as bribery and corruption (Tan, 2009).

Second, normative pressure includes both values and norms, which specify how things should be done. The underlying logic of normative pressure is "appropriateness" (Scott, 2013, p.65), which means that organizations should know their role and carry out appropriate behaviors in their organizational field. Casile and Davis-Blake (2002) pointed out that the empirical indicators of normative pressure include accreditations and certifications by professional associations. Compared with coercive pressure, normative pressure is different because the conformity or violation of norms is mainly established by self-evaluation rather than failing to couple with rules and regulations (Scott, 2013). Campbell (2007) claimed that normative institutions can affect the degree of which

corporations operate in socially responsible ways. For example, in Chan et al.'s (2012) study on the related sustainability reports of 95 Chinese corporations, more and more Chinese corporations are reporting their socially responsible practices according to global standards such as the Global Reporting Initiative (GRI)—one of the most well-known and respected reporting standards. As Chan et al. evaluated, 36 corporations out of their sample followed the GRI standard and 22 invited third parties to audit their reports. By following the same global standards, Chinese corporations are taking and reporting socially responsible initiatives in similar ways.

The third one is mimetic pressure, which happens to an organization related to its organizational field, when there is uncertainty and/or ambiguity on how to achieve its objective. Specifically, this refers to an organization imitating another successful organization. It seems to be safer and less expensive to imitate a successful model than to create a new one (DiMaggio & Powell, 2000). For example, emerging market corporations can improve their performance by imitating successful home country corporations (Brouthers et al. 2005; Liou, Rose, & Ellstrand, 2012). Accordingly, in a study of mimetic processes, Galaskiewicz and Wasserman (1989) claimed that, when facing uncertainty, organizations always imitated the behavior of others in their organizational field, especially those organizations which they knew and trusted. Thus, mimetic mechanism accelerates the resemblance of organizations in the same institutional field.

4. Method

4.1 Research Aims

As it was mentioned before, most literature on CS focuses on corporations from Western countries (Gao, 2011), but much variation remains across different institutional environments and its potential impact on practices and performance (Yin & Zhang, 2012), hence the research of CS in emerging economies is very limited. Giving China's importance in international business and the increasing participation of Chinese MNCs abroad, China's institutional environment and its domestic MNCs are an interesting research setting to better understand CS practice in emerging economies. However, there is limited literature on whether CS initiatives undertaken by Chinese MNCs change over time. Moreover, only very few studies (Gao, 2011; Kao, Fung, & Li, 2014) were concerned with the influence between Chinese SOEs and non-SOEs when undertaking CS initiatives. Thus, in order to fill these gaps, this study concentrated on the top MNCs founded in China and provides a profile of CS performance.

The aim of this study was to evaluate the corporate sustainability performance (namely economic, environmental, and social) of 18 Chinese MNCs (14 SOEs, 4 non-SOEs, due to available reports and data limitation), from the Top 100 Chinese MNCs list (ranking by corporations' overseas assets, see Appendix B), by integrating Hart and Milstein's (2003) model and Institutional Theory. Specifically, this study sought to answer the following research questions:

- (1) Whether CS initiatives undertaken by Chinese MNCs change over from 2010 to

2014? If they change, how do they change over this 5-year period?

- (2) What is the relationship between SOEs and non-SOEs when undertaking CS initiatives? Which organization, SOE or non-SOE is more likely to advance the CS agenda?

For this study, a qualitative research method was used. Corbin and Strauss (2008) define qualitative research as “a process of examining and interpreting data in order to elicit meaning, gain understanding, and develop empirical knowledge” (p.1). Eriksson and Kovalainen (2008) noted that qualitative research mainly focuses on interpretation and understanding, while quantitative research is widely used in explanation and testing hypothesis with statistical analysis; hence qualitative research aims at providing a holistic understanding of a given issue. What, how, and why questions are typical types of questions in qualitative research and are intended to guide the researcher to answer or explain a topic with sufficient theoretical flexibility and freedom (Eriksson & Kovalainen, 2008). The assumption of qualitative methods is that a given phenomenon has not been properly identified, poorly understood, or remains unclear; therefore further exploration and understanding on this phenomenon is necessary (Corbin & Strauss, 2008). Thus, considering the objectives of this study; to shed light on the overall CS performance of the top Chinese MNCs and study the interplay between SOEs and non-SOEs when undertaking CS initiatives, have remained unclear and need a further exploration, a qualitative research method was utilized.

There are different approaches in terms of how to design and implement a

qualitative research, such as, but not limited to, case study, grounded theory, ethnographic, and content analysis (Eriksson & Kovalainen, 2008). In this study, a content analysis was conducted on sustainability and/or CSR reports issued annually by 18 Chinese MNCs from 2010 to 2014.

The reason for using content analysis is threefold. First, as mentioned before, there is increasing pressure from government and society on Chinese corporations to take increasing steps towards disclosing CS. Therefore, the number of CS-related reports published by Chinese corporations increased from 32 in 2006 to 817 by 2011 (Chan et al., 2012). Thus, Chinese corporations are becoming more transparent about their business activities in response to society increasing pressures (Gao, 2009). Such levels of disclosure offer me the opportunity to access valuable sources of information concerning Chinese corporation CS initiatives.

Second, corporate reports are appropriate sources of data to investigate organizational behaviors and initiatives. On the one hand, reports contrary to interviews do not suffer from recall bias, hence they could be a reliable source of information (Bettman & Weitz, 1983). On the other hand, scholars (Abrahamson & Hambrick, 1997) have criticized the usage of reports because corporations may choose to disclose information, which can help portray their best image. However, Duriau, Reger, and Pfarrer (2007) reviewed the content analysis literature and concluded that reports were a valuable source of non-evaluative information, namely actions and initiatives taken by organizations as opposed to principles or values they say they hold. Correspondingly,

Escobar and Vredenburg (2011) indicated that, when the research focuses on actions and initiatives, reports are appropriate source of information to study corporate behavior.

Finally, sustainability and CSR reports can be easily accessed from corporations' websites. With the development of internet, most corporations build their own websites. Reports available through their website have been a useful way to introduce the corporations' business and reputation to the public, especially for MNCs. A lot of literature is based on the analysis of these reports. For examples, Gao (2009) examined the CSR related reports from top 100 Chinese companies and concluded that CS in China was still at its early stage. Liu et al.'s study (2014) on 58 reports (CSR reports, sustainability reports, HSE reports, and annual reports) and three interviews from Chinese-Western joint ventures showed that Chinese state oil companies have widely adopted CSR strategies related to environment protection. Hahn and Lülfs's (2014) also used sustainability reports of companies listed on the US Dow Jones Industrial Average Index and the German DAX Index as samples to analyze the strategies adopted by companies to disclose negative sustainability related information. Campopiano and De Massis (2015) gathered CSR reports of 98 Italian firms to examine the differences between family and non-family firms in disclosing social and environmental actions.

4.2 Sample Selection and Data Collection

Since the focus of this study is on the CS initiatives of Chinese SOEs and non-SOEs, the sample for this study consisted of CS-related reports of 18 Chinese MNCs, 14 which

are SOEs and 4 are non-SOEs. For each corporation, the CS-related reports from 2010 to 2014 were downloaded. In total 88 CS-related reports were collected (see Appendix D). Criteria for inclusion in the sample included the following: the MNC should be listed in the top 100 Chinese corporations; it has published CS reports for more than 3 years, and the reports need to be published in English. The following describe the process through which the sample of 18 corporations and their reports were obtained.

Originally, the sample consisted of sustainability reports and/or CSR reports of the corporations listed on the Top100 Chinese MNCs by the China Enterprise Confederation and China Enterprise Directors Association on September 22th, 2014 (see Appendix B). All the sustainability reports were collected by following the next steps. First, an online searched using the searching engine www.baidu.com and www.google.com was initiated to check if these corporations have official websites. It showed up that 98 (86 SOEs, 8 non-SOEs, 4 unknowns about corporation's ownership) corporations from the list have an official website.

Next, a search of the official websites one by one was conducted to see if there is a CS or CSR related section. It proved that 10 corporations didn't mention CS or CSR related information on their websites. Most of the corporations that had a CS-related section had as well sustainability or CSR report. These reports were then downloaded, available in both English and Chinese, from 2005 to 2014. In the case that a report was not available, a further search was conducted using the GRI reports list published in 2015 from <https://www.globalreporting.org>, and searched as well the

www.sustainabilityreport.cn, named Material and Quantitative Indicators Database, which collects sustainability and CSR reports of domestic and multinational companies operating in China.

By following the above steps, it was identified that 75 corporations (70 SOEs, 5 non-SOEs) (see Appendix C) have at least one CS-related report issued between 2005 and 2014, which resulted in downloading 500 reports (470 of SOEs, 30 of non-SOEs) in total. However, this was narrowed down to a sample to 88 reports by excluding reports based on three factors. First, some of these corporations did not have reports for all the years. From the 75 corporations that issued reports, 49 published reports for each year between 2010 and 2014. Thus, in order to ensure that changes in the CS initiatives undertaken by corporations in the sample could be accounted for, only the reports published from 2010 to 2014 would be included. Second, most corporations only published Chinese version reports or only published a few English version reports but not for all years. In total 14 corporations were found to have published at least four English version reports from year 2010 to 2014. These 14 corporations are SOEs, and the 70 reports published by them between 2010 and 2014 were included in the sample. Third, in order to answer the research question about the interplay between SOEs and non-SOEs when undertaking CS initiatives, 18 reports released between 2010 and 2014 by 4 non-SOEs were also included in the sample. Although it seems that the amounts of SOEs and non-SOEs are unequal, these 4 non-SOEs are the only non-SOEs in this Top 100 Chinese MNCs list published continued CS-related reports. Besides, these 4 non-SOEs

are large-size firms that are able to undertake and disclose CS initiatives, which can represent the CS performance of non-SOEs in China. Thus, the final sample was composed of 18 Chinese MNCs, 14 out of them are SOEs and the other 4 are non-SOEs. A total of 88 CS-related reports were collected (see Appendix D).

4.3 Data Analysis

A qualitative content analysis on the sustainability and/or CSR reports issued by corporations in the sample was utilized. Content analysis is a method of codifying the content of writings into various groups (or categories) depending on selected criteria (Krippendorff, 1980; Unerman, 2000). To achieve this, inductive and interactive content analysis procedures used by Harris (2001) and Insch, Moore, and Murphy (1997), which have specific steps to help researchers generate a content analysis were implemented. The steps include identifying research questions and constructs, deciding the level at which the texts (word, word sense or phrase, sentence, paragraph, and document) are going to be examined, and the size or type of resource to be analyzed (i.e. basic unit of information). Additional steps include determining the categories which the resource should be divided into, making sure the coding scheme which specifies coding rules and how to use the categories, conducting a pilot study, and finally evaluating validity and reliability of the whole analysis (Harris, 2001).

Following these steps, research questions were first generated and I decided to use reports as material as mentioned before. Second, before coding the reports, the basic unit

of information had to be chosen. Keeping the research questions in mind, the reports were read. In order to identify the basic unit of information, keywords related to CS or CSR as the name of codes, such as “cost reduction”, “pollution prevention”, “poverty alleviation”, “corruption”, and so on were utilized. As reports were read, the information was coded and inputted into NVivo. NVivo is software designed to help researchers organize, analyze, and discover insights in qualitative data. After finishing reading the whole report, the information was rechecked in each code. The coding indicated that the information was always discussed in paragraphs or sentences. Thus, use of paragraphs and sentences as basic unit of information for coding reports was implemented.

Third, to help determine categories (or codes) and coding scheme, I reviewed the material and coded some paragraphs and sentences related to research questions and Hart and Milstein’s (2003) framework. Since there are no specific criteria or theoretical construct that can be followed to generate categories, only pre-existing frameworks and the material at hand can help determine the final categories (Hahn & Lülfs, 2014). For example, after reviewing the first report, some paragraphs and/or sentences were coded with different code names, such as “Employee Training”, “Employee Welfare”, and “Employee Assistance” (see examples in Appendix E). After further review, it was discovered that some codes described a similar theme. Those code names with similarities were merged into a new code. In the example above then, “Employee Training”, “Employee Welfare” and “Employee Assistance” into “Employee Care” were merged. This process generated a series of new codes. For paragraphs or sentences that

related to the research questions but could not be subsumed by the existing codes, new codes were built. By doing this, all the codes to be used in the study were identified. These codes are; industries, SOEs/non-SOEs, company profile, developed standards, food safety, pollution prevention, product stewardship, clean technology, sustainability vision, corruption, ecological protection, employee care, safety management, philanthropy, business core, capacity building, reputation, disaster relief, education, health, infrastructure & development, poverty, seniors, and volunteering.

In the fourth step, two reports from the same corporation were chosen to conduct a pilot study. All codes generated in step three in NVivo were followed and coded these two reports by reading paragraph by paragraph. One of the reports had 64 pages and the other one had 73 pages. It took approximately five hours to code each report, and the codes generated in step three include the CS-related initiatives noted in these two reports.

After all these steps, the researcher identified all the codes and coded the CS-related initiatives undertaken by these 18 MNCs in each year from 2010 to 2014. Relying on Hart and Milstein's (2003) sustainable value framework, the behavioral patterns of each corporation were established from 2010 to 2014. The trend of how corporations' CS initiatives changed between 2010 and 2014 can be observed by their behavior patterns. Furthermore, the relationship between SOEs and non-SOEs when undertaking CS initiatives can be also analyzed, and what issues are of concern for Chinese corporations in general and in particular for SOEs and non-SOEs. Details will be explicitly explained in section 5.

4.4 Reliability and Validity

To ensure the construct validity of this research, each code was either generated consistently with the four quadrants mentioned in Hart and Milstein's (2003) framework or generated from the initiatives mentioned in CS-related reports of the sample. In addition, for all codes, a specific definition or description was recorded in the 'Node Property' in NVivo (see Appendix H and Appendix I). This reduced the possibility that initiatives could be coded under two different codes. Therefore, all the initiatives included in each code should be highly related to its definition.

To ensure the reliability of this research, two co-coders were employed. Each co-coder was asked to randomly select one report, and code these two reports independently. They chose to code No.011_2014 and No.022_2012 CS reports. Before coding, the co-coders were provided with the coding procedures including the definition of CS and definitions of all the codes (see Appendix F). By doing this, they were clear about the coding table and they were able to code related information following the same coding table as me. Moreover, the co-coders were taught about the basic function of software NVivo, which was enough for them to code paragraphs or sentences in NVivo. The researcher and co-coders findings were summarized and presented in tables (see Appendix G). The overlap between the researchers and the co-coders results is higher than 85%, which guarantees the reliability of this research.

5. Descriptive Results

As mentioned previously the sample consisted of 88 CS-related reports issued by 18 Chinese MNCs between 2010 and 2014. Each report had between 40 and 157 pages. Based on the theoretical framework developed in Section 4.3, the researcher initiated the reading and analysis of the CS-related reports. 22 different codes (see Appendix H and Appendix I for a detailed list) were generated. One of the codes that stand out is “Philanthropy” (see Appendix I) as eight clear subgroups were identified (Strategic, Disaster Relief, Education, Health, Infrastructure & Development, Poverty, and Volunteering) or ‘child codes’ in the sample. Furthermore, within the ‘Strategic’ child code, three other ‘child codes’ were identified—Business Core, Capacity Building, and Reputation. In total 3580 references were identified (Table 5.0.0) from these 88 reports.

However, only 19 out of these 21 codes were utilized to do further analysis. The code ‘company profile’ was dropped because it refers to the description of a corporation, its business and operations. In other words, it helped to provide context; hence its impact in the analysis of a corporation’s strategies and sustainable development initiatives was minimal. Similarly, the code ‘developed standards’ was also dropped from the analysis because the number of initiatives is too small relative to other codes in the sample. Developed standards refers to those initiatives through which corporations independently or in collaboration with other organizations build country or industry specific standards and guidelines. Finally, initiatives coded in ‘food safety’ were excluded as well from the analysis because they are industry specific issues that did not apply to the whole sample.

Therefore, only 19 codes were utilized, of which the main ones were named sustainability vision, clean technology, ecological protection, product stewardship, corruption, pollution prevention, safety management, employee care, philanthropy, business core, capacity building, reputation, disaster relief, education, health, infrastructure & development, poverty, seniors, and volunteering (Table 5.0.0). It should be noted that these codes could be classified into two groups. One group includes initiatives that correspond to the 4 strategies identified by Hart and Milstein (2003) in their sustainable value framework, which are pollution prevention, product stewardship, clean technology, and sustainability vision. The remaining group of initiatives were identified as used by the Chinese corporations but not explicitly mentioned in Hart and Milstein’s sustainable value framework.

Table 5.0.0 Code Summary

	Code Name	Amount of Initiatives
Dropped Codes	Company Profile	74
	Developed Standards	42
	Food Safety	25
Codes (initiatives) Explicitly Mentioned in Hart and Milstein’s Framework	Pollution Prevention	434
	Product Stewardship	110
	Clean Technology	82
	Sustainability Vision	15
Codes (initiatives) Not Mentioned in Hart and Milstein’s	Corruption	203
	Ecological Protection	105
	Employee Care	934
	Safety Management	477
	Philanthropy/	1079

Framework	/Strategic Philanthropy/Business Core	147	
	/Capacity Building	102	
	/Reputation	74	
	/Disaster Relief	180	
	/Education	288	
	/Health	93	
	/Infrastructure & Development	423	
	/Poverty	203	
	/Seniors	45	
/Volunteering	95		
Total			3580

5.1 Complementing Hart and Milstein’s Sustainable Value Framework for the Chinese Context

Table 5.0.0 shows that there are 1079 initiatives coded under ‘philanthropy’. In order to better understand what these initiatives really represent, they were re-coded into 8 child codes—‘strategic philanthropy’, ‘disaster relief’, ‘education’, ‘health’, ‘infrastructure & development’, ‘poverty’, ‘seniors’, and ‘volunteering’ (see Appendix I). Specifically, the concept ‘strategic philanthropy’ is based on Porter and Kramer’s (2006) argument that, if corporations can make CS consistent with their core business and strategies, philanthropy could potentially become a source of competitive advantage; hence the term strategic philanthropy. In essence, strategic philanthropy is different from pure philanthropic initiatives as the latter lacks strategic intent and the corporation’s acts exclusively under ethical principles. While it is difficult to identify the strategic intent of a corporation as it reports philanthropic contributions, it was identified that all ‘strategic philanthropy’ initiatives as those initiatives which can significantly bring benefits to the

corporation. For example, China Mobile, a telecommunication corporation, cumulatively covered 89,000 remote villages with their mobile communications network (China Mobile Communication Company Limited, 2010), which was reported as a philanthropic initiative as it built up remote areas' mobile communications network so that people in these areas can use mobile communications equipment to make their life more convenient. While China Mobile built up these networks for free, this initiative showed strategic intent as China Mobile developed new market and new customers since their mobile communications network spread, which can bring them business benefit in long-term. Based on the analysis of the 'strategic philanthropy' code, it was identified that in the study sample, Chinese corporations have used three different types of strategic philanthropy—that could benefits their 'business core' (e.g. a household appliance company that pays for the electrification of a village), 'capacity building' (e.g. a company that provides free vocational training in areas closely related to the company's business and that are undersupplied) and 'reputation' (e.g. by being awarded or publicly recognized by the government) (see Appendix I).

Since the point of departure was Hart and Milstein's (2003) framework, all coding was placed along the axis internal issue vs. external issue and today's focus vs. tomorrow's focus (Figure 5.1.1). In red are initiatives that were not explicitly identified by Hart and Milstein (2003).

From Table 5.0.0 and Figure 5.1.1, it is clear that Chinese MNCs have undertaken a large number of initiatives coded as philanthropy. As showed in Table 5.0.0, the amount of initiatives coded in philanthropy is 1079, which represents about 30% of all the initiatives (3580) coded. Of these philanthropic initiatives about 30% of them were coded as strategic philanthropy (147 in business core, 102 in capacity building, and 74 in reputation). The other area that shows similar numbers of initiatives is Employee Care (934 initiatives). It is important to notice as well that within their philanthropic contribution, Chinese corporations in the sample have committed several initiatives to Poverty Alleviation initiatives as well as Infrastructure & Development. Moreover, the traditional Hart and Milstein (2003) group of initiatives representing Pollution Prevention, Product Stewardship, Sustainability Vision, and Clean Technology by the mere numbers do not seem to capture most of the sustainable development activities among Chinese corporations. These findings highlight the role of philanthropy as an important tool for, in the case of Chinese corporations, resolving their corporate sustainability goal.

Another important observation from the above mentioned data is that overall Chinese corporations seem to be more narrowly focus on the short term benefits of corporate sustainability and that the main driver of their sustainability efforts is internal. A case in point is the code Employee Care which account for initiative such as 934, and represent more than 45 % of all initiatives in quadrant I (Figure 5.1.1).

These results seem to indicate that the groups of initiatives considered by the Hart

and Milstein's (2003) framework need to be further specified and broadened to better represent the corporate sustainability behavior of Chinese corporations. The new categories (or codes) can broaden the general applicability of this framework in analyzing the Chinese MNCs' CS engagements. The following analysis of each research question is based on the broadened framework that includes philanthropy as another response to corporate sustainability demands.

5.2 Does the CS focus undertaken by Chinese MNCs change from 2010 to 2014?

In order to observe how Chinese MNCs' CS initiatives change over the years in the sample (2010 to 2014), five matrix graphs were created to represent Chinese MNCs' CS initiatives by year (Figure 5.2.1). Each number represents the amount of initiatives undertaken by Chinese MNCs across the four quadrants in Hart and Milstein's (2003) framework.

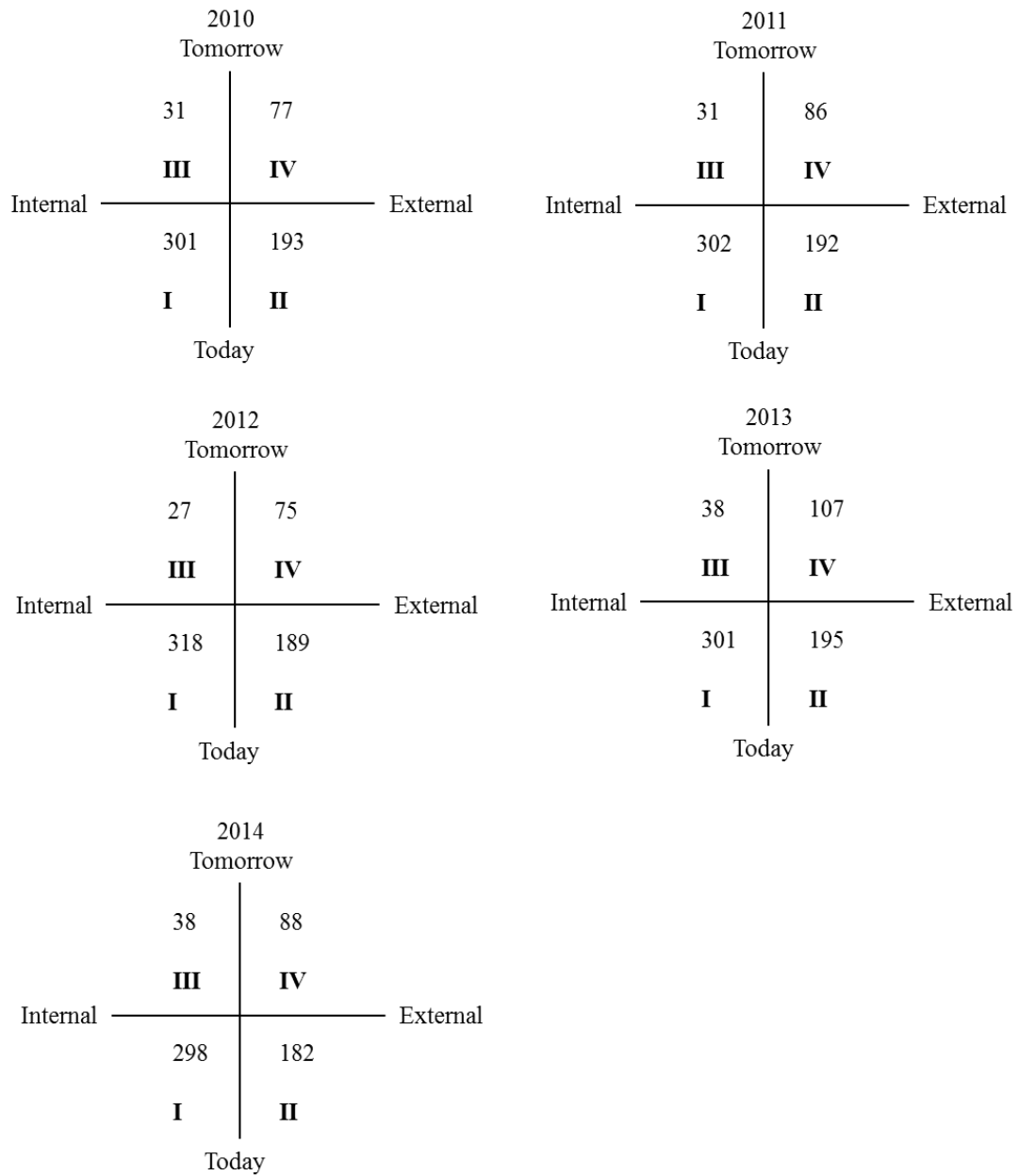


Figure 5.2.1 Initiatives Summary across Hart and Milstein's four quadrants by Years

In general, Figure 5.2.1 indicates that, there is no significant change on the amount of CS initiatives undertaken by Chinese MNCs across the four quadrants over the 5-year period. Only small variances happen across the years. In addition, the focus of Chinese MNCs undertaking CS initiatives remains the same. From 2010 to 2014, Chinese MNCs

consistently focused the most on short-term returns arising from internal issues. An example is CNPC's (China National Petroleum Corporation, 2012) reduction of carbon emissions at the source by shutting down small-sized refineries and energy-intensive but inefficient facilities in 2012. The Chinese MNCs then focused on short-term returns arising from external issues. For example, CNPC provided more than 1000 jobs for local people in Tanzania during the construction of a natural gas processing plant projects (China National Petroleum Corporation, 2013). Next, Chinese corporations seem to focus on long-term benefits from external issues. An example is COSL (China National Offshore Oil Corporation, 2013) who signed an agreement with the Brunei National Oil Company on establishing a joint venture company. This company of oilfield services indicated a new breakthrough in their overseas market development. The Chinese MNCs focused the least on long-term benefits accruing from internal issues. An example is CNPC's (China National Petroleum Corporation, 2013) application of highly efficient Concentrating Solar Power technology which can efficiently reduce carbon dioxide emissions in operation. Correspondingly, in the sample, 79 out of total 88 reports mentioned pollution prevention, and 87 out of total 88 reports mentioned labor right issues, which indicate that Chinese MNCs pay much attention to their short-term operation.

An important driver of this research was the question of whether, among Chinese corporations, there could be some top performers setting the path for corporate sustainability in China. As well as over the years, we could observe underperformers

imitating the focus of top performers. Overall, the data seems to indicate that there is no imitation within across industries from 2010 to 2014. The behavior pattern of each corporation was established by matrix coding in NVivo. Appendix J summarizes the number of initiatives undertaken by each corporation across the four quadrants in Hart and Milstein's (2003) framework over the 5-year period. All the corporations were also coded by industries (based on the 'North American Industry Classification System). In each industry (see Appendix K), no distinctive trends can be observed on how corporations undertake CS initiatives over the years. Chinese corporations' focus remains the same over the years. As mentioned before, Chinese corporations consistently focus mostly on the short-term rather than the long-term benefits of CS. Similarly, across different industries, there were no obvious top-performers or under-performers. Moreover, the data did not identify any trend that could indicate one industry CS focus or initiatives are being imitated by another industry.

Additional analyses were made to examine what other factors besides industry might impact Chinese corporations' CS focus. The factors considered were firm size (i.e., operating income and number of employees) and firm age.

