An Investigation Report of Corporate Social Irresponsibility (CSIR)

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Abstract. CSIR refers to the case where corporations behave in an irresponsible way. As a comparison, CSR refers to good behaviors, which are the ones that can bring benefits to the society, while CSIR refers to bad behaviors, which are the ones that can bring severe damages or hazards to the society. In this study, concept and evaluation method of corporate social irresponsibility (CSIR) in China were investigated and a CSIR evaluation system that is suitable for China was established. Meanwhile, the current state of CSIR in China was described according to industry and region, based on investigations of second-hand data of listed companies. Additionally, data of different CSIR indices were collected and compared in order to provide guidance and suggestions for decision makers.

1. Introduction

Studies in the field of corporate social responsibility (CSR) involves both fulfillment of corporate social responsibility (CSR) and corporate social irresponsibility (CSIR). CSIR refers to the case where corporations behave in an irresponsible way [1]. As a comparison, CSR refers to good behaviors, which are the ones that can bring benefits to the society, while CSIR refers to bad behaviors, which are the ones that can bring severe damages or hazards to the society. The study of CSIR can be traced back to the 1970s, but is still at its infancy. In China, CSIR-related studies have various limitations [2]. Indeed, CSIR has been a severe issue in China, including toxic rice/pork, abnormally growing chicken, fake mutton, melamine-containing milk, plasticizer-containing liquor, illegally reused oil, severe haze weather, excessive garbage, polluted surface water and groundwater, frequent mine disasters, and vicious labor disputes, resulting in severe hazards to the society. In some cases, CSIR doesn’t cause severe social issues, but lead to disturbances to the market order, thus violation of consumer interest. Although CSIR has not attracted great attention by scholars in management, as in the case of corporate social responsibility (CSR), some advances have been achieved in this field. In this study, CSIR and its evaluation method were investigated and a CSIR evaluation system that is suitable for China was established. Additionally, CSIR was described according to industry and region based on investigations of second-hand data of Top 500 listed companies in China.

An evaluation system for CSIR in China is of great significance to both monitoring of fulfillment of CSR norms by companies and improvement of CSR. Previously, most domestic studies are qualitative ones and cannot fully meet the empirical needs. Indeed, absence of quantitative analysis...
makes it highly challenging to visualize CSIR status according to industry and region, which can facilitate dynamic management. This study proposes customized CSIR evaluation systems for different industries. Meanwhile, data of different CSIR indices were collected and compared in order to provide guidance and suggestions for decision makers.

2. Research method and evaluation of CSIR
In CSIR studies, the key step/bottleneck is the measurement of CSIR behaviors. Companies are never willing to disclose CSIR information due to its possible negative influences. For this reason, CSIR behaviors can only be summarized from media reports, while those that are not exposed cannot be involved in studies. To date, databases of indicators specifically for CSR or CSIR have been established and most foreign scholars choose the Kinder Lydenberg Domini (KLD) method for CSIR evaluation. For instance, Kotchen and Moon (2011) separately measured CSR index and CSIR index using the KLD method in the analysis of the relationship between CSR and CSIR [3]. Positive and negative indicators of companies were selected as components of CSR index and CSIR index, respectively. Lange and Washburn (2012) established an individual perception model of CSIR behaviors from the perspective of the public [1]. This model can reflect effects of corporate irresponsibility on consumer behaviors, and eventually on its corporate performance. However, this model exhibits limited universality. Ormiston and Wong (2013) calculated CSR index and CSIR index, both of which consists of next level projects of seven identical stakeholders, using the KLD method [4]. Empirical studies of 500 enterprises revealed a positive correlation of CSR and CSIR. Indeed, CSIR increased with CSR, although this correlation is affected by characteristics of the CEO. Mazzei et al. (2015) investigated the effects of multi-level factors of corporates on its CSR and CSIR by the KLD method. Herein, CSR index and CSIR index were separately calculated by assigning 0 and 1 to strength and weakness of the six stakeholders, respectively. Owing to absence of professional databases in China [5], domestic scholars shall manually collect CSIR events for evaluations of CSIR using the KLD method.

