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Does Employee Quality Affect Corporate Social Responsibility? Evidence from China

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Received: 16 February 2020; Accepted: 23 March 2020; Published: 30 March 2020



Abstract: This paper investigated the impact of employee quality on corporate social responsibility (CSR). Based on data from China A-share-listed companies for the years 2012–2016 and using ordinary least squares, our empirical results show that the educational level of the workforce, as a proxy for employee quality, is positively associated with CSR, which suggests that higher education can promote CSR implementation. Additional analyses found that this positive relationship is more pronounced in non-state-owned enterprises, enterprises in regions with lower marketisation processes, and firms with lower proportions of independent directors. This study extends the literature on human capital at the level of firms' entire workforce and CSR by elaborating the positive effect of employee quality on CSR in the context of an emerging economy (China). The results suggest that it is necessary to consider the educational level of employees when analysing CSR, which is of strategic significance for corporate sustainable development.

Keywords: employee quality; corporate social responsibility; property; proportion of independent directors; marketisation; sustainability

1. Introduction

Employees are the most valuable assets of an enterprise and the key source of its competitive advantage, a view that has become a consensus in theoretical and business circles. The construction of

a high-quality staff is conducive to improving the soft power of enterprises, helping them to achieve sustainable development. As one of the stakeholder categories of an enterprise, employees' quality will affect financial performance, business strategy, employees' working status, innovation activities, and the quality of financial information of the enterprise [1,2]. Meanwhile, corporate social responsibility (CSR) is an important strategy for managing the relationship between an enterprise and its internal and external stakeholders [3]. Enterprises participating in charitable activities and fulfilling environmental responsibilities can help them obtain valuable resources from the government [4]. Indeed, it has become a trend for enterprises to take the initiative to assume social responsibility in China against the backdrop of advocating sustainable development [5]. Scholars have demonstrated that corporate cultural orientation and the entrepreneur's cultural style will affect CSR [6–8]. Corporate culture is embedded in the thoughts and behaviours of employees at all levels of the firm, providing guidance and constraints on corporate behaviour [9,10] and affecting other stakeholders such as consumers, distributors, and communities [11]. Consequently, it is reasonable to ask, does employee quality as a key element of corporate culture have an impact on CSR?

CSR means that companies have a responsibility to stakeholders beyond creating profits and maximising the wealth of shareholders [12,13]. Prior research identified many factors that prompt enterprises to undertake social responsibility, including the impetus of external systems, such as the legal system, the governmental administrative regulation system, and the media supervision system [14–17]. There are also requirements for the internal systems of enterprises, such as the industrial association system and the independent board of director's system [18]. All these systems have influenced the behaviour of enterprise managers or employees, promoting the gradual enhancement of CSR awareness. In addition, human capital constitutes not only the informal system of enterprises but also the soft constraint. From this perspective, there has been much discussion about CSR regarding the personalities, attitudes, values, and ways of thinking of entrepreneurs [19–22], as well as the overseas background, gender, and academic qualifications of CEOs and other senior executives [23,24]. However, the literature largely ignores the question of whether characteristics of the firm's entire workforce makes a difference to CSR. Even though a few studies conclude that employees' psychology and behaviour are associated with CSR [25–27], there is a lack of literature examining the effect of employees' quality on CSR, which is the focus of this study.

We argue that the quality of a firm's entire workforce plays an important role in CSR, as well as in corporate culture and human resource management. Based on the understanding of the nature of enterprises, corporate culture naturally comprises elements of CSR [28,29]. According to human capital theory, the educational level contributes to the accumulation of human capital [30,31]. As a result, we use the average educational level of the workforce as a proxy for employee quality in the development of our research hypotheses [32].

Using data from China A-share listed companies from 2012 to 2016, we first examine whether the educational level of employees, as our interest factor, affects CSR. When it comes to China-related issues, a significant characteristic of China's reform process cannot be ignored—that is, the levels of marketisation and economic development in different regions [33]. In addition, considering that the cultural construction of state-owned enterprises (SOEs) may differ from that of non-state-owned enterprises, and that the different governance structures of enterprises will also affect the ability and attitude of enterprises to assume social responsibility, we then investigated whether institutional environments and property will lead to different effects of employees' quality on CSR. Finally, our findings are robust to various sensitivity tests using different measures of CSR and excluding enterprises with a negative total return on assets (ROA).

This study contributes to the literature as follows: first, by extending the literature on human capital at the level of a firm's entire workforce and by examining whether the educational level of all staff, as a crucial proxy for employee quality, affects CSR; second, by filling the research gap by directly examining the relationship between CSR and employee quality, because even though plenty of research has been conducted on CSR, there is insufficient evidence regarding whether employee

quality has an impact; third, the commitment of CSR has been elevated to a strategic level by most companies [34], so the introduction of the key element of employee quality in this article has strategic significance for the company's resource management and sustainable development.

2. Literature Review and Hypothesis Development

With the globalisation of the economy and the integration of the industrial chain, Chinese companies are under increasing pressure to fulfil their social responsibilities. While pursuing economic interests and increasing shareholder wealth, enterprises need to consider the requirements of sustainable social development to actively participate in social welfare and maintain public relations, and to consider the rights and interests of employees, suppliers, and customers. From the perspective of signal theory, the quality of CSR information disclosure will have an impact on investor confidence, with the investor's belief being the driving force for stock trading and sustainable returns [35]. Paying attention to the interests of all stakeholders, including shareholders, and fulfilling social responsibilities have become important requirements for the development of today's enterprises.

CSR activities include many aspects. For example, most firms in Hong Kong include sustainability activities held by the corporations as one important contribution on CSR. Having said that, however, previous studies on CSR and business ethics argue that the education received by workers can affect their attitudes and cognitions [36–38]. Higher-level theory holds that the background characteristics of senior executives, such as age, education, and professional experience, can partially predict their cognitive basis and values. The higher a person's education, the more rational and objective that person may be in a complex decision-making process, and the more able that person should be to understand and consider the demands of various stakeholders; at the same time, people with a higher education usually have higher social status and income than most people with lower education. After meeting their basic needs, including food and clothing, people with a higher education are more likely to care about social issues such as food safety and environmental protection and they are more willing to share what they know. Researchers have also shown that the more educated people are, the better their perceptions of CSR [39–41]. They are also more likely than less well-educated people to endorse CSR goals [42]. Simultaneously, employees' quality will also affect their organisational commitment and moral identity. A person's formal educational background can produce rich but complex information. Schools are responsible for teaching and educating people. Generally, courses on ideology, morals, law, and even ethics offered from elementary school to university will affect the formation of students' values, implicitly influencing their behaviours through high moral standards and social norms these curriculums promote. Elias reveals that a business ethics education can have a positive influence on students' attitudes, awareness, and expectations regarding CSR [37]. Therefore, the quality education that employees receive is a kind of soft binding force, which makes them think it to be a high standard of performance to assume responsibility for others in society and to consciously resist behaviour that does not meet their ethical standards. According to the social norm theory, each social group has its own written or unwritten social rules, which are generally observed by all, and individuals who violate these common rules will be shunned by group members, even expelled from the group [43]. In such an environment, taking social responsibility is like complying with such rules. If business owners or managers do not take social responsibility, they will be rejected by the entire company; at the same time, business owners and managers will feel a heavy sense of guilt, which will thereby prevent the occurrence of irresponsible corporate behaviour.