First, in order to classify the sample by firm size, the Chinese Firm Size Classification Standards (2011) published by the Chinese Industry and Information Ministry, the China State Statistics Bureau and the Chinese Ministry of Finance was used. This Classification refers to firm size as a combination of the firm's operating income and number of employees. According to this classification, the Chinese government

considers all corporations in the sample as ‘large-size firms’ (see Appendix L). Under this Chinese classification the results described above remain the same.

To further analyze the possible impact of firm size on the CS focus, the 18 corporations in the sample were divided into groups based on operating income and numbers of employees. In the case of operating income, four groups were created; less than 10,000,000 thousands RMB that has 2 companies; between 10,000,000 thousands RMB and 100,000,000 thousands RMB that has 5 companies; between 100,000,000 thousands RMB and 500,000,000 thousands RMB with 5 companies; and more than 500,000,000 thousands RMB with 6 companies (see Appendix M). For the number of employees (see Appendix O) three groups were created; less than 50,000 employees that has 6 companies; between 50,000 and 500,000 employees with 10 companies; and more than 500,000 employees with only 2 companies. A comparison of the CS focus of these groups according to operating income and numbers of employees for the period under study was done. As it can be observed on Appendix N and Appendix P, the CS focus of the Chinese MNCs in the sample remains the same over the years.

With respect to the firm age, the 18 corporations were divided into three groups based on two watershed years in China (Appendix Q). One group corresponds to companies that were founded before 1978, which was the year in which the Chinese government put forward the open-door policy. Another group consisted of companies that were founded since 2000, which was the start of a new era in which the government identified new guidelines and regulations about sustainable development and

coincidentally shortly after China became member of the World Trade Organization. The third group consisted of companies founded after 1978 but before the year 2000. As it can be observed on Appendix R, the CS focus of the three groups remains the same from 2010 to 2014. The age of the firm appears to have no impact on the focus on the CS initiatives undertaken by the corporations.

Furthermore, similar results were observed when it was differentiated between SOEs and non-SOEs, indicating that there is no evidence of mimetic behavior. Appendix S (Initiatives Summary between Chinese SOEs and Non-SOEs by Year) summarize the initiatives' number of both SOEs and non-SOEs across the four quadrants of Hart and Milstein's (2003) framework during the period under study. As it can be observed in Appendix S, for both SOEs and non-SOEs, the percentages of the four quadrants' initiatives show slight differences from 2010 to 2014. This indicates that the CS focus of SOE and non-SOE is quite similar. The percentages of Chinese SOEs and non-SOEs in each quadrant of Hart and Milstein's (2003) framework turn out to be very close for each year, suggesting that there is no imitation happening between SOEs and non-SOEs over the 5-year period.

In summary, over the 5-year period, there is no significant change on the type of CS initiatives undertaken by Chinese MNCs. Not only do the types of initiatives not change, but neither does the focus change. These remained consistent across corporations, industries, firm age, and firm size.

5.3 Differences between SOEs and Non-SOEs when undertaking CS initiatives

Another specific focus of this study was to better understand the differences between SOEs and non-SOE in the adoption of CS-related initiatives. On this respect, the results clearly indicate that Chinese SOEs have better CS engagement than non-SOEs. Especially, where sustainability issues are notorious for the presence of coercive pressure (i.e. government pressure through guidelines and policies, and regulations), SOEs' CS profile is significantly better than non-SOEs' CS profile. Furthermore, the more strongly government implements the laws, regulations, and guidelines, the better CS engagement SOEs have than non-SOEs. The following present how this was observed in the data.

In order to observe the similarities and differences between Chinese SOEs (14 corporations) and non-SOEs (4 corporations) when they undertake CS initiatives, the 18 codes were classified into two groups—policy-related and non-policy-related. Specifically, those initiatives (or codes) were identified as policy-related when they could be found to have policy or regulation support, and the remaining initiatives (or codes) were identified as non-policy-related because no policy or regulation support could be found. This classification is based on the assumption that government policy may have an influence on corporations' CS-related behavior. Gao (2009) argues that contrary to the CS performance of western companies, the Chinese government acts as a dominant stakeholder and Chinese corporations pay more attention to address the interest of the government which can be characterized as a coercive stakeholder. Indeed, laws, regulations, and guidelines generated under the government policy could be irreplaceable

means for the Chinese government to restrict and guide corporations' behavior.

For the policy-related codes, the number of initiatives for each code was imported into Excel by corporations and years (Appendix T Policy-related Initiatives). To make it comparable, the mean values of SOEs and non-SOEs for each code was calculated by year. Then the SOEs' mean value was used to subtract non-SOEs' mean value to observe the difference. The difference between the mean values of SOEs and non-SOEs represents the difference between the numbers of initiatives undertaken by SOEs and non-SOEs when they face the same coercive pressure (Table 5.3.3). A positive mean difference signifies that SOEs have on average more initiatives than non-SOEs. The higher the mean difference they have, the greater the difference between SOE and non-SOE in their commitment to CS.

Table 5.3.3 SOEs aver - nSOEs aver (policy-related initiatives)

	A	B	C	D	E	F	G	H	I	J	K
2010	3.19	4.786	-0.905	2.643	3.524	1.976	3.476	0.071	-0.381	0.238	1
2011	4.452	3.643	0.905	2.929	1.929	1.619	3.405	1.143	0	0.571	1.071
2012	4.714	5.571	1.179	2.107	1.929	2.071	3.964	1.964	0.929	0.179	0.607
2013	0.5	5.107	6.643	2.214	2.929	1.857	3.893	1.429	0.5	0.786	1.036
2014	4.286	6.25	6.071	3	1.321	1.821	2.643	1.036	0.107	0.393	0.857

A—pollution prevention, B—safety management, C—employee care, D—corruption, E—education, F—poverty, G—infrastructure & development, H—ecological protection, I—health, J—Senior, K—clean technology

A visual representation of Table 5.3.3 can be observed in Figure 5.3.1. The different bars represent the years. The horizontal axis represents different codes, and the vertical axis represents the difference between the numbers of initiatives undertaken by SOEs and non-SOEs.

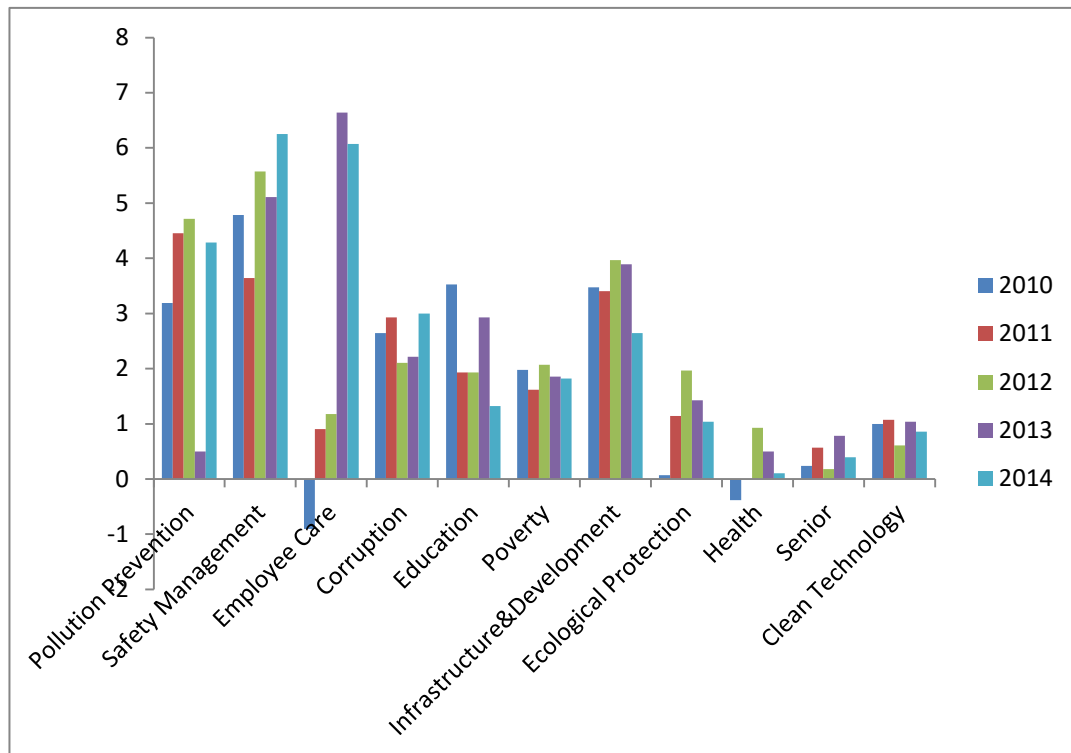


Figure 5.3.1 SOEs Mean Value – nSOEs Mean Value (policy-related)

From Figure 5.3.1 it can be noted that overall SOEs engage in far more policy-related initiatives than non-SOEs. Specifically, the biggest differences can be observed in the areas of pollution prevention, safety management, infrastructure and development, and employee care. These initiatives seem to have reached bigger differences in the last two years under study, 2013 and 2014.

For the non-policy-related codes, to make the comparison between SOEs and non-SOEs, the same calculation was made (Appendix U Non-policy-related Initiatives). The difference between the mean values indicates the different amount of policy-unrelated initiatives undertaken by SOEs and non-SOEs (Table 5.3.4).

Table 5.3.4 SOEs aver - nSOEs aver (non-policy-related)

	L	M	N	O	P	Q	R
2010	2.357	-0.381	2.357	0.619	1.429	0.071	1.857
2011	1.81	-0.524	0.643	0.452	0.262	0.286	1.167
2012	1.179	-0.571	1.786	0.714	-0.143	-0.25	0.714
2013	1.179	-1.286	1.179	-0.071	1.214	0.286	0.643
2014	1.643	1.429	0.357	-0.214	0.964	0.036	0.429

L—business core, M—product stewardship, N—disaster relief, O—reputation, P—volunteer, Q—sustainability vision, and R—capacity building

A visual representation of Table 5.3.4 can be observed in Figure 5.3.2. The horizontal axis represents different codes and the vertical axis represents the difference between the number of initiatives undertaken by SOEs and non-SOEs. The different bars represent the years.

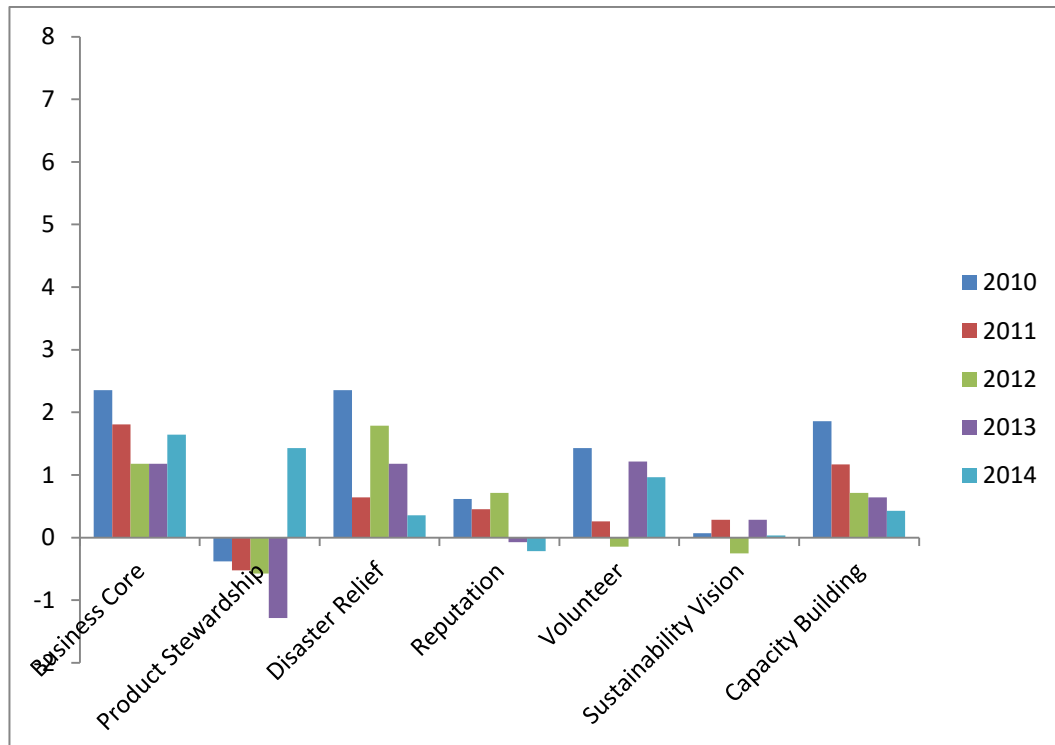


Figure 5.3.2 SOEs Mean Value - nSOEs Mean Value (non-policy-related)

We can get some insights from the previous figures and tables. In general, for both

policy-related initiatives and non-policy-related initiatives, the Chinese SOEs show higher commitment towards CS than non-SOEs. According to Figure 5.3.1 and Figure 5.3.2, only 6 areas (employee care, health, product stewardship, reputation, volunteer and sustainability vision) out of the total 18 codes have negative numbers, indicating that the non-SOEs took more or similar number of CS initiatives than SOEs. However, for the remaining 12 codes, the CS initiatives' amounts of all the years are above zero, which indicates that the number of initiatives undertaken by SOEs is more than the number of initiatives undertaken by non-SOEs. In other words, SOEs have higher commitment to CS than non-SOEs. Overall, this comparison indicates that the number of initiatives undertaken by the Chinese SOEs is bigger than the number of initiatives undertaken by the non-SOEs.

While the Chinese SOEs show higher commitment towards CS than non-SOEs in both policy-related and non-policy-related initiatives. Figure 5.3.1 and 5.3.2 indicate that SOEs seem to be more concerned with CS issues that demand policy-related initiatives than non-SOEs. In other words, Chinese SOEs are more politically sensitive and align their CS initiatives to respond to coercive pressure arising from the government more readily than do non-SOEs.

In addition, for those initiatives related to regulations and guidelines implemented by the government, Chinese SOEs' CS performance is much better than non-SOEs. Evidences of this is shown in Figure 5.3.1, where the bars of pollution prevention, safety management, employee care, and infrastructure & development, are not only much

higher than the bars representing non-policy-related codes (Figure 5.3.2), but also higher than the other bars from policy-related codes (Figure 5.3.1). These four codes included initiatives related to the regulations and guidelines strongly implemented by the Chinese government in the recent twenty years². Therefore, the Chinese government puts coercive pressure on Chinese corporations by the strongly implemented laws, regulations and guidelines. Accordingly, the SOEs respond actively and engage more in CS than non-SOEs.

To further corroborate these results, six corporations from the sample and in the same industry (i.e., manufacturing industry) were chosen to do the same analysis described above. These six corporations were chosen for the reason that the numbers of SOEs and non-SOEs in the manufacturing industry are the same (i.e. 3 SOEs and 3 non-SOEs). As done previously, the mean values of the policy-related and non-policy-related codes were compared for each year. The difference between the mean values indicates the difference between the numbers of initiatives undertaken by SOEs and non-SOEs. Figure 5.3.3 and Figure 5.3.4 show the difference of mean values for policy-related codes and non-policy-related codes, respectively.

² The Chinese government put forward the Labor Law of the People's Republic of China (Zhonghua Renmin Gongheguo Laodong Fa, 1995) in 1995 and put forward another complement labor law in 2008, which named the Labor Contract Law of the People's Republic of China (Zhonghua Renmin Gongheguo Laodong Hetong Fa, 2008), to protect labor rights. Laws like the Water Pollution Prevention Law of the People's Republic of China (Zhonghua Renmin Gongheguo Shuiwuran Fangzhi Fa, 1984) and the Air Pollution Prevention Law of the People's Republic of China (Zhonghua Renmin Gongheguo Daqiwan Fangzhi Fa, 2000) were also effective to force Chinese corporations to reduce pollution prevention in their daily operation.

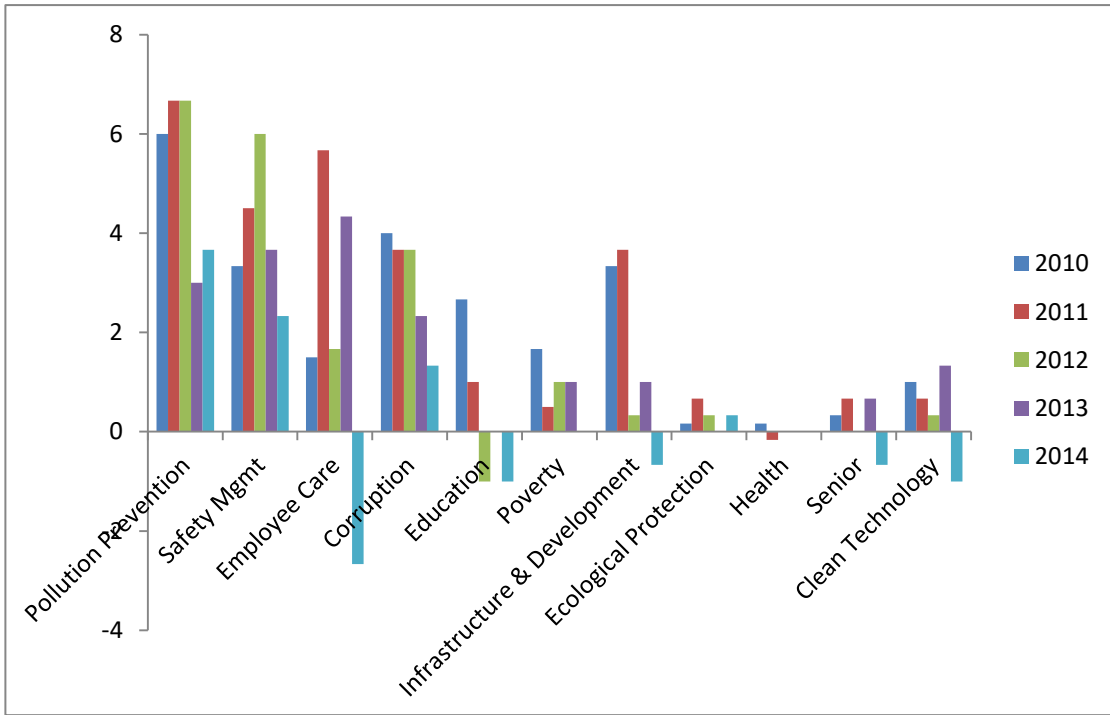


Figure 5.3.3 SOEs Mean Value – nSOEs Mean Value (policy-related) in Manufacturing Industry

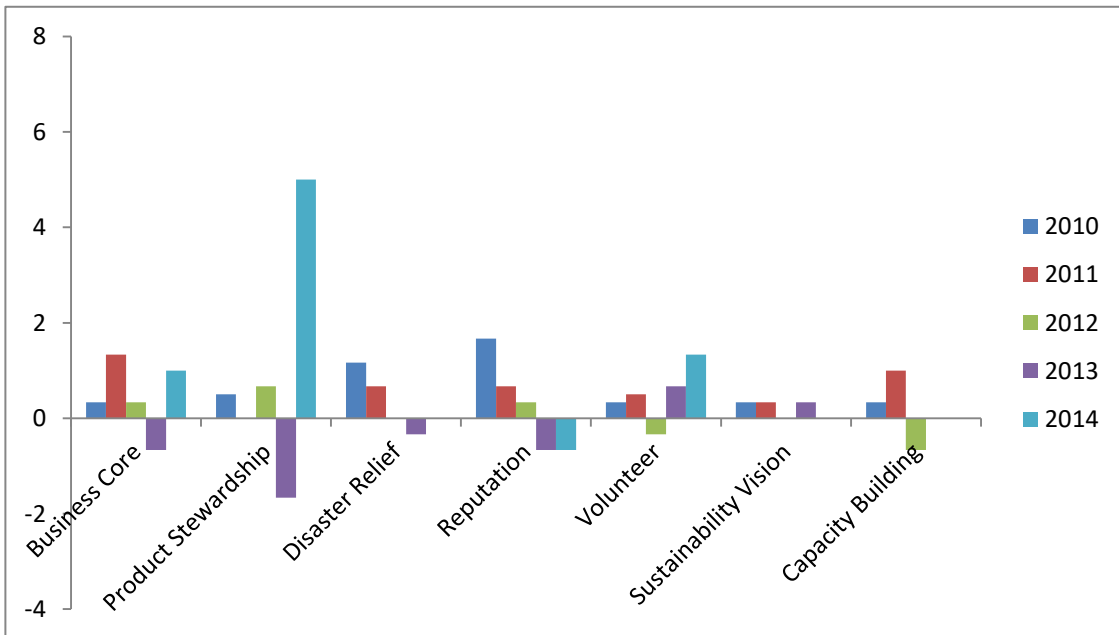


Figure 5.3.4 SOEs Mean Value – nSOEs Mean Value (non-policy-related) in Manufacturing Industry

The analysis of SOE and non-SOE in the manufacturing sector seems to validate the observations made for the whole sample. That is, SOEs are more committed to CS initiatives than non-SOEs. In particular, SOEs appear to be more responsive to policy-related issues than non-SOEs. The difference however, between SOEs and non-SOEs is much smaller in the case of non-policy related issues sustainability issues. In other words, SOEs in the manufacturing sectors, as it was observed for the whole sample, seem to be not only more proactive but more sensitive to the coercive pressures arising from the government.

5.4 Possible Pressure from the Global Market

Considering the sample consists of the biggest MNCs, pressure from the global market should not be neglected. Acknowledging the limitations of the research method and data (i.e. the difficulty of observing how the global market puts pressure on Chinese MNCs with the intent to impact their CS behaviors), the study relied on the LexisNexis Academic Database (a database that provides access to thousands of news, business, legal publications and sources worldwide) to create a proxy for the global market pressure. This proxy was created based on the number of news articles written on the codes used in this study. For this study several keywords that were created from the code names or specific initiatives were relied upon. For example, when searching for news articles related to the code ‘pollution prevention’, the search was conducted using the keywords “China AND pollution”. To account for the lagging effect of these pressures on

MNCs, consideration was given for the years from 2009 to 2013.

Table 5.4.1 presents the result of the number of news articles per code and year. The numbers of news imply the concerns from the global market on Chinese corporations' CS behavior. Overall, the CS initiatives undertaken by Chinese MNCs are consistent with the global market's concerns. Furthermore, news related to areas of employee care, pollution prevention, safety management, corruption, education, poverty, infrastructure & development, health, and clean technology have attracted more global concerns than the other CS areas. The results indicate that the Chinese MNCs are addressing the same CS-related issues consistently with the global concerns. Besides, the most concerned issues from the global market are consistent with the policy-related codes mentioned in section 5.3, which implies that the Chinese government has the same concerns on Chinese MNCs as the global market has.

Table 5.4.1 Keywords Searching in LexisNexis Academic Database

	2009	2010	2011	2012	2013	Total
Disaster Relief	703	2031	1646	796	2110	7286
Employee	866	872	891	865	860	4354
Poverty	879	886	846	846	866	4323
Pollution	865	859	843	828	858	4253
Corruption	808	805	845	853	903	4214
Education	821	822	818	811	805	4077
Infrastructure & Development	735	761	746	763	818	3823
Environment	803	755	732	681	727	3698
Working Condition	320	688	613	1002	1000	3623

Health	454	710	709	753	697	3323
Employee Training	455	498	626	725	693	2997
Clean Technology	464	498	489	283	227	1961
Poverty Alleviation	129	325	399	371	503	1727
Ecological Protection	12	14	31	28	79	164
Product Stewardship	6	2	2	2	6	18
Sustainability Vision	4	2	9	0	2	17
Corporate Social Responsibility	351	428	544	606	623	2552
Corporate Sustainability	235	381	386	459	542	2003

To further analyze the possible impact of the global market’s concerns on the CS focus, addition of news articles’ numbers of different keywords from Table 5.4.1 across the quadrants in Hart and Milstein’s (2003) framework was conducted. However, the results were not convincing for the reason that no specific criteria or theoretical construct can be followed to create keywords. All the keywords in this table were created from the codes (or initiatives) in the sample, and there is no limitation for the number of keywords. The more keywords created, the more news articles could be found from the database, which significantly impacted the results of Chinese corporations’ CS focus. Thus, due to the limitations of the data, it is difficult to observe the impact of the global market’s concerns on the Chinese corporations’ CS focus.

6. Discussion

6.1 Complementing Hart and Milstein's Sustainable Value Framework

Hart and Milstein's (2003) multi-dimension sustainable value framework has been used extensively by a number of scholars to study CS and CSR. Kurapatskie and Darnall (2013) used the framework in their study to analyze the interaction between sustainability activities and financial performance. Their results were based on the sustainability data reported by 51 companies within the U.S. Romero and Lamadrid (2014) framework for analyzing Asian-based companies' sustainability agenda based on the best 292 sustainability initiatives (only 13 from China) representing 13 countries. Kurapatskie and Darnall's (2013) and Romero and Lamadrid's (2014) studies are of particular importance to this study. The reason is that they all employed Hart and Milstein's (2003) framework to analyze companies' CS initiatives by allocating initiatives across the four quadrants of the framework. Kurapatskie and Darnall's (2013) and Romero and Lamadrid's (2014) studies found no problem coding 102 reports, or close to 300 initiatives, respectively, within Hart and Milstein's (2003) framework. This is along four groups of initiatives—pollution prevention, product stewardship, clean technology, and sustainability vision.

However, in this study, it was found that in the case of Chinese MNCs, there is a significant group of initiatives, philanthropic in nature that constitute the core of how Chinese corporations enact their CS. In addition, while Romero and Lamadrid (2014) studied Asian corporations, their study focused on the sustainability initiatives nominated

for the Asian CSR Awards during a two years' period. By their own acknowledgement “[these initiatives] do not provide a complete image of a firm’s holistic outline on sustainability” (p. 189), hence a better portrayal of a firm’s CS would be achieved through the study of the corporations reported initiatives as I did in this study.

There is an issue however, with the use of philanthropic initiatives within Hart and Milstein’s (2003) framework. The issue is concerned with the ability of the firm to increase its financial performance from philanthropic initiatives. Hart and Milstein’s framework focuses on how to contribute to sustainable development and increase shareholder value simultaneously. Their interest is then on sustainable value creation. Thus, in principle, philanthropic initiatives could not fit within this framework as these initiatives by definition lacks the intent to increase shareholder value. Based on this premise, Kurapatskie and Darnall (2013) re-categorized Hart and Milstein’s groups of initiatives into higher-order sustainability activities (clean technology and sustainability vision) and lower-order sustainability activities (pollution prevention and product stewardship). They argue that the former is associated with greater financial performance than the latter. Kurapatskie and Darnall argue that higher-order sustainability initiatives are often associated with product substitutions in the market and preempting competitors that are riskier business strategies that when successful accrue higher financial rewards. Neither Hart and Milstein’s (2003) framework nor Kurapatskie and Darnall’s (2013) interpretation consider philanthropic initiatives in their study. The reason could be that philanthropic initiatives by definition lack the intent to increase financial performance;

hence it cannot be part of initiatives undertaken by firm for sustainable value creation as defined by Hart and Milstein (2003).

While studies of philanthropic initiatives indicate that those initiatives may enhance firms' reputation and moral capital (Brammer & Millington, 2005; Godfrey, 2005) and help to attract talent (Sánchez, 2000), scholars seem to agree that due to the normative or ethical nature of such initiatives firms are not likely to get any financial benefits. More recently, however, Porter and Kramer (1999, 2002, 2006) have coined the term 'strategic philanthropy' to refer to those philanthropic initiatives through which the corporation could benefit their competitive position as they address sustainability issues in society. Therefore, strategic philanthropy initiatives could be part of the Hart and Milstein's (2003) framework.