In previous studies, Wan and Liu (2014) [6]Jiang and Ji’s (2017)[5] CSIR data were mainly collected from CNKI newspaper database, CSMAR database of violations by listed companies, Rankins CSR Ratings reports, and negative events in announcements and annual reports disclosed by corporations. Based on the data collected, CSIR was evaluated by the KLD method. Wan and Liu (2014) proposed an empirical analysis of the relationship between CSR and CSIR [6]. In this report, CSIR was evaluated in five aspects, including environment, community, employee relation, product and government, by the KLD method (negative scores). Specifically, the environment aspect included nine indices (e.g., illegal behaviors, leakage and illegal discharge of toxics), the community aspect included influence on community, the employee relation aspect included four indices (e.g., alliance), the product aspect included five indices (e.g., product quality and safety), and the government aspect included five indices (e.g., report quality). A binary score (-1 for irresponsibility event and 0 otherwise) was assigned to each item. Jiang and Ji (2017) evaluated CSIR both qualitatively and quantitatively using the KLD method [5]. Specifically, the enterprise interest association was divided into four aspects (22 items), including employee, product (consumer), environment and government (community). Meanwhile, the possibility of exposure was considered: negative events that will never be reported are excluded. The employee-related irresponsibility includes events that conflict with employees (e.g., risks of health and safety accidents); the product (consumer)-related irresponsibility includes events that conflict with consumer interests (e.g., unqualified products/food); the environment-related irresponsibility includes events that cause severe damages to the environment (e.g., illegal discharge of pollution); the government-related irresponsibility includes events with severe negative social influences (e.g., tax evasion). The adverse influences of events were determined manually according to losses caused to life and assets: -1 < -2 < -3. The scores of the 22 items were weighed by the analytic hierarchy process (AHP) to determine its final CSIR score.

Another method for CSIR measurement is questionnaire survey. For instance, Wang and Mao (2015) investigated the perception of CSIR behaviors by consumers [7]. For acquisition of CSIR
indices, Lee (2014) measured CSIR perception indices by questionnaire survey based on measurement of CSR perception in previous studies [8]. The indices included severe enterprise behaviors, enterprise behaviors that severely threaten social development, unforgivable enterprise behaviors. To investigate enterprise behaviors, Deng (2016) employed data of a questionnaire survey of 1268 companies in 12 domestic cities from 2006 to 2010 published on the China survey data network (CSDN) [9]. These companies were distributed in various industries, including manufacturing, power, oil&gas, water supply, trade, and mining. This investigation consists of two parts, which were completed by finance directors and general managers, respectively. The descriptions of CSIR issues were extracted from two files published by Ministry of Ecology and Environment of China. The indices included (1) reduction or prevention of social damages caused by the products by development of new technologies; (2) reduction or prevention of social damages caused by the products by improvement of procedures; (3) accurate, clear and complete disclosure of social damages caused by the products. Nevertheless, the questionnaire scores are highly subjective for CSIR evaluation and this method is applicable to typical CSIR events of certain enterprises, instead of general CSIR events with large data.

In some cases, CSIR was measured using single objective index. Liu et al. (2019) extracted CSIR data from the Database of Major company crisis events in China, which is published by Taiwan Economic Journal [10]. Specifically, listed companies that were involved in CSIR events and condemned by the Shanghai Stock Exchange in 2010-2014 were selected and the quantities of morality and competence based negative events were employed as the scoring standard.

3. Investigation of Top 500 listed companies in China

The practical CSIR data of Top 500 listed companies in China in 2008-2018 from Jul 23, 2018 to Dec 31, 2018 were collected. These enterprises are in various industries, including information technology, Petroleum and petrochemical, communication, food and beverage, automobiles, coal, electronics, household electrical appliances, leisure service, medicine and biology, real estate, construction, transportation, mechanics, building materials, steel, electrical equipment, chemical industry, media, public service, commercial trade, non-ferrous metal, textile and clothing, primary industry, light manufacturing, and others.

