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Managerial Humanistic Attention and CSR: Do Firm Characteristics Matter?

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Abstract: This study attempted to investigate the influence of managerial humanistic attention on corporate social responsibility. Drawing upon humanistic value, upper echelons theory and behavior decision theory, we developed and tested hypotheses using secondary from manufacturing firms listed at Shanghai Stock Exchange from year 2010 to year 2014. This study showed that managerial humanistic attention can positively affect corporate social responsibility and corporate social responsibility was found to be influenced by firm characteristics. Specifically, the relationship between managerial humanistic attention and corporate social responsibility was stronger: when a firm was older; was bigger; and had more slack resources.

Keywords: managerial humanistic attention; corporate social responsibility (CSR); firm characteristics

1. Introduction

Corporate social responsibility continues to garner considerable interest among organizational researