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The impact of CSR fulfillment on Corporate performance in China

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Abstract

This study using the panel data analysis and research of China's 2006-2019, a total of more than 30000 enterprises to fulfill social responsibility influence on corporate performance, corporate performance by market performance and organization performance, enterprises to perform social responsibility index used for the government's responsibility, corporate social responsibility of creditor's rights, the responsibility of the enterprise to shareholders, the corporate social responsibility for suppliers, the enterprise social responsibility to the staff of five indicators, and combined with the company size, debt ratio, and control variables enterprise listed the length of time for study. This study found that most of the performance index of two performance of social responsibility has a positive impact, in addition and breakpoint regression was used to study the property attribute to fulfill social responsibility on corporate performance have different effects, caused by different property found company management goal of different also directly affect the company to fulfill all kinds of social responsibility on corporate performance after produce different results, through the different results to explain the results of their company's business goals and the status of the well.

Keywords: Social Responsibility, Company Performance, Panel Data, Regression Discontinuity.

Introduction

A Subsection Sample

Social responsibility (CSR) was first put forward by American scholar Howard Bowen in his Book the Social Responsibilities of The Businessman in 1953. The publication of this book launched the era of CSR, and Howard Bowen is regarded as the father of CSR. So far, theoretical research on the definition of CORPORATE social responsibility has gradually given way to empirical research. Literature that previously discussed concepts consistently has also been divided into research on derivative theories, such as corporate social response, corporate social performance, public policy, business ethics and relevant stakeholder theories.

From the perspective of relevant stakeholder theory, the performance of corporate social responsibility is scientifically measured by looking at whether enterprises meet the needs of multiple relevant stakeholders, which provides a correct measurement method for the research of corporate social responsibility. In the stakeholder theory, corporate social responsibility is mainly targeted at stakeholders at the first level, that is, those indispensable to the survival and sustainable operation of an enterprise, including shareholders, creditors, employees, customers, suppliers and the government. It was first proposed and analyzed by Aupperle, Carroll and Hatfield (1985) R.

So far, the relationship between social responsibility and corporate performance has been a hot issue of concern from all walks of life. So far, the relationship between the two has not reached a unified conclusion.Choi, Jong-seo, Young-min (2010) et al., selected sample data of 1122 companies in South Korea from 2002 to 2008, established cross-section regression analysis from the perspective of stakeholders, explained the relationship between ROE and ROA with social responsibility, and found that the weight index of stakeholder variables was positively correlated with financial performance. Heidarzadeh and Sadeghian et al. (2014) used questionnaire survey to collect the fulfillment degree of social responsibility in the Iranian automobile industry, and concluded that the better the fulfillment of social responsibility is, the more helpful it will be to the long-term performance of the enterprise. They believed that

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the implementation of economic responsibility has no significant relationship with customer service and corporate reputation. It is considered as a basic responsibility of the company. Su, Swanson. And Chen. (2015) studied 451 surveys of limited accommodation customers in specific geographical regions of China and found that investment in CSR activities in Chinese hotel consumption environment can improve customer satisfaction and ultimately have a positive impact on customers' future behavior. Feng, Wang and Kreuze (2017) selected 1,877 enterprises (1991-2011) among the top 3000 enterprises in the United States as samples for research, and found that actively undertaking social responsibility can promote the development of enterprises, and enterprises with different attributes fulfill different types of social responsibility, with different degrees of responsibility. Nyame and Ghulam (2019) studied the relationship between CSR and sales revenue of two British retail companies (Marks&Spencer and Tesco) to understand how CSR activities affect retail sales growth. The results showed a positive correlation between donations and community work and sales revenue for both companies, suggesting that retailers' charitable activities can increase sales by working overtime. However, the survey results of environmental activities have a positive or negative impact on the company's sales revenue. Devie, Tarigan, and Jie(2018) conducted a partial least squares analysis of 40 Listed Companies in Indonesia. From 2008 to 2016, CSR had a positive effect on long-term corporate performance, but the correlation was stronger. Significant negative effects on risk were also found. However, if a two-year lag is used, there is a significant negative correlation between risk and long-term corporate performance. Therefore, CSR directly or indirectly affects long-term corporate performance through long-term risk.

However, CSR travel also has a negative impact on corporate performance. Rim Makni et al. (2009) summarized and analyzed the relevant indicators of 179 enterprises in Canada and concluded that CSR is negatively correlated with corporate performance. In other words, the more a company performs its social responsibility, the lower its corporate performance will be. Brammer et al. (2006), from the perspective of the UK stock market, took stock return rate as an explanatory indicator of corporate financial performance, investigated the relationship between CSR performance and CORPORATE financial performance, and found that CSR performance had a negative impact on corporate financial performance. The authors of Bhuiyan, and Nguyen (2019) used a sample of 230 Australian listed companies from 2004 to 2016 to prove that companies complying with high CSR had a negative impact on corporate performance.