In addition, enterprises with high-quality employees generally enjoy comprehensive strength and a good corporate reputation. Employee literacy promotes the absorption and transformation of technical knowledge and market knowledge [44], and Li et al. believe that external knowledge acquisition is essential for enterprise innovation and sustainable development capability [45].

Companies like these will have more funds and incentives for CSR. Similarly, the higher the quality of the staff, the stronger their professional competence, which will contribute to the firms' better financial performance, and such companies will be more willing to fulfil corporate social responsibilities.

From the perspective of corporate strategic development, employees are the core of competitiveness, and their higher quality partially indicates the companies with more optimistic futures and more sustainable development. When this is true, enterprises will be more willing to invest in CSR for long-term progress.

Accordingly, we propose

Hypothesis 1. *Employee quality has a positive impact on CSR.*

There are many factors affecting the level of CSR information disclosure, which can be summarised by three levels: the level of the institutional environment [46,47], the level of the company [48], and the level of the individual manager [49]. In recent years, external institutional environments, such as China's political climate, have played an important role in the disclosure of CSR information.

Due to political, historical, and social systems, Chinese enterprises can be classified according to the nature of property rights: state-owned enterprises and non-state-owned enterprises. State-owned enterprises are very different from non-state-owned enterprises in terms of positioning, developmental goals, and personnel management. China's state-owned enterprises have more particularity in the direction of enterprise development and shoulder more social functions. When the government promulgates new policies, policy-sensitive state-owned enterprises will quickly respond with assimilative behaviours to meet the expectations of the public and the government. The key driving factors for the disclosure of social responsibility information by state-owned enterprises and non-state-owned enterprises are different, with the driving force of state-owned enterprises' disclosure derived from the regulations, regulatory pressures, and assessment requirements related to the nature of their property rights, and their employee quality plays a relatively limited role in CSR. Although state-owned enterprises are more likely to provide social responsibility reports, most of them are mandatory disclosures that meet the needs of the regulatory authorities [50]. As early as 2008, the government required central enterprises to play a leading role in fulfilling their social responsibilities, whereas non-state-owned enterprises are less affected by such factors, and the extent of their social responsibility information disclosure is more about their own performance, internal environment, and corporate culture. Compared with state-owned enterprises, non-state-owned enterprises face greater ongoing pressure in social production, and they are not enthusiastic about behaviours that may not immediately achieve corporate performance. At this point, the quality of employees, as an informal system with soft binding force, can fulfil a more significant function in private enterprises' social responsibilities.

Therefore, we propose the second hypothesis to study the mediated impact of the property rights of the two kinds of enterprises.

Hypothesis 2. *Compared with state-owned enterprises, employee quality has a greater positive impact on the social responsibility performance of non-state-owned enterprises.*

The board of directors performs self-supervision in the corporate governance structure, and special directors must assume the responsibility of supervision in the power distribution structure to achieve the purpose of internal power balance. Enterprises will choose between business performance and the cost of social responsibility, and the supervision of independent directors will play a role in this process. The independent director reputation theory holds that external independent directors are more motivated to play their supervisory role, because they have a higher social reputation and tend to maintain it as efficient and independent decision makers [51,52]. In order to maintain their reputation in social communication and in the market, independent directors perform prior supervision in the process of CSR information disclosure. In order to obtain the support of stakeholders, independent directors make more decisions based on the company's long-term interests, helping companies weigh multiple interests, thereby preventing short sighted behaviour by corporate managers and improving CSR performance. Ibrahim et al. suggest that the proportion of independent directors should be

appropriately increased, and their independence should be guaranteed to better serve the long-term development of enterprises [53]. Indeed, researchers show that the proportion of independent directors has a significant positive impact on CSR [46,54–56].

The higher the proportion of independent directors, the greater the opportunity for the company to be supervised, the more readily the company will participate in social responsibility activities, and the more likely it will be to disclose relevant information. Meanwhile, a good educational background can enhance the cohesion and self-discipline of employees, so that they can be more responsible for the development of the enterprise and society. Deep professional knowledge can identify management's opportunistic behaviour, and in the case of weak internal power checks and balances, it can supervise management to a certain extent, avoid their short-sighted behaviour, and promote the enterprise to actively assume social responsibility. From this perspective, the influence of independent directors and employees' quality on CSR can form a certain substitution effect. Therefore, we assume that when independent directors' supervision is weak, the quality of employees can play a greater role in fulfilling CSR.

Hypothesis 3. *The positive effect of employee quality on a firm's CSR is more pronounced for firms with a lower proportion of independent directors.*

Regarding China-related issues of economic and social development, a significant characteristic of China's market-oriented reform process cannot be ignored. Differences in the level of the institutional environment between China's provinces and cities have occurred due to uneven resource endowment in various regions, a gradual model of reform, and the central government's policy differences in various regions. Short and Toffel proved that government regulation can promote the improvement of corporate environmental standards. In areas where the market system is relatively sound, the government's supervision of enterprises is more rigorous and comprehensive, which may affect performance of basic social responsibilities [57]. However, local governments often lack sufficient resources to solve basic social problems in areas with underdeveloped economies and backward market systems. Wei et al. suggest that firms in weak regional institutional environments are supervised by relatively bad legal systems and monitored by less professional government agencies, which leads to weak informational environments [33]. Gong et al. consider that, in a weak regional institutional environment, firms are less likely to experience pressure from local governments to disclose relevant information [58]. Therefore, the willingness of those firms to disclose more CSR information will be largely affected by their current operating performance, which prompts short sighted behaviour. At this time, a soft constraint formed by the high quality of enterprise employees can serve as an important supplementary part of the formal system and play an important role in the process of CSR. High ethical standards constrain management's attitude and behaviour at the emotional level, making leaders highly responsible for regulating corporate behaviour on the level of social responsibility standards. Therefore, we expect that the relationship between employee quality and firms' CSR information disclosure is also affected by the institutional environment of the regions in which the firms are located. Based on this, we propose the following hypothesis:

Hypothesis 4. *The positive effect of employee quality on a firm's CSR is more pronounced for firms located in regions with weak institutional environments.*

3. Methodology

3.1. Measures

3.1.1. Dependent Variables

Following prior literature, we use *CSR_score* together with its *CSR_rating* released by HeXun as the dependent variables [59]. The objects of CSR protection usually include shareholders, employees, communities, suppliers, consumers, and the environment; therefore, the *CSR_score* is used to represent the aggregate score of each dimension of CSR. At the same time, the CSR disclosure of Chinese listed companies published by HeXun is divided into five grades from A to E, such that CSR ratings refer to the scores converted from the following grade: 5 for an A rating, 4 for B, 3 for C, 2 for D, and 1 for E.