Top 500 listed companies in China were selected as the samples for three reasons. First, CSIR databases of listed companies are relatively abundant as they are required to disclose relevant information and announcements by law, compared with non-listed ones. Second, Top 500 listed companies in China are most likely leading enterprises in their respective region and CSIR events related to these companies are more likely to be noticed and reported. Third, Top 500 listed companies in China have systematic performance data and results, which facilitate subsequent analysis of the relationship between CSIR and company performance.

3.1. Index establishment

According to the summary and clarification of CSIR evaluation system in our previous report, a CSIR evaluation system was established and empirically verified by applying on enterprises. A total of 22 CSIR items were involved in this investigation and CSIR events where Top 500 listed companies in China were involved in 2008-2018 were summarized. A binary score (-1 for irresponsibility event and 0 otherwise) was assigned to each item using the KLD method. The indices include:

1. Employee-related irresponsibility: working health and safety accidents, infringement of employee benefits, lawsuits by employees, malicious arrear of employee payments, and punishment from relevant departments due to employee-related issues.

2. Product (consumer)-related irresponsibility: unqualified product/food, possible involvement in counterfeiting and false propaganda, malicious pricing/unfair competition, disputes with partners/contractors, and high frequency of complaints by consumers.

3. Environment-related irresponsibility: illegal discharge of toxics, leakage of chemical hazards, severe local pollutions, severe safety accidents, accusation by community, and other illegal events.
(4) Government-related irresponsibility: tax evasion, bribery, falsification of financial statements/false information disclosure, insider trading/stock price manipulation, infringement of national interests, and leakage of state secrets.

(5) Any other negative news

3.2. Data source

(1) The research database of regulation violation by listed companies by Guotai Junan, the research database of lawsuits and arbitration, the research database of social responsibility.

(2) Newspaper in CNKI, finance and economics columns in Sina, Baidu searching engine, and announcements and documents by companies.

4. Data analysis

4.1. Categorization by industry

Top 500 listed companies in China are in 28 industries. Among these industries, the finance industry is the top one, with 16% of the 500 companies distributed in this industry (50 non-bank finance ones and 30 banks). Real estate and information technology are the followers, with 9.4% of the 500 companies distributed in these industries, respectively. Coal and other industries are the bottom ones, with 0.8% of the 500 companies distributed in these industries, respectively.

| Numble | Industry                     | Number | Percentage |
|--------|------------------------------|--------|------------|
| 1      | Non-bank finance             | 50     | 10.0       |
| 2      | Real estate                  | 47     | 9.4        |
| 3      | Information technology       | 47     | 9.4        |
| 4      | Medicine and biology         | 44     | 8.8        |
| 5      | Bank                         | 30     | 6.0        |
| 6      | Public service               | 29     | 5.8        |
| 7      | Transportation               | 26     | 5.2        |
| 8      | Electronics                  | 24     | 4.8        |
| 9      | Food and beverage            | 20     | 4.0        |
| 10     | Automobiles                  | 19     | 3.8        |
| 11     | Chemical industry            | 16     | 3.2        |
| 12     | Leisure service              | 15     | 3.0        |
| 13     | Non-ferrous metal            | 14     | 2.8        |
| 14     | Communication                | 13     | 2.6        |
| 15     | Household electrical appliances | 11   | 2.2        |
| 16     | Construction                 | 11     | 2.2        |
| 17     | Media                        | 10     | 2.0        |
| 18     | Mechanics                    | 10     | 2.0        |
| 19     | Petroleum and petrochemical  | 10     | 2.0        |
| 20     | Electrical equipment         | 9      | 1.8        |
| 21     | Steel                        | 7      | 1.4        |
| 22     | Building materials           | 7      | 1.4        |
| 23     | Commercial trade             | 7      | 1.4        |
| 24     | Textile and clothing         | 6      | 1.2        |
| 25     | Primary industry             | 5      | 1.0        |
| 26     | Light manufacturing          | 5      | 1.0        |
| 27     | Coal                         | 4      | 0.8        |
| 28     | Others                       | 4      | 0.8        |
| Total  |                              | 500    | 100.0      |
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4.2. Categorization by region