Of course there is also a social responsibility on corporate performance is not significant, like Roberts (2007) from four years of Canada's famous big companies financial data as sample, corporate social responsibility as the dependent variable, is financial performance as the explained variable, empirical study, they found that the comprehensive performance of corporate social responsibility and financial performance, such as: assets return rate, total assets profit margin, net profit margin had no significant relationship. Zoysa and Takaoka, Japan (2019) research area small and medium-sized enterprises (SME) of the degree of corporate social responsibility (CSR) performance through the questionnaire survey to collect the data of 146 companies found that Japanese corporate CSR performance areas in all major areas of corporate social responsibility are low, relative to the large enterprises, small and medium-sized enterprises of the corporate social responsibility performance significantly lower. In addition, the CSR performance of smes differs from industry to industry. Compared with smes in this region, the CSR performance of companies established in this region is significantly lower.

Comprehensive academic research in the past, found that most for enterprises to fulfill social responsibility management or corporate performance have a positive impact on the company, and the fulfillment of corporate social responsibility in recent years China has been implemented, for its impact on corporate performance research that is now a few, especially for research of all enterprises in China is no more, you study all of China's listed companies in this study, due to adopt IFRS since 2007 in China, so this study during the study for all of China's listed companies from 2006 to 2019.

The first chapter is Introduction, which mainly introduces the rise of social responsibility and literature review related to corporate and corporate performance. The second chapter introduces the research materials and research methods of this study. Since this study is panel data from 2006 to 2019, this study adopts panel data analysis. The third chapter is an empirical analysis, which is carried out according to the distribution mentioned in the research method, in addition to studying the impact of CSR fulfillment on corporate performance of Chinese enterprises and the change

of corporate property right attribute on CSR fulfillment on corporate performance. The last chapter is the conclusion, this study found that explanation of the variables of this research for the government's responsibility, corporate social responsibility of creditor's rights, the responsibility of the enterprise to shareholders, the corporate social responsibility for suppliers, the enterprise social responsibility to the staff generally have a positive impact on the company's performance of the enterprise, and with private and state enterprises different the effects of the different also.

Research Data and Research Method

This study intends to study the correlation of China's enterprises to fulfill social responsibility on corporate performance, because the Chinese adopt IFRS since 2007, so this study is 2006-2019, during the study period for 14 years, 3677 enterprises, listed for part of the company did not during the study period, so delete the missing data, a total of 32799 per year, so this research materials for the panel data of unbalanced.

1.1 Research Variable

Variables of this research is divided into three, respectively is variable according to Aupperle, Carroll and Hatfield (1985) for the first time to use the theory of literature in the definition of corporate social responsibility structure a measure of corporate social responsibility is the enterprise respectively for the government's responsibility, corporate social responsibility of creditor's rights, the responsibility of the enterprise to shareholders, corporate social responsibility for suppliers, corporate social responsibility to the staff, and other five variables, The explained variables were measured by TOBIN's Q of market performance and ROA of organizational performance, as well as the control variables most commonly used by researchers, such as company size, debt ratio (change of equity ratio) and length of listing time.

(1) Independent variable

1.Corporate social Responsibility index to Government (CRG)

Managers and government is the market economy rules, the enterprise can only survive, abide by the rules of the government enterprise government response to the heart of fear, abide by the laws and regulations in the market, and other market participants, fair competition, also, the government will also from the construction of the tax on corporate, into the society, for the development of enterprises to provide more fair competition, system more perfect, social environment and more favorable policy support. Therefore, this paper selects a quantifiable index -- the ratio of taxes paid by enterprises to the government to the non-business income of enterprises as the index of the responsibility of enterprises to the government.

Liability of the enterprise to the government = (taxes paid by the enterprise - tax refunds received by the enterprise)/main business income (1)

Source: Annual reports and calculations of major companies

2.Corporate Social Responsibility Index (CRD)

By borrowing money from creditors, enterprises raise funds to cope with various difficulties in production and operation. When creditors lend to enterprises, they will consider the security of principal. The current ratio reflects the enterprise's ability to repay debts quickly. It is generally believed that a ratio above 2 indicates a company's good ability to repay debts. Therefore, this paper chooses the current ratio as the quantifiable index of corporate liability to creditors.

Corporate social responsibility for creditor's rights = current assets/current liabilities (2)

Source: Annual reports and calculations of major companies

3.Corporate Social Responsibility Index to Shareholders (CRE)

Shareholders are important financial backers of enterprises. In the enterprise, it enjoys the right of profit distribution and the right to participate in the management and decision-making. The former can distribute dividends to the profits earned in the production and operation of the enterprise, which is also an important investment purpose of most shareholders. The latter can participate in the important decisions of the enterprise, and make resolutions on the investment, operation plan and enterprise strategy through the general meeting of shareholders, so as to ensure the sustainable development of the enterprise. This paper USES quantifiable financial data - earnings per share as corporate social responsibility to shareholders. Earnings-per-share reflects the ratio of the net profit gained from the operation of the enterprise to the number of shares, which is also a key index for potential investors in the stock market.