3.1.2. Independent Variables

Staffedu, measured by the educational background of employees, is the independent variable of interest in regression models. The weighted average method used to calculate the overall education level of employees is adopted in this study as follows [32]:

$$Staffedu_{i,t} = \sum_{i=1}^n \frac{Edu_i \times Nt_i}{TNt} \quad (1)$$

In Equation (1), Nt_i represents the number of employees with corresponding qualifications in the company's headquarters in the t -year, and TNt is the total number in that year. Edu_i , representing education level, is systematically coded and used as a weight to calculate the average educational level of employees. Additionally, a score of six indicates 12 years of school education, that is, high school and below; eight indicates 13 or 14 years, that is, basic academic qualifications; 10 indicates four years of university education, that is, an undergraduate degree; and 12 indicates more than five years of university education, that is, a master's degree or above.

3.1.3. Control Variables

To control for firm characteristics, *Ibd*, *Duality*, *Top1*, and *Z* were used to proxy for corporate governance. *Ibd* is measured as the number of independent directors divided by total board directors; *Duality* is a dummy variable that equals 1 if the chairman and the general manager are the same person; *Top1* is the equity proportion of the largest shareholder; and *Z*, the equity restriction, is measured as the proportion of the top five shareholders except for the largest one. In addition, variables *Pb* and *Growth* are adopted to represent the growth opportunity of the firms. *Pb*, price-to-book ratio, is measured as the market value divided by the book value per share; *Growth* is calculated as ending sales revenue divided by one-year lagged sales revenue. *Cashholdings*, following Chen et al. and Lins et al., is also included to control for the free funds of a firm [60,61]. *Cashholdings* is computed as the ratio of cash to total assets. *Size*, the natural logarithm of the firm's total assets, is used to measure a firm's size. *Roe*, calculated as net income divided by equity, indicates the profitability of a company. *Lev*, calculated as the total debt divided by total assets, represents a firm's ability to service its debt [62].

Prior research suggests that disclosure of CSR varies among enterprises with different property rights [60,63]. *SOE*, a dummy variable that equals 1 if the firm is a state-owned enterprise, is used as a moderator variable. *Ibd_dum* is defined as 1 if the percentage of independent directors is above its median value, and zero otherwise. Moreover, *Marketise*, indicating the marketisation index across various regions in China, is a dummy variable that equals 1 if the value of the index is higher than its median value and zero otherwise. Detailed definitions of all variables are shown in Table 1.

Table 1. Variable definitions.

Variables	Descriptions
CSR_score	Overall evaluation score released by HeXun
CSR_rating	Overall evaluation rating score: 5 for an A rating, 4 for B, 3 for C, 2 for D, and 1 for E
Shareholder	CSR score towards shareholders
Employee	CSR score towards employees
Supplychain	CSR score towards suppliers, customers, and consumers
Environment	CSR score towards the environment
Social	CSR score towards society or communities
Staffedu	Educational background of employees
Ibd	Number of independent directors divided by total board directors
Duality	Dummy variable that equals 1 if the chairman and the general manager are the same person, and zero otherwise
Pb	Price-to-book ratio, measured as the market value divided by the book value per share
Top1	Proportion ownership of the largest shareholder
Roe	Return on equity ratio, calculated as net income divided by equity
Leverage	Financial leverage ratio, calculated as total debt divided by total assets
Growth	Sales growth, measured as ending sales revenue divided by one-year lagged sales revenue
Size	Firm size, measured as the natural logarithm of total assets
Cashholdings	Ratio of cash to total assets
Equity control	Equity restriction, measured as the proportion of the top five shareholders except for the largest one
SOE	Dummy variable that equals 1 if the firm is a state-owned enterprise, and zero otherwise
Marketise	Dummy variable for the marketisation index across various regions in China Industry
Industry	dummy variable
Year	Annual dummy variable

3.1.4. Model Specification

This paper constructed the following four empirical test models using ordinary least square (OLS) regression analysis to test the relationship between employee quality and CSR. In addition, group tests were conducted to further analyse the relationship between the two according to the nature of property rights, the proportion of independent directors, and the degree of marketisation. Corresponding models are as follows (2) to (5):

$$CSR = \beta_0 + \beta_1 Staffedu + \beta_2 controls + \varepsilon \quad (2)$$

$$CSR = \beta_0 + \beta_1 Staffedu + \beta_2 SOE + \beta_3 SOE * Staffedu + \beta_4 controls + \varepsilon \quad (3)$$

$$CSR = \beta_0 + \beta_1 Staffedu + \beta_2 Ibd + \beta_3 Ibd * Staffedu + \beta_4 controls + \varepsilon \quad (4)$$

$$CSR = \beta_0 + \beta_1 Staffedu + \beta_2 Marketise + \beta_3 Marketise * Staffedu + \beta_4 controls + \varepsilon \quad (5)$$

3.2. Data Sources and Analysis

3.2.1. Sample Identification and Data Sources

Considering that the Shanghai Stock Exchange has standardised and guided listed firms in CSR report disclosure only since 2008, and given the data availability of *Staffedu*, we selected a sample of enterprises financed in China's A-share market for the period 2012–2016. To examine the effect of

employees' educational background on CSR, we collected data from several sources. The current CSR score of HeXun Online is available, and the results are repeatable and verifiable, so it has been widely used in the empirical analysis. Thus, referring to the previous literature on CSR reporting in China, we started building our sample by obtaining CSR data from HeXun [59].

The Wind database was developed according to the international standards of databases to meet the requirements of academic research, and this database has been used in several recent studies [58]. Information about raw data for educational level was derived from the Wind database, which provides the number of employees with the corresponding qualifications of the firm. Likewise, control variables are from the Wind database. All financial statement data were measured at the end of the fiscal year.

3.2.2. Descriptive Statistics and Pearson Correlations

Table 2 presents the descriptive statistics for the full sample in Panel A, while grouping samples in Panel B by SOE and in Panel C by *marketise*, and winsorising all continuous variables at the top and bottom 1% of their distributions. The average CSR overall score was 27.53, and the average CSR rating score was 2.26. Among the five dimensions of CSR, responsibility towards shareholders scored the highest. The variable of interest, *Staffedu*, had a mean score of 8.11, indicating that the average educational level of employees selected in our sample was above basic academic qualifications, that is, more than 13–14 years of schooling. With respect to corporate governance characteristics, the average *Ibd* score was 0.37, average *Duality* of 0.26, and the average *Equity control* of 18.36. For firms' growth opportunities, the average *Pb* score was 4.58, and *Growth* was 13.14, with an average *Roe* score of 7.86, and the *Cashholdings* was 0.19. The average *Leverage* score was 41.92, suggesting that debt is the financing source of 41.92% of total assets. SOEs comprised 37% of the sample, and the average market was 8.1. Various performance and risk measures indicate that, on average, our sample firms are financially healthy.

For further research, the full sample was divided into four groups, with Panel B and Panel C listed due to space limitations. As described in Panel A, the average *Staffedu* was lower in SOEs than in non-SOEs, with an average *Top1* higher in SOEs than in non-SOEs, showing that state-owned enterprises have a higher concentration of equity. The average *Leverage* in SOEs is higher than in non-SOEs, highlighting that debt financing is preferred in state-owned enterprises. Through analysis of the data in Panel C, it was concluded that on average, enterprise performance is generally better in regions with higher indices of marketisation, and the employees there are relatively well educated. Specific measurements are presented in Table 2.

Table 3 shows the correlation coefficient matrix; the key variables of interest in this paper are CSR and the educational level of employees. The correlation matrix shows that the employees' quality is positively associated with *CSR_score* and *CSR_rating* with significance at the 1% level, providing preliminary support for our fundamental assumption. As there are many factors influencing CSR, univariate analysis alone is not reliable to analyse the impact of employees' education level on CSR. In the following analysis, we examined the promotion effect of employees' quality on CSR after controlling for other influencing factors, further investigating the moderating effect of the type of property rights, the proportion of independent directors, and the regional marketisation process on the relationship between them. The detailed results of the correlation coefficient test between variables are shown in Table 3.

Table 2. Descriptive statistics.

Panel A: Descriptive statistics of the full sample								
Variable	N	Mean	sd	p50	min	max		
CSR_score	9278	27.53	18.21	22.97	−2.79	77.2		
CSR_rating	9278	2.26	0.7	2	1	5		
Shareholder	9278	14.53	6.13	15.11	−2.54	25.38		
Employee	9278	3.25	3.6	1.92	0.01	15		
Supplychain	9278	2.45	5.58	0	0	20		
Environment	9278	2.44	5.81	0	0	23		
Social	9278	4.85	4.15	4.38	−7.47	16.31		
Staffedu	9278	8.11	1.13	8.02	6.29	10.53		
Ibd	9277	0.37	0.05	0.33	0.33	0.57		
Duality	9278	0.26	0.44	0	0	1		
Pb	9132	4.58	3.86	3.39	0.87	25.35		
Top1	9278	35.69	15.24	33.8	8.6	76.52		
Roe	9259	7.86	9.62	7.59	−34.28	36.35		
Leverage	9278	41.92	21.06	40.6	4.9	88.69		
Growth	9277	13.14	31.96	8.5	−50.94	170.33		
Cashholdings	9278	0.19	0.14	0.15	0.02	0.66		
Size	9278	22.07	1.27	21.9	19.74	25.92		
Equity control	9262	18.36	11.52	16.65	1.24	49.5		
Market	9278	8.1	1.61	8.69	3.49	9.95		
SOE	9278	0.37	0.48	0	0	1		
panel B: Grouped by SOE and nSOE				panel C: Subsample (nSOE) grouped by marketise				
Variables	mean	Sd	Mean	sd	mean	sd	mean	sd
	SOE = 0 (N = 5859)		SOE = 1 (N = 3418)		Lower (N = 2205)		Higher (N = 3655)	
Staffedu	8.16	1.16	8.03	1.07	7.97	1.09	8.28	1.19
Ibd	0.37	0.05	0.37	0.05	0.37	0.05	0.38	0.05
Duality	0.35	0.48	0.09	0.28	0.29	0.45	0.39	0.49
Pb	5.15	4.07	3.61	3.28	4.89	4.1	5.36	4.27
Top1	33.14	14.64	40.06	15.26	32.05	14.6	33.74	14.56
Roe	8.52	9.29	6.74	10.06	8	9.25	8.97	8.99
Leverage	36.8	19.91	50.69	20.08	37.98	20.13	36.04	19.64
Growth	17.08	34.59	6.4	25.47	15.49	37.41	18.65	36.1
Cashholdings	0.21	0.15	0.16	0.12	0.2	0.14	0.22	0.15
Size	21.7	1.07	22.73	1.32	21.77	1.09	21.64	1.05
Equity control	20.82	11.19	14.15	10.84	20.07	11.17	21.28	11.18

Table 3. Correlation Coefficient Matrix.

	Variables	1	2	3	4	5	6	7	8	9	10
1	CSR_score	1									
2	Shareholder	0.562 ***	1								
3	Employee	0.840 ***	0.219 ***	1							
4	Supplychain	0.877 ***	0.216 ***	0.836 ***	1						
5	Environment	0.847 ***	0.182 ***	0.871 ***	0.885 ***	1					
6	Social	0.440 ***	0.250 ***	0.132 ***	0.211 ***	0.095 ***	1				
7	CSR_rating,	0.918 ***	0.348 ***	0.844 ***	0.910 ***	0.882 ***	0.303 ***	1			
8	Staffedu	0.087 ***	0.154 ***	0.105 ***	0.012	−0.020 *	0.068 ***	0.029 ***	1		
9	Ibd	−0.014	−0.016	−0.008	−0.011	−0.018 *	0.007	−0.015	0.064 ***	1	
10	Duality	−0.068 ***	0.044 ***	−0.099 ***	−0.078 ***	−0.084 ***	−0.057 ***	−0.081 ***	0.029 ***	0.116 ***	1
11	Pb	−0.136 ***	−0.061 ***	−0.111 ***	−0.117 ***	−0.137 ***	−0.056 ***	−0.135 ***	0.128 ***	0.048 ***	0.115 ***
12	Top1	0.117 ***	0.153 ***	0.072 ***	0.055 ***	0.072 ***	0.047 ***	0.083 ***	−0.047 ***	0.046 ***	−0.037 ***
13	Roe	0.373 ***	0.753 ***	0.092 ***	0.087 ***	0.057 ***	0.250 ***	0.224 ***	0.140 ***	−0.013	0.055 ***
14	Leverage	0.024 **	−0.292 ***	0.138 ***	0.100 ***	0.115 ***	0.109 ***	0.074 ***	−0.082 ***	−0.034 ***	−0.152 ***
15	Growth	0.057 ***	0.160 ***	−0.005	−0.016	−0.028 ***	0.076 ***	0.013	0.130 ***	0.01	0.069 ***
16	Cashholdings	0.043 ***	0.251 ***	−0.039 ***	−0.049 ***	−0.082 ***	0.038 ***	−0.029 ***	0.218 ***	0.028 ***	0.107 ***
17	Size	0.333 ***	0.119 ***	0.337 ***	0.286 ***	0.297 ***	0.182 ***	0.313 ***	−0.018 *	−0.006	−0.210 ***
18	Equity control	0.012	0.151 ***	−0.042 ***	−0.044 ***	−0.037 ***	−0.022 **	−0.021 **	0.081 ***	−0.001	0.092 ***
19	Market	0.009	0.124 ***	−0.015	−0.049 ***	−0.070 ***	0.036 ***	−0.038 ***	0.124 ***	0.023 **	0.133 ***
20	SOE	0.150 ***	−0.068 ***	0.213 ***	0.169 ***	0.188 ***	0.082 ***	0.173 ***	−0.057 ***	−0.075 ***	−0.292 ***
	Variables	11	12	13	14	15	16	17	18	19	20
11	Pb	1									
12	Top1	−0.096 ***	1								
13	Roe	0.130 ***	0.121 ***	1							
14	Leverage	−0.068 ***	0.084 ***	−0.119 ***	1						
15	Growth	0.109 ***	−0.066 ***	0.244 ***	0.005	1					
16	Cashholdings	0.137 ***	−0.008	0.172 ***	−0.394 ***	0.021 **	1				
17	Size	−0.387 ***	0.227 ***	0.062 ***	0.546 ***	0.007	−0.283 ***	1			
18	Equity control	0.087 ***	−0.335 ***	0.121 ***	−0.183 ***	0.112 ***	0.145 ***	−0.132 ***	1		
19	Market	0.097 ***	0.008	0.087 ***	−0.111 ***	0.053 ***	0.067 ***	−0.068 ***	0.098 ***	1	
20	SOE	−0.193 ***	0.219 ***	−0.089 ***	0.318 ***	−0.161 ***	−0.160 ***	0.391 ***	−0.279 ***	−0.192 ***	1

Significance at the 1% level is denoted as ***, 5% level as **, and 10% level as *.

4. Results

4.1. Empirical Results

The basic OLS regression results of the effect of employee educational level on a firm's CSR are reported in Table 4. Year and industry effects are concluded. From the table, the educational backgrounds of employees are positively related to CSR (*CSR_score*, with significance at 1% level; *CSR_rating* at 5%), which shows that the higher the educational level of employees, the better the CSR performance. This result supports the argument of Hypothesis 1, specifically, *Staffedu* significantly positively correlates with CSR towards firms' shareholders, employees, and the supply chain (suppliers, customers, and consumers) but has no pronounced impact on social responsibility for environmental and social inputs.

Table 4. Regression result for baseline model.

VARIABLES	(1) CSR_Score	(2) CSR_Rating	(3) Shareholder	(4) Employee	(5) Supplychain	(6) Environment	(7) Social
<i>Staffedu</i>	0.600 *** (3.839)	0.013 ** (2.038)	0.173 *** (4.706)	0.286 *** (8.442)	0.111 ** (2.135)	0.054 (0.988)	−0.035 (−0.925)
<i>Ibd</i>	−4.039 (−1.277)	−0.108 (−0.814)	−2.342 *** (−3.337)	−0.622 (−0.924)	−0.801 (−0.753)	−0.895 (−0.819)	0.626 (0.821)
<i>Duality</i>	−0.612 * (−1.742)	−0.033 ** (−2.289)	0.195 ** (2.290)	−0.243 *** (−3.244)	−0.175 (−1.455)	−0.254 ** (−2.087)	−0.169 * (−1.920)
<i>Pb</i>	0.219 *** (4.240)	0.012 *** (6.002)	−0.141 *** (−7.669)	0.099 *** (9.040)	0.140 *** (8.412)	0.137 *** (8.338)	−0.012 (−0.843)
<i>Top1</i>	−0.021 * (−1.731)	−0.002 *** (−3.565)	0.025 *** (9.084)	−0.010 *** (−3.734)	−0.018 *** (−4.254)	−0.011 ** (−2.478)	−0.009 *** (−3.005)
<i>Roe</i>	0.594 *** (29.744)	0.014 *** (16.766)	0.441 *** (64.138)	0.014 *** (3.506)	0.027 *** (4.359)	0.015 ** (2.240)	0.096 *** (18.432)
<i>Leverage</i>	−0.154 *** (−13.796)	−0.004 *** (−9.661)	−0.084 *** (−29.239)	−0.017 *** (−7.453)	−0.029 *** (−7.784)	−0.027 *** (−7.223)	0.003 (1.171)
<i>Growth</i>	−0.021 *** (−4.494)	−0.001 *** (−5.466)	−0.001 (−0.758)	−0.005 *** (−5.207)	−0.008 *** (−5.375)	−0.008 *** (−4.887)	0.001 (0.657)
<i>Cashholdings</i>	1.116 (0.850)	−0.163 *** (−2.963)	3.519 *** (11.030)	−0.399 (−1.442)	−1.232 *** (−2.702)	−2.267 *** (−5.211)	1.622 *** (4.817)
<i>Size</i>	6.385 *** (29.179)	0.232 *** (24.772)	1.026 *** (20.695)	1.261 *** (26.932)	1.844 *** (24.557)	1.915 *** (24.181)	0.337 *** (6.945)
<i>Equity control</i>	−0.006 (−0.367)	−0.001 * (−1.837)	0.034 *** (9.276)	−0.010 *** (−2.798)	−0.016 *** (−3.001)	−0.007 (−1.212)	−0.007* (−1.864)
<i>Constant</i>	−110.313 *** (−22.742)	−2.488 *** (−12.053)	−11.253 *** (−10.315)	−24.548 *** (−23.769)	−33.983 *** (−20.300)	−35.857 *** (−20.586)	−4.580 *** (−4.198)
<i>Observations</i>	9109	9109	9109	9109	9109	9109	9109
<i>R-squared</i>	0.314	0.208	0.689	0.187	0.158	0.167	0.273
<i>Industry effects</i>	YES	YES	YES	YES	YES	YES	YES
<i>Time effects</i>	YES	YES	YES	YES	YES	YES	YES

Robust t-statistics in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Return on equity (*Roe*) is significantly positively correlated with CSR, indicating that the higher the corporate benefit, the stronger the company's ability to assume social responsibility. With the increase in shareholders' wealth, shareholders are more capable and willing to undertake CSR. Large-scale companies have relatively mature controls and complete systems, so their sense of CSR will be stronger, which is consistent with our empirical results showing that corporate size and social responsibility are significantly positively related. CSR and *Top1* are significantly positively related, meaning that the concentration of equity in listed companies will help improve the level of social responsibility information disclosure. When the concentration of equity reaches a certain level, major shareholders have the ability to monitor management, being more concerned with the long-term interests and the relationship between the company and its stakeholders, therefore, an increase in equity concentration may promote the performance of CSR and the disclosure of CSR information. The asset-liability ratio

(*Leverage*) is significantly negatively related to the CSR, which proves that the financial risks caused by liabilities require companies to put more effort into solving financial problems, so they pay less attention to all aspects of their social responsibility and are less willing to allocate limited economic resources to activities related to social obligations. *Growth* has significant negative effects on CSR scores. This is reasonable given the fact that firms with higher growth opportunities would be more inclined to invest capital for development and business activities. *Duality* is significantly negatively correlated with CSR, indicating that when the chairman and general manager are the same person, it is not conducive to the fulfilment of corporate social responsibilities, implying that the separation of the two powers within the corporate governance structure can promote the fulfilment of corporate social responsibilities. *Pb*, the current market price of a firm's capital stock expressed as a multiple of its book value, indicates that the firm has development potential when the index is relatively high. Our result demonstrates that *Pb* has a significant impact on CSR. The empirical results are shown in Table 4.

In view of China's national conditions and in order to further analyse our problems, group studies have been conducted in the following sections.

4.2. Additional Tests

Table 5 presents property rights, independent directors, and marketisation processes in different regions as moderators in the relationship between employee quality and CSR. Hypothesis 2 considers that, compared with SOEs, private enterprises' CSR performances are expected to be favourably influenced by high-quality staff. The coefficients of the key term *Staffedu* in non-state-owned enterprises are positive towards *CSR_score* and *CSR_rating* with significance at the 1% and 5% level in model 1, respectively, while they are not significant in state-owned enterprises. These findings suggest that the effect of a staff's quality on CSR is more distinct in non-SOEs than in SOEs, which bears out our supposition. As mentioned above, under the special institutional background of China, state-owned enterprises have assumed some functions that should be undertaken by society and the government. The State-Owned Assets Supervision and Administration Commission of the State Council requires central enterprises to set a good example in fulfilling their social responsibilities, and those firms should regularly release social responsibility reports or sustainability reports. Compared with non-SOEs, SOEs are under greater pressure from the system to fulfil their social responsibilities, and the public has higher expectations for their disclosure of social responsibility reports. Thus, for SOEs, it is difficult for the quality of employees to play a substantial role in the implementation of CSR. In contrast, the fulfilment of social responsibility in non-SOEs relies more on such softer constraints as ethics, corporate culture, and internal control, and the quality of employees is the cornerstone of such systems. Therefore, in non-SOEs, employee quality has a greater impact on CSR behaviour.

Model 2 was used to verify Hypothesis 3, the regulating effect of independent directors on employee quality and CSR. It is evident from the results that in the group with a lower proportion of independent directors, the quality of employees has a significant positive relationship with *CSR_score* and *CSR_rating* at significance levels of 1% and 5%, while the corresponding correlation coefficients are 0.085 and 0.019, respectively. Although employee quality in the group with a higher proportion of independent directors has also been shown to be positively correlated with CSR, the results were insignificant. These findings prove that employee quality plays a more significant role in promoting CSR in enterprises with a lower proportion of independent directors.

Table 5. Results of additional analysis.

VARIABLES	Model1				Model2				Model3			
	Non-SOEs		SOEs		Ibd_Ratio = 0		Ibd_Ratio = 1		Marketise = 0		Marketise = 1	
	CSR_SCORE	CSR_RATING	CSR_SCORE	CSR_SCORE	CSR_SCORE	CSR_RATING	CSR_SCORE	CSR_RATING	CSR_SCORE	CSR_RATING	CSR_SCORE	CSR_RATING
<i>Staffedu</i>	0.759 ***	0.018 **	0.469	0.005	0.857 ***	0.019 **	0.262	0.005	0.864 ***	0.023 **	0.368 *	0.005
	−4.392	−2.563	−1.471	−0.361	−3.871	−2.014	−1.189	−0.493	−3.804	−2.441	−1.705	−0.593
<i>SOE</i>					2.627 ***	0.127 ***	3.320 ***	0.140 ***	2.935 ***	0.124 ***	3.677 ***	0.164 ***
					−4.54	−5.263	−5.184	−5.218	−5.129	−5.269	−5.493	−5.724
<i>Duality</i>	−0.291	−0.011	1.122	0.016	−0.557	−0.033	0.314	0.011	−0.422	−0.031	0.158	0.014
	(−0.783)	(−0.707)	−1.097	−0.381	(−1.084)	(−1.561)	−0.647	−0.545	(−0.775)	(−1.449)	−0.334	−0.695
<i>Pb</i>	0.131 **	0.009 ***	0.274 **	0.012 ***	0.116	0.006 **	0.311 ***	0.016 ***	0.272 ***	0.011 ***	0.148 **	0.011 ***
	−2.403	−4.32	−2.288	−2.849	−1.611	−2.392	−4.099	−5.591	−3.597	−4.156	−2.08	−4.078
<i>Top1</i>	−0.023 *	−0.002 ***	−0.018	−0.001	−0.025	−0.002 ***	−0.031 *	−0.002 ***	−0.042 **	−0.003 ***	−0.019	−0.002 **
	(−1.653)	(−3.360)	(−0.730)	(−1.399)	(−1.474)	(−2.782)	(−1.758)	(−3.138)	(−2.305)	(−3.446)	(−1.150)	(−2.515)
<i>Roe</i>	0.637 ***	0.014 ***	0.534 ***	0.014 ***	0.607 ***	0.014 ***	0.591 ***	0.014 ***	0.570 ***	0.013 ***	0.636 ***	0.015 ***
	−27.331	−13.957	−15.04	−9.725	−21.153	−11.62	−20.894	−12.409	−20.2	−11.761	−22.413	−12.439
<i>Leverage</i>	−0.117 ***	−0.003 ***	−0.225 ***	−0.007 ***	−0.143 ***	−0.004 ***	−0.182 ***	−0.006 ***	−0.184 ***	−0.006 ***	−0.131 ***	−0.003 ***
	(−8.824)	(−6.042)	(−11.031)	(−8.513)	(−8.907)	(−5.835)	(−11.476)	(−8.885)	(−11.411)	(−8.833)	(−8.167)	(−5.279)
<i>Growth</i>	−0.026 ***	−0.001 ***	0.009	0	−0.020 ***	−0.001 ***	−0.013 **	−0.001 ***	−0.01	−0.001 **	−0.024 ***	−0.001 ***
	(−5.102)	(−5.513)	−0.774	(−0.256)	(−2.871)	(−2.803)	(−1.993)	(−3.172)	(−1.544)	(−2.345)	(−3.486)	(−3.864)
<i>Cashholdings</i>	0.443	−0.196 ***	5.509 *	0.044	6.336 ***	0.049	−4.337 **	−0.388 ***	0.12	−0.273 ***	1.971	−0.079
	−0.337	(−3.649)	−1.747	−0.325	−3.322	−0.611	(−2.454)	(−5.238)	−0.062	(−3.411)	−1.131	(−1.067)
<i>Size</i>	5.616 ***	0.207 ***	6.544 ***	0.230 ***	6.069 ***	0.214 ***	6.154 ***	0.225 ***	6.388 ***	0.227 ***	5.753 ***	0.208 ***
	−18.623	−15.88	−17.96	−14.938	−18.839	−15.668	−19.952	−17.035	−19.939	−16.829	−18.292	−15.239
<i>Equity control</i>	0.017	0	0.039	0.001	0.002	−0.001	0.026	0	0.048 **	0.001	−0.024	−0.002
	−0.943	(−0.592)	−1.19	−0.935	−0.073	(−0.932)	−1.076	−0.145	−2.054	−0.905	(−1.024)	(−1.574)
<i>Constant</i>	−95.752 ***	−2.053 ***	−112.501 ***	−2.330 ***	−109.163 ***	−2.245 ***	−104.086 ***	−2.343 ***	−113.931 ***	−2.554 ***	−97.170 ***	−1.997 ***
	(−14.013)	(−6.990)	(−14.408)	(−7.095)	(−15.885)	(−7.700)	(−15.548)	(−8.281)	(−16.190)	(−8.556)	(−13.954)	(−6.710)
<i>Observations</i>	5711	5711	3398	3398	4603	4603	4506	4506	4591	4591	4518	4518
<i>R-squared</i>	0.309	0.181	0.321	0.229	0.309	0.202	0.332	0.235	0.325	0.229	0.326	0.217
<i>Industry effects</i>	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
<i>Time effects</i>	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Robust t-statistics in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Samples were divided into two groups according to the marketisation process index listed in model 3. Following previous studies [64,65], we used the composite development index constructed by Fan et al. to represent the development level of regional marketisation [66]. The right four columns of Table 5 show the results of the group regression, revealing that the quality of employees in firms located in regions with a lower marketisation process index is positively associated with *CSR_score* and *CSR_rating* at the significance level of 1% and 5%, respectively. In the areas with higher marketisation process, enterprises' employee quality shows a positive effect on *CSR_score* with significance of 10%, while the impact on *CSR_rating* is insignificant. In general, the positive effect of employee quality on firms' CSR is more pronounced for firms located in regions with a weak institutional environment. The findings thus support Hypothesis 4. Detailed information is provided in Table 5.

4.3. Further Robustness Checks

To test the reliability of the conclusions, robustness tests were conducted by (1) excluding enterprises with a negative total ROA, the results of which are shown in the first and second columns of Table 6. (2) Replacing dependent variables with *CSR_dum*, a dummy variable that equals 1 if the firm discloses social responsibility, and zero otherwise, and the substitution logit regression model was used for re-regression with the corresponding result in the third column. Data provided by Rankins CSR Ratings for CSR were adopted in the model. (3) To some extent, the established time of the company represents the corporate cultural settings, its developing stage and sustainability. Meanwhile, the ability of the senior management is the comprehensive embodiment of the enterprise background. Drawing on the research of Gaint, Garriga and Melé, the age of businesses and board shareholding ratios are also controlled [15,67]. The results are shown in the fourth and fifth columns of Table 6. (4) To prevent the omission of other firm-level variables, columns 6 and 7 of Table 6 show the regression results after further controlling firm-level fixed effects; (5) The education level of the region's population is controlled to more accurately demonstrate the impact of employee quality on CSR, based on data from the China statistical yearbook. The results are shown in column 8 and 9 of Table 6.

Table 6. Results of robustness checks.

VARIABLES	(1) CSR_ Score	(2) CSR_ Rating	(3) CSR_ Dum	(4) CSR_ Score	(5) CSR_ Rating	(6) CSR_ Score	(7) CSR_ Rating	(8) CSR_ Score	(9) CSR_ Rating
<i>Staffedu</i>	0.657 *** (4.068)	0.016 ** (2.294)	0.098 *** (3.546)	0.669 *** (4.121)	0.016 ** (2.405)	0.637 *** (3.935)	0.016 ** (2.326)	0.617 *** (3.741)	0.016 ** (2.329)
<i>Duality</i>	0.012 (0.033)	−0.003 (−0.177)	−0.043 (−0.602)	0.075 (0.204)	0.001 (0.068)	0.050 (0.136)	−0.003 (−0.173)	0.074 (0.201)	0.001 (0.045)
<i>Ibd</i>	−4.132 (−1.263)	−0.097 (−0.708)	0.328 (0.606)	−3.894 (−1.191)	−0.093 (−0.672)	−4.083 (−1.251)	−0.100 (−0.729)	−3.987 (−1.218)	−0.092 (−0.666)
<i>SOE</i>	2.938 *** (6.526)	0.123 *** (6.519)	0.687 *** (10.511)	2.787 *** (5.808)	0.112 *** (5.514)	2.822 *** (6.234)	0.123 *** (6.485)	2.690 *** (5.577)	0.112 *** (5.508)
<i>Pb</i>	0.148 *** (2.645)	0.013 *** (6.372)	0.050 *** (4.717)	0.149 ** (2.525)	0.014 *** (6.141)	0.146 ** (2.501)	0.014 *** (6.349)	0.139 ** (2.347)	0.014 *** (6.087)
<i>Top1</i>	−0.031 ** (−2.403)	−0.002 *** (−3.784)	−0.010 *** (−5.018)	−0.028 ** (−2.042)	−0.002 *** (−3.069)	−0.030 ** (−2.359)	−0.002 *** (−3.726)	−0.028 ** (−2.091)	−0.002 *** (−3.092)
<i>Roe</i>	0.588 *** (20.324)	0.011 *** (8.920)	0.011 *** (3.029)	0.584 *** (19.601)	0.010 *** (8.331)	0.585 *** (19.642)	0.010 *** (8.350)	0.587 *** (19.670)	0.010 *** (8.362)
<i>Leverage</i>	−0.174 *** (−14.875)	−0.005 *** (−9.853)	−0.020 *** (−10.048)	−0.177 *** (−15.114)	−0.005 *** (−10.116)	−0.176 *** (−15.070)	−0.005 *** (−9.990)	−0.175 *** (−14.938)	−0.005 *** (−10.027)
<i>Growth</i>	−0.021 *** (−4.202)	−0.001 *** (−4.620)	−0.006 *** (−5.989)	−0.021 *** (−4.111)	−0.001 *** (−4.380)	−0.021 *** (−4.107)	−0.001 *** (−4.524)	−0.020 *** (−4.071)	−0.001 *** (−4.397)
<i>Cashholdings</i>	1.046 (0.774)	−0.166 *** (−2.905)	−1.113 *** (−4.551)	0.875 (0.646)	−0.163 *** (−2.845)	0.808 (0.596)	−0.167 *** (−2.906)	0.790 (0.582)	−0.164 *** (−2.856)
<i>Size</i>	6.138 *** (26.471)	0.229 *** (23.068)	1.181 *** (29.620)	6.117 *** (25.754)	0.227 *** (22.423)	6.107 *** (25.928)	0.230 *** (22.849)	6.052 *** (25.045)	0.227 *** (22.015)
<i>Equity control</i>	0.010	−0.000	−0.009 ***	0.014	0.000	0.011	−0.000	0.016	0.000

Table 6. Cont.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
VARIABLES	CSR_ Score	CSR_ Rating	CSR_ Dum	CSR_ Score	CSR_ Rating	CSR_ Score	CSR_ Rating	CSR_ Score	CSR_ Rating
<i>Boardshare</i>	(0.601)	(−0.470)	(−3.081)	(0.758)	(0.120)	(0.649)	(−0.472)	(0.846)	(0.109)
<i>Age</i>				−0.006	−0.000			−0.006	−0.000
<i>Areaedu</i>				(−0.661)	(−1.123)			(−0.637)	(−1.172)
<i>Constant</i>	−104.748***	−2.423***	−26.298***	−104.446***	−2.430***	−103.958***	−2.462***	−104.594***	−2.456***
<i>Observations</i>	8515	8515	9103	8515	8515	8515	8515	8515	8515
<i>R-squared</i>	0.271	0.191		0.269	0.190	0.269	0.190	0.269	0.190
<i>Firm-fixed effects</i>						YES	YES	–	–
<i>Industry effects</i>	YES	YES	YES	YES	YES	YES	YES	YES	YES
<i>Time effects</i>	YES	YES	YES	YES	YES	YES	YES	YES	YES

Robust t-statistics in parentheses *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

In general, the results of the robustness tests are consistent with the above conclusions, indicating that the proposed hypothesis test model is robust and feasible. The corresponding results are listed in Table 6.

5. Discussion and Conclusions

The concept of CSR is prevalent and accepted by management practices around the world. Thus, even though the CSR literature seems to suggest that education, in some circumstances, can have an influence on CSR attitudes, perceptions, and expectations, the present study attempts to understand in more detail how CSR is influenced by the educational level of employees. This study contributes to the body of CSR literature by investigating the association between employee quality and a firm's CSR performance, using a sample of the Chinese A-share stock markets over the period of 2012–2016. The results show that higher quality employees have better CSR performance, and are generally robust after controlling and substituting some variables and re-regression.

In addition, the positive influence of employee quality on CSR is more pronounced for firms that have a lower proportion of independent directors and that are in regions with a weak institutional environment, implying substitute effects between employee quality and independent board directors on CSR information disclosure. The quality of employees can make up for the supervisory role of independent directors to a certain extent. Indeed, a good environment for an enterprise is inseparable from the joint efforts of its employees and a good working atmosphere of an enterprise depends not only on perfect rules and regulations, but also on the collective conscience of its employees. High-quality employees can enhance the cohesive force of the internal environment of the enterprise, which is important for its construction. At the same time, the long-term development of an enterprise depends on the resources in the external environment and the internal environment, with employees being the most important internal resource. When the economic development of the region where the company is located is relatively backward or the regional governance environment is relatively weak, the good quality of the company's employees can enhance the company's perception of changes in the external environment and improve the company's ability to respond to external environmental pressures, thereby promoting corporate growth and sustainable development. Additional analyses also demonstrate that compared with non-state-owned enterprises, the employee quality of state-owned enterprises has a limited impact on the implementation of CSR. In general, in state-owned enterprises, social responsibility is regarded as a legally compulsory obligation. When formulating relevant systems, different motivations should be considered for state-owned enterprises and non-state-owned enterprises to fulfil their social responsibilities to provide clearer policy guidance for non-state-owned enterprises.

This study has some implications for CSR research. First, the quality of employees in an enterprise represents the concept of sustainable development of the enterprise, and determines the values, moral standards, spiritual culture, and other factors that all employees respect and agree with. From the perspective of the company, the business philosophy of the enterprise represents the overall direction of the enterprise and embodies the quality of the overall employees. High-quality employees are conducive to the formation of a better business philosophy, and their higher ability to understand can help them quickly and accurately judge its meaning and focus on maintaining the company's image, providing support for the enterprise's sustainability. Second, quality education encourages entrepreneurs and employees to form mechanisms for introspection and self-improvement in the long-term business practice to upgrade interactions with stakeholders and form group awareness based on the values of responsibility. In management practice, sustainable development, may increase an endogenous demand of an enterprise. Thus, undertaking social responsibility is an inevitable requirement for its sustainability. The key to an enterprise's better fulfilment of social responsibility lies in shaping corporate values. Compared with the constraints of formal systems, such as external laws and regulations or standards and norms, the informal system of constraints that reshape values should also be given great importance. Only when formal systems and informal systems go hand in hand and give full play to the soft constraint of informal systems can CSR be better implemented. Finally, this paper provides an initial perspective on CSR associated with employee quality. At present, there is a lack of research on informal institutions at the organisational level in the study of the factors affecting CSR performance. Indeed, studying the influencing factors of CSR from this perspective has positive practical significance.

Despite the theoretical contributions and managerial implications of this study, some limitations imply potential directions for future research. More in-depth research on the pre-factors of CSR should be conducted from the aspect of informal institutions. Considering each dimension of CSR (shareholders, employees, suppliers, environment, and society) may have a different relationship with employee quality, so more studies are needed to explore the mechanisms between them.

Author Contributions: Methodology, S.S., T.L., H.M., and Y.H.; validation, R.Y.M.L., J.Z., and Y.H.; writing—original draft preparation, S.S., T.L., H.M., J.Z., and Y.H.; writing—review and editing, R.Y.M.L., K.G., O.M., U.C., T.B., N.D., and X.-G.Y.; supervision, X.-G.Y. All authors have read and agreed to the published version of the manuscript.

Funding: This work was supported by the National Natural Science Foundation of China (Grant No. 71772013), the Ministry of Education “Supporting Plan for Excellent Talents in the New Century” (Grant No. NCET-11-0623), the University of International Business and Economics Joint Postgraduate Training Program (Grant No. JS20180203) and national funds through FCT-Fundação para a Ciência e Tecnologia through project UIDB/04728/2020.

Conflicts of Interest: The authors declare no conflict of interest.

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