Companies in the list are originated from 32 different regions (province, municipality, autonomous region, or SAR). In the rank of cities, Beijing (19%), Hong Kong (12%) and Shanghai (9.6%) are the Top 3. In the rank of provinces, Guangdong (12.8%), Taiwan (8.4%) and Zhejiang (7.4%) are the Top 3. Heilongjiang and Qinghai are the Bottom 2 (0.2% for both).

| Numble | Industry | Number | Percentage |
|--------|----------|--------|------------|
| 1      | Beijing  | 95     | 19.0       |
| 2      | Hong Kong| 66     | 13.2       |
| 3      | Guangdong| 64     | 12.8       |
| 4      | Shanghai | 48     | 9.6        |
| 5      | Taiwan   | 42     | 8.4        |
| 6      | Zhejiang | 37     | 7.4        |
| 7      | Jiangsu  | 22     | 4.4        |
| 8      | Shandong | 16     | 3.2        |
| 9      | Fujian   | 10     | 2.0        |
| 10     | Hubei    | 10     | 2.0        |
| 11     | Hebei    | 8      | 1.6        |
| 12     | Henan    | 8      | 1.6        |
| 13     | Liaoning | 8      | 1.6        |
| 14     | Sichuan  | 7      | 1.4        |
| 15     | Anhui    | 6      | 1.2        |
| 16     | Macau    | 6      | 1.2        |
| 17     | Tianjin  | 6      | 1.2        |
| 18     | Hunan    | 5      | 1.0        |
| 19     | Inner Monglia | 4 | .8 |
| 20     | Shaanxi  | 4      | .8         |
| 21     | Xinjiang | 4      | .8         |
| 22     | Jiangxi  | 3      | .6         |
| 23     | Shanxi   | 3      | .6         |
| 24     | Yunnan   | 3      | .6         |
| 25     | Chongqing| 3      | .6         |
| 26     | Gansu    | 2      | .4         |
| 27     | Guangxi  | 2      | .4         |
| 28     | Guizhou  | 2      | .4         |
| 29     | Hainan   | 2      | .4         |
| 30     | Jilin    | 2      | .4         |
| 31     | Heilongjiang | 1 | .2 |
| 32     | Qinghai  | 1      | .2         |
|        | Total    | 500    | 100.0      |
4.3. Descriptive analysis

As shown in Table 3, environment-related CSIR event has the smallest range and it has a maximum of 5; government-related CSIR event has the largest range and it has a maximum of 13. Meanwhile, environment-related CSIR news has the smallest range and it has a maximum of 23; any other negative news has the largest range and it has a maximum of 756. Overall, the maximum CSIR event of one company is 17, while the maximum CSIR news of one company is 808. In other words, Top 500 listed companies in China have attracted great attention by media and public.

Table 3. Descriptive analysis

| CSIR Index                                      | Number of events | Range | Minimum | Maximum | Average | Standard deviation |
|------------------------------------------------|------------------|-------|---------|---------|---------|--------------------|
| Employee-related irresponsibility events       | 500              | 7     | 0       | 7       | .19     | .620               |
| Employee-related irresponsibility news         | 500              | 114   | 0       | 114     | 1.24    | 7.884              |
| Product (consumer)-related irresponsibility events | 500          | 12    | 0       | 12      | .68     | 1.449              |
| Product (consumer)-related irresponsibility news | 500          | 287   | 0       | 287     | 4.95    | 20.341             |
| Environment-related irresponsibility events    | 500              | 5     | 0       | 5       | .14     | .547               |
| Environment-related irresponsibility news      | 500              | 23    | 0       | 23      | .37     | 1.877              |
| Government-related irresponsibility event      | 500              | 13    | 0       | 13      | .65     | 1.375              |
| Government-related irresponsibility news       | 500              | 321   | 0       | 321     | 6.60    | 26.818             |
| Any other negative events                      | 500              | 8     | 0       | 8       | .45     | .849               |
| Any other negative news                        | 500              | 756   | 0       | 756     | 3.58    | 34.613             |
| CSIR events                                    | 500              | 17    | 0       | 17      | 2.09    | 2.761              |
| CSIR news                                      | 500              | 808   | 0       | 808     | 16.74   | 53.408             |
| Valid cases (in line)                          | 500              |       |         |         |         |                    |