Corporate liability to shareholders = current net profit/weighted average of outstanding ordinary shares (3)

Source: Annual reports and calculations of major companies

4.Corporate Social Responsibility indicators to

Suppliers (CRS)

Suppliers provide materials and resources for the production activities of enterprises. Suppliers are the cooperative partners of enterprises. Enterprises need to establish long-term and stable cooperative relations with suppliers to ensure continuous operation. At the same time, the supplier also expects the enterprise to comply with the provisions of the contract and make the payment on time. Therefore, this paper selects the turnover rate of accounts payable as the quantitative index of the enterprise's liability to the supplier, which reflects the extent of the enterprise's occupation of the supplier's funds.

Corporate social responsibility to suppliers = (main business cost + ending inventory cost - beginning inventory cost)/accounts payable (4)

Source: Annual reports and calculations of major companies

5.Corporate Social Responsibility Index to Employees (CRW)

Employees are the most important human resources of an enterprise and the cornerstone of its development. Employees create value for the enterprise through their own labor, and the enterprise also provides a development platform for employees. The salary paid by the enterprise is the source of life for employees. Therefore, this paper selects the proportion of cash paid by enterprises to employees and paid for employees (including salary, bonus, subsidy, endowment insurance, housing subsidy, etc.) in the operating income to quantify the social responsibility index of enterprises to employees.

Corporate social responsibility to employees = cash paid to and for employees/main business income (5)

Source: Annual reports and calculations of major companies

6.Nature of Enterprise Property Rights (D)

Due to the particularity of China's state-owned enterprises, the management system in all aspects is relatively perfect and the operation process is more profitable. Therefore, the property right nature of the enterprise is taken as one of the control variables. The property rights of the enterprise are set as virtual variables as follows:

Industrial property rights of enterprises (D1, D2) = {■ ((0,0) private enterprise@ (1,0) state owned central enterprise@ (0,1) state owned local enterprise) ┤ (6)

Source: Composed of CSI central state-owned enterprises, CSI L state-owned enterprises and CSI Slope for China Securities Index Co., LTD and collated in this study

(2) Dependent variable

1.Market performance Tobin's Q

According to the definition of Tobin (1969), Tobin's Q value is the ratio between the market value of equity capital and the replacement cost of tangible assets. Its advantage is that it can measure the value of intangible assets, which is closely related to the operation performance of the enterprise and consider the future growth opportunities of the company. Since it is difficult to obtain the data of asset replacement cost, Proxy Q proposed by La Porta et al. (2002) was adopted in this study.

CP〖(t)〗_i=Proxy Q〖(t)〗_i=(ME〖(t)〗_i+BD〖(t)〗_i)/(BA〖(t)〗_i)×100

ME〖(t)〗_i:Market value of t equity in company i (common stock + preferred stock)

BD〖(t)〗_i:Gross book liability of equity t in company i

BA〖(t)〗_i:Gross book assets of equity t in company i(7)

Sources: annual reports of major companies, Shanghai and Shenzhen Stock Exchange and calculations in this study

2.Organizational performance ROA

Griffin Mahon (1997) believed that the return on assets was related to the return on shareholders' equity and could reflect the measurement of the utilization efficiency of assets. This measure represents the profit that each dollar of assets can generate for a company over a period of time. Usually expressed as a percentage, the higher the index is, the better the company is able to make full use of its assets, and the better its efficiency and profitability will be. Otherwise, it is not fully utilized. This study analyzes whether the implementation of corporate social responsibility promotes the improvement of corporate operating efficiency by means of asset return rate index, so as to achieve the goal of sustainable development of enterprises.

ROA〖(t)〗_i=(π〖(t)〗_i)/(AA〖(t)〗_i)×100

π〖(t)〗_i:Net income before interest and tax of equity t in company i

AA〖(t)〗_i:Average book equity of total assets between equity t and equity t-1 in company i(8)

Source: Annual reports and calculations of major companies

(3) Control variables

1.Company Size (SC)

In general, it can be considered that the larger the company is, the more beneficial it is to the company's production and operation activities, and

it can give full play to its economic advantages, so as to improve the company's business performance. Different company size will affect the company's operating performance to different degrees. The larger the enterprise size is, the more likely it is to generate economies of scale. The use of company size generally USES total assets, total revenue and total employees as proxy variables. This study adopts the total assets most commonly used by researchers and takes the natural logarithm.

Company size =ln(total assets)(9)

Source: Annual reports and calculations of major companies

2.Debt ratio (equity ratio)

Molloy et al. (2002) pointed out that companies with a higher debt ratio have less spare capacity to fulfill their social responsibilities. Moreover, many scholars have confirmed that this structure is one of the factors affecting corporate performance (Myers (1977), Shih-yung Wei et al. (2017)). Therefore, the corporate debt ratio is taken into account in the test model of this study. Normal enterprises have a debt ratio ranging from 0 to 100%. In order to make the variable closer to the hypothesis of the regression model, this study changed the debt ratio into the equity ratio and took the natural logarithm for analysis.