The data indicates that for Chinese corporations, philanthropic initiatives appear to have an important role in how Chinese corporations define their CS. In particular, the data indicates the presence of strategic philanthropy. For this study, strategic philanthropy initiatives has been defined as those initiatives that are clearly and directly benefiting the corporation. For example, China Mobile Communication Corporation (CMCC) noted in its 2010 sustainability report that it cumulatively covered 89,000 remote villages with its mobile communications network to help more villagers to access to mobile communications (China Mobile Communication Corporation, 2010, p.24). This philanthropic initiative is perceived as strategic for the reason that it is actually related to CMCC's core business. Through this initiative, CMCC developed new markets

in remote villages which can bring CMCC long-term business benefits. There are however, other philanthropic initiatives which may bring a positive impact on the corporation, but that benefit is not direct or may take longer to be realized. For example, China National Petroleum Corporation (CNPC), one of the biggest petroleum companies in China, reported in 2012 that it funded the construction of a highway and completed a dilapidated housing renovation project covering 2,000 people in Guizhou Province (China National Petroleum Corporation, 2012, p.39). While CNPC subsidized this construction that ultimately led to the firm being able to reach more consumers, this initiative seemed to be unrelated to CNPC's core business and it appeared that any possible benefit to the firm would be in the distant future.

In the sample, strategic philanthropy was found on initiatives related to the business core and capacity building (see Appendix I for examples). Philanthropy-business core initiatives arise from corporations' self-interest (i.e. internal drivers in Hart and Milstein's (2003) framework) and seem to aspire to short-term benefits.

Philanthropy-capacity building initiatives were driven by the need to satisfy external pressures such as the easing of local employment tension and local employee shortage and were intended to result in long term benefits to the corporation. In addition, the study identified strategic philanthropy initiatives related to reputation building. A case in point of this latter strategic philanthropy initiatives is the China National Petroleum Corporation (CNPC), which had created a good reputation among local government, social groups and communities after its investment of RMB 40 million to support public

facility construction and cultural and educational development in Kazakhstan in 2013 (China National Petroleum Corporation, 2013, p.45); hence CNPC was commended at the 8th KazEnergy Eurasian Forum in honor of its outstanding social and economic contributions. Initiatives like this respond to the short-term objective of the corporation and the need to create goodwill among external stakeholders. Corporate philanthropy, when strategic, creates better relationships with key stakeholders, and increases the company goodwill with its stakeholders that could result in the corporation's pursuit of its business objective with relative ease (Berman et al., 1999; Godfrey, 2005; Saiia et al., 2003).

It is clear then that strategic philanthropic initiatives could be placed within Hart and Milstein's (2003) framework as they resolve sustainability issues and benefit the corporations financially. There still remains the issue of non-strategic philanthropic initiatives. On this respect, Godfrey (2005) pointed out that corporate philanthropy can generate moral capital that in return increases firm value. Dean (2003) further indicated that charitable donations can help corporations build up a better reputation which improve customer loyalty. Based on Godfrey (2005) and Dean (2003), the more general philanthropic initiatives could potentially become strategic by contributing in the long term with the corporations' financial performance. If this is the case, then these initiatives could as well be placed within Hart and Milstein's (2003) framework. Unfortunately, the study's data analysis did not provide a definitive answer on this respect.

In summary, while Hart and Milstein's (2003) framework is helpful in defining two

important dimensions for understanding corporate CS focus—the time commitment to reap benefits (short-term vs. long-term), and the driver of the CS initiatives (internal vs. external); the general CS categories identified by these scholars (i.e. Sustainable Vision, Product Stewardship, Pollution Prevention and Clean Technology) did not seem to fully capture the CS activities of the Chinese MNCs in the sample. The data indicates that Chinese MNCs not only undertake initiatives similar to those argued by Hart and Milstein (2003), but they also undertake a large number of initiatives in other areas, such as education, health, and poverty alleviation. In other words, initiatives could be characterized as philanthropic. The data as well indicate the presence of strategic philanthropy initiatives that very well fit within the parameters of Hart and Milstein's (2003) framework. It seems then that by incorporating these initiatives, philanthropic initiatives in general, and strategic philanthropy in particular, this study broadened the Hart and Milstein framework to account for the CS performance observed among Chinese MNCs in the study sample.

6.2 The Role of the Chinese Government Pressure

6.2.1 Institutional Pressures and Chinese SOEs/ Non-SOEs

As mentioned in the section 5, under similar coercive pressure, Chinese SOEs have better CS profile than non-SOEs. In other words, with respect to CS, Chinese SOEs appear to be more inclined to be responsive to coercive pressure than non-SOEs.

Institutional theory helps us understand organizations' behavior as the result of the external environment (DiMaggio & Powell, 2000; Lee & Rhee, 2007; Oliver, 1991; Tihanyi et al., 2012). Within this theory, the concept of organizational legitimacy is referred as a resource required by organizations for their continuous operation (Hearit, 1995). According to institutional scholars, legitimacy is granted on a corporation as it complies with the requirements and demands of key and powerful stakeholder(s). During the legitimizing process, powerful stakeholders work as forces by creating social pressures and restrictions on organizations on how to acquire legitimacy. These forces can be in the form of coercive, normative, and mimetic.

This study was unable to provide evidence of the role of normative pressure in the CS focus of companies in the sample. This is due to the limitation of the data. Data for this research consisted of CS initiatives from CS-related reports. The data does not show different industries presenting different CS focus, which could have indicated that there were some industry standards at play. Furthermore, data analysis did not find CSR or sustainability standards for the industries in the sample.

With respect to mimetic pressure, the analysis of the data indicates that while SOEs are more engaged to undertake CS initiatives than non-SOEs; the latter group does not seem to have the need to imitate the SOE's CS. This seems to indicate that non-SOEs do not feel their legitimacy being challenged by mimetic pressures (i.e. the sustainability performance of others). Even in the case of companies in the same industry (i.e. manufacturing, where the analysis was made) non-SOEs seem to fall behind the levels of

CS commitment observed among SOEs.

Regarding coercive pressure, the data analysis indicates that this pressure is at play. Contrary to the Western business environment, the Chinese institutional environment is unique because the Chinese government remains very influential on the way Chinese corporations behave (Hou & Moore, 2010; Kao et al., 2014). Indeed, Li and Zhang (2010) found that among 1481 Chinese public listed companies (in 2007), more than 60% were SOEs. Similarly, in the study's raw data of the top 100 Chinese MNCs, 86% of them were SOEs. The government is then a very important and powerful stakeholder for these Chinese MNCs.

As mentioned before, Chinese MNCs in the sample show a higher level of commitment towards CS than non-SOEs. The reason of such behavior could be the coercive power of the government. The government pressure has manifested through regulations and laws. In the past three decades, the government has enacted numerous CS-related laws to restrain corporations' unethical behavior. After 2006, the government has further put forward the idea about establishing "scientific outlook on development (i.e. sustainable development)", which can be perceived as a signal to corporations that CS is important. Gao (2009), for example, reached a similar conclusion in his study of the 100 biggest companies in China, in which he found that, contrary to the CS performance of western companies, Chinese corporations pay more attention to sustainability issues that are consistent with the interest of the government.

Correspondingly, as noted in results section, Chinese MNCs, both SOEs and non-SOEs,

pay more attention on pollution prevention, labor issue, and poverty alleviation, which are the highest concerns of the Chinese government.

In summary, regarding the institutional forces at play in the sample within the Chinese context, the data seems to indicate the presence of stronger coercive forces embodied by the Chinese government. Within the sample, there is strong evidence to assert that this coercive force is unevenly exercised among Chinese MNCs, with SOEs being more responsive to it than non-SOEs. In addition, while there is a significant performance gap with respect to the CS commitment of SOEs and non-SOEs, this gap does not seem to trigger mimetic behavior on the part of the laggards, non-SOEs. The possible factors explaining this difference is examined in the next section.

6.2.2 Different CS Performance of Chinese SOEs and non-SOEs

As mentioned in Section 2.4, in the past three decades, the Chinese government has put forward numerous CS-related laws, regulations and guidelines not only to guide corporations' behavior, but also to force corporations to implement strategies which can balance the economic growth with their social and environmental impacts. Operating in such institutional environment, the CS focus of SOEs and non-SOEs as per Hart and Milstein's (2003) framework, remain the same in the 5-year period. As noted in section 5, SOEs and non-SOEs seem to focus on the short-term benefits of CS, and that the main driver of their sustainability efforts is internal. This finding is consistent with Kurapatskie and Darnall's (2013) study in which they found that the main focus of the initiatives from

their sample was located in the lower-left quadrant of Hart and Milstein's (2003) framework (53% of all the initiatives in their sample are related to pollution prevention), representing internal issue and short-term benefits. This indicates that Chinese MNCs are concerned with initiatives that are easy to copy by competitors, hence unable to provide long term competitive advantages. As in the Kurapatskie and Darnall's (2013) study, corporations that have a long-term CS strategy are few, possibly indicating the difficulty of developing such a strategy or possibly the lack of managerial vision or leadership within these corporations. The current data limitations, does not allow one to discern the true reason of this lack of sustainability vision.

As noted before, Chinese SOEs are more sensitive to the government than non-SOEs; indicated by SOEs having higher number of initiatives than non-SOEs, especially for policy-related initiatives. This indicates that the Chinese SOEs' CS is government driven and this could in fact constrain the ability of the SOEs' leadership to seek long-term sustainability opportunities. To begin with, the government has the right to appoint executives in SOEs, and being political appointees, top Executives are more inclined to align their interests with those of the government than with the interests of other stakeholders (Mi & Wang, 2001). Additionally, since the government's support and protection guarantees SOEs a dominant position in the market, SOEs' leadership is less motivated to please other stakeholders besides the government, especially on long-term sustainability issues. Instead, SOEs engage in CS activities with the purpose to fulfill some social functions or provide social service often on behalf of the government. Indeed,

for many years, the Chinese SOEs were considered by society not only revenue centers, but also the ‘extension’ of the government (Qian et al., 2015; Zhang et al., 2014).

In the case of Chinese non-SOEs, while non-SOEs have the same CS focus as SOEs, these corporations show fewer initiatives, especially policy-related initiatives than SOEs. This means that non-SOEs are not as sensitive as SOEs to the coercive pressure of the government. The limitations of the data do not allow for one to discern what stakeholders other than the government are salient to non-SOEs. However, scholars (Su & He, 2010; Zhang et al., 2014) have pointed out that non-SOEs’ CS engagements are market driven or show strategic purpose as opposed to government driven. Chinese non-SOEs are independent market participants and they focus on profit maximization, similar to the corporations of western countries. Unlike SOEs in China, whose positions and operations are well supported by the government, non-SOEs experience greater difficulty in maximizing profitability and maintaining sustainability because they face a much higher competitive disadvantage in the market (Qian et al., 2015). Thus, compared to SOEs, for non-SOEs it is more important to improve their reputations and establish connections with various stakeholders through CS engagements rather than just respond to the government’s agenda. In this situation, CS is a tool for non-SOEs to enhance their reputations and achieve legitimacy from various stakeholders, including the governments, customers, employees, investors, and so on (Agrawal & Knoeber, 2000; Peng & Luo, 2000).

Therefore, despite SOEs and non-SOEs facing the same laws, regulations and

guidelines put forward by the Chinese government, they respond differently. SOEs have better CS profile and better alignment to the government's agenda than non-SOEs. This implies that SOEs are more politically sensitive than non-SOEs. This is consistent with Gao's (2009) finding that the Chinese government acts as an important stakeholder and corporations pay more attention to address the government's interest. Similar findings are offered by Kao et al.'s (2014) study, in which they conclude that Chinese SOEs' CS engagement address the government's interest rather than the interest of other stakeholders.

To further examine the difference between SOEs and non-SOEs regarding their CS engagements, a review of different policy-related initiatives was conducted. The results indicate that when SOEs and non-SOEs face laws, regulations and guidelines strongly advocated by the government, the difference between CS performances of SOEs and non-SOEs is bigger than the difference between CS performances when SOEs and non-SOEs face the other laws, regulations, and guidelines of less interest to the government.

As mentioned in Section 2.4, regarding CS, the most important sustainability challenges for the Chinese government are labor issues, environment issues, and poverty alleviation. In order to address these three issues, the government has strongly implemented numerous laws and regulations. Specifically, due to the labor oversupply in China, many companies focus on profit maximization and neglect employees' rights. This resulted in a number of labor issues, such as income arrears, income inequality, and

work overtime problems, which could lead to social instability. In order to maintain the social stability, the central government enacted two key laws to enhance labor rights—the Labor Law of the People’s Republic of China (Zhonghua Renmin Gongheguo Laodong Fa, 1995) enacted in 1995 and the Labor Contract Law of the People’s Republic of China (Zhonghua Renmin Gongheguo Laodong Hetong Fa, 2008) enacted in 2008.

In addition, as the second largest energy user in the world, China is facing serious environmental problems, including pollution and energy shortage. Zhou and Ji (2009) pointed out that, since China put forward the ‘reform and open door policy’ in 1978, the central government enacted several laws and regulations to restrain unethically environmental behavior, and even specified specific punishments for environmental violations. This signals the need for corporations to improve their social and environmental responsibilities.

Regarding poverty, Sumner and Kanbur (2012) indicated that, around 1990, 93% of the world’s poor population lived in low income countries and 68% out of this population lived in China and India. Indeed, poverty alleviation has been a severe problem in China for more than 30 years. Since 1986, the central government has been working on poverty reduction with organized and planned activities. Numerous regulations and poverty reduction projects have been implemented by the government. With the efforts of the government, China’s population living under poverty conditions fell from 730 million in 1981 to 106 million in 2005 (Taylor & Li, 2012).

Accordingly, facing such strong interests of the government regarding poverty and environmental protection, SOEs appear to be more responsive to such pressures than non-SOEs. Evidences are shown in the previous figures and tables in section 5.3. According to figure 5.3.1, there are four initiatives, which contain the highest bars (i.e., from high to low, employee care, safety management, pollution prevention, and infrastructure & development), reflect the highest concerns (i.e., labor issue, environmental issue, poverty alleviation) from the Chinese government regarding CS. This indicates that, regarding to labor issues, environment issues and poverty alleviation, SOEs have undertaken more initiatives than non-SOEs. Furthermore, the difference between the initiatives undertaken by SOEs and non-SOEs on these three issues is even bigger than the difference between initiatives undertaken by SOEs and non-SOEs on other policy-related issues. In other words, the more strongly the government manifest its sustainability interest through laws, regulations and guidelines, the greater the difference between the SOEs' CS commitment and the non-SOEs' CS commitment.

6.3 Pressure from the Global Market

Besides the pressure from the Chinese government, the pressure the global market puts on Chinese MNCs should not be neglected. The China Daily (Sauvant, 2011), an English-language daily newspaper published by China, indicated that, in 2010, China was the world's fourth largest outward investor with close to \$70 billion on outflow foreign direct investment (FDI). Thus, an increasing number of Chinese corporations

have become competitive players in the global market, which implies that Chinese MNCs are likely to face pressure from the global market and host countries. The difference between the expectations of the global and host country market and the sustainability performance of the Chinese MNCs could be referred to as liability of foreignness. Liability of foreignness has long been theorized by international business scholars and it refers to the associated costs due to the MNC unfamiliarity with a new institutional environment, such as the sustainability expectation in the global market or host country (Zaheer, 1995). All the MNCs, no matter which country they come from, need to overcome these costs as MNCs operating in a foreign country. This challenge is even bigger for Chinese MNCs for the reason that Chinese MNCs have to overcome a greater institutional gap, especially when they establish oversea investments in developed countries, which have more sophisticated legal requirements and environmental expectations (Sauvant, 2011).

Indeed, based on the analysis in section 5.4, Chinese MNCs' response to sustainability issues seem to parallel the concerns of the global market. Furthermore, the global market also pays more attention to those policy-related initiatives (of great interest to the government) than non-policy-related initiatives (of less interest to the government). On this respect, Pun (2003) and Shi (2008) argue that, after becoming part of the global supply chain, as in the case of MNCs in this study's sample, there is increasing pressure on Chinese corporations to comply with regulations and standards of their Western partners, regarding working conditions, employee rights, wages, and health and safety

issues. Shi's (2008) study of China's rural migrant workers comes to corroborate this study's findings that Chinese MNCs are focused on quadrant I of Hart and Milstein's (2003) framework where initiatives to address working conditions employee rights, wages, and health and safety are found. Further regulation (i.e. coercive power) is probably needed as He and Chen's (2009) study indicates that Chinese corporations' social and environmental responsibilities are still in the early stages.

It seems then that both the coercive power of the government and that of the global market could be at play. However, the limitation of this study's data does not allow for specification on how pressure from the global market is manifested (a proxy was used for this—news articles); to discern how the global market shapes Chinese MNCs' CS; or to fully explain the interplay between the global market and the coercive power of the government. Take for example reporting guidelines. The global market pressure can be manifested in the form of reporting guidelines often used by Western corporations such as the GRI and the ISO 26000 for social responsibility and sustainability. These reporting guidelines, by disclosing performance, can put pressure on the Chinese government to promulgate regulations and laws to guide Chinese MNCs' CS behaviors and restrain their unethical practices.

7. Conclusion

In recent years, CS has gained considerable research attention. Although numerous studies on CS focus on performance (social, economic, and/or environment), pressures and competitive opportunities for corporations; most studies focused on Western countries. The literature on CS from emerging economies is still very limited. As the largest developing country, China's institutional environment and its domestic MNCs are an interesting research setting to better understand CS practice from an institutional environment different from Western countries. Previous studies that consider the Chinese institutional environment have often focused on the analysis and comparison of CS performance between both domestic and MNCs. Besides, few studies are concerned with whether Chinese MNCs' CS focus remains the same overtime, or whether there is influence between SOEs and non-SOEs' CS performances. Therefore, to broaden the literature of CS within the Chinese context, this study examines whether the CS initiatives undertaken by Chinese MNCs change overtime, and sheds light on the similarities and differences regarding the CS performance and practice by SOEs and non-SOEs.

Based on 88 CS-related reports, from 2010 to 2014, published by 18 top Chinese MNCs, the primary goal of this study was to provide a profile of CS performance of Chinese MNCs. Additional exploration included the similarities and differences between Chinese SOEs and non-SOEs when undertaking CS initiatives. The results indicate that Hart and Milstein's (2003) framework cannot fully capture Chinese MNCs' CS initiatives.

While philanthropic initiatives appear to play an important role in how Chinese corporations define their CS, these initiatives appear not to fit within this framework for the reason that (in principle) they lack the intent to increase financial performance; hence it cannot be a source of sustainable value creation, as defined by Hart and Milstein (2003). However, studies of philanthropic initiatives indicate that these initiatives may enhance firms' reputation and moral capital (Brammer & Millington, 2005; Godfrey, 2005). Porter and Kramer (1999, 2002, 2006) coined the term 'strategic philanthropy' to refer to those philanthropic initiatives through which the corporation could benefit their competitive position as they address sustainability issues in society. In this study's sample, strategic philanthropic initiatives mainly benefited MNCs with their business core, capacity building, and reputation. These initiatives arise from both corporations' internal drivers (e.g. protect internal organizational skills and capacities) and external drivers (e.g. consider external perspective and knowledge), and aspire to produce both short-term (e.g. today's profit) and long-term (e.g. future growth) benefits. Therefore, strategic philanthropy initiatives could be part of the Hart and Milstein's (2003) framework. Furthermore, philanthropic initiatives in general and strategic philanthropy in particular can broaden the Hart and Milstein's (2003) framework to account for the Chinese MNCs' CS performance.

The data seems to indicate that over the 5-year period under study, the CS focus of Chinese MNCs remains the same. In addition, Chinese MNCs in this study's sample show a higher level of commitment towards CS than non-SOEs. Furthermore, the data

analysis indicates that only coercive pressure seems to be at play. Contrary to the Western business environment, the Chinese institutional environment is unique because the Chinese government remains very influential on the way Chinese corporations behave (Hou & Moore, 2010; Kao et al., 2014). Furthermore, within this sample there is strong evidence to assert that this coercive force is unevenly exercised among Chinese MNCs, with SOEs being more responsive to it than non-SOEs. SOEs engage in CS activities for the purpose of fulfilling some social functions or providing social service often on behalf of the government. Scholars (Su & He, 2010; Zhang et al., 2014) have pointed out that non-SOEs' CS engagements are market driven or show strategic purpose as opposed to government driven. Therefore, despite SOEs and non-SOEs facing the same laws, regulations, and guidelines, they respond differently. SOEs have better CS profile and better alignment to the government's agenda than non-SOEs. Moreover, when SOEs and non-SOEs face laws, regulations, and guidelines strongly advocated regarding to the most pressing concerns (i.e. labor issues, environmental problems, and poverty alleviation) of the government, the difference between CS performances of SOEs and non-SOEs is even bigger.

This study contributes to the field of sustainability research with two aspects. First, it broadens the literature of sustainability research within the context of emerging markets, and complements Hart and Milstein's (2003) sustainable value framework with the consideration of strategic philanthropy. The data presented here indicates that philanthropy is regarded as an irreplaceable mechanism through which Chinese

corporations create sustainable value. When scholars analyze Chinese corporations' sustainable development with Hart and Milstein's (2003) sustainable value framework, strategic philanthropy should be considered as well. Second, this study provides empirical evidence that the Chinese government remains very influential on the way Chinese corporations behave, and sheds light on the different CS initiatives and strategies undertaken by Chinese SOEs and non-SOEs. Chinese SOEs are more politically sensitive than non-SOEs, and are more responsive to the pressure from the government than non-SOEs.

As similar studies, this study has some limitations. First, this study only relied on CS/CSR reports as sources of information. Therefore, it was unable to capture managers' rationale and mental frameworks concerning CS, which could only be captured through interviews or questionnaires. Future research could generate interviews or questionnaires to complement reports to better understand the strategic responses of Chinese MNCs to institutional pressures. Second, the number of reports is limited, by the fact that not every Chinese MNCs published CS/CSR reports. Moreover, the number of non-SOEs' reports is very limited. Future research could contain more domestic Chinese corporations' CS/CSR reports to supplement the data so that quantitative analysis can be used to further analyze the data. Third, due to data limitations, this study could only identify Chinese government's pressure faced by Chinese MNCs and its impact on the MNCs' CS behaviors. For normative pressure, future study can collect Chinese industries' standards and guidelines to examine if normative pressure is at play. Furthermore, Chinese MNCs'

response to sustainability issues seems to parallel the concerns of the global market as mentioned before. While it seems that both the coercive power of the government and the pressure of the global market could be at play, the data does not allow for specification of how the global market shapes Chinese MNCs' CS. Future study can collect more information about the international industry standards, guidelines, and laws to better analyze how pressure from the global market is manifested, or the interplay between the global market and the coercive power of the government.

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Appendices

Appendix A

Table 2.4.1 Main Topics about CS Disclosure in China

Topic	Paper	Sample	Main Findings
Philanthropy and Charity	Qingfen, 2006	890 companies across China both State-owned, privately owned and multinationals	<ul style="list-style-type: none"> ● Chinese companies claim that they are aware of the importance of CSR, but some of them misunderstand CSR or only have a narrow understanding of CSR. CSR is being seen as charity and philanthropy.
	Chan et al., 2012	More than 100 executives, government officials and experts	<ul style="list-style-type: none"> ● Chinese MNCs are taking social responsibility initiatives to improve environmental conditions or other social concerns. They contribute to society through philanthropy. ● Chinese companies have achieved significant development towards citizenship so far, and they should consistently work hard on the goal of achieving
Economic Performance	Gao, 2009	Top 100 companies in China in 2007	<ul style="list-style-type: none"> ● “CSR in China is still in the beginning stage” (p.32). ● Companies show their preference in their CSR reports and their CSR-like column in their official websites. Economic issue seems to be the most important one for those companies.
	Kolk et al., 2010	Eight retailers in China (both Chinese and non-Chinese companies)	<ul style="list-style-type: none"> ● The Chinese retailers hardly covered product responsibility and environmental aspects in their reports. They better covered the economic impact. Moreover, all the retailers mentioned their philanthropy activities.

Environmental Performance	He and Chen, 2009	242 Corporations (136 are from China and 106 are MNCs from other countries)	<ul style="list-style-type: none"> ● Rapid economic growth results in environmental pollution. ● Chinese corporations lack of corporate environmental responsibility because of their competitive strategy of cost cutting which makes them limited in resources. Chinese corporations face more survival pressure which impedes the development of corporate environmental responsibility.
	See, 2014		<ul style="list-style-type: none"> ● The presence of domestic business associations, such as China Business Council for Sustainable Development, promotes CSR, but most of members are subsidiaries of western MNCs. A large number of domestic corporations and Chinese MNCs do not seem to engage in self-regulation and are not truly responsible. ● Compared with other countries, the number of Chinese companies and business associations in the Global business associations is small.
	Liu, Garcia and Vredenburg, 2014	58 corporate reports and 3 interviews from Chinese-Western joint ventures	<ul style="list-style-type: none"> ● In the past decade, Chinese state oil companies have adopted more and more CSR strategies related to environmental protection. There are three main drivers: international and local environmental regulations' force, the selection pressures from partners of Western oil companies and the desire to increase the global competitive advantage.
Different CS Performance between SOEs and non-SOEs	Gao, 2011	81 CSR reports (2007)	<ul style="list-style-type: none"> ● Chinese companies prefer to issue their CSR reports alone rather than include CSR in annual reports. ● Chinese companies prefer to follow their own guidelines in CSR reports rather than adopt international guidelines. ● Most companies hold a positive attitude in sharing CSR information and others hold a neutral attitude. No companies hold a negative attitude in sharing CSR information.

			<ul style="list-style-type: none"> ● SOEs are more likely to address the social issues than non-SOEs, which indicate that SOEs are more politically sensitive than non-SOEs. ● Non-SOEs seem to be better in addressing the interests of shareholders, creditors, employees, customers and environment than SOEs.
Stakeholders’ Influence on CS Performance	Yin et al., 2013	11 MNCs in China	<ul style="list-style-type: none"> ● The best CSR practices for each primary stakeholder are as follows, ensuring satisfactory financial returns for shareholder, providing competitive wages and welfare for employees, public-private partnership with government, investing in community education for community stakeholder, ensuring product quality and service excellence for customers, building a win-win partnership with suppliers, and ensuring a green workplace or factory for environmental stakeholder.
	Li and Foo, 2013	613 CSR reports from corporations listed on both the Shenzhen and Shanghai stock exchanges	<ul style="list-style-type: none"> ● Government can enforce corporations report CSR, but this may not lead to reports of a high quality. ● The quality of CSR reports is not related to profitability or state-ownership, but related to the level of market capitalization.
	Chen and Wang, 2011	Senior executives from Guangdong enterprises of China	<ul style="list-style-type: none"> ● If companies take CSR initiatives, they can improve current and future financial performance; they satisfy stakeholders, even though corporations input resources in taking CS initiatives. Thus, in return internal stakeholders are willing to make contribution to corporations and external stakeholders can see the good corporation image.

	Wang et al., 2014	830 participants of the EMBA, MBA, and executive training programs at seven universities in China	<ul style="list-style-type: none"> ● Shareholder and government have a strong pressure on corporations to make charitable donations.
	Zhang et al., 2014	Listed companies in China from 2003 to 2010	<ul style="list-style-type: none"> ● CSR strategies can help companies attract suppliers and build trade credit. ● CSR strategies can enhance firm image and achieve long-term business objectives.
CSR	Baskin, 2006	127 emerging-market companies (19 out of them based in China)	<ul style="list-style-type: none"> ● The development of corporate responsibility in emerging markets is better than commonly thought. ● Corporate responsibility has not been widely adopted among Chinese corporations.
	He, Amezaga, & Silva, 2012	A survey of 206 companies in the Haidian District in Beijing in China	<ul style="list-style-type: none"> ● The most important objective for corporations is to provide safe and reliable products or services which were also found to be the most relevant attribute related to define CSR.
	Yin and Zhang, 2012	16 firms located in Zhejiang province (11 private firms, 3 SOEs, and 2 joint ventures)	<ul style="list-style-type: none"> ● A majority of interviewed executives have a narrow understanding about CSR domain (i.e., economic, legal, ethical and discretionary domains); Most CSR activities are grounded in the ethical domain. ● There are three kinds of drivers behind socially responsible behavior; Managerial discretion is the primary driver (i.e., a strong leadership). The second driver is a principle of legitimacy that compliance with stakeholder expectations. The third one is public interest seeking. ● Firms care most about the financial implications of the CSR investment.