4.4. Analysis of CSIR scores

Overall, only 34.2% of the 500 companies in the list are free from exposed CSIR (irresponsibility related to employee, consumer, environment, government and other negative news). Indeed, according to Table IV and V, one company can be involved in up to 17 events (58.com) or 808 negative news (ctrip.com).
Table 4. Top 10 irresponsibility companies in events and news

| Rank | Number of events | Company               | Industry                     | Number of news | Company                     | Industry                      |
|------|------------------|-----------------------|------------------------------|----------------|-----------------------------|------------------------------|
| 1    | 7                | Shimao Real Estate    | Real Estate                  | 114            | Foxconn                     | Information Technology       |
| 2    | 4                | Foxconn               | Information Technology       | 65             | China Coal Energy           | Coal                         |
| 3    | 4                | PingAn Bank           | Bank                         | 64             | PingAn Bank                 | Bank                         |
| 4    | 4                | Inspur Information    | Information Technology       | 30             | China Railway               | Construction                 |
| 5    | 3                | China Construction Bank | Bank                         | 27             | China PingAn Finance        | Non-bank Finance             |
| 6    | 3                | China Everbright Bank | Bank                         | 18             | Cheung Kong Holdings        | Real Estate                  |
| 7    | 3                | Shuanghui Development | Food and Beverage            | 15             | Shimao Real Estate          | Real Estate                  |
| 8    | 2                | China Coal Energy     | Coal                         | 14             | China Construction Bank     | Bank                         |
| 9    | 2                | China PingAn Finance  | Non-bank Finance             | 14             | Midea Group                 | Household Electrical Appliances |
| 10   | 2                | Yanghe Holdings       | Food and Beverage            | 12             | Industrial and Commercial Bank of China | Bank |

5. Conclusion
In this study, concept and evaluation method of corporate social irresponsibility (CSIR) in China were investigated and a CSIR evaluation system that is suitable for China was established using the KLD method and the scaling method. Meanwhile, CSIR events in which Top 500 listed companies in China were involved over the past decade were summarized based on CNKI newspaper database and searching engine. These CSIR events are in terms of employee, product (consumer), environment, and government (community). A binary score was assigned to each CSIR item. The results reveal that half of Top 500 listed companies in China have been related to CSIR events, demonstrating wide and frequent appearance of CSIR and the significance of CSIR studies. Then, companies delivering end products are most concerned by consumers and media. Meanwhile, government-related CSIR events have the largest quantity, indicating strict management over large enterprises by the government. Also, environment-related CSIR events and news have the smallest quantity. On one hand, listed companies tend to establish an effective management over this aspect. On the other hand, the public have not paid enough attention to this issue. Finally, the rapid development of information technology industry introduces novel CSIR cases, which deserve increasing attention and relevant legislation. Overall, the proposed CSIR index evaluation system is applicable for CSIR grading in China at this stage.

This study has some innovations can provide references in CSIR index measurement. However, limited by difficulty of data collection in corporate irresponsibility, this study exhibits several shortcomings. Future studies may focus on development of a CSIR tracking database for irresponsible companies to allow dynamic monitoring of corporate irresponsibility and changes and differences of CSIR by industry or region.
Acknowledgments
This work was financially supported by The Youth Innovative Talents Program (Humanities and Social Science) of Guangdong Education Department (2015WQNCX037); Guangzhou Philosophy and Social Sciences "13th Five-Year Plan" Project (2018GZGJ55); National Natural Science Foundation Youth Project (71802054); Natural Science Foundation of Guangdong Province (2018A030313555).

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