ER〖(t)〗_i=ln((BD〖(t)〗_i)/(BE〖(t)〗_i))×100

BE〖(t)〗_i:Gross book income of equity t in company i(10)

Source: Annual reports and calculations of major companies

3.The length of time a company has been on the market

Jo Harjoto (2011) empirically found that there was a high correlation between enterprise establishment years and CSR, but it was not related to industrial adjustment Tobin's Q, which was in line with the characteristics of strong instrumental variables. Therefore, after correcting the endogenous problem between CSR and Tobin's Q, they used the years of enterprise establishment as an instrumental variable to discuss the impact of CSR and corporate governance on corporate value. According to the research of Jo Harjoto (2011), this paper studies Chinese enterprises. Most of them cannot be tested for their establishment time, and the longer they stay on the market, the more mature they become. They are more experienced in acquiring information and resource integration, which will affect the performance of enterprises through their internal operation process. In addition, China's securities law requires companies to meet the standard of three consecutive years of profits before going public. Therefore, the time of going public is different from the time of corporate profits. On the other hand, the listing of enterprises plays a certain publicity role, which can improve the popularity of enterprises, so the listing age will also affect the value of the company. Therefore, the length of listing time was used as a tool variable to correct the endogeneity between CSR and Tobin's Q.

AG〖(t)〗_i= (DATA〖(t)〗_i-IPO_i)/365

AG〖(t)〗_i:company listing duration

DATA〖(t)〗_i:current period 12/31

IPO_i:company i listing time(11)

Source: Annual reports and calculations of major companies

1.2 Research Method

The data in this study are based on the samples of Chinese listed companies from 2006 to 2019, so this data is panel data. Therefore, panel data analysis is adopted in this study. Panel data has many advantages. There are three advantages: first, panel data has more sample size and information, which can reduce the possibility of collinearity among variables, increase the degree of freedom of test statistics, and enhance the effectiveness of estimation results. Second, the panel data has a time dimension in addition to the section dimension, so that the time variation trend of the effect can be investigated for dynamic analysis. Third, panel data can alleviate to some extent the evil endogeneity problem (endogeneity caused by missing variables).Panel data does not necessarily have to use the panel data analysis, however, there are different ways to decide whether to use panel data analysis, this study through the hybrid analysis judgment, that is, the results of weighted R2 (R - squared) must be greater than unweighted R2, and weighted SSE (the Sum of squared resid) must be the school in unweighted SSE, so using panel data analysis to the most appropriate, judge the result if a panel data analysis, it is necessary to the assessment of the effect is fixed or random effect, In this study, the chi-square test mentioned by Hausman (1978) was used for testing.

1.3 Research Method

In this study, the explanatory variables to explore corporate social responsibility are all stakeholders of the enterprise.

The relationship between enterprises and the government means that enterprises abide by laws and regulations, actively respond to the

government's policy call, and avoid tax evasion. This not only enables enterprises to avoid punishment from the government, but also enables them to be rewarded and recognized by the government, thus enjoying a more relaxed policy environment. Therefore, CRG is expected to be positive.

Enterprises deal with the relationship between a creditor, abide by the contract time quantitatively to creditor pay the interest on borrowing, return the principal, is advantageous to the setting up enterprise good image, maintain good credit of the enterprise, the creditors will be willing to cooperate with enterprises properly give enterprise some preferential policies to make enterprise can develop more stable, so the enterprise to the creditor's rights and social responsibility index (CRD) as the positive effect significantly.

Enterprise managers actively respond to the interests of the shareholders in the process of operation, timely and accurate financial information communication with its shareholders and the problems existing in the enterprise management, realize the long-term stability of the property to maintain or increase its value, will enhance the trust of the shareholders of enterprise, the shareholders are more willing to increase investment in the enterprise, so as to improve enterprise's market value and financing ability. Therefore, corporate social responsibility index (CRE) is also positive.

Business integrity, timely payment, win the trust of suppliers, not only can have a steady supply of goods, but also send good information to the outside world, more suppliers are willing to cooperate with the enterprise, provide lower cost, better quality resources. Therefore, the enterprise's social responsibility index (CRS) for suppliers is positive.

The company can ensure that the legitimate rights and interests of employees are not violated, and give employees enough respect and humanistic care to make them feel valued .It can not only make employees work harder and improve work efficiency, but also create a good image for the company and reduce certain costs to a certain extent. Therefore, corporate social responsibility index (CRW) is also positive. The null hypothesis established is as follows:

(1) H0: Industry's social responsibility to the government is positively correlated with corporate profitability
(2) H0: Corporate social responsibility to creditors is positively correlated with corporate profitability
(3) H0: Corporate social responsibility to shareholders is positively correlated with corporate profitability
(4) H0: Corporate social responsibility to suppliers is positively correlated with corporate profitability
(5) H0: Corporate social responsibility to employees is positively correlated with corporate profitability.