Appendix B

Table 4.2.1 Top 100 Chinese MNCs

Rankings	Name of Corporation	Overseas Assets(Million RMB)
001	CNPC http://www.cnpc.com.cn/en/index.shtml	896390.40
002	SINOPEC http://www.sinopecgroup.com/group/en/	805763.76
003	CNOOC http://www.cnooc.com.cn/en/	460397.29
004	CITIC Group Corporation http://group.citic/wps/portal	328106.91
005	SINOCEM http://english.sinochem.com/	238558.77
006	COSCO Group http://en.cosco.com/	184962.57
007	CHINALCO http://www.chalco.com.cn/zglyen/index.htm	167148.46
008	China Minmetals Corporation http://www.minmetals.com/english/	95809.51
009	China Poly Group Corporation http://www.poly.com.cn/	90252.62
010	GEELY http://global.geely.com/	82395.71
011	China State Construction Engineering Corporation http://english.cscec.com/	80295.55
012	China Communications Construction Company Ltd. http://en.ccccltd.cn/	78370.28
013	China National Chemical Corporation http://www.chemchina.com.cn/en/index.htm	76374.01
014	Power Construction Corporation of China http://en.powerchina.cn/	70884.18
015	China Shipping http://en.cnshipping.com/	70058.42
016	China North Industries Group Corporation http://en.norincogroup.com.cn/	69914.54
017	China South Industries Group Corporation http://www.chinasouth.com.cn/g1280.aspx	68927.49
018	HNA	67048.48

	http://www.hnagroup.com/en/	
019	China Unicom http://eng.chinaunicom.com/	63883.21
020	YANKUANG Group http://www.yankuanggroup.com.cn/	58140.87
021	Aviation Industry Corporation of China http://www.avic.com/en/index.shtml	56375.93
022	BAOSTEEL http://www.baosteel.com/group_en/	55622.06
023	State Grid Corporation of China http://www.sgcc.com.cn/ywlm/index.shtml	53453.81
024	China Huaneng http://www.chng.com.cn/eng/	49888.42
025	China Railway Construction Corporation Limited http://english.crcc.cn/	40989.41
026	ZIE http://wwwen.zte.com.cn/en/	39046.81
027	COFCO http://www.cofco.com/en/index.html	36288.75
028	China Railway Group Limited http://www.crecg.com/tabid/173/Default.aspx	36180.75
029	China Metallurgical Group Corporation http://www.mcc.com.cn/Category_121/Index.aspx	35873.89
030	Dalian Wanda Group Corporation Ltd. http://www.wanda.cn/about/	34981.53
031	TCL http://www.tcl.com/English.php/index/index.html	33436.30
032	China Electronics Corporation http://www.cec.com.cn/template_en/index.aspx	31585.89
033	Sinotrans&CSC Holdings Co., Ltd. http://www.sinotrans-csc.com/col/col12477/index.html	30485.33
034	China Nonferrous Metal Mining (Group) Co., Ltd http://www.cnmc.com.cn/indexen.jsp	28234.29
035	Jinchuan Group Co., Ltd. http://www.jnmc.com/english/index.html	27810.93
036	China National Aviation Holding Company http://www.airchinagroup.com/en/index.shtml	27592.17
037	Wuhan Iron and Steel (Group) Corp. http://english.wisco.com.cn/	24990.83
038	China Mobile http://www.chinamobileltd.com/en/global/home.php	24891.53

039	ZOOMLION http://en.zoomlion.com/	24330.03
040	Shougang Group http://www.shougang.com.cn/shougang_cn_web/	22847.97
041	Zijin http://www.zjky.cn/new/About.asp	22352.37
042	Bright Food (Group) Co., Ltd. http://www.brightfood.com/cn/	21821.47
043	China Chengtong Holdings Group Ltd. http://www.cctgroup.com.cn/EN/index.htm	18033.87
044	China General Technology (Group) Holding Co., Ltd. http://www1.genertec.com.cn/	17888.89
045	Guandong Holdings Limited http://www.gdh.com.hk/index.php?lang=en	16313.25
046	Shenhua Group Corporation Limited http://www.shenhuagroup.com.cn/	16258.93
047	China National Travel Service (HK) Group Corporation http://www.hkcts.com/en/index.htm	13875.29
048	China Datang Corporation http://www.china-cdt.com/dtwz/indexAction.ndo?action=showindex	13504.98
049	Hisense http://www.hisense.cn/	12793.68
050	CNQC http://www.cnqc.com/en/index.asp	12703.88
051	China National Gold Group Corporation http://www.chinagoldgroup.com/eng/index.html	12388.27
052	CEEC http://en.ceec.net.cn/	12138.93
053	Weichai http://www.weichaipower.com/e_default.shtml	11678.78
054	Guangdong Rising Assets Management Co., Ltd. (Gram) http://www.gdrising.com.cn/html/en/	11643.52
055	Shagang Group http://www.sha-steel.com/eng/index.html	11536.58
056	China Huadian Corporation http://eng.chd.com.cn/	11529.50
057	China Power Investment Corporation http://eng.cpicorp.com.cn/	11528.18
058	Wanxiang Group http://www.wanxiang.com.cn/product/index.asp	10903.19

059	China Telecom http://www.chinatelecomglobal.com/	10647.37
060	SINOMACH http://www.sinomach.com.cn/en/	9900.52
061	Dongfang Electric Corporation http://www.dongfang.com.cn/	9368.83
062	Shandong Ruyi Group http://www.chinaruyi.com/indexc.asp	9154.90
063	Guangdong Guangxin Holdings Group Ltd. http://www.gdftc.com/en/	8872.73
064	Midea http://www.midea.com/global/	8084.88
065	Chinatex Corporation http://www.chinatex.com/tabid/71/Default.aspx	7998.46
066	China National Building Materials Group Corporation http://www.cnbm.com.cn/EN/	7932.48
067	Baic Group http://en.baicgroup.com.cn/	7572.32
068	BNMC http://www.bynmc.com/	7382.32
069	Saic Motor http://www.saicmotor.com/english/index.shtml	6813.11
070	Bohai Steel http://www.bohaisteel.com/en/	6497.91
071	Changhong http://www.changhong.com/?en	6160.77
072	Yunnan Construction Engineering Group Co., Ltd. http://www.ynjg.com/	6104.17
073	CDIG http://www.china-cdig.com/en/home.html	6045.33
074	Wolong http://www.wolong.com/en/index.htm	5795.63
075	Beijing Construction Engineering Group http://www.bcegc.com/	5626.15
076	XCMG http://www.xcmg.com/en-ap/	5561.51
077	TongLing Nonferrous Metals Group Holding Co., Ltd. http://www.tnmg.com.cn/index_E.aspx	5358.96
078	Golden Dragon Precise Copper Tube Group Inc. http://www.gdcopper.com/en/	5297.70
079	China Hi-tech Group Corporation	5264.76

	http://www.chtgc.com/n150/index.html	
080	FOUNDER http://www.founder.com/en/	5227.46
081	SDIC http://www.sdic.com.cn/en/index.htm	4684.43
082	Shandong Iron & Steel Group Co., Ltd http://www.sdsteel.cc/	4500.38
083	Shenzhen Zhongjin Lingnan Nonfemet Company Limited http://en.nonfemet.com/index.php	4323.56
084	Lonsen http://www.longsheng.com/en/	3944.85
085	Heilongjiang Nongken Beidahuang Business Trade Liability Group Co., Ltd. http://www.bdhtrade.com/index.asp	3872.88
086	China National Materials Group Corporation Ltd. http://en.sinoma.cn/	3664.69
087	Shenyang Yuanda Enterprise Group http://www.cnydgroup.com/	3301.43
088	Julong Group http://www.julongchina.com/en/index.asp	3289.92
089	Youser Group http://www.yousergroup.com/en/index.html	3187.60
090	Youngor http://www.youngor.com/index.do	3070.53
091	宁波均胜投资集团有限公司	3022.97
092	CSR Corporation Limited http://www.csrgc.com.cn/g865.aspx	2894.38
093	CQLT http://en.qfkg.com.cn/	2848.16
094	Yuntianhua Group http://www.yth.cn/en	2765.58
095	Beijing Jingcheng Machinery Electric Holding Co., Ltd. http://www.jcmeh.com/en/index.aspx	2459.65
096	China Jiangsu International Economic and Technical Cooperation Group, Ltd http://www.zjgj.com/en/index.asp	2363.49
097	CASIC http://www.casic.com.cn/	2341.37
098	Chongqing Foreign Trade and Economic Cooperation (Group) Co., Ltd. http://www.cftecgroup.com/	2340.32

099	宁波申洲针织有限公司	2152.15
100	Liu Gong http://www.liugong.com/en/	2100.00
	Total	5247279.83

Appendix C

Table 4.2.2 Summary of Reports from Top100 Chinese MNCs

Property	Ranking	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOE	001		√	√	√	√	√	√	√	√	√
SOE	002		√	√	√	√	√	√	√	√	√
SOE	003	√	√	√	√	√	√	√	√	√	√
SOE	004										
SOE	005	√	√	√	√	√	√	√	√	√	√
SOE	006									√	√
SOE	007	√	√	√	√	√	√	√	√	√	√
SOE	008			√	√	√	√	√	√	√	√
SOE	009						√	√	√	√	
Non-SOE	010								√	√	√
SOE	011					√	√	√	√	√	√
SOE	012			√	√	√	√	√	√	√	√
SOE	013						√	√	√	√	√
SOE	014								√	√	√
SOE	015							√	√	√	
SOE	016					√	√	√	√	√	√
SOE	017						√	√	√	√	√
Non-SOE	018					√	√	√	√	√	√
SOE	019				√	√	√	√	√	√	√
SOE	020					√	√	√	√	√	√
SOE	021					√		√	√	√	√
SOE	022				√	√	√	√	√	√	√
SOE	023	√	√	√	√	√	√	√	√	√	√

Property	Ranking	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOE	024		√	√	√	√		√	√	√	√
SOE	025				√	√	√	√	√	√	√
SOE	026				√	√	√	√	√	√	√
SOE	027					√	√	√	√	√	√
SOE	028				√	√	√	√	√	√	√
SOE	029					√	√	√	√	√	√
Non-SOE	030				√	√	√	√	√		√
SOE	031				√	√	√	√	√	√	√
SOE	032						√	√	√	√	√
SOE	033					√	√	√	√	√	√
SOE	034				√	√	√	√	√	√	√
SOE	035							√	√		
SOE	036					√	√	√	√	√	√
SOE	037						√	√	√	√	√
SOE	038		√	√	√	√	√	√	√	√	√
SOE	039				√	√	√	√	√	√	√
SOE	040				√	√	√	√	√	√	
SOE	041				√	√	√	√	√	√	√
SOE	042										
SOE	043							√		√	
SOE	044										
SOE	045								√	√	
SOE	046				√	√	√	√	√		√
SOE	047						√	√	√	√	√
SOE	048		√			√	√	√		√	√
SOE	049										

Property	Ranking	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOE	050										
SOE	051						√	√	√	√	√
SOE	052								√	√	
SOE	053				√	√	√	√	√	√	√
SOE	054									√	√
Non-SOE	055										
SOE	056			√	√	√	√	√	√	√	√
SOE	057				√	√	√	√	√	√	√
Non-SOE	058										
SOE	059						√	√	√	√	
SOE	060					√		√	√	√	√
SOE	061				√	√	√	√	√	√	√
Non-SOE	062										
SOE	063								√	√	√
Non-SOE	064					√	√	√	√	√	√
SOE	065					√			√	√	
SOE	066					√	√	√	√	√	√
SOE	067								√	√	√
SOE	068										
SOE	069				√	√	√	√	√	√	√
SOE	070										
SOE	071										
SOE	072										
SOE	073						√	√	√	√	√
Unknown	074										
SOE	075							√			

Property	Ranking	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
SOE	076						√		√		
SOE	077				√	√	√	√	√		
Unknown	078										
SOE	079						√	√	√	√	√
SOE	080										
SOE	081				√	√	√	√	√	√	√
SOE	082								√	√	√
SOE	083					√	√	√	√	√	√
SOE	084						√	√	√	√	√
SOE	085										
SOE	086							√	√	√	√
Unknown	087										
Unknown	088										
SOE	089									√	
Non-SOE	090						√	√	√	√	√
SOE	091										
SOE	092					√	√	√	√	√	√
SOE	093										
SOE	094						√	√	√	√	√
SOE	095										
SOE	096										
SOE	097				√	√	√	√	√	√	√
SOE	098										
Unknown	099										
SOE	100						√	√	√	√	√
	Number of	4	9	11	30	46	57	64	70	70	63

corporations issue a report	(1 from non-SOEs)	(3 from non-SOEs)	(4 from non-SOEs)	(4 from non-SOEs)	(5 from non-SOEs)	(4 from non-SOEs)	(5 from non-SOEs)
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Column represents the rankings of the 100 MNCs

Row represents the year of reports

Appendix D

Table 4.2.3 Overview of the Sample (88 reports)

Name of Corporation	Industry	Year	English Version	SOEs/ Non-SOEs	Third Party	GRI Guidelines
001 CNPC 中国石油天然气集团公司	Industry_21	2010	Yes	SOEs		G3.0
	Mining, quarrying, and oil and gas extraction	2011	Yes			G3.1
		2012	Yes			G3.1
		2013	Yes			G4.0
		2014	Yes			G4.0
003 China National Offshore Oil Corporation (CNOOC) 中国海洋石油总公司	Industry_21	2010	Yes	SOEs		G
	Mining, quarrying, and oil and gas extraction	2011	Yes			G
		2012	Yes		Yes	G3.1
		2013	Yes		Yes	G3.1
		2014	Yes		Yes	G3.1
008 China Minmetals Corporation 中国五矿集团公司	Industry_21	2010	Yes	SOEs	Yes	G3.0
	Mining, quarrying, and oil and gas extraction	2011	Yes		Yes	G3.0
		2012	Yes		Yes	G3.1
		2013	Yes		Yes	G4.0
		2014	Yes			G4.0
010 Zhejiang Geely Holding Group (Geely) 浙江吉利控股集团有限公司	Industry_31-33	2012		Non-SOEs		G3.1
	Manufacturing	2013	Yes			G4.0
		2014	Yes			G4.0
011 China State Construction Engineering Corporation Limited (CSCEC) 中国建筑股份有限公司	Industry_23	2010	Yes	SOEs		G3.1
	Construction	2011	Yes		Yes	G3.1
		2012	Yes		Yes	G3.1
		2013	Yes		Yes	G4.0

		2014			Yes	G4.0
012 China Communications Construction Company Limited (CCCC) 中国交通建设股份有限公司	Industry_23 Construction	2010	Yes	SOEs		
		2011	Yes			
		2012	Yes		Yes	
		2013	Yes		Yes	G4.0
		2014	Yes		Yes	G4.0
013 China National Chemical Corporation 中国化工集团公司	Industry_31-33 Manufacturing	2010	Yes	SOEs		G3.0
		2011	Yes			G3.0
		2012	Yes			G3.1
		2013	Yes			G3.1
		2014	Yes			G3.1
018 HNA Group 海航集团有限公司	Industry_48-49 Transportation and warehousing	2010		Non-SOEs		G3.0
		2011				G3.0
		2012				G3.0
		2013	Yes			G3.1
		2014	Yes		Yes	G4.0
022 Baosteel Group Corporation 宝钢集团有限公司	Industry_31-33 Manufacturing	2010	Yes	SOEs		G3.0
		2011	Yes			G3.0
		2012	Yes			G3.0
		2013	Yes			G3.0
		2014	Yes			G3.0
023 State Grid Corporation of China 国家电网公司	Industry_22 Utilities	2010	Yes	SOEs	Yes	G3.0
		2011	Yes		Yes	G3.0
		2012			Yes	G3.1
		2013	Yes		Yes	G4.0
		2014	Yes		Yes	G
025 China Railway Construction	Industry_23	2010	Yes	SOEs		G

Corporation Limited (CRCC) 中国铁道建筑总公司	Construction	2011	Yes			G
		2012	Yes			G
		2013	Yes			G
		2014	Yes			G4.0
027 COFCO Group 中粮集团有限公司	Industry_11 Agriculture, forestry, fishing and hunting	2010	Yes	SOEs		G3.0
		2011	Yes			G3.0
		2012	Yes			G3.0
		2013	Yes			G3.0
		2014	Yes			G3.1
028 China Railway Group Limited (CREC) 中国中铁股份有限公司	Industry_23 Construction	2010	Yes	SOEs		G
		2011	Yes			G
		2012	Yes			G
		2013	Yes			G
		2014	Yes			G
038 China Mobile 中国移动通信集团公司	Industry_51 Information and cultural industries	2010	Yes	SOEs		G3.0
		2011	Yes			G3.1
		2012	Yes		Yes	G3.1
		2013	Yes		Yes	G4.0
		2014	Yes		Yes	G4.0
059 China Telecommunications Corporation (China Telecom) 中国电信集团公司	Industry_51 Information and cultural industries	2010		SOEs	Yes	G3.0
		2011	Yes		Yes	G3.0
		2012	Yes		Yes	G3.0
		2013	Yes		Yes	G4.0
		2014	Yes		Yes	G4.0
064 Midea 美的集团有限公司	Industry_31-33 Manufacturing	2010		Non-SOEs		G3.0
		2011				G3.0
		2012				G3.0

		2013				G3.0
		2014				G3.0
066 China National Building Materials Group Corporation (CNBM) 中国建筑材料集团有限公司	Industry_31-33 Manufacturing	2010		SOEs	Yes	G3.0
		2011	Yes		Yes	G3.0
		2012	Yes		Yes	G3.0
		2013	Yes		Yes	G4.0
		2014	Yes		Yes	
090 Youngor Group 雅戈尔集团股份有限公司	Industry_31-33 Manufacturing	2010		Non-SOEs		
		2011				
		2012				
		2013				
		2014				

The classification of industry follows the North American Industry Classification System (NAICS), retrieved from <http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVDPPage1&db=imdb&dis=2&adm=8&TVD=118464>

Appendix E

Table 4.3.1 Examples of Merging Codes into New Ones

New Codes	Original Codes	Related Paragraphs or Sentences
Employee Care	Employee Training	<ul style="list-style-type: none"> ● Training Class of Young and Middle-aged Cadres In March 2008, ChemChina teamed up with the Party School of the Central Committee of C.P.C. to launch the training class of young and middle-aged cadres, providing its managerial personnel with the opportunity for a half-year of off-job study, foster their strategic thinking and increase their development potentials. By the end of 2010, the class had been held 6 times and 450 people had received the training. (China National Chemical Corporation, 2010, p.47) ● We constantly improve the training system, provide the individualized training schemes, and design targeted training contents for employees of different levels to improve their vocational ability. (China National Chemical Corporation, 2014, p.50)
	Employee Welfare	<ul style="list-style-type: none"> ● We reinforced the labor contract management and improved the labor employment mechanism. In 2014, the labor contract signing rate reached 100%, and the collective contract signing rate reached 100%. (China National Chemical Corporation, 2014, p.49) ● We optimized the salary and welfare system to solve the employees' worries. In accordance with the principle of linking pay to performance, we rationally regulated and controlled the total wages, strictly standardized the position-related consumption, and optimized the salary and welfare system, providing the salary and welfare with local competitiveness for employees. (China National Chemical Corporation, 2014, p.49)
	Employee Assistance	<ul style="list-style-type: none"> ● Fujian Sanming Doublewheel Chemical Machinery Co., Ltd. kicked off its

“Student Aid” program in 2001, which provides financial aid for the children of needy employees studying at university. By the end of 2010, the program allocated RMB160,000 to such students. (China National Chemical Corporation, 2010, p.48)

- Case: BlueStar Silicones France provided “silicone class” for children of employees

The BlueStar Silicones France opened a three-day “organosilicon class” to 12 children of employees and invited them to participate in the business negotiation, and visit the laboratories and manufacturing workshops, so as to help them know the different operating posts of chemical industry. (China National Chemical Corporation, 2014, p.52)

Safety Management

Work Safety

- ChemChina and its subordinate enterprises at all levels have set up the Safe Production Committee, which is manned by full-time or part-time personnel. The Group has signed the statement of responsibility for work safety objectives with the relevant principals, which clarifies the persons responsible, responsibility objectives and accident control indexes and incorporates the administrative responsibility for safety accident into review and assessment. (China National Chemical Corporation, 2010, p.36)
- ChemChina persists in treating the elimination of any hidden safety problem as an important part of its daily safety management and has shaped a variety of inspection forms, e.g. regular self-check, mutual inspection between the companies and selective inspection by leaders. In 2010, the leaders of the Group Corporation led groups of people in inspecting 42 key enterprises, where they discovered 3,076 hidden problems. The enterprises organized 8,568 safety inspections and eliminated 12,570 accident potentials. (China National Chemical

-
- Corporation, 2010, p.36)
- Through safe production inspection across the system, we found 22,034 hidden dangers, and rectified 21,090 items, a rate of 95.7%. (China National Chemical Corporation, 2014, p.39)
 - Emergency management is the most important line of defense in work safety. ChemChina has set up files of major danger sources and the emergency management system, compiled the site emergency rescue plan for the major danger sources, provided emergency rescue equipment and conducted site emergency drills in a planned way to enhance the accident-handling capability of the employees and sharpen their safety awareness. (China National Chemical Corporation, 2010, p.37)
 - Carrying out integrated emergency drills featured by all-staff participation and multi- sectoral alignment. We paid attention to the effect of oil and gas enterprises in dealing with the emergencies including refueling pipeline leakage and oil pipeline leakage, strengthened emergency drills for dangerous chemicals production enterprises to prevent leakage and poisoning. (China National Chemical Corporation, 2014, p.40)
 - Establishment of SHE Management System For the purpose of system building, ChemChina established the SHE (safety, health, environment) management system with its own characteristics in early 2010 on the basis of the existing GB/T28001 Standard for Occupational Health and Safety Management System and GB/T24001 Standard for Environment Management System and Guide to Use by absorbing the successful practices and experience of the overseas enterprise Qenos in combination with its informatization efforts, thereby laying a solid foundation for improving safety management. (China National Chemical Corporation, 2010, p.35)
-

- ChemChina adheres to the “Three Simultaneous” examination system for the safety and occupational health of projects in strict compliance with the relevant State regulations. It has screened the in-progress chemical projects of the entire sector and requires that all such projects must strictly implement the “Three Simultaneous” rule to move the threshold of safety management up to the inception of project construction and enhance the intrinsic safety of the projects. (China National Chemical Corporation, 2010, p.36)
-

Appendix F

Co-coder Coding Procedures

The data analysis of this research relies on the software NVivo. Thus, the two co-coders used NVivo to analyze two reports.

First, the co-coders were provided with the definition of CS and the definitions of all the codes. By doing this, they were clear about the coding table and they were able to code useful information following the same coding table as me.

Second, a new NVivo file was created for co-coders and two CS-related reports were imported in this file for them.

Third, I showed the co-coders how to use software NVivo, such as how to select useful information and how to code them into related codes. The two co-coders were asked to read the two reports carefully and to code useful information (i.e. sentences or paragraphs) according to the coding scheme.

Finally, the co-coders' coding were compared with the coding done by me on the same reports to examine the similarities and discrepancies.

Code Definitions

- CS:** “sustainability not only encompasses aspects such as philanthropy and pollution but also a broad range of social, environmental, and governance metrics” (Peloza et al., 2012, p.76).
- Code_Clean Technology** Refers to the strategy from the quadrant III of Hart and Milstein’s framework, which focuses on reducing social and environmental negative impacts through internal development or new capabilities acquisition. (Hart and Milstein, 2003).
- Code_Corruption** includes initiatives about how to avoid corruption and how to punish bribers and bribes.
- Development Standards** refers to initiatives about the company helping and/or participating in the development of industry standards in China.
- Code_Ecological Protection** refers to biodiversity protection, afforestation, and other environmental initiatives aiming at protecting the ecosystem. These initiatives are different than ‘clean technology’ and ‘pollution prevention’.
- Code_Employee Care** refers to initiatives related to guarantee employee rights, such as salary & welfare system, employee health, employee training, increased benefits, and so on.
- Code_Food Safety** refers to initiatives related to ensure food quality and safety, such as evaluation of food safety, development of food safety standards, and so on.
- Code_Pollution Prevention** refers to the strategy from the quadrant I of Hart and Milstein’s framework, which focuses on reducing waste and emissions from today’s products and processes (Hart and Milstein, 2003)
- Code_Product Stewardship** refers to the strategy from the quadrant II of Hart and Milstein’s framework, which focuses on the entire product life cycle and provides a way to not only lower environmental negative impacts but also enhance legitimacy and reputation by involving stakeholders in the on-going operations. (Hart and Milstein, 2003)
- Code_Safety Management** refers to initiatives related to work safety, emergency rescue and operation risk. This code includes both ‘safety management’ and ‘risk management’ because my data shows that Chinese corporations don’t separate these two concepts very well when they undertake safety related initiatives.
- Code_Sustainability Vision** refers to the strategy from the quadrant IV of Hart and Milstein’s framework, which focuses on opening up new pathways in previously unserved markets. (Hart and Milstein, 2003)
- Code_philanthropy/Strategic/Business Core** refers to initiatives that corporations integrate with their core business. These philanthropic initiatives can benefit corporations’ core business.
- Code_philanthropy/Strategic/Capacity Building** refers to initiatives that benefit corporations’ capacity building, such as training local people and developing potential employees.

Code_philanthropy/Strategic/Reputation refers to initiatives that directly improve corporations' intangible reputation, such as the initiatives are spoken highly by government and local people.

Code_philanthropy/Disaster Relief refers to initiatives related to the support and rebuild after natural disaster.

Code_philanthropy/Education is about supporting education, such as donation to schools, providing scholarships, or supporting poor students.

Code_philanthropy/Health refers to initiatives related to health problem or medical help.

Code_philanthropy/Infrastructure & Development refers to initiatives related to improve local living conditions and contribute to social welfare, such as supporting infrastructure, creating job opportunities, and so on.

Code_philanthropy/Poverty is about the poverty alleviation, such as providing skills training for people, or supporting education of poor area.

Code_philanthropy/Seniors is about helping elder people.

Code_philanthropy/Volunteering is about all the voluntary activities.

Appendix G

Table 4.4.1 Co-coder's Coding Results

Report 001_2014				
	Code Names	Me	Co-coder1	Co-coder2
	Developed Standards	0	0	0
	Pollution Prevention	12	12	12
	Product Stewardship	0	0	0
	Clean Technology	4	1	3
	Sustainability Vision	0	0	0
	Corruption	5	5	5
	Ecological Protection	1	2	0
	Employee Care	12	9	10
	Safety Management	8	5	7
	Philanthropy/Business Core	3	4	3
	/Capacity Building	2	2	1
	/Reputation	2	1	0
	/Disaster Relief	0	1	0
	/Education	7	8	6
	/Health	1	3	0
	/Infrastructure & Development	10	11	10
	/Poverty	6	4	5
	/Seniors	1	1	1
	/Volunteering	1	1	1
	Total	75	70	64

Report 022_2012

Code Names	Me	Co-coder1	Co-coder2
Developed Standards	0	1	0
Pollution Prevention	11	9	11
Product Stewardship	1	2	1
Clean Technology	1	2	1
Sustainability Vision	0	0	0
Corruption	7	5	6
Ecological Protection	0	0	0
Employee Care	14	16	13
Safety Management	2	3	2
Philanthropy/Business Core	2	3	2
/Capacity Building	0	0	0
/Reputation	1	1	0
/Disaster Relief	0	0	0
/Education	1	2	1
/Health	0	2	0
/Infrastructure & Development	3	5	3
/Poverty	4	3	4
/Seniors	1	2	1
/Volunteering	0	0	0
Total	48	56	45

Appendix H

Table 5.0.1 Definitions and Examples of Each Code

Definition	Examples
<p>Clean Technology</p> <p>Refers to the strategy from the quadrant III of Hart and Milstein’s framework, which focuses on reducing social and environmental negative impacts through internal development or new capabilities acquisition. (Hart and Milstein, 2003)</p>	<ul style="list-style-type: none"> ● Low Carbon Technology R&D Focusing on the important role technological innovation plays in addressing climate change, we keep strengthening the R&D of low-carbon technologies. In 2014, new progress was made in our research on key low-carbon technology. In the area of carbon emission reduction, we have enriched and improved a series of technology for CO2 capture, and techniques for site selection and potential evaluation of geological sequestration. As a result, we have successfully evaluated the CO2 sequestration potential in five oilfields including Changqing Oilfield and Liaohe Oilfield (China National Petroleum Corporation, 2014, p. 30). ● We have developed capacity for fuel ethanol in Heilongjiang, Anhui and Guangxi. With an annual capacity of 800,000 metric tons a year could be used to replace fossil fuels, we were able to help reduce petroleum use by 2.8 million metric tons, generating CO2 emissions reduction of 6.3 million metric tons. Furthermore, we were the first in China that started developing non-grain fuel ethanol production in order to support sustainable development by not-competing with grain production in terms of land resources (China Agri-industries Holdings limited, 2010).
<p>Company Profile</p> <p>Refers to the introduction or profile of</p>	<ul style="list-style-type: none"> ● About us

	a corporation	<p>One of China's largest oil and gas producers and suppliers, CNPC is an integrated international energy corporation, with businesses covering oil and gas exploration and development, refining and chemicals, natural gas and pipelines, marketing and trading, storage and transportation, oilfield services, engineering and construction, equipment manufacturing, and finance. We have oil and gas assets and interests in over 30 countries, and provide technical and construction services for more than 60 countries. In 2013, CNPC was ranked fourth among the world's top 50 oil companies and fifth among the Fortune Global 500. (China National Petroleum Corporation, 2013, p.4)</p>
Corruption	Includes initiatives about how to avoid corruption and how to punish bribers and bribes.	<ul style="list-style-type: none"> ● 246 audit projects and 226 activities on efficiency supervision were accomplished. (China National Offshore Oil Corporation, 2010, p.46) ● In 2011, the Company handled 23 cases of violations of disciplines and regulations, and analysis of corruption risks was made in 31 wholly-funded subsidiary companies. 100% of employees received the training on anti-corruption. (China State Construction Engrg. Corporation, 2011, p.26)
Development Standards	Refers to initiatives about the company helping and/or participating in the development of industry standards in China.	<ul style="list-style-type: none"> ● In 2014, CMC's subsidiaries chaired the formulation of 17 national and industrial technical standards and participated in the drafting of 6 national and industrial standards. (China Minmetals, 2014, p.77) ● China BlueStar Group Co., Ltd. formulated the national standards for methionine products, energy consumption quota and industrial pollutants emission, to enhance industry

Ecological Protection

Refers to biodiversity protection, afforestation, and other environmental initiatives aiming at protecting the ecosystem. These initiatives are different than ‘clean technology’ and ‘pollution prevention’.

protection. (China National Chemical Corporation, 2014, p.37)

- Gas pipeline keeps away from populus euphraticas
Populus euphraticas can resist dry and volatile harsh climate in deserts and is extremely tolerant to salt and alkali. To safeguard the local ecological environment and protect populus euphraticas, the original plan for the design, field prospecting and construction of the desert section of the Phase II Hetian-Zepu gas pipeline in South Xinjiang was adjusted on a continuous basis. Due to the detour, the 15 km-long section saw investment increased by RMB 3.25 million, pipeline length extended by 1,700 meters and the parallel road increased by 3,400 meters, in order to keep away from 2,100 populus euphraticas. (China National Petroleum Corporation, 2012, p.26)
- Build green ecological environmental landscape that is in line with the conditions of project site, including ventilation, sunshine and hot environmental conditions, which will retain all original trees at the site and avoid damaging the surrounding environment. (China State Construction Engrg. Corporation, 2012, p.52)
- In 2011, we organized 114 training programs for about 20,000 employees, and our affiliates accumulatively trained 263,000 managers and 160,000 technicians. (China National Petroleum Corporation, 2011, p.40)
- The labor union of HNA has set up various sports associations including football, basketball, tennis, badminton, table tennis, snooker, swimming, and cultural associations such as English

Employee Care

Refers to initiatives related to guarantee employee rights, such as salary & welfare system, employee health, employee training, increased benefits, and so on.

Food Safety	Refers to initiatives related to ensure food quality and safety, such as evaluation of food safety, development of food safety standards, and so on.	<p>class and choir, and it enriches faculty's cultural life by encouraging them to participate in different competitions on behalf of the Group. In addition, the Group holds various staff activities on festivals. In 2013, it devoted more than 32 million yuan to these associations and activities. (HNA Group, 2013, p.25)</p> <ul style="list-style-type: none"> ● Systems and Standards: We developed a framework for food safety management standards and regulations, including Regulation on Food Safety Management and Guidelines for Supplier Management. (China Agri-industries Holdings Limited, 2010, p. 25) ● In May 2012, we commenced the food quality safety standard and management technology training under the name of "integrity and legal compliance, benchmark management, quality enhancement", aiming at helping the food quality management personnel of grassroots enterprise in solving daily issues such as food additives, labeling, traceability of products and increasing professionals' business capability. (China Agri-industries Holdings Limited, 2012, p.18)
Pollution Prevention	Refers to the strategy from the quadrant I of Hart and Milstein's framework, which focuses on reducing waste and emissions from today's products and processes (Hart and Milstein, 2003)	<ul style="list-style-type: none"> ● There is little associated gas in Panyu Oilfield Field. In order to improve the energy utilization efficiency and save energy, in May 2013, we installed 2 sets of heat furnaces on the exhaust pipe of FPSO main motor, which successfully replaced crude oil by the waste heat in flue gas to heat the medium oil. (China National Offshore Oil Corporation, 2013, p.46) ● In 2010, CCCC asked each subsidiary to establish corporate energy management system, formulate energy management

Product Stewardship

Refers to the strategy from the quadrant II of Hart and Milstein's framework, which focuses on the entire product life cycle and provides a way to not only lower environmental negative impacts but also enhance legitimacy and reputation by involving stakeholders in the on-going operations. (Hart and Milstein, 2003)

manual, program document and operating instructions, carry out energy factor identification, make targeted management measures for energy-saving and emission-reduction, bring all systems of energy-saving and emission-reduction into production operation of enterprise according to Energy Management System Requirements (GB/T23331-2009). (China Communications Construction, 2010, p.77)

- “Concrete that can breathe” is a kind of porous water-permeable material that we have developed. On rainy days, the rain water seeps into the ground through the holes, relieving the cities' drainage pressure and providing ground water supplies which are gradually drying up. On hot summer, water hidden in the holes evaporates, taking away some heat and thus helping with “the heat island effect”. This water-permeable concrete, together with the rain water collecting system, can also be used for car-washing, irrigation and toilet-flushing after the rain water has been recycled. (China State Construction Engrg. Corporation, 2013, p.93)
- In Shanxi, we introduced environmentally friendly SIM cards. In the first half of 2010, we issued over sixteen million paper-based SIM cards and over 37 million mini-sized SIM cards, and we recycled card bases when selling SIM cards. We authorized the use of about 10,000 remote card writing terminals, and the utilization of the remote card writing channel reached 100%. (China Mobile Communication Corporation, 2010, p.33)
- We conducted large-scale production safety inspections

Safety Management

Refers to initiatives related to work

safety, emergency rescue and operation risk. This code includes both ‘safety management’ and ‘risk management’ because my data shows that Chinese corporations don’t separate these two concepts very well when they undertake safety related initiatives.

Sustainability Vision

Refers to the strategy from the quadrant IV of Hart and Milstein’s framework, which focuses on opening up new pathways in previously unserved markets. (Hart and Milstein, 2003)

throughout the company between October 10th and November 30th. (China National Petroleum Corporation, 2010, p.32)

- In 2014, CNOOC carried out 2 headquarters-level comprehensive emergency drills, 19,068 branch-level drills, including 2,067 comprehensive drills, 17,001 special drills, with totally 465,806 participants. (China National Offshore Oil Corporation, 2014, p.3)
- While China entered the winter peak season for natural gas consumption, we increased the supply of natural gas and contributed to guarantee the supply to the south-eastern coastal regions. Adding to the continuous development of traditional markets like gas and industrial consumers in key cities, we stepped up efforts to explore the alternative fuel market and developed differentiation in the gas-fired power and LNG vehicle filling markets. While consolidating the Guangdong, Fujian, Zhejiang, Jiangsu, Shandong, Tianjin and other existing filling markets, we also entered new markets, including Guangxi, Jiangxi, Anhui, Henan, Hebei, Beijing and Liaoning. (China National Offshore Oil Corporation, 2011, p.39)
- Bluestar (Beijing) Chemical Machinery Co., Ltd. signed a contract with NAC Company of Algeria through CONVE & AVE of the US on the project of the 6,000 ton/year skid-mounted electrobath, marking the products’ successfully entering into the African market. (China National Chemical Corporation, 2014, p.57)

Philanthropy

(more details are shown in Appendix I)

Appendix I

Table 5.0.2 Definitions and Examples of Child Codes within ‘Philanthropy’

		Definitions	Examples
Philanthropy /Strategic	/Business Core	Refers to initiatives that corporations integrate with their core business. These philanthropic initiatives can benefit corporations’ core business.	<ul style="list-style-type: none"> ● In 2010, we spent RMB 12.36 million in eight poverty alleviation programs in Xinjiang, focusing on local infrastructures building. Just before the Chinese New Year in 2011, with the help of CNPC, more than 500 households of Qira and Pisha were able to use clean natural gas and honeycomb briquettes for their New Year, putting an end to the tradition of using coal and wood as energy sources. This is part of our program of providing natural gas for towns in South Xinjiang. (China National Petroleum Corporation, 2010, p.52) ● When participating in the reconstruction of Wenchuan after the devastating earthquake, we took on 46 construction projects with a contract total of almost 5 billion RMB. In September 2010, all the rebuilding projects – such as schools, hospitals, residences, farm residences, and interim shelters – were satisfactorily completed. (China State Construction Engrg. Corporation, 2010, p.79)
	/Capacity Building	Refers to initiatives that benefit corporations’ capacity building, such as training local people and developing potential employees.	<ul style="list-style-type: none"> ● The Company actively boosted employment among community residents, by the end of 2010, it has provided more than 1,400 employment opportunities for Laiwu City and achieved mutual development of enterprises and communities. (China Minmetals corporation, 2010, p.88)

/Reputation	Refers to initiatives that directly improve corporations' intangible reputation, such as the initiatives are spoken highly by government and local people.	<ul style="list-style-type: none"> ● It also donated student grants and scholarships of RMB 600,000 yuan to Northeastern University, Chongqing University of Science & Technology, Changchun Institute of Technology and Xi'an University of Architecture and Technology. (Baosteel, 2014, p.63) ● With the completion of the “C4 aromatization project” for Taiqian County of Henan in 2010, we provided over 130,000 metric tons of naphtha and C4 for the project in 2011, which drove the rapid development of small and medium sized local petrochemical enterprises, created over 1,600 jobs, paid over RMB 45 million in taxation, increased fiscal revenue by 25%, and increased each farmer's average annual income by RMB 3,500. In 2011, the project was granted “Innovation Prize for Poverty Alleviation in 2011” by China Association of Poverty Alleviation & Development. (China National Petroleum Corporation, 2011, p.47) ● In Angola, CREC No. 4 Bureau has specially solved the water diversion project supply problems and shortage of local drinking water through introduction of advanced equipments from China during the exploration and construction of projects, highly praised by the local people. (China Railway Group Limited, 2010, p.45)
/Disaster Relief	Refers to initiatives related to	● A part of employees' donations of RMB 5.9 million

the support and rebuild after natural disaster.

Yuan was used to assist disaster stricken employee families, the remained donations of RMB 5.09 million Yuan have been donated directionally to China Women's Development Foundation through CNOOC Public Welfare Foundation for the purpose of making Mother Parcel which will be distributed to mothers in 12 disaster stricken cities and counties including Ya'an, Chengdu, Meishan, Mianyang and Suining city. This action not only relieves the extremely urgency of mothers in disaster stricken areas, but also improves their health protection ability so that to help them to regain life confidence and get through difficult barriers. (China National Offshore Oil Corporation, 2013, p.69)

- In Jul 2014, being affected by flood water overflow of Tuanjie Reservoir in Baicheng, Jilin Province, Wubai Railway Bridge was destroyed by flood and traffic was interrupted. CREC No.9 quickly organized 380 rescue workers and nearly 20 large machines and vehicles for emergency maintenance. After working 50 hours non-stop, the rescue works have been completed and Wubai Railway was open to traffic 4 hours before the planned time. (China Railway Group Limited, 2014, p.40)

/Education

Is about supporting education, such as donation to schools, providing scholarships, or

- In December 2010, the first project supported by CNPC was completed in the Darfur region. This project included building two primary schools in El
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	supporting poor students.	<p>Fasher, capital of Northern Darfur, and another six classrooms in two high schools. The foundation and local government named the school as the "Sino-Sudan Friendship Primary School". (China National Petroleum Corporation, 2010, p.56)</p> <ul style="list-style-type: none"> ● In November 2010, the Baosteel Education Foundation and Baosteel Committee of the Chinese Communist Youth League jointly visited Dukezong Hope School situated in Jiantang Town, Shangrila County, Diqing City, Yunnan Province and donated 260 sets of stationery supplies valuing at RMB 19,320 including schoolbags, pencil boxes, erasers, rulers, pencils and exercise books. (Baosteel, 2010, p.43)
/Health	Refers to initiatives related to health problem or medical help.	<ul style="list-style-type: none"> ● In 2010, CNPC, for the second time, sent its medical team consisting of six doctors from Class-A hospitals to Shuanghu District, where the doctors conducted medical checkups, gave diagnosis and free medicines for 300 local residents in seven towns. (China National Petroleum Corporation, 2010, p.52) ● By using its own medical facilities, the Sudan Company of China Railway 18th Bureau Group Co., Ltd. has provided essential medical aiding for local people. There are over 500 local people have been treated for free and a total of RMB 100,000 of malaria drugs has been relived freely in the whole year which saved the local people free from pain of illness. (China Railway Group Limited, 2011, p.58)

/Infrastructure & Development

Refers to initiatives related to improve local living conditions and contribute to social welfare, such as supporting infrastructure, creating job opportunities, and so on.

- Mother Water Cellar Project In 2013, CNOOC continued to support “Mother Water Cellar Project”, and released special funds to ten villages fixedly in the four counties of Yichuan, Yanchuan, Yanchang and Ganquan of Yan’an City. In doing so, we helped build 400 rainwater harvesting pits and four water harvesting facilities (including 1water saving irrigation and drainage facility), to serve 1,138 families and 4,347 people in the area. (China National Offshore Oil Corporation, 2013, p.72)
- In 2013, the company donated RMB 800,000 yuan in total for the construction of settlement houses, remarkably improving the living of local farmers and herdsmen. (Baosteel, 2013, p.65)

/Poverty

Is about the poverty alleviation, such as providing skills training for people, or supporting education of poor area.

- In 2011, we donated 236 million RMB for poverty relief, aid for Tibet, Sichuan, and other public welfare and charity projects. Nearly 200 million RMB came from the Group; 34.98 million RMB was from affiliates while 1.94 million RMB was donated by employees. The overall annual public welfare plan has been achieved. (China National Offshore Oil Corporation, 2011, p.77)
- In 2013, Baosteel cooperated with NGO Shanghai United Foundation for the second consecutive year in organizing the campaign of “Walk for an Egg” for Baosteel employees. There were 126 people in 21 teams participating in the campaign and raised a total

		<p>donation of RMB 148,700 yuan, which could be used to purchase 186,000 eggs and provide eggs for more than 2,000 children in poverty-stricken area for one semester. (Baosteel, 2013, p.67)</p>
/Seniors	Is about helping elder people.	<ul style="list-style-type: none"> ● Before the Lunar New Year in 2013, COFCO Bio-Energy (Zhaodong) Co.,Ltd. visited the elderly in several retirement homes and service centers in Zhaodong City and donated RMB71,200 to help them enjoy a healthy and happy New Year. (China Agri-industries Holdings Limited, 2013, p.39) ● In Shanghai, we worked with the City's Charity Foundation to implement the "Light Up the Field of Vision" project to help citizens suffering from eyesight issues. Every year the project enables over 50 elderly citizens to undergo cataract surgery. Since the project's inception, 100 senior citizens in districts such as Fengxian and Jing'an have received assistance. They are once again able to see the light of hope. (China Mobile Communication Corporation, 2012, p.27)
/Volunteering	Is about all the voluntary activities.	<ul style="list-style-type: none"> ● Lanzhou Petrochemical launched a campaign, in which 112 youth volunteers provided regular home services to the elderly in the community. Dalian Petrochemical carried out a one-month voluntary activity for youth volunteers to recycle and clean up garbage along the coast and on the sea. (China National Petroleum Corporation, 2014, p.47)

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- The Sichuan Company relied on 200 Homes of Left-behind Children of Sichuan Power to launch a voluntary service activity to care for migrant workers' children, offering more than 10 thousand man-times service activities with 3,000 volunteers in 2010. (State Grid Corporation of China, 2010, p.75)
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Appendix J

Table 5.2.1 Matrix Coding for Each Corporation by Years

I11-SOE-027

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	14	5	3	2	24
2011	13	4	1	1	19
2012	13	1	0	0	14
2013	14	5	1	5	25
2014	29	16	3	9	57

I21-SOE-001

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	23	13	2	5	43
2011	22	11	2	8	43
2012	26	15	4	7	52
2013	24	17	7	12	60
2014	26	14	6	10	56

I21-SOE-003

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	9	11	2	3	25
2011	19	10	1	7	37
2012	22	12	1	4	39
2013	32	18	3	12	65
2014	35	14	2	9	60

I21-SOE-008

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	40	18	1	7	66
2011	33	16	0	5	54
2012	30	12	1	4	47
2013	29	16	1	8	54
2014	22	7	0	2	31

I21-SOE-028

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	14	8	1	4	27
2011	15	3	1	4	23
2012	16	3	1	3	23
2013	16	3	0	3	22
2014	16	10	2	3	31

I22-SOE-023

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	21	3	5	4	33
2011	19	12	4	2	37
2012	15	13	5	4	37
2013	13	11	5	4	33
2014	12	7	6	5	30

I23-SOE-011

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	24	17	4	5	50
2011	29	18	6	6	59
2012	23	20	5	5	53
2013	15	11	0	4	30
2014	16	10	1	3	30

I23-SOE-012

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	9	3	0	2	14
2011	14	6	1	4	25
2012	10	12	0	4	26
2013	16	9	0	4	29
2014	8	5	2	3	18

I23-SOE-025

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	17	22	1	13	53
2011	16	18	2	10	46
2012	25	24	0	15	64
2013	21	16	0	10	47
2014	17	14	1	6	38

I31/33-nSOE-010

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	/	/	/	/	/
2011	/	/	/	/	/
2012	7	10	1	4	22
2013	8	11	1	3	23
2014	9	6	1	3	19

I31/33-SOE-013

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	17	5	1	4	27
2011	22	10	2	4	38
2012	24	7	0	2	33
2013	23	7	2	2	34
2014	36	12	2	3	53

I31/33-SOE-022

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	32	21	0	4	57
2011	33	13	0	5	51
2012	25	9	2	5	41
2013	19	9	3	10	41
2014	14	18	1	7	40

I31/33-nSOE-064

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	15	6	0	2	23
2011	5	4	0	1	10
2012	8	4	0	2	14
2013	11	6	2	3	22
2014	7	3	1	4	15

I31/33-SOE-066

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	17	11	2	6	36
2011	11	8	2	4	25
2012	15	7	0	1	23
2013	4	5	1	2	12
2014	15	5	3	2	25

I31/33-nSOE-090

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	1	1	0	0	2
2011	6	4	0	1	11
2012	7	1	0	0	8
2013	5	1	1	1	8
2014	1	3	0	1	5

I48/49-nSOE-018

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	13	8	0	4	25
2011	18	10	0	4	32
2012	15	8	1	1	25
2013	9	3	0	4	16
2014	4	7	0	4	15

I51-SOE-038

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	20	28	3	6	57
2011	18	25	6	8	57
2012	16	19	2	6	43
2013	17	17	6	7	47
2014	12	15	3	5	35

I51-SOE-059

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
2010	15	13	6	6	40
2011	19	20	3	12	54
2012	21	12	4	8	45
2013	25	30	5	13	73
2014	19	16	4	9	48

Industries are classified according to the North American Industry Classification System Canada 2012:

I11: Agriculture, forest, fishing and hunting. I21: Mining, quarrying, and oil and gas extraction. I22: Utilities. I23: Construction. I31-33: Manufacturing. I48-49: Transportation and warehousing. I51: Information and cultural industries.

Appendix K

Table 5.2.2 Chinese Corporations' CS Behavior Based on Industries
2010

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
I11-SOE-027	5	8	7	1	1	0	3	0	0	0	1	2	0	3	1	0	0	1
<i>Average I11</i>	5	8	7	1	1	0	3	0	0	0	1	2	0	3	1	0	0	1
I21-SOE-001	4	6	15	0	8	4	5	3	5	1	0	5	0	4	1	2	0	5
I21-SOE-003	1	1	12	8	3	6	4	0	0	0	4	0	2	2	1	0	0	0
I21-SOE-008	10	25	13	2	4	3	7	5	0	0	0	1	3	3	3	1	0	3
<i>Average I21</i>	5.00	10.67	13.33	3.33	5.00	4.33	5.33	2.67	1.67	0.33	1.33	2.00	1.67	3.00	1.67	1.00	0.00	2.67
I22-SOE-023	10	11	6	0	3	3	7	0	0	1	2	3	0	1	0	5	0	2
<i>Average I22</i>	10	11	6	0	3	3	7	0	0	1	2	3	0	1	0	5	0	2
I23-SOE-011	7	8	10	4	7	0	6	2	2	0	2	5	1	5	0	1	0	5
I23-SOE-012	2	4	4	1	0	1	1	0	0	0	0	0	0	3	1	0	0	1
I23-SOE-025	0	3	16	1	5	3	12	2	2	1	0	3	0	13	1	1	0	4
I23-SOE-028	9	9	6	1	2	1	5	1	2	0	0	1	0	3	2	1	0	1
<i>Average I23</i>	4.5	6	9	1.75	3.5	1.25	6	1.25	1.5	0.25	0.5	2.25	0.25	6	1	0.75	0	2.75
I31/33-nSOE-010	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
I31/33-nSOE-064	6	4	17	0	0	0	2	0	1	0	0	0	4	3	0	0	0	0
I31/33-nSOE-090	0	0	2	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
I31/33-SOE-013	6	9	5	1	0	2	2	0	0	0	1	0	1	2	1	0	1	0
I31/33-SOE-022	13	4	20	9	4	2	3	0	1	1	0	1	6	4	2	1	0	0
I31/33-SOE-066	8	3	8	2	4	1	8	2	1	0	2	0	2	2	2	0	0	1
<i>Average I31/33</i>	6.60	4.00	10.40	2.40	1.60	1.00	3.00	0.60	0.60	0.20	0.60	0.20	2.80	2.20	1.00	0.20	0.20	0.20
I48/49-nSOE-018	2	2	15	0	1	2	3	2	4	1	0	0	0	3	2	0	0	0
<i>Average 48/49</i>	2	2	15	0	1	2	3	2	4	1	0	0	0	3	2	0	0	0
I51-SOE-038	6	4	13	4	8	3	4	0	2	4	1	7	1	13	2	7	0	3

I51-SOE-059	1	0	11	3	5	8	5	0	3	0	1	5	2	3	1	1	0	0
<i>Average 51</i>	4	2	12	4	7	6	5	0	3	2	1	6	2	8	2	4	0	2

2011

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
I11-SOE-027	8	5	3	2	0	0	1	0	0	0	0	1	2	0	0	0	0	0
<i>Average I11</i>	8	5	3	2	0	0	1	0	0	0	0	1	2	0	0	0	0	0
I21-SOE-001	2	12	10	0	6	5	8	2	3	0	1	2	2	1	3	2	0	3
I21-SOE-003	6	4	16	3	4	4	4	1	0	0	1	0	2	0	0	0	2	0
I21-SOE-008	5	14	14	2	7	3	3	3	1	2	0	0	1	1	1	0	0	0
<i>Average I21</i>	4.33	10.00	13.33	1.67	5.67	4.00	5.00	2.00	1.33	0.67	0.67	0.67	1.67	0.67	1.33	0.67	0.67	1.00
I22-SOE-023	11	5	9	3	2	3	4	3	0	1	3	4	1	3	1	2	0	0
<i>Average I22</i>	11	5	9	3	2	3	4	3	0	1	3	4	1	3	1	2	0	0
I23-SOE-011	7	6	10	7	6	0	7	1	0	0	4	7	1	1	2	1	0	6
I23-SOE-012	5	6	4	2	3	2	2	1	0	0	1	0	0	0	0	0	1	1
I23-SOE-025	2	2	11	3	5	3	9	3	1	1	0	3	0	5	0	0	0	3
I23-SOE-028	9	5	7	2	0	0	4	0	0	0	1	1	0	2	0	1	0	2
<i>Average I23</i>	5.75	4.75	8	3.5	3.5	1.25	5.5	1.25	0.25	0.25	1.5	2.75	0.25	2	0.5	0.5	0.25	3
I31/33-nSOE-010	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
I31/33-nSOE-064	2	1	3	0	0	1	1	0	1	0	0	0	3	0	0	0	0	0
I31/33-nSOE-090	0	2	11	0	2	0	1	0	0	0	0	0	1	0	0	1	0	0
I31/33-SOE-013	3	8	11	3	3	1	2	0	0	0	1	2	2	1	2	1	1	0
I31/33-SOE-022	17	5	21	7	0	1	5	1	1	2	0	1	3	1	0	1	0	1
I31/33-SOE-066	3	5	6	1	3	1	7	1	0	0	1	1	1	0	0	1	0	2
<i>Average I31/33</i>	5.00	4.20	10.40	2.20	1.60	0.80	3.20	0.40	0.40	0.40	0.40	0.80	2.00	0.40	0.40	0.80	0.20	0.60
I48/49-nSOE-018	2	3	15	0	4	1	3	0	2	0	0	1	1	3	1	1	0	1

<i>Average 48/49</i>	2	3	15	0	4	1	3	0	2	0	0	1	1	3	1	1	0	1
I51-SOE-038	3	0	9	3	5	2	7	0	3	2	1	5	1	3	0	4	0	0
I51-SOE-059	0	2	17	3	11	7	8	0	5	0	1	3	0	5	2	0	0	3
<i>Average 51</i>	2	1	13	3	8	5	8	0	4	1	1	4	1	4	1	2	0	2

2012

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
I11-SOE-027	8	8	5	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
<i>Average I11</i>	8	8	5	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
I21-SOE-001	3	11	17	0	10	10	13	6	5	1	2	3	1	2	3	2	0	4
I21-SOE-003	9	7	11	4	3	2	4	0	5	0	1	0	2	1	0	0	0	1
I21-SOE-008	7	13	11	3	5	1	3	3	1	0	1	0	1	1	0	0	0	1
<i>Average I21</i>	6.33	10.33	13.00	2.33	6.00	4.33	6.67	3.00	3.67	0.33	1.33	1.00	1.33	1.33	1.00	0.67	0.00	2.00
I22-SOE-023	2	5	13	3	2	4	4	1	1	1	3	2	0	0	2	3	0	0
<i>Average I22</i>	2	5	13	3	2	4	4	1	1	1	3	2	0	0	2	3	0	0
I23-SOE-011	10	3	11	7	2	1	5	10	0	0	3	2	1	1	0	3	0	4
I23-SOE-012	5	3	6	3	7	2	3	2	0	0	0	0	0	0	1	3	0	2
I23-SOE-025	6	8	11	2	6	7	15	6	0	0	0	0	0	10	0	0	0	2
I23-SOE-028	6	5	8	0	0	1	4	0	0	0	0	2	0	3	0	2	0	3
<i>Average I23</i>	6.75	4.75	9	3	3.75	2.75	6.75	4.5	0	0	0.75	1	0.25	3.5	0.25	2	0	2.75
I31/33-nSOE-010	1	0	4	1	5	4	3	0	0	0	0	2	3	0	0	2	0	2
I31/33-nSOE-064	2	3	11	1	0	0	2	0	0	0	0	0	2	0	0	1	0	0
I31/33-nSOE-090	0	2	9	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
I31/33-SOE-013	7	14	11	2	1	2	2	0	0	0	0	0	4	0	0	1	0	0
I31/33-SOE-022	11	2	14	7	1	4	3	0	0	1	1	2	1	0	1	0	0	0
I31/33-SOE-066	5	7	4	4	0	1	1	1	0	0	0	1	2	0	0	1	0	0

<i>Average I31/33</i>	4.33	4.67	8.83	2.50	1.17	1.83	1.83	0.17	0.00	0.33	0.17	0.83	2.00	0.00	0.17	0.83	0.00	0.33
I48/49-nSOE-018	1	1	13	1	1	0	0	1	2	0	1	1	1	0	0	3	1	0
<i>Average 48/49</i>	1	1	13	1	1	0	0	1	2	0	1	1	1	0	0	3	1	0
I51-SOE-038	1	11	11	3	3	5	6	2	5	2	1	4	0	5	3	3	0	0
I51-SOE-059	0	2	13	2	8	3	10	0	3	1	0	10	0	2	0	1	0	0
<i>Average 51</i>	1	7	12	3	6	4	8	1	4	2	1	7	0	4	2	2	0	0

2013

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
I11-SOE-027	3	7	6	0	0	0	5	1	0	2	0	1	0	2	0	0	0	0
<i>Average I11</i>	3	7	6	0	0	0	5	1	0	2	0	1	0	2	0	0	0	0
I21-SOE-001	3	6	15	1	11	9	17	4	2	0	3	5	1	0	2	1	0	4
I21-SOE-003	12	7	20	0	11	4	12	1	4	1	3	0	0	4	2	1	3	1
I21-SOE-008	4	25	13	8	4	3	8	7	1	0	0	1	0	1	0	2	0	1
<i>Average I21</i>	6.33	12.67	16.00	3.00	8.67	5.33	12.33	4.00	2.33	0.33	2.00	2.00	0.33	1.67	1.33	1.33	1.00	2.00
I22-SOE-023	7	3	11	4	2	0	7	1	0	0	5	2	2	1	0	1	0	0
<i>Average I22</i>	7	3	11	4	2	0	7	1	0	0	5	2	2	1	0	1	0	0
I23-SOE-011	2	3	12	5	0	2	2	1	0	0	0	0	2	2	0	1	0	2
I23-SOE-012	7	3	13	1	3	2	3	1	1	0	0	0	1	3	1	3	0	0
I23-SOE-025	3	8	11	3	4	3	9	2	1	0	0	0	0	3	4	3	0	4
I23-SOE-028	2	8	13	0	1	2	6	1	0	0	0	2	0	3	0	0	0	1
<i>Average I23</i>	3.5	5.5	12.25	2.25	2	2.25	5	1.25	0.5	0	0	0.5	0.75	2.75	1.25	1.75	0	1.75
I31/33-nSOE-010	2	1	4	2	3	1	5	0	1	0	0	1	3	1	2	0	0	1
I31/33-nSOE-064	5	2	7	0	0	1	3	0	0	0	0	2	5	1	1	0	0	0
I31/33-nSOE-090	1	2	5	0	0	1	1	0	0	0	1	0	0	2	1	0	0	0
I31/33-SOE-013	7	12	10	5	0	0	2	0	0	0	1	1	2	0	0	2	0	0

I31/33-SOE-022	9	4	16	3	3	5	9	0	1	1	3	0	0	1	1	0	0	1
I31/33-SOE-066	1	0	3	1	0	1	1	0	0	1	1	0	1	2	1	0	1	0
<i>Average I31/33</i>	<i>4.17</i>	<i>3.50</i>	<i>7.50</i>	<i>1.83</i>	<i>1.00</i>	<i>1.50</i>	<i>3.50</i>	<i>0.00</i>	<i>0.33</i>	<i>0.33</i>	<i>1.00</i>	<i>0.67</i>	<i>1.83</i>	<i>1.17</i>	<i>1.00</i>	<i>0.33</i>	<i>0.17</i>	<i>0.33</i>
I48/49-nSOE-018	8	0	6	0	1	1	4	0	1	0	0	0	0	1	0	0	0	1
<i>Average 48/49</i>	<i>8</i>	<i>0</i>	<i>6</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>4</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>1</i>
I51-SOE-038	1	3	11	4	6	5	6	0	2	1	2	4	1	2	2	2	0	1
I51-SOE-059	2	0	16	3	10	4	13	1	2	5	0	11	0	10	0	1	0	1
<i>Average 51</i>	<i>2</i>	<i>2</i>	<i>14</i>	<i>4</i>	<i>8</i>	<i>5</i>	<i>10</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>1</i>	<i>8</i>	<i>1</i>	<i>6</i>	<i>1</i>	<i>2</i>	<i>0</i>	<i>1</i>

2014

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
I11-SOE-027	15	7	14	0	5	1	10	1	0	2	0	2	4	1	4	0	0	0
<i>Average I11</i>	<i>15</i>	<i>7</i>	<i>14</i>	<i>0</i>	<i>5</i>	<i>1</i>	<i>10</i>	<i>1</i>	<i>0</i>	<i>2</i>	<i>0</i>	<i>2</i>	<i>4</i>	<i>1</i>	<i>4</i>	<i>0</i>	<i>0</i>	<i>0</i>
I21-SOE-001	12	8	12	5	7	6	10	1	1	1	4	3	0	0	2	1	0	2
I21-SOE-003	20	7	15	0	8	6	4	3	4	0	3	0	0	0	0	1	2	0
I21-SOE-008	6	8	17	10	1	0	1	3	1	0	0	0	0	0	0	0	1	0
<i>Average I21</i>	<i>12.67</i>	<i>7.67</i>	<i>14.67</i>	<i>5.00</i>	<i>5.33</i>	<i>4.00</i>	<i>5.00</i>	<i>2.33</i>	<i>2.00</i>	<i>0.33</i>	<i>2.33</i>	<i>1.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.67</i>	<i>0.67</i>	<i>1.00</i>	<i>0.67</i>
I22-SOE-023	3	2	13	2	1	8	8	2	0	0	4	3	0	0	0	0	0	0
<i>Average I22</i>	<i>3</i>	<i>2</i>	<i>13</i>	<i>2</i>	<i>1</i>	<i>8</i>	<i>8</i>	<i>2</i>	<i>0</i>	<i>0</i>	<i>4</i>	<i>3</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
I23-SOE-011	2	5	12	5	5	1	4	0	0	0	2	0	3	1	0	3	0	3
I23-SOE-012	2	3	10	4	2	0	3	1	0	0	2	0	0	2	0	1	0	2
I23-SOE-025	3	7	8	1	1	2	7	2	1	2	0	1	1	4	3	1	0	1
I23-SOE-028	5	11	13	0	3	1	4	2	1	1	0	4	2	5	2	3	0	1
<i>Average I23</i>	<i>3</i>	<i>6.5</i>	<i>10.75</i>	<i>2.5</i>	<i>2.75</i>	<i>1</i>	<i>4.5</i>	<i>1.25</i>	<i>0.5</i>	<i>0.75</i>	<i>1</i>	<i>1.25</i>	<i>1.5</i>	<i>3</i>	<i>1.25</i>	<i>2</i>	<i>0</i>	<i>1.75</i>
I31/33-nSOE-010	4	0	5	0	4	1	3	0	1	0	1	0	1	0	0	1	0	0
I31/33-nSOE-064	0	0	18	0	1	1	3	0	0	1	1	0	1	1	2	0	1	0

I31/33-nSOE-090	0	1	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	1
I31/33-SOE-013	11	27	15	2	2	1	1	0	0	1	0	1	9	0	0	1	1	0
I31/33-SOE-022	1	2	13	7	2	6	4	0	2	1	1	0	6	1	0	3	0	1
I31/33-SOE-066	6	3	5	0	0	0	2	2	0	0	1	2	2	0	0	1	0	0
<i>Average I31/33</i>	<i>3.67</i>	<i>5.50</i>	<i>9.33</i>	<i>1.50</i>	<i>1.67</i>	<i>1.50</i>	<i>2.33</i>	<i>0.50</i>	<i>0.67</i>	<i>0.50</i>	<i>0.67</i>	<i>0.50</i>	<i>3.17</i>	<i>0.33</i>	<i>0.33</i>	<i>1.00</i>	<i>0.33</i>	<i>0.33</i>
I48/49-nSOE-018	4	0	3	0	3	1	3	0	1	0	0	0	0	3	2	0	0	1
<i>Average 48/49</i>	<i>4</i>	<i>0</i>	<i>3</i>	<i>0</i>	<i>3</i>	<i>1</i>	<i>3</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>3</i>	<i>2</i>	<i>0</i>	<i>0</i>	<i>1</i>
I51-SOE-038	2	1	5	3	6	1	4	0	2	0	1	4	0	2	0	1	0	1
I51-SOE-059	0	0	24	3	7	3	10	1	0	1	1	3	0	3	0	1	0	2
<i>Average 51</i>	<i>1</i>	<i>1</i>	<i>15</i>	<i>3</i>	<i>7</i>	<i>2</i>	<i>7</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>4</i>	<i>0</i>	<i>3</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>2</i>

I11: Agriculture, forest, fishing and hunting. I21: Mining, quarrying, and oil and gas extraction. I22: Utilities. I23: Construction. I31-33: Manufacturing. I48-49: Transportation and warehousing. I51: Information and cultural industries.
A: Pollution Prevention. B: Safety Mgmt. C: Employee Care. D: Corruption. E: Education. F: Poverty. G: Infrastructure & Development. H: Ecological Protection. I: Health. J: Senior. K: Clean Technology. L: Business Core. M: Product Stewardship. N: Disaster Relief. O: Reputation. P: Volunteer. Q: Sustainability Vision. R: Capacity Building

Appendix L

Table 5.2.3 Firm Size Classification and Firm Age

Data based on 2014 annual report from each corporation.

thousand RMB

Industry	Large-Size Firm Criteria	Corporation	Operating Income	Number of Employees	Founding Year
21	Operating Income>400,000	001	2,725,330,680	534,652	1998
	Employee Number>1000	003	5,900,730	115,000	1982
		008	13,455,938	170,292	1950
31-33	Operating Income>400,000	013	496,829,193	47,920	2004
	Employee Number>1000	022	187,414,000	37,838	1978
		066	800,028,753	177,000	1984
		010	21,738,358	17,839	1986
		064	141,668,175	108,120	1968
		090	15,903,216	20,962	1979
22	Operating Income>400,000 Employee Number>1000	023	61,474,849	1,867,300	2002
23	Operating Income>800,000	011	800,028,753	238,079	2007
	Gross Asset>800,000	012	366,673,234	103,357	2005
		025	591,968,452	249,624	1948
		028	610,328,055	293,592	1950
48-49	Operating Income>300,000 Employee Number>1000	018	36,043,770	10,674	1998
11	Operating Income>200,000	027	8,244,649	29,643	1949
51	Operating Income>1,000,000	038	641,448,000	241,550	2000
	Employee Number>2000	059	324,394,000	300,960	2000

Appendix M

**Table 5.2.4 Summary of Corporation-Groups Based on Operating Income
2010**

	Operating Income	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
SOE-003	5,900,730	1	1	12	8	3	6	4	0	0	0	4	0	2	2	1	0	0	0
SOE-027	8,244,649	5	8	7	1	1	0	3	0	0	0	1	2	0	3	1	0	0	1
<i>Average 1</i>		3	4.5	9.5	4.5	2	3	3.5	0	0	0	2.5	1	1	2.5	1	0	0	0.5
SOE-008	13,455,938	10	25	13	2	4	3	7	5	0	0	0	1	3	3	3	1	0	3
nSOE-090	15,903,216	0	0	2	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
nSOE-010	21,738,358	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
nSOE-018	36,043,770	2	2	15	0	1	2	3	2	4	1	0	0	0	3	2	0	0	0
SOE-023	61,474,849	10	11	6	0	3	3	7	0	0	1	2	3	0	1	0	5	0	2
<i>Average 2</i>		5.5	9.5	9	0.5	2	2	4.25	2	1	0.5	0.5	1	1	1.75	1.25	1.5	0	1.25
nSOE-064	141,668,175	6	4	17	0	0	0	2	0	1	0	0	0	4	3	0	0	0	0
SOE-022	187,414,000	13	4	20	9	4	2	3	0	1	1	0	1	6	4	2	1	0	0
SOE-059	324,394,000	1	0	11	3	5	8	5	0	3	0	1	5	2	3	1	1	0	0
SOE-012	366,673,234	2	4	4	1	0	1	1	0	0	0	0	0	0	3	1	0	0	1
SOE-013	496,829,193	6	9	5	1	0	2	2	0	0	0	1	0	1	2	1	0	1	0
<i>Average 3</i>		5.6	4.2	11.4	2.8	1.8	2.6	2.6	0	1	0.2	0.4	1.2	2.6	3	1	0.4	0.2	0.2
SOE-025	591,968,452	0	3	16	1	5	3	12	2	2	1	0	3	0	13	1	1	0	4
SOE-028	610,328,055	9	9	6	1	2	1	5	1	2	0	0	1	0	3	2	1	0	1
SOE-038	641,448,000	6	4	13	4	8	3	4	0	2	4	1	7	1	13	2	7	0	3
SOE-011	800,028,753	7	8	10	4	7	0	6	2	2	0	2	5	1	5	0	1	0	5
SOE-066	800,028,753	8	3	8	2	4	1	8	2	1	0	2	0	2	2	2	0	0	1
SOE-001	2,725,330,680	4	6	15	0	8	4	5	3	5	1	0	5	0	4	1	2	0	5
<i>Average 4</i>		5.67	5.50	11.33	2.00	5.67	2.00	6.67	1.67	2.33	1.00	0.83	3.50	0.67	6.67	1.33	2.00	0.00	3.17

2011

	Operating Income	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
SOE-003	5,900,730	6	4	16	3	4	4	4	1	0	0	1	0	2	0	0	0	2	0
SOE-027	8,244,649	8	5	3	2	0	0	1	0	0	0	0	1	2	0	0	0	0	0
<i>Average 1</i>		7	4.5	9.5	2.5	2	2	2.5	0.5	0	0	0.5	0.5	2	0	0	0	1	0
SOE-008	13,455,938	5	14	14	2	7	3	3	3	1	2	0	0	1	1	1	0	0	0
nSOE-090	15,903,216	0	2	11	0	2	0	1	0	0	0	0	0	1	0	0	1	0	0
nSOE-010	21,738,358	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
nSOE-018	36,043,770	2	3	15	0	4	1	3	0	2	0	0	1	1	3	1	1	0	1
SOE-023	61,474,849	11	5	9	3	2	3	4	3	0	1	3	4	1	3	1	2	0	0
<i>Average 2</i>		4.5	6	12.25	1.25	3.75	1.75	2.75	1.5	0.75	0.75	0.75	1.25	1	1.75	0.75	1	0	0.25
nSOE-064	141,668,175	2	1	3	0	0	1	1	0	1	0	0	0	3	0	0	0	0	0
SOE-022	187,414,000	17	5	21	7	0	1	5	1	1	2	0	1	3	1	0	1	0	1
SOE-059	324,394,000	0	2	17	3	11	7	8	0	5	0	1	3	0	5	2	0	0	3
SOE-012	366,673,234	5	6	4	2	3	2	2	1	0	0	1	0	0	0	0	0	1	1
SOE-013	496,829,193	3	8	11	3	3	1	2	0	0	0	1	2	2	1	2	1	1	0
<i>Average 3</i>		5.4	4.4	11.2	3	3.4	2.4	3.6	0.4	1.4	0.4	0.6	1.2	1.6	1.4	0.8	0.4	0.4	1
SOE-025	591,968,452	2	2	11	3	5	3	9	3	1	1	0	3	0	5	0	0	0	3
SOE-028	610,328,055	9	5	7	2	0	0	4	0	0	0	1	1	0	2	0	1	0	2
SOE-038	641,448,000	3	0	9	3	5	2	7	0	3	2	1	5	1	3	0	4	0	0
SOE-011	800,028,753	7	6	10	7	6	0	7	1	0	0	4	7	1	1	2	1	0	6
SOE-066	800,028,753	3	5	6	1	3	1	7	1	0	0	1	1	1	0	0	1	0	2
SOE-001	2,725,330,680	2	12	10	0	6	5	8	2	3	0	1	2	2	1	3	2	0	3
<i>Average 4</i>		4.33	5.00	8.83	2.67	4.17	1.83	7.00	1.17	1.17	0.50	1.33	3.17	0.83	2.00	0.83	1.50	0.00	2.67

2012

	Operating Income	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
SOE-003	5,900,730	9	7	11	4	3	2	4	0	5	0	1	0	2	1	0	0	0	1
SOE-027	8,244,649	8	8	5	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
<i>Average 1</i>		8.5	7.5	8	2	1.5	1	2	0	2.5	0	0.5	0.5	1.5	0.5	0	0	0	0.5
SOE-008	13,455,938	7	13	11	3	5	1	3	3	1	0	1	0	1	1	0	0	0	1
nSOE-090	15,903,216	0	2	9	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
nSOE-010	21,738,358	1	0	4	1	5	4	3	0	0	0	0	2	3	0	0	2	0	2
nSOE-018	36,043,770	1	1	13	1	1	0	0	1	2	0	1	1	1	0	0	3	1	0
SOE-023	61,474,849	2	5	13	3	2	4	4	1	1	1	3	2	0	0	2	3	0	0
<i>Average 2</i>		2.2	4.2	10	1.6	2.6	1.8	2	1	0.8	0.4	1	1	1	0.2	0.4	1.6	0.2	0.6
nSOE-064	141,668,175	2	3	11	1	0	0	2	0	0	0	0	0	2	0	0	1	0	0
SOE-022	187,414,000	11	2	14	7	1	4	3	0	0	1	1	2	1	0	1	0	0	0
SOE-059	324,394,000	0	2	13	2	8	3	10	0	3	1	0	10	0	2	0	1	0	0
SOE-012	366,673,234	5	3	6	3	7	2	3	2	0	0	0	0	0	0	1	3	0	2
SOE-013	496,829,193	7	14	11	2	1	2	2	0	0	0	0	0	4	0	0	1	0	0
<i>Average 3</i>		5	4.8	11	3	3.4	2.2	4	0.4	0.6	0.4	0.2	2.4	1.4	0.4	0.4	1.2	0	0.4
SOE-025	591,968,452	6	8	11	2	6	7	15	6	0	0	0	0	0	10	0	0	0	2
SOE-028	610,328,055	6	5	8	0	0	1	4	0	0	0	0	2	0	3	0	2	0	3
SOE-038	641,448,000	1	11	11	3	3	5	6	2	5	2	1	4	0	5	3	3	0	0
SOE-011	800,028,753	10	3	11	7	2	1	5	10	0	0	3	2	1	1	0	3	0	4
SOE-066	800,028,753	5	7	4	4	0	1	1	1	0	0	0	1	2	0	0	1	0	0
SOE-001	2,725,330,680	3	11	17	0	10	10	13	6	5	1	2	3	1	2	3	2	0	4
<i>Average 4</i>		5.17	7.50	10.33	2.67	3.50	4.17	7.33	4.17	1.67	0.50	1.00	2.00	0.67	3.50	1.00	1.83	0.00	2.17

2013

	Operating Income	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
SOE-003	5,900,730	12	7	20	0	11	4	12	1	4	1	3	0	0	4	2	1	3	1
SOE-027	8,244,649	3	7	6	0	0	0	5	1	0	2	0	1	0	2	0	0	0	0
<i>Average 1</i>		7.5	7	13	0	5.5	2	8.5	1	2	1.5	1.5	0.5	0	3	1	0.5	1.5	0.5
SOE-008	13,455,938	4	25	13	8	4	3	8	7	1	0	0	1	0	1	0	2	0	1
nSOE-090	15,903,216	1	2	5	0	0	1	1	0	0	0	1	0	0	2	1	0	0	0
nSOE-010	21,738,358	2	1	4	2	3	1	5	0	1	0	0	1	3	1	2	0	0	1
nSOE-018	36,043,770	8	0	6	0	1	1	4	0	1	0	0	0	0	1	0	0	0	1
SOE-023	61,474,849	7	3	11	4	2	0	7	1	0	0	5	2	2	1	0	1	0	0
<i>Average 2</i>		4.4	6.2	7.8	2.8	2	1.2	5	1.6	0.6	0	1.2	0.8	1	1.2	0.6	0.6	0	0.6
nSOE-064	141,668,175	5	2	7	0	0	1	3	0	0	0	0	2	5	1	1	0	0	0
SOE-022	187,414,000	9	4	16	3	3	5	9	0	1	1	3	0	0	1	1	0	0	1
SOE-059	324,394,000	2	0	16	3	10	4	13	1	2	5	0	11	0	10	0	1	0	1
SOE-012	366,673,234	7	3	13	1	3	2	3	1	1	0	0	0	1	3	1	3	0	0
SOE-013	496,829,193	7	12	10	5	0	0	2	0	0	0	1	1	2	0	0	2	0	0
<i>Average 3</i>		6	4.2	12.4	2.4	3.2	2.4	6	0.4	0.8	1.2	0.8	2.8	1.6	3	0.6	1.2	0	0.4
SOE-025	591,968,452	3	8	11	3	4	3	9	2	1	0	0	0	0	3	4	3	0	4
SOE-028	610,328,055	2	8	13	0	1	2	6	1	0	0	0	2	0	3	0	0	0	1
SOE-038	641,448,000	1	3	11	4	6	5	6	0	2	1	2	4	1	2	2	2	0	1
SOE-011	800,028,753	2	3	12	5	0	2	2	1	0	0	0	0	2	2	0	1	0	2
SOE-066	800,028,753	1	0	3	1	0	1	1	0	0	1	1	0	1	2	1	0	1	0
SOE-001	2,725,330,680	3	6	15	1	11	9	17	4	2	0	3	5	1	0	2	1	0	4
<i>Average 4</i>		2.00	4.67	10.83	2.33	3.67	3.67	6.83	1.33	0.83	0.33	1.00	1.83	0.83	2.00	1.50	1.17	0.17	2.00

2014

	Operating Income	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
SOE-003	5,900,730	20	7	15	0	8	6	4	3	4	0	3	0	0	0	0	1	2	0
SOE-027	8,244,649	15	7	14	0	5	1	10	1	0	2	0	2	4	1	4	0	0	0
<i>Average 1</i>		<i>17.5</i>	<i>7</i>	<i>14.5</i>	<i>0</i>	<i>6.5</i>	<i>3.5</i>	<i>7</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>1.5</i>	<i>1</i>	<i>2</i>	<i>0.5</i>	<i>2</i>	<i>0.5</i>	<i>1</i>	<i>0</i>
SOE-008	13,455,938	6	8	17	10	1	0	1	3	1	0	0	0	0	0	0	0	1	0
nSOE-090	15,903,216	0	1	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	1
nSOE-010	21,738,358	4	0	5	0	4	1	3	0	1	0	1	0	1	0	0	1	0	0
nSOE-018	36,043,770	4	0	3	0	3	1	3	0	1	0	0	0	0	3	2	0	0	1
SOE-023	61,474,849	3	2	13	2	1	8	8	2	0	0	4	3	0	0	0	0	0	0
<i>Average 2</i>		<i>3.4</i>	<i>2.2</i>	<i>7.6</i>	<i>2.4</i>	<i>2</i>	<i>2</i>	<i>3.2</i>	<i>1.2</i>	<i>0.8</i>	<i>0</i>	<i>1</i>	<i>0.6</i>	<i>0.2</i>	<i>0.6</i>	<i>0.4</i>	<i>0.2</i>	<i>0.2</i>	<i>0.4</i>
nSOE-064	141,668,175	0	0	18	0	1	1	3	0	0	1	1	0	1	1	2	0	1	0
SOE-022	187,414,000	1	2	13	7	2	6	4	0	2	1	1	0	6	1	0	3	0	1
SOE-059	324,394,000	0	0	24	3	7	3	10	1	0	1	1	3	0	3	0	1	0	2
SOE-012	366,673,234	2	3	10	4	2	0	3	1	0	0	2	0	0	2	0	1	0	2
SOE-013	496,829,193	11	27	15	2	2	1	1	0	0	1	0	1	9	0	0	1	1	0
<i>Average 3</i>		<i>2.8</i>	<i>6.4</i>	<i>16</i>	<i>3.2</i>	<i>2.8</i>	<i>2.2</i>	<i>4.2</i>	<i>0.4</i>	<i>0.4</i>	<i>0.8</i>	<i>1</i>	<i>0.8</i>	<i>3.2</i>	<i>1.4</i>	<i>0.4</i>	<i>1.2</i>	<i>0.4</i>	<i>1</i>
SOE-025	591,968,452	3	7	8	1	1	2	7	2	1	2	0	1	1	4	3	1	0	1
SOE-028	610,328,055	5	11	13	0	3	1	4	2	1	1	0	4	2	5	2	3	0	1
SOE-038	641,448,000	2	1	5	3	6	1	4	0	2	0	1	4	0	2	0	1	0	1
SOE-011	800,028,753	2	5	12	5	5	1	4	0	0	0	2	0	3	1	0	3	0	3
SOE-066	800,028,753	6	3	5	0	0	0	2	2	0	0	1	2	2	0	0	1	0	0
SOE-001	2,725,330,680	12	8	12	5	7	6	10	1	1	1	4	3	0	0	2	1	0	2
<i>Average 4</i>		<i>5.00</i>	<i>5.83</i>	<i>9.17</i>	<i>2.33</i>	<i>3.67</i>	<i>1.83</i>	<i>5.17</i>	<i>1.17</i>	<i>0.83</i>	<i>0.67</i>	<i>1.33</i>	<i>2.33</i>	<i>1.33</i>	<i>2.00</i>	<i>1.17</i>	<i>1.67</i>	<i>0.00</i>	<i>1.33</i>

A: Pollution Prevention. B: Safety Mgmt. C: Employee Care. D: Corruption. E: Education. F: Poverty. G: Infrastructure & Development. H: Ecological Protection. I: Health. J: Senior. K: Clean Technology. L: Business Core. M: Product Stewardship. N: Disaster Relief. O: Reputation. P: Volunteer. Q: Sustainability Vision. R: Capacity Building

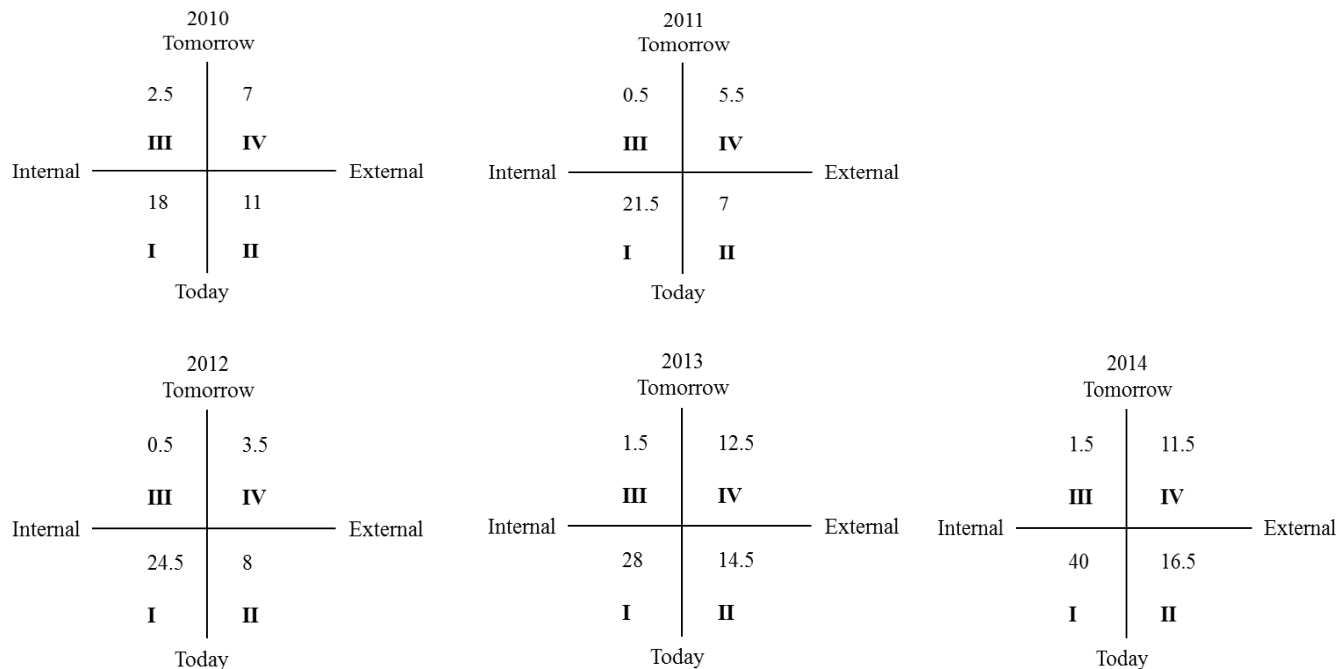
Appendix N

Chinese Corporations' CS Focus Based on Operating Income

According to Hart and Milstein's framework, quadrant one includes initiative A, B, C and L, quadrant two includes initiative M, D, H, O, P, J, N, I and E, quadrant three includes initiative K, and quadrant four includes initiative Q, F, G and R. The total number of each quadrant across the four groups was calculated and showed in the below figures.