1.4 Research Modeling

This study intends to study the influence of corporate social responsibility on corporate performance. The explanatory variable is adopted as mentioned above, which is intended to be used and added. In addition to studying the measurement of corporate performance by social responsibility, this study also adds the attribute of corporate citizenship. Therefore, the six models established in this study are as follows

Empirical Analysis

Through the introduction of the above research methods, the empirical analysis of this study is divided into four steps: univariate analysis, introduction of the narrative statistics of each variable, and distribution, and then deletion of some extreme values. Bivariate square analysis, through bivariate analysis to understand whether there is collinearity between explanatory variables. Mixed analysis to understand whether the data in this study has panel data analysis. In panel data analysis, Hausman Test is used to determine which model is the best model.

2.1 Uni-variable Analysis

The descriptive statistics of relevant variables in this study are shown in Table 1, and the histogram is drawn as shown in Table 1.

Table 1. **Descriptive statistic.**

0	CP	ROA	CRG	CRD	CRE	CSD	CRW	SC	ER	AG
Obs.	32799	32799	32799	32799	32799	32799	32799	32799	32799	32799
Mean	56.04	6.49	10.54	254.72	37.00	4982.37	28.08	15.10	-30.65	10.05
Med.	55.74	5.99	5.33	157.70	26.99	496.93	10.62	14.93	-26.61	9.07
Max.	2383.84	1062.43	32703.91	20470.52	3280.25	110000000	262646.70	21.73	755.39	29.08
Min.	1.23	-183.95	-162.00	2.01	-2415.31	-94029.89	0.00	8.81	-494.33	0.00
Std..	31.90	11.26	230.84	411.38	75.53	610130.60	1639.96	1.34	108.23	6.95
Sk.	18.31	34.38	107.13	14.41	6.76	179.88	143.12	0.77	0.03	0.39
K.	1044.37	2925.26	13524.37	450.50	282.17	32496.82	21548.59	4.16	4.06	2.08

From table 1 and figure 1 found the extreme value of the variables in this study, may affect the results of the analysis (panel data analysis can eliminate part of extreme value), so this study you delete some extreme value, judging by the histogram obvious except in extreme value, for the authenticity of this research study intends to remove the government social responsibility will be extreme value is greater than 5000:16 pens, creditor's rights and social responsibility is more than 10000: five pens, rights and interests of social responsibility is more than ±1000:20, supplier social responsibility ±50000:70, social responsibility is more than 2000 employees, 7 pens, ROA is larger than 200: 4, CP deletion was greater than 800:5

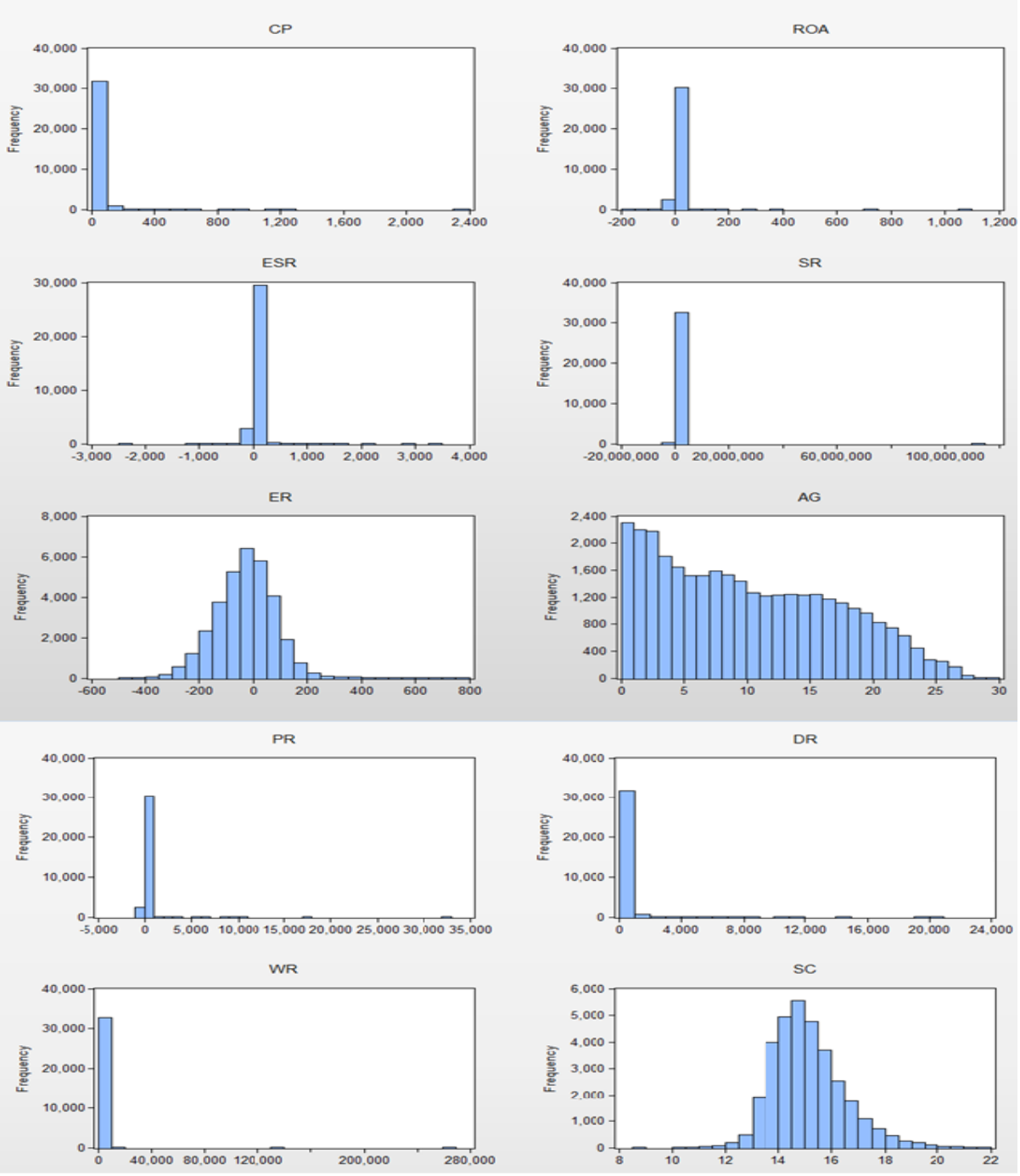

Figure 1. **Variable histogram**

All the above items were deleted successively, a total of 127 items were deleted, below 0.5%, and the number of samples in this study was 32,672. After deleting the extreme straight line, the distribution of each sample in each year of this study is shown in Table 2:

Table 2. **Data distribution table of syudy amples for each year**

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	total
private enterprise	442	545	569	783	1081	1343	1485	1491	1600	1800	1990	2385	2450	2465	20429
central enterprise	393	438	425	529	573	604	624	626	635	647	660	679	687	692	8212
local enterprise.	187	227	218	273	290	295	301	304	307	313	321	325	332	338	4031
total.	1022	1210	1212	1585	1944	2242	2410	2421	2542	2760	2971	3389	3469	3495	32672

Finally, the descriptive statistics of the research samples are shown in Table 3:

Table 3. **The narrative statistic after deleting the extreme value**

	CP	ROA	CRG	CRD	CRE	CSD	CRW	SC	ER	AG
Obs.	32672	32672	32672	32672	32672	32672	32672	32672	32672	32672
Mean	55.82	6.41	7.21	251.56	36.34	906.48	13.86	15.11	-30.51	10.04
Med.	55.74	6.00	5.32	157.68	27.00	495.87	10.61	14.94	-26.58	9.05
Max.	660.58	185.35	683.07	8685.00	994.43	49128.51	1250.72	21.73	755.39	29.08
Min.	1.23	-183.95	-162.00	2.01	-767.11	-10673.30	0.00	10.48	-477.60	0.00
Std..	26.41	8.35	14.34	361.85	62.93	1961.64	24.08	1.34	107.79	6.95
Sk.	2.90	-0.52	21.94	8.02	1.34	10.79	25.69	0.78	0.04	0.39
K.	43.48	50.11	756.39	110.73	29.62	172.92	962.44	4.14	4.04	2.08

2.2 Bi-variable Analysis

The correlation coefficient matrix can predict the relationship between variables in advance, and understand whether there is a high correlation between explanatory variables, resulting in errors in the analysis results. The correlation coefficient among variables in this study is shown in Table 4.

Table 4. **Matrix of correlation coefficient of each variable**

	CP	ROA	CRG	CRD	CRE	CRS	CRW	SC	ER	AG
CP	1	-0.13	0.01	-0.33	-0.12	-0.01	0.00	0.13	0.65	0.25
ROA		1	0.09	0.13	0.69	0.04	-0.06	0.02	-0.25	-0.16
CRG			1	0.05	0.11	-0.03	0.41	0.03	-0.04	0.09
CRD				1	0.10	0.11	0.05	-0.25	-0.60	-0.24
CRE					1	0.00	-0.05	0.17	-0.18	-0.14
CRS						1	-0.04	-0.06	-0.06	0.02
CRW							1	-0.11	-0.07	0.02
SC								1	0.42	0.33
ER									1	0.35
AG										1

By table 4 can discover CRE and ROA the highest correlation coefficient, reached 0.69, CRE itself with the concept of equity returns, also verify the Griffin Mahon (1997) argue that return on assets and return on equity related, but 0.69 also, under the condition of highly correlated, so don't affect the results of the analysis, this also why this research adopts the market performance and organization performance as the social responsibility is explained the cause of the variables.