A: Pollution Prevention. B: Safety Mgmt. C: Employee Care. D: Corruption. E: Education. F: Poverty. G: Infrastructure & Development. H: Ecological Protection. I: Health. J: Senior. K: Clean Technology. L: Business Core. M: Product Stewardship. N: Disaster Relief. O: Reputation. P: Volunteer. Q: Sustainability Vision. R: Capacity Building

Group 1: Operating income less than 10,000,000 thousands RMB



Group 2: Operating income between 10,000,000 thousands RMB and 100,000,000 thousands RMB

2010		2011		2012		2013		2014	
Tomorrow		Tomorrow		Tomorrow		Tomorrow		Tomorrow	
2.5	7	0.5	5.5	0.5	3.5	1.5	12.5	1.5	11.5
III	IV	III	IV	III	IV	III	IV	III	IV
18	11	21.5	7	24.5	8	28	14.5	40	16.5
I	II	I	II	I	II	I	II	I	II
Today		Today		Today		Today		Today	

Group 3: Operating income between 100,000,000 thousands RMB and 500,000,000 thousands RMB

2010		2011	
Tomorrow		Tomorrow	
0.5	7.5	0.75	6
III	IV	III	IV
25	11.5	24	21.5
I	II	I	II
Today		Today	

2012	
Tomorrow	
1	4.6
III	IV
Internal	External
17.4	18.6
I	II
Today	

2013	
Tomorrow	
1.2	6.8
III	IV
Internal	External
19.2	10.4
I	II
Today	

2014	
Tomorrow	
1	5.8
III	IV
Internal	External
13.8	7.8
I	II
Today	

Group 4: Operating income more than 500,000,000 thousands RMB

2010	
Tomorrow	
0.83	11.83
III	IV
Internal	External
26	23.33
I	II
Today	

2011	
Tomorrow	
1.33	11.5
III	IV
Internal	External
21.33	14.83
I	II
Today	

2012	
Tomorrow	
1	13.67
III	IV
Internal	External
25	20.5
I	II
Today	

2013	
Tomorrow	
1	12.67
III	IV
Internal	External
19.33	14
I	II
Today	

2014	
Tomorrow	
1.33	8.33
III	IV
Internal	External
22.33	14.83
I	II
Today	

Appendix O

**Table 5.2.5 Summary of Corporation-Groups Based on Number of Employees
2010**

	Employee	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
nSOE-018	10,674	2	2	15	0	1	2	3	2	4	1	0	0	0	3	2	0	0	0
nSOE-010	17,839	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
nSOE-090	20,962	0	0	2	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
SOE-027	29,643	5	8	7	1	1	0	3	0	0	0	1	2	0	3	1	0	0	1
SOE-022	37,838	13	4	20	9	4	2	3	0	1	1	0	1	6	4	2	1	0	0
SOE-013	47,920	6	9	5	1	0	2	2	0	0	0	1	0	1	2	1	0	1	0
<i>Average 1</i>		<i>5.20</i>	<i>4.60</i>	<i>9.80</i>	<i>2.20</i>	<i>1.20</i>	<i>1.20</i>	<i>2.20</i>	<i>0.60</i>	<i>1.00</i>	<i>0.40</i>	<i>0.40</i>	<i>0.60</i>	<i>1.60</i>	<i>2.40</i>	<i>1.20</i>	<i>0.20</i>	<i>0.20</i>	<i>0.20</i>
SOE-012	103,357	2	4	4	1	0	1	1	0	0	0	0	0	0	3	1	0	0	1
nSOE-064	108,120	6	4	17	0	0	0	2	0	1	0	0	0	4	3	0	0	0	0
SOE-003	115,000	1	1	12	8	3	6	4	0	0	0	4	0	2	2	1	0	0	0
SOE-008	170,292	10	25	13	2	4	3	7	5	0	0	0	1	3	3	3	1	0	3
SOE-066	177,000	8	3	8	2	4	1	8	2	1	0	2	0	2	2	2	0	0	1
SOE-011	238,079	7	8	10	4	7	0	6	2	2	0	2	5	1	5	0	1	0	5
SOE-038	241,550	6	4	13	4	8	3	4	0	2	4	1	7	1	13	2	7	0	3
SOE-025	249,624	0	3	16	1	5	3	12	2	2	1	0	3	0	13	1	1	0	4
SOE-028	293,592	9	9	6	1	2	1	5	1	2	0	0	1	0	3	2	1	0	1
SOE-059	300,960	1	0	11	3	5	8	5	0	3	0	1	5	2	3	1	1	0	0
<i>Average 2</i>		<i>5</i>	<i>6.1</i>	<i>11</i>	<i>2.6</i>	<i>3.8</i>	<i>2.6</i>	<i>5.4</i>	<i>1.2</i>	<i>1.3</i>	<i>0.5</i>	<i>1</i>	<i>2.2</i>	<i>1.5</i>	<i>5</i>	<i>1.3</i>	<i>1.2</i>	<i>0</i>	<i>1.8</i>
SOE-001	534,652	4	6	15	0	8	4	5	3	5	1	0	5	0	4	1	2	0	5
SOE-023	1,867,300	10	11	6	0	3	3	7	0	0	1	2	3	0	1	0	5	0	2
<i>Average 3</i>		<i>7</i>	<i>8.5</i>	<i>10.5</i>	<i>0</i>	<i>5.5</i>	<i>3.5</i>	<i>6</i>	<i>1.5</i>	<i>2.5</i>	<i>1</i>	<i>1</i>	<i>4</i>	<i>0</i>	<i>2.5</i>	<i>0.5</i>	<i>3.5</i>	<i>0</i>	<i>3.5</i>

2011

	Employee	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
nSOE-018	10,674	2	3	15	0	4	1	3	0	2	0	0	1	1	3	1	1	0	1
nSOE-010	17,839	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
nSOE-090	20,962	0	2	11	0	2	0	1	0	0	0	0	0	1	0	0	1	0	0
SOE-027	29,643	8	5	3	2	0	0	1	0	0	0	0	1	2	0	0	0	0	0
SOE-022	37,838	17	5	21	7	0	1	5	1	1	2	0	1	3	1	0	1	0	1
SOE-013	47,920	3	8	11	3	3	1	2	0	0	0	1	2	2	1	2	1	1	0
Average 1		6.00	4.60	12.20	2.40	1.80	0.60	2.40	0.20	0.60	0.40	0.20	1.00	1.80	1.00	0.60	0.80	0.20	0.40
SOE-012	103,357	5	6	4	2	3	2	2	1	0	0	1	0	0	0	0	0	1	1
nSOE-064	108,120	2	1	3	0	0	1	1	0	1	0	0	0	3	0	0	0	0	0
SOE-003	115,000	6	4	16	3	4	4	4	1	0	0	1	0	2	0	0	0	2	0
SOE-008	170,292	5	14	14	2	7	3	3	3	1	2	0	0	1	1	1	0	0	0
SOE-066	177,000	3	5	6	1	3	1	7	1	0	0	1	1	1	0	0	1	0	2
SOE-011	238,079	7	6	10	7	6	0	7	1	0	0	4	7	1	1	2	1	0	6
SOE-038	241,550	3	0	9	3	5	2	7	0	3	2	1	5	1	3	0	4	0	0
SOE-025	249,624	2	2	11	3	5	3	9	3	1	1	0	3	0	5	0	0	0	3
SOE-028	293,592	9	5	7	2	0	0	4	0	0	0	1	1	0	2	0	1	0	2
SOE-059	300,960	0	2	17	3	11	7	8	0	5	0	1	3	0	5	2	0	0	3
Average 2		4.2	4.5	9.7	2.6	4.4	2.3	5.2	1	1.1	0.5	1	2	0.9	1.7	0.5	0.7	0.3	1.7
SOE-001	534,652	2	12	10	0	6	5	8	2	3	0	1	2	2	1	3	2	0	3
SOE-023	1,867,300	11	5	9	3	2	3	4	3	0	1	3	4	1	3	1	2	0	0
Average 3		6.5	8.5	9.5	1.5	4	4	6	2.5	1.5	0.5	2	3	1.5	2	2	2	0	1.5

2012

	Employee	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
nSOE-018	10,674	1	1	13	1	1	0	0	1	2	0	1	1	1	0	0	3	1	0
nSOE-010	17,839	1	0	4	1	5	4	3	0	0	0	0	2	3	0	0	2	0	2
nSOE-090	20,962	0	2	9	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
SOE-027	29,643	8	8	5	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
SOE-022	37,838	11	2	14	7	1	4	3	0	0	1	1	2	1	0	1	0	0	0
SOE-013	47,920	7	14	11	2	1	2	2	0	0	0	0	0	4	0	0	1	0	0
<i>Average 1</i>		4.67	4.50	9.33	1.83	1.33	1.67	1.33	0.17	0.33	0.33	0.33	1.00	1.67	0.00	0.17	1.00	0.17	0.33
SOE-012	103,357	5	3	6	3	7	2	3	2	0	0	0	0	0	0	1	3	0	2
nSOE-064	108,120	2	3	11	1	0	0	2	0	0	0	0	0	2	0	0	1	0	0
SOE-003	115,000	9	7	11	4	3	2	4	0	5	0	1	0	2	1	0	0	0	1
SOE-008	170,292	7	13	11	3	5	1	3	3	1	0	1	0	1	1	0	0	0	1
SOE-066	177,000	5	7	4	4	0	1	1	1	0	0	0	1	2	0	0	1	0	0
SOE-011	238,079	10	3	11	7	2	1	5	10	0	0	3	2	1	1	0	3	0	4
SOE-038	241,550	1	11	11	3	3	5	6	2	5	2	1	4	0	5	3	3	0	0
SOE-025	249,624	6	8	11	2	6	7	15	6	0	0	0	0	0	10	0	0	0	2
SOE-028	293,592	6	5	8	0	0	1	4	0	0	0	0	2	0	3	0	2	0	3
SOE-059	300,960	0	2	13	2	8	3	10	0	3	1	0	10	0	2	0	1	0	0
<i>Average 2</i>		5.1	6.2	9.7	2.9	3.4	2.3	5.3	2.4	1.4	0.3	0.6	1.9	0.8	2.3	0.4	1.4	0	1.3
SOE-001	534,652	3	11	17	0	10	10	13	6	5	1	2	3	1	2	3	2	0	4
SOE-023	1,867,300	2	5	13	3	2	4	4	1	1	1	3	2	0	0	2	3	0	0
<i>Average 3</i>		2.5	8	15	1.5	6	7	8.5	3.5	3	1	2.5	2.5	0.5	1	2.5	2.5	0	2

2013

	Employee	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
nSOE-018	10,674	8	0	6	0	1	1	4	0	1	0	0	0	0	1	0	0	0	1
nSOE-010	17,839	2	1	4	2	3	1	5	0	1	0	0	1	3	1	2	0	0	1
nSOE-090	20,962	1	2	5	0	0	1	1	0	0	0	1	0	0	2	1	0	0	0
SOE-027	29,643	3	7	6	0	0	0	5	1	0	2	0	1	0	2	0	0	0	0
SOE-022	37,838	9	4	16	3	3	5	9	0	1	1	3	0	0	1	1	0	0	1
SOE-013	47,920	7	12	10	5	0	0	2	0	0	0	1	1	2	0	0	2	0	0
<i>Average 1</i>		5.00	4.33	7.83	1.67	1.17	1.33	4.33	0.17	0.50	0.50	0.83	0.50	0.83	1.17	0.67	0.33	0.00	0.50
SOE-012	103,357	7	3	13	1	3	2	3	1	1	0	0	0	1	3	1	3	0	0
nSOE-064	108,120	5	2	7	0	0	1	3	0	0	0	0	2	5	1	1	0	0	0
SOE-003	115,000	12	7	20	0	11	4	12	1	4	1	3	0	0	4	2	1	3	1
SOE-008	170,292	4	25	13	8	4	3	8	7	1	0	0	1	0	1	0	2	0	1
SOE-066	177,000	1	0	3	1	0	1	1	0	0	1	1	0	1	2	1	0	1	0
SOE-011	238,079	2	3	12	5	0	2	2	1	0	0	0	0	2	2	0	1	0	2
SOE-038	241,550	1	3	11	4	6	5	6	0	2	1	2	4	1	2	2	2	0	1
SOE-025	249,624	3	8	11	3	4	3	9	2	1	0	0	0	0	3	4	3	0	4
SOE-028	293,592	2	8	13	0	1	2	6	1	0	0	0	2	0	3	0	0	0	1
SOE-059	300,960	2	0	16	3	10	4	13	1	2	5	0	11	0	10	0	1	0	1
<i>Average 2</i>		3.9	5.9	11.9	2.5	3.9	2.7	6.3	1.4	1.1	0.8	0.6	2	1	3.1	1.1	1.3	0.4	1.1
SOE-001	534,652	3	6	15	1	11	9	17	4	2	0	3	5	1	0	2	1	0	4
SOE-023	1,867,300	7	3	11	4	2	0	7	1	0	0	5	2	2	1	0	1	0	0
<i>Average 3</i>		5	4.5	13	2.5	6.5	4.5	12	2.5	1	0	4	3.5	1.5	0.5	1	1	0	2

2014

	Employee	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
nSOE-018	10,674	4	0	3	0	3	1	3	0	1	0	0	0	0	3	2	0	0	1
nSOE-010	17,839	4	0	5	0	4	1	3	0	1	0	1	0	1	0	0	1	0	0
nSOE-090	20,962	0	1	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	1
SOE-027	29,643	15	7	14	0	5	1	10	1	0	2	0	2	4	1	4	0	0	0
SOE-022	37,838	1	2	13	7	2	6	4	0	2	1	1	0	6	1	0	3	0	1
SOE-013	47,920	11	27	15	2	2	1	1	0	0	1	0	1	9	0	0	1	1	0
<i>Average 1</i>		<i>5.83</i>	<i>6.17</i>	<i>8.33</i>	<i>1.50</i>	<i>2.83</i>	<i>1.67</i>	<i>3.67</i>	<i>0.33</i>	<i>0.83</i>	<i>0.67</i>	<i>0.33</i>	<i>0.50</i>	<i>3.33</i>	<i>0.83</i>	<i>1.00</i>	<i>0.83</i>	<i>0.17</i>	<i>0.50</i>
SOE-012	103,357	2	3	10	4	2	0	3	1	0	0	2	0	0	2	0	1	0	2
nSOE-064	108,120	0	0	18	0	1	1	3	0	0	1	1	0	1	1	2	0	1	0
SOE-003	115,000	20	7	15	0	8	6	4	3	4	0	3	0	0	0	0	1	2	0
SOE-008	170,292	6	8	17	10	1	0	1	3	1	0	0	0	0	0	0	0	1	0
SOE-066	177,000	6	3	5	0	0	0	2	2	0	0	1	2	2	0	0	1	0	0
SOE-011	238,079	2	5	12	5	5	1	4	0	0	0	2	0	3	1	0	3	0	3
SOE-038	241,550	2	1	5	3	6	1	4	0	2	0	1	4	0	2	0	1	0	1
SOE-025	249,624	3	7	8	1	1	2	7	2	1	2	0	1	1	4	3	1	0	1
SOE-028	293,592	5	11	13	0	3	1	4	2	1	1	0	4	2	5	2	3	0	1
SOE-059	300,960	0	0	24	3	7	3	10	1	0	1	1	3	0	3	0	1	0	2
<i>Average 2</i>		<i>4.6</i>	<i>4.5</i>	<i>12.7</i>	<i>2.6</i>	<i>3.4</i>	<i>1.5</i>	<i>4.2</i>	<i>1.4</i>	<i>0.9</i>	<i>0.5</i>	<i>1.1</i>	<i>1.4</i>	<i>0.9</i>	<i>1.8</i>	<i>0.7</i>	<i>1.2</i>	<i>0.4</i>	<i>1</i>
SOE-001	534,652	12	8	12	5	7	6	10	1	1	1	4	3	0	0	2	1	0	2
SOE-023	1,867,300	3	2	13	2	1	8	8	2	0	0	4	3	0	0	0	0	0	0
<i>Average 3</i>		<i>7.5</i>	<i>5</i>	<i>12.5</i>	<i>3.5</i>	<i>4</i>	<i>7</i>	<i>9</i>	<i>1.5</i>	<i>0.5</i>	<i>0.5</i>	<i>4</i>	<i>3</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>0.5</i>	<i>0</i>	<i>1</i>

A: Pollution Prevention. B: Safety Mgmt. C: Employee Care. D: Corruption. E: Education. F: Poverty. G: Infrastructure & Development. H: Ecological Protection. I: Health. J: Senior. K: Clean Technology. L: Business Core. M: Product Stewardship. N: Disaster Relief. O: Reputation. P: Volunteer. Q: Sustainability Vision. R: Capacity Building

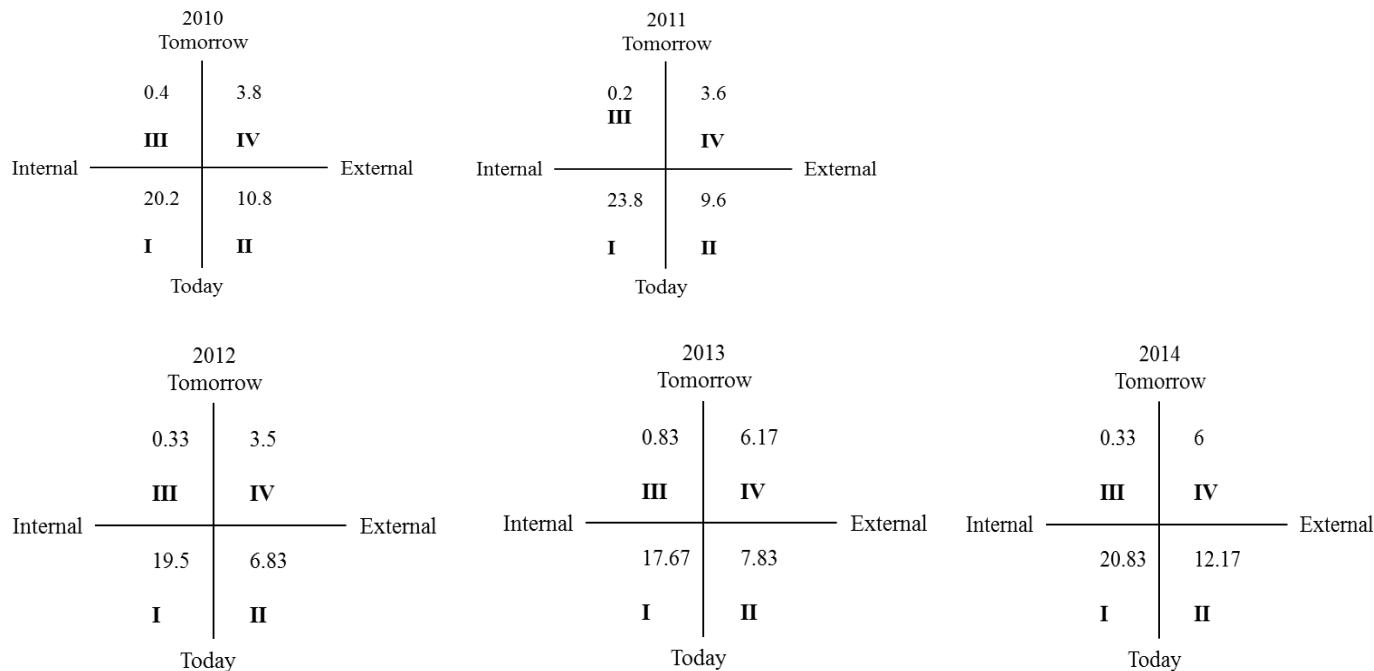
Appendix P

Chinese Corporations' CS Focus Based on Number of Employees

According to Hart and Milstein's framework, quadrant one includes initiative A, B, C and L, quadrant two includes initiative M, D, H, O, P, J, N, I and E, quadrant three includes initiative K, and quadrant four includes initiative Q, F, G and R. The total number of each quadrant across the four groups was calculated and showed in the below figures.

A: Pollution Prevention. B: Safety Mgmt. C: Employee Care. D: Corruption. E: Education. F: Poverty. G: Infrastructure & Development. H: Ecological Protection. I: Health. J: Senior. K: Clean Technology. L: Business Core. M: Product Stewardship. N: Disaster Relief. O: Reputation. P: Volunteer. Q: Sustainability Vision. R: Capacity Building

Group 1: Number of employees less than 100,000



Group 2: Number of employees between 100,000 and 500,000

2010 Tomorrow		
1	9.8	
III	IV	
24.3	18.4	
I	II	
Today		

2011 Tomorrow		
1	9.5	
III	IV	
20.4	13.4	
I	II	
Today		

2012 Tomorrow		
0.6	8.9	
III	IV	
22.9	15.3	
I	II	
Today		

2013 Tomorrow		
0.6	10.5	
III	IV	
23.7	16.2	
I	II	
Today		

2014 Tomorrow		
1.1	7.1	
III	IV	
23.2	13.4	
I	II	
Today		

Group 3: Number of employees more than 500,000

2010 Tomorrow		
1	13	
III	IV	
30	17	
I	II	
Today		

2011 Tomorrow		
2	11.5	
III	IV	
27.5	17.5	
I	II	
Today		

2012 Tomorrow		
2.5	17.5	
III	IV	
28	21.5	
I	II	
Today		

2013 Tomorrow		
4	18.5	
III	IV	
26	16.5	
I	II	
Today		

2014 Tomorrow		
4	17	
III	IV	
28	11.5	
I	II	
Today		

Appendix Q

**Table 5.2.6 Summary of Corporation-Groups Based on Founding Years
2010**

	Founding Year	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
SOE-025	1948	0	3	16	1	5	3	12	2	2	1	0	3	0	13	1	1	0	4
SOE-027	1949	5	8	7	1	1	0	3	0	0	0	1	2	0	3	1	0	0	1
SOE-008	1950	10	25	13	2	4	3	7	5	0	0	0	1	3	3	3	1	0	3
SOE-028	1950	9	9	6	1	2	1	5	1	2	0	0	1	0	3	2	1	0	1
nSOE-064	1968	6	4	17	0	0	0	2	0	1	0	0	0	4	3	0	0	0	0
<i>Average 1</i>		6	9.8	11.8	1	2.4	1.4	5.8	1.6	1	0.2	0.2	1.4	1.4	5	1.4	0.6	0	1.8
SOE-022	1978	13	4	20	9	4	2	3	0	1	1	0	1	6	4	2	1	0	0
nSOE-090	1979	0	0	2	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
SOE-003	1982	1	1	12	8	3	6	4	0	0	0	4	0	2	2	1	0	0	0
SOE-066	1984	8	3	8	2	4	1	8	2	1	0	2	0	2	2	2	0	0	1
nSOE-010	1986	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
SOE-001	1998	4	6	15	0	8	4	5	3	5	1	0	5	0	4	1	2	0	5
nSOE-018	1998	2	2	15	0	1	2	3	2	4	1	0	0	0	3	2	0	0	0
<i>Average 2</i>		4.67	2.67	12.00	3.17	3.33	2.50	3.83	1.33	1.83	0.50	1.00	1.00	1.83	2.50	1.33	0.50	0.00	1.00
SOE-038	2000	6	4	13	4	8	3	4	0	2	4	1	7	1	13	2	7	0	3
SOE-059	2000	1	0	11	3	5	8	5	0	3	0	1	5	2	3	1	1	0	0
SOE-023	2002	10	11	6	0	3	3	7	0	0	1	2	3	0	1	0	5	0	2
SOE-013	2004	6	9	5	1	0	2	2	0	0	0	1	0	1	2	1	0	1	0
SOE-012	2005	2	4	4	1	0	1	1	0	0	0	0	0	0	3	1	0	0	1
SOE-011	2007	7	8	10	4	7	0	6	2	2	0	2	5	1	5	0	1	0	5
<i>Average 3</i>		5.33	6.00	8.17	2.17	3.83	2.83	4.17	0.33	1.17	0.83	1.17	3.33	0.83	4.50	0.83	2.33	0.17	1.83