2.3 Pooled Analysis

As mentioned in the above research method, Pooled Analysis results of 6 groups of models are listed in Table 5.

Table 5. **Hybrid analysis R2 Statistics and SSE Statistics**

0	R2 Statistics		SSE Statistics	
	Weighted	Unweighted	Weighted	Unweighted
MODEL 1	0.24	0.10	19580006	20498002
MODEL 2	0.80	0.48	1165007	1176800
MODEL 3	0.82	0.43	11003956	12916444
MODEL 4	0.92	0.50	1130156	1140275
MODEL 5	0.82	0.43	11001689	12888541
MODEL 6	0.85	0.51	1098936	1118628

Table 5 shows that all the research models in this study are suitable for analysis by panel data analysis.

2.4 Panel Data Analysis

There are two effects in panel data analysis, namely fixed effect and random effect. Generally, Hausman Test is used to determine which model is the best model. The Test results of the model in this study are shown in Table 6

Table 6. **Hausman Test**

	χ2 Statistic	χ2 d.f.	Prob.
MODEL 1	347.81	5	(0.00)
MODEL 2	404.77	5	(0.00)
MODEL 3	201.85	8	(0.00)
MODEL 4	846.64	8	(0.00)
MODEL 5	235.96	18	(0.00)
MODEL 6	1184.20	18	(0.00)

The P- VAUlE values of the six models in Table 6 were all less than 0.05, indicating that the fixed effect was the most appropriate explanation for the six models in this study.

The fixation effect of each model is shown in Table 7 below.

From table 7 can be found that regardless of the enterprise property right attribute, enterprise to government, creditors, shareholders, suppliers and employees' social responsibility almost show significant relationship, and only the social responsibility of the enterprise to employees (0.01, 0.01) on organizational performance were significant negative relationship with separate study of social responsibility, to the (0.02) of the rights of the creditor and shareholder (0.04) of social responsibility and market performance of negative significant relationship. Therefore, this study further discusses the influence of enterprise property right attributes, and the analysis is shown in Table 8.

By analyzing the property ownership, we can find obvious changes. In terms of market performance, there is no significant correlation between private enterprises' social responsibility to the government. Although private enterprises' social responsibility to the government is not significant in the evaluation of market performance, both state-owned enterprises (local enterprises and central enterprises) show a significant positive correlation (0.06, 0.00), while the creditor's rights of local state-owned enterprises decrease while those of central state-owned enterprises increase. The social responsibility of suppliers is also on the rise in local state-owned enterprises. For organizational performance, Creditor's social responsibility (-0.001) and employee's social responsibility (-0.02) are significantly negative. However, the social responsibility of state-owned enterprises to shareholders decreased significantly (-0.03, -0.03). And local state-owned enterprises and private enterprises are almost all significantly different, Social responsibility of the government (-0.02), shareholders (-0.03) and suppliers (-0.000) are all significantly reduced. Creditor's rights social responsibility (0.00) and employee's social responsibility (0.04) showed significant increase.

Conclusion

Based on the samples of listed companies in the electronics industry in Taiwan from 2006 to 2017, this chapter collects and collates the financial data, smart capital data, dynamic capability data, and board and supervisor data of listed companies by hand to study the mechanism of smart capital's influence on the difference of net value and value of enterprises. The research findings of this chapter:

First, process capital has a significant impact on Tobin's Q through the mechanism of resource integration, while the other three variables do not affect Tobin's Q through the mechanism of resource integration.Human capital does not influence Tobin's Q through resource integration mechanism. The cross term of the ratio of human capital to intangible assets in the current period and the lagged period fails to pass the significance test at the level of 10%. Innovation capital has no influence on Tobin's Q through resource integration mechanism.The cross term of the ratio between

Table 7. **Fixed analysis**

Variable	Dependent Variable: CP			Dependent Variable: ROA		
	Coefficient	t-Statistic	Significant level			
C	62.18	119.74	120.24	2.70	5.75	3.58
	(302.94)	(83.01)	(81.01)	(54.16)	(12.97)	(7.96)
CRG	0.05	0.02	0.02	0.01	0.02	0.02
	(4.57)	(2.79)	(1.46)	(5.46)	(7.25)	(6.00)
CRD	-0.02	0.01	0.01	0.00	-0.00	-0.00
	(-61.82)	(19.82)	(19.59)	(13.49)	(-7.43)	(-8.93)
CRE	-0.04	0.02	0.02	0.09	0.09	0.10
	(-16.91)	(12.68)	(10.95)	(169.95)	(159.63)	(147.74)
CRS	0.00	0.00	0.00	0.00	0.00	0.00
	(5.86)	(5.68)	(3.09)	(8.95)	(9.04)	(8.53)
CRW	0.02	0.03	0.03	-0.01	-0.01	-0.02
	(2.44)	(6.34)	(5.82)	(-6.39)	(-9.10)	(-10.96)
D1*CRG			0.06			-0.02
			(2.48)			(-3.30)
D1*CRD			0.00			0.00
			(-3.85)			(2.59)
D1*CRE			0.00			-0.03
			(-0.84)			(-22.35)
D1*CRS			0.00			0.00
			(2.04)			(-1.90)
D1*CRW			-0.02			0.04
			(-1.39)			(9.71)
D2*CRG			0.00			0.00
			(0.10)			(0.74)
D2*CRD			0.00			0.00
			(3.65)			(1.14)
D2*CRE			0.00			-0.03
			(-0.49)			(-18.76)
D2*CRS			0.00			0.00
			(1.43)			(-1.43)
D2*CRW			0.01			0.00
			(0.41)			(-0.36)
SC		-4.23	-4.26		-0.18	-0.05
		(-43.86)	(-43.13)		(-5.98)	(-1.61)
ER		0.19	0.19		-0.01	-0.01
		(138.80)	(138.15)		(-25.01)	(-25.82)
AG		0.23	0.23		-0.01	0.01
		(13.61)	(13.13)		(-1.56)	(2.30)
R-squared	0.14	0.48	0.48	0.49	0.51	0.52
F-statistic	305.57	1438.19	977.22	1777.03	1619.00	1153.37
Prob	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)

Table 8. **Analysis table of corporate Social Responsibility of property right attribute**

	private enterprise		local enterprise		central enterprise	
	Dependent Variable: CP					
CRG	0.02 (1.46)	×	0.06 (2.48)	+	0.00 (0.10)	+
CRD	0.01 (19.59)	+	-0.004 -(3.85)	↓	0.00 (3.65)	↑
CRE	0.02 (10.95)	+	0.00 (-0.84)		-0.002 (-0.49)	
CRS	0.00 (3.09)	+	0.00 (2.04)	↑	0.00 (1.43)	
CRW	0.03 (5.82)	+	-0.02 (-1.39)		0.01 (0.41)	
	Dependent Variable: ROA					
CRG	0.02 (6.00)	+	-0.02 -(3.30)	↓	0.00 (0.74)	
CRD	-0.001 (-8.93)	-	0.00 (2.59)	↑	0.00 (1.14)	
CRE	0.10 (147.74)	+	-0.03 (-22.35)	↓	-0.03 (-18.76)	↓
CRS	0.00 (8.53)	+	-0.0001 (-1.90)	↓	0.00 (-1.43)	
CRW	-0.02 (-10.96)	-	0.04 (9.71)	↑	0.00 (-0.36)	

innovation capital and intangible assets in the current period and the lagged period fails to pass the significance test at the level of 10%. Process capital has a significant impact on Tobin's Q through the mechanism of resource integration, and the lag effect of this mechanism is relatively obvious. The estimated coefficient of the cross term of the current process capital to intangible assets ratio is significantly positive at the level of 10%, and the estimated coefficient of the cross term of the lagging phase is significantly negative at the level of 10%. Customer capital does not influence Tobin's Q through resource integration mechanism. The cross term of the ratio of customer capital to intangible assets fails the significance test at the level of 10%.

Second, human capital, innovation capital and customer capital have a significant impact on Tobin's Q of an enterprise through the organizational development mechanism, while process capital does not play a role in Tobin's Q of an enterprise through the organizational development mechanism.Human capital has a significant influence on Tobin's Q through organizational development mechanism. The cross term of the ratio of human capital to intangible assets in the current phase and the lagged phase all passed the significance test at the level of 10%, with the estimation coefficient of the former significantly positive and the latter significantly negative.Innovation capital significantly increases the Tobin's Q of enterprises through the organizational development mechanism, but there is an obvious hysteresis. The cross term of lagging innovation capital and organizational development ability passed the significance test at the level of 10%, while the estimated coefficient of the cross term of the current period was not statistically significant.Process capital does not influence Tobin's Q through organizational development mechanism; The cross term between process capital and organizational development capacity of the current phase and the lagged phase fails the significance test at the level of 10%.Customer capital has a significant influence on Tobin's Q through organizational development mechanism. The cross term of the ratio of customer capital to intangible assets passes the significance test at the level of 10%.Explanation is different from the resource integration mechanism, so it is necessary to do subsequent analysis of other variables.We know that Taiwan's electronics industry needs to adjust its organizational capabilities in recent years. Taiwan's electronics industry fusion to the Yangtze river delta investment can promote the performance of the organization, can the long-term layout in the twenty years of corporate performance, mainly in the Yangtze river delta overall management on the geographical position is suitable for Taiwan's electronics industry investment development, and further enhance the future of Taiwan's electronics industry company performance reflected in financial statements, for enterprise boss, shareholders and investors have certain indicators. The Yangtze River Delta has a good geographical location, including import and export of natural ports and intelligent capital resources suitable for Taiwan's electronics industry investment, which can be used for the layout of future corporate performance.

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