2011

	Founding Year	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
SOE-025	1948	2	2	11	3	5	3	9	3	1	1	0	3	0	5	0	0	0	3
SOE-027	1949	8	5	3	2	0	0	1	0	0	0	0	1	2	0	0	0	0	0
SOE-008	1950	5	14	14	2	7	3	3	3	1	2	0	0	1	1	1	0	0	0
SOE-028	1950	9	5	7	2	0	0	4	0	0	0	1	1	0	2	0	1	0	2
nSOE-064	1968	2	1	3	0	0	1	1	0	1	0	0	0	3	0	0	0	0	0
<i>Average 1</i>		5.2	5.4	7.6	1.8	2.4	1.4	3.6	1.2	0.6	0.6	0.2	1	1.2	1.6	0.2	0.2	0	1
SOE-022	1978	17	5	21	7	0	1	5	1	1	2	0	1	3	1	0	1	0	1
nSOE-090	1979	0	2	11	0	2	0	1	0	0	0	0	0	1	0	0	1	0	0
SOE-003	1982	6	4	16	3	4	4	4	1	0	0	1	0	2	0	0	0	2	0
SOE-066	1984	3	5	6	1	3	1	7	1	0	0	1	1	1	0	0	1	0	2
nSOE-010	1986	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
SOE-001	1998	2	12	10	0	6	5	8	2	3	0	1	2	2	1	3	2	0	3
nSOE-018	1998	2	3	15	0	4	1	3	0	2	0	0	1	1	3	1	1	0	1
<i>Average 2</i>		5.00	5.17	13.17	1.83	3.17	2.00	4.67	0.83	1.00	0.33	0.50	0.83	1.67	0.83	0.67	1.00	0.33	1.17
SOE-038	2000	3	0	9	3	5	2	7	0	3	2	1	5	1	3	0	4	0	0
SOE-059	2000	0	2	17	3	11	7	8	0	5	0	1	3	0	5	2	0	0	3
SOE-023	2002	11	5	9	3	2	3	4	3	0	1	3	4	1	3	1	2	0	0
SOE-013	2004	3	8	11	3	3	1	2	0	0	0	1	2	2	1	2	1	1	0
SOE-012	2005	5	6	4	2	3	2	2	1	0	0	1	0	0	0	0	0	1	1
SOE-011	2007	7	6	10	7	6	0	7	1	0	0	4	7	1	1	2	1	0	6
<i>Average 3</i>		4.83	4.50	10.00	3.50	5.00	2.50	5.00	0.83	1.33	0.50	1.83	3.50	0.83	2.17	1.17	1.33	0.33	1.67

2012

	Founding Year	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
SOE-025	1948	6	8	11	2	6	7	15	6	0	0	0	0	0	10	0	0	0	2
SOE-027	1949	8	8	5	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
SOE-008	1950	7	13	11	3	5	1	3	3	1	0	1	0	1	1	0	0	0	1
SOE-028	1950	6	5	8	0	0	1	4	0	0	0	0	2	0	3	0	2	0	3
nSOE-064	1968	2	3	11	1	0	0	2	0	0	0	0	0	2	0	0	1	0	0
<i>Average 1</i>		5.8	7.4	9.2	1.2	2.2	1.8	4.8	1.8	0.2	0	0.2	0.6	0.8	2.8	0	0.6	0	1.2
SOE-022	1978	11	2	14	7	1	4	3	0	0	1	1	2	1	0	1	0	0	0
nSOE-090	1979	0	2	9	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
SOE-003	1982	9	7	11	4	3	2	4	0	5	0	1	0	2	1	0	0	0	1
SOE-066	1984	5	7	4	4	0	1	1	1	0	0	0	1	2	0	0	1	0	0
nSOE-010	1986	1	0	4	1	5	4	3	0	0	0	0	2	3	0	0	2	0	2
SOE-001	1998	3	11	17	0	10	10	13	6	5	1	2	3	1	2	3	2	0	4
nSOE-018	1998	1	1	13	1	1	0	0	1	2	0	1	1	1	0	0	3	1	0
<i>Average 2</i>		4.29	4.29	10.29	2.43	2.86	3.00	3.43	1.14	1.71	0.43	0.71	1.29	1.43	0.43	0.57	1.14	0.14	1.00
SOE-038	2000	1	11	11	3	3	5	6	2	5	2	1	4	0	5	3	3	0	0
SOE-059	2000	0	2	13	2	8	3	10	0	3	1	0	10	0	2	0	1	0	0
SOE-023	2002	2	5	13	3	2	4	4	1	1	1	3	2	0	0	2	3	0	0
SOE-013	2004	7	14	11	2	1	2	2	0	0	0	0	0	4	0	0	1	0	0
SOE-012	2005	5	3	6	3	7	2	3	2	0	0	0	0	0	0	1	3	0	2
SOE-011	2007	10	3	11	7	2	1	5	10	0	0	3	2	1	1	0	3	0	4
<i>Average 3</i>		4.17	6.33	10.83	3.33	3.83	2.83	5.00	2.50	1.50	0.67	1.17	3.00	0.83	1.33	1.00	2.33	0.00	1.00

2013

	Founding Year	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
SOE-025	1948	3	8	11	3	4	3	9	2	1	0	0	0	0	3	4	3	0	4
SOE-027	1949	3	7	6	0	0	0	5	1	0	2	0	1	0	2	0	0	0	0
SOE-008	1950	4	25	13	8	4	3	8	7	1	0	0	1	0	1	0	2	0	1
SOE-028	1950	2	8	13	0	1	2	6	1	0	0	0	2	0	3	0	0	0	1
nSOE-064	1968	5	2	7	0	0	1	3	0	0	0	0	2	5	1	1	0	0	0
<i>Average 1</i>		<i>3.4</i>	<i>10</i>	<i>10</i>	<i>2.2</i>	<i>1.8</i>	<i>1.8</i>	<i>6.2</i>	<i>2.2</i>	<i>0.4</i>	<i>0.4</i>	<i>0</i>	<i>1.2</i>	<i>1</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>0</i>	<i>1.2</i>
SOE-022	1978	9	4	16	3	3	5	9	0	1	1	3	0	0	1	1	0	0	1
nSOE-090	1979	1	2	5	0	0	1	1	0	0	0	1	0	0	2	1	0	0	0
SOE-003	1982	12	7	20	0	11	4	12	1	4	1	3	0	0	4	2	1	3	1
SOE-066	1984	1	0	3	1	0	1	1	0	0	1	1	0	1	2	1	0	1	0
nSOE-010	1986	2	1	4	2	3	1	5	0	1	0	0	1	3	1	2	0	0	1
SOE-001	1998	3	6	15	1	11	9	17	4	2	0	3	5	1	0	2	1	0	4
nSOE-018	1998	8	0	6	0	1	1	4	0	1	0	0	0	0	1	0	0	0	1
<i>Average 2</i>		<i>5.14</i>	<i>2.86</i>	<i>9.86</i>	<i>1.00</i>	<i>4.14</i>	<i>3.14</i>	<i>7.00</i>	<i>0.71</i>	<i>1.29</i>	<i>0.43</i>	<i>1.57</i>	<i>0.86</i>	<i>0.71</i>	<i>1.57</i>	<i>1.29</i>	<i>0.29</i>	<i>0.57</i>	<i>1.14</i>
SOE-038	2000	1	3	11	4	6	5	6	0	2	1	2	4	1	2	2	2	0	1
SOE-059	2000	2	0	16	3	10	4	13	1	2	5	0	11	0	10	0	1	0	1
SOE-023	2002	7	3	11	4	2	0	7	1	0	0	5	2	2	1	0	1	0	0
SOE-013	2004	7	12	10	5	0	0	2	0	0	0	1	1	2	0	0	2	0	0
SOE-012	2005	7	3	13	1	3	2	3	1	1	0	0	0	1	3	1	3	0	0
SOE-011	2007	2	3	12	5	0	2	2	1	0	0	0	0	2	2	0	1	0	2
<i>Average 3</i>		<i>4.33</i>	<i>4.00</i>	<i>12.17</i>	<i>3.67</i>	<i>3.50</i>	<i>2.17</i>	<i>5.50</i>	<i>0.67</i>	<i>0.83</i>	<i>1.00</i>	<i>1.33</i>	<i>3.00</i>	<i>1.33</i>	<i>3.00</i>	<i>0.50</i>	<i>1.67</i>	<i>0.00</i>	<i>0.67</i>

2014

	Founding Year	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
SOE-025	1948	3	7	8	1	1	2	7	2	1	2	0	1	1	4	3	1	0	1
SOE-027	1949	15	7	14	0	5	1	10	1	0	2	0	2	4	1	4	0	0	0
SOE-008	1950	6	8	17	10	1	0	1	3	1	0	0	0	0	0	0	0	1	0
SOE-028	1950	5	11	13	0	3	1	4	2	1	1	0	4	2	5	2	3	0	1
nSOE-064	1968	0	0	18	0	1	1	3	0	0	1	1	0	1	1	2	0	1	0
<i>Average 1</i>		5.8	6.6	14	2.2	2.2	1	5	1.6	0.6	1.2	0.2	1.4	1.6	2.2	2.2	0.8	0.4	0.4
SOE-022	1978	1	2	13	7	2	6	4	0	2	1	1	0	6	1	0	3	0	1
nSOE-090	1979	0	1	0	0	1	0	1	1	1	0	0	0	0	0	0	0	0	1
SOE-003	1982	20	7	15	0	8	6	4	3	4	0	3	0	0	0	0	1	2	0
SOE-066	1984	6	3	5	0	0	0	2	2	0	0	1	2	2	0	0	1	0	0
nSOE-010	1986	4	0	5	0	4	1	3	0	1	0	1	0	1	0	0	1	0	0
SOE-001	1998	12	8	12	5	7	6	10	1	1	1	4	3	0	0	2	1	0	2
nSOE-018	1998	4	0	3	0	3	1	3	0	1	0	0	0	0	3	2	0	0	1
<i>Average 2</i>		6.71	3.00	7.57	1.71	3.57	2.86	3.86	1.00	1.43	0.29	1.43	0.71	1.29	0.57	0.57	1.00	0.29	0.71
SOE-038	2000	2	1	5	3	6	1	4	0	2	0	1	4	0	2	0	1	0	1
SOE-059	2000	0	0	24	3	7	3	10	1	0	1	1	3	0	3	0	1	0	2
SOE-023	2002	3	2	13	2	1	8	8	2	0	0	4	3	0	0	0	0	0	0
SOE-013	2004	11	27	15	2	2	1	1	0	0	1	0	1	9	0	0	1	1	0
SOE-012	2005	2	3	10	4	2	0	3	1	0	0	2	0	0	2	0	1	0	2
SOE-011	2007	2	5	12	5	5	1	4	0	0	0	2	0	3	1	0	3	0	3
<i>Average 3</i>		3.33	6.33	13.17	3.17	3.83	2.33	5.00	0.67	0.33	0.33	1.67	1.83	2.00	1.33	0.00	1.17	0.17	1.33

A: Pollution Prevention. B: Safety Mgmt. C: Employee Care. D: Corruption. E: Education. F: Poverty. G: Infrastructure & Development. H: Ecological Protection. I: Health. J: Senior. K: Clean Technology. L: Business Core. M: Product Stewardship. N: Disaster Relief. O: Reputation. P: Volunteer. Q: Sustainability Vision. R: Capacity Building

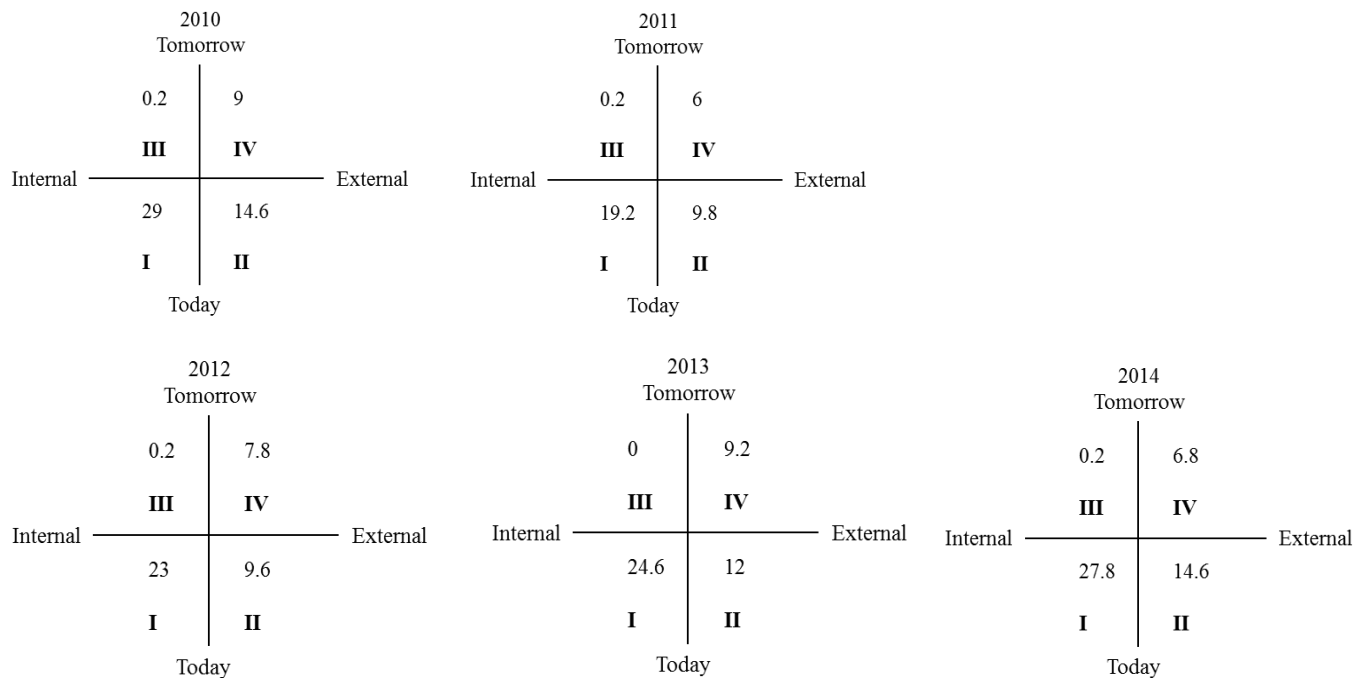
Appendix R

Chinese Corporations' CS Focus Based on Founding Years

According to Hart and Milstein's framework, quadrant one includes initiative A, B, C and L, quadrant two includes initiative M, D, H, O, P, J, N, I and E, quadrant three includes initiative K, and quadrant four includes initiative Q, F, G and R. The total number of each quadrant across the four groups was calculated and showed in the below figures.

A: Pollution Prevention. B: Safety Mgmt. C: Employee Care. D: Corruption. E: Education. F: Poverty. G: Infrastructure & Development. H: Ecological Protection. I: Health. J: Senior. K: Clean Technology. L: Business Core. M: Product Stewardship. N: Disaster Relief. O: Reputation. P: Volunteer. Q: Sustainability Vision. R: Capacity Building

Group 1: Founding year before 1978



Group 2: Founding year between 1978 and 2000

2010 Tomorrow		
1	7.33	
III	IV	
Internal		External
20.33	16.33	
I	II	
Today		

2011 Tomorrow		
0.5	8.17	
III	IV	
Internal		External
24.17	11.33	
I	II	
Today		

2012 Tomorrow		
0.71	7.57	
III	IV	
Internal		External
20.14	12.14	
I	II	
Today		

2013 Tomorrow		
1.57	11.86	
III	IV	
Internal		External
18.71	11.43	
I	II	
Today		

2014 Tomorrow		
1.43	7.71	
III	IV	
Internal		External
18	11.43	
I	II	
Today		

Group 3: Founding year after 2000

2010 Tomorrow		
1.17	9	
III	IV	
22.83	16.83	
I	II	
Today		

2011 Tomorrow		
1.83	9.5	
III	IV	
22.83	16.67	
I	II	
Today		

2012 Tomorrow		
1.17	8.83	
III	IV	
24.33	17.33	
I	II	
Today		

2013 Tomorrow		
1.33	8.33	
III	IV	
23.5	16.17	
I	II	
Today		

2014 Tomorrow		
1.67	8.83	
III	IV	
24.67	12.83	
I	II	
Today		

Appendix S

Table 5.2.7 Initiatives Summary between Chinese SOEs and Non-SOEs by Year

2010

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
Non-SOEs	29	15	0	6	50
SOEs	272	178	31	71	552

2010 (%)

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
Non-SOEs	58.00%	30.00%	0.00%	12.00%	100%
SOEs	49.28%	32.25%	5.62%	12.86%	100%

2011

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
Non-SOEs	29	18	0	6	53
SOEs	283	174	31	80	568

2011 (%)

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
Non-SOEs	54.72%	33.96%	0.00%	11.32%	100%
SOEs	49.82%	30.63%	5.46%	14.08%	100%

2012

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
Non-SOEs	37	23	2	7	69
SOEs	281	166	25	68	540

2012 (%)

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
Non-SOEs	53.62%	33.33%	2.90%	10.14%	100%
SOEs	52.04%	30.74%	4.63%	12.59%	100%

2013

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
Non-SOEs	33	21	4	11	69
SOEs	268	174	34	96	572

2013 (%)

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
Non-SOEs	47.83%	30.43%	5.80%	15.94%	100%
SOEs	46.85%	30.42%	5.94%	16.78%	100%

2014

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
Non-SOEs	21	19	2	12	54
SOEs	277	163	36	76	552

2014 (%)

	Today&Internal	Today&External	Tomorrow&Internal	Tomorrow&External	Total
Non-SOEs	38.89%	35.19%	3.70%	22.22%	100%
SOEs	50.18%	29.53%	6.52%	13.77%	100%

Appendix T

Table 5.3.1 Policy-related Initiatives

	2010											2011										
	A	B	C	D	E	F	G	H	I	J	K	A	B	C	D	E	F	G	H	I	J	K
I11-SOE-027	5	8	7	1	1	0	3	0	0	0	1	8	5	3	2	0	0	1	0	0	0	0
I21-SOE-001	4	6	15	0	8	4	5	3	5	1	0	2	12	10	0	6	5	8	2	3	0	1
I21-SOE-003	1	1	12	8	3	6	4	0	0	0	4	6	4	16	3	4	4	4	1	0	0	1
I21-SOE-008	10	25	13	2	4	3	7	5	0	0	0	5	14	14	2	7	3	3	3	1	2	0
I22-SOE-023	10	11	6	0	3	3	7	0	0	1	2	11	5	9	3	2	3	4	3	0	1	3
I23-SOE-011	7	8	10	4	7	0	6	2	2	0	2	7	6	10	7	6	0	7	1	0	0	4
I23-SOE-012	2	4	4	1	0	1	1	0	0	0	0	5	6	4	2	3	2	2	1	0	0	1
I23-SOE-025	0	3	16	1	5	3	12	2	2	1	0	2	2	11	3	5	3	9	3	1	1	0
I23-SOE-028	9	9	6	1	2	1	5	1	2	0	0	9	5	7	2	0	0	4	0	0	0	1
I31/33-SOE-013	6	9	5	1	0	2	2	0	0	0	1	3	8	11	3	3	1	2	0	0	0	1
I31/33-SOE-022	13	4	20	9	4	2	3	0	1	1	0	17	5	21	7	0	1	5	1	1	2	0
I31/33-SOE-066	8	3	8	2	4	1	8	2	1	0	2	3	5	6	1	3	1	7	1	0	0	1
I51-SOE-038	6	4	13	4	8	3	4	0	2	4	1	3	0	9	3	5	2	7	0	3	2	1
I51-SOE-059	1	0	11	3	5	8	5	0	3	0	1	0	2	17	3	11	7	8	0	5	0	1
I31/33-nSOE-010	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
I31/33-nSOE-064	6	4	17	0	0	0	2	0	1	0	0	2	1	3	0	0	1	1	0	1	0	0
I31/33-nSOE-090	0	0	2	0	0	0	0	1	0	0	0	0	2	11	0	2	0	1	0	0	0	0
I48/49-nSOE-018	2	2	15	0	1	2	3	2	4	1	0	2	3	15	0	4	1	3	0	2	0	0

	2012											2013										
	A	B	C	D	E	F	G	H	I	J	K	A	B	C	D	E	F	G	H	I	J	K
I11-SOE-027	8	8	5	0	0	0	0	0	0	0	0	3	7	6	0	0	0	5	1	0	2	0
I21-SOE-001	3	11	17	0	10	10	13	6	5	1	2	3	6	15	1	11	9	17	4	2	0	3
I21-SOE-003	9	7	11	4	3	2	4	0	5	0	1	12	7	20	0	11	4	12	1	4	1	3
I21-SOE-008	7	13	11	3	5	1	3	3	1	0	1	4	25	13	8	4	3	8	7	1	0	0
I22-SOE-023	2	5	13	3	2	4	4	1	1	1	3	7	3	11	4	2	0	7	1	0	0	5
I23-SOE-011	10	3	11	7	2	1	5	10	0	0	3	2	3	12	5	0	2	2	1	0	0	0
I23-SOE-012	5	3	6	3	7	2	3	2	0	0	0	7	3	13	1	3	2	3	1	1	0	0
I23-SOE-025	6	8	11	2	6	7	15	6	0	0	0	3	8	11	3	4	3	9	2	1	0	0
I23-SOE-028	6	5	8	0	0	1	4	0	0	0	0	2	8	13	0	1	2	6	1	0	0	0
I31/33-SOE-013	7	14	11	2	1	2	2	0	0	0	0	7	12	10	5	0	0	2	0	0	0	1
I31/33-SOE-022	11	2	14	7	1	4	3	0	0	1	1	9	4	16	3	3	5	9	0	1	1	3
I31/33-SOE-066	5	7	4	4	0	1	1	1	0	0	0	1	0	3	1	0	1	1	0	0	1	1
I51-SOE-038	1	11	11	3	3	5	6	2	5	2	1	1	3	11	4	6	5	6	0	2	1	2
I51-SOE-059	0	2	13	2	8	3	10	0	3	1	0	2	0	16	3	10	4	13	1	2	5	0
I31/33-nSOE-010	1	0	4	1	5	4	3	0	0	0	0	2	1	4	2	3	1	5	0	1	0	0
I31/33-nSOE-064	2	3	11	1	0	0	2	0	0	0	0	5	2	7	0	0	1	3	0	0	0	0
I31/33-nSOE-090	0	2	9	0	0	0	0	0	0	1	0	1	2	5	0	0	1	1	0	0	0	1
I48/49-nSOE-018	1	1	13	1	1	0	0	1	2	0	1	8	0	6	0	1	1	4	0	1	0	0

	2014										
	A	B	C	D	E	F	G	H	I	J	K
I11-SOE-027	15	7	14	0	5	1	10	1	0	2	0
I21-SOE-001	12	8	12	5	7	6	10	1	1	1	4
I21-SOE-003	20	7	15	0	8	6	4	3	4	0	3
I21-SOE-008	6	8	17	10	1	0	1	3	1	0	0
I22-SOE-023	3	2	13	2	1	8	8	2	0	0	4
I23-SOE-011	2	5	12	5	5	1	4	0	0	0	2
I23-SOE-012	2	3	10	4	2	0	3	1	0	0	2
I23-SOE-025	3	7	8	1	1	2	7	2	1	2	0
I23-SOE-028	5	11	13	0	3	1	4	2	1	1	0
I31/33-SOE-013	11	27	15	2	2	1	1	0	0	1	0
I31/33-SOE-022	1	2	13	7	2	6	4	0	2	1	1
I31/33-SOE-066	6	3	5	0	0	0	2	2	0	0	1
I51-SOE-038	2	1	5	3	6	1	4	0	2	0	1
I51-SOE-059	0	0	24	3	7	3	10	1	0	1	1
I31/33-nSOE-010	4	0	5	0	4	1	3	0	1	0	1
I31/33-nSOE-064	0	0	18	0	1	1	3	0	0	1	1
I31/33-nSOE-090	0	1	0	0	1	0	1	1	1	0	0
I48/49-nSOE-018	4	0	3	0	3	1	3	0	1	0	0

I11: Agriculture, forest, fishing and hunting. I21: Mining, quarrying, and oil and gas extraction. I22: Utilities. I23: Construction. I31-33: Manufacturing. I48-49: Transportation and warehousing. I51: Information and cultural industries.

A: Pollution Prevention. B: Safety Mgmt. C: Employee Care. D: Corruption. E: Education. F: Poverty. G: Infrastructure & Development. H: Ecological Protection. I: Health. J: Senior. K: Clean Technology.

Appendix U

Table 5.3.2 Policy-unrelated Initiatives

	2010							2011							2012						
	L	M	N	O	P	Q	R	L	M	N	O	P	Q	R	L	M	N	O	P	Q	R
I11-SOE-027	2	0	3	1	0	0	1	1	2	0	0	0	0	0	1	1	0	0	0	0	0
I21-SOE-001	5	0	4	1	2	0	5	2	2	1	3	2	0	3	3	1	2	3	2	0	4
I21-SOE-003	0	2	2	1	0	0	0	0	2	0	0	0	2	0	0	2	1	0	0	0	1
I21-SOE-008	1	3	3	3	1	0	3	0	1	1	1	0	0	0	0	1	1	0	0	0	1
I22-SOE-023	3	0	1	0	5	0	2	4	1	3	1	2	0	0	2	0	0	2	3	0	0
I23-SOE-011	5	1	5	0	1	0	5	7	1	1	2	1	0	6	2	1	1	0	3	0	4
I23-SOE-012	0	0	3	1	0	0	1	0	0	0	0	0	1	1	0	0	0	1	3	0	2
I23-SOE-025	3	0	13	1	1	0	4	3	0	5	0	0	0	3	0	0	10	0	0	0	2
I23-SOE-028	1	0	3	2	1	0	1	1	0	2	0	1	0	2	2	0	3	0	2	0	3
I31/33-SOE-013	0	1	2	1	0	1	0	2	2	1	2	1	1	0	0	4	0	0	1	0	0
I31/33-SOE-022	1	6	4	2	1	0	0	1	3	1	0	1	0	1	2	1	0	1	0	0	0
I31/33-SOE-066	0	2	2	2	0	0	1	1	1	0	0	1	0	2	1	2	0	0	1	0	0
I51-SOE-038	7	1	13	2	7	0	3	5	1	3	0	4	0	0	4	0	5	3	3	0	0
I51-SOE-059	5	2	3	1	1	0	0	3	0	5	2	0	0	3	10	0	2	0	1	0	0
I31/33-nSOE-010	/	/	/	/	/	/	/	/	/	/	/	/	/	/	2	3	0	0	2	0	2
I31/33-nSOE-064	0	4	3	0	0	0	0	0	3	0	0	0	0	0	0	2	0	0	1	0	0
I31/33-nSOE-090	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
I48/49-nSOE-018	0	0	3	2	0	0	0	1	1	3	1	1	0	1	1	1	0	0	3	1	0

	2013						2014							
	L	M	N	L	M	N	O	P	Q	R	O	P	Q	R
I11-SOE-027	1	0	2	1	0	2	0	0	0	0	4	0	0	0
I21-SOE-001	5	1	0	5	1	0	2	1	0	4	2	1	0	2
I21-SOE-003	0	0	4	0	0	4	2	1	3	1	0	1	2	0
I21-SOE-008	1	0	1	1	0	1	0	2	0	1	0	0	1	0
I22-SOE-023	2	2	1	2	2	1	0	1	0	0	0	0	0	0
I23-SOE-011	0	2	2	0	2	2	0	1	0	2	0	3	0	3
I23-SOE-012	0	1	3	0	1	3	1	3	0	0	0	1	0	2
I23-SOE-025	0	0	3	0	0	3	4	3	0	4	3	1	0	1
I23-SOE-028	2	0	3	2	0	3	0	0	0	1	2	3	0	1
I31/33-SOE-013	1	2	0	1	2	0	0	2	0	0	0	1	1	0
I31/33-SOE-022	0	0	1	0	0	1	1	0	0	1	0	3	0	1
I31/33-SOE-066	0	1	2	0	1	2	1	0	1	0	0	1	0	0
I51-SOE-038	4	1	2	4	1	2	2	2	0	1	0	1	0	1
I51-SOE-059	11	0	10	11	0	10	0	1	0	1	0	1	0	2
I31/33-nSOE-010	1	3	1	1	3	1	2	0	0	1	0	1	0	0
I31/33-nSOE-064	2	5	1	2	5	1	1	0	0	0	2	0	1	0
I31/33-nSOE-090	0	0	2	0	0	2	1	0	0	0	0	0	0	1
I48/49-nSOE-018	0	0	1	0	0	1	0	0	0	1	2	0	0	1

I11: Agriculture, forest, fishing and hunting. I21: Mining, quarrying, and oil and gas extraction. I22: Utilities. I23: Construction. I31-33: Manufacturing. I48-49: Transportation and warehousing. I51: Information and cultural industries.

L: Business Core. M: Product Stewardship. N: Disaster Relief. O: Reputation. P: Volunteer. Q: Sustainability Vision. R: Capacity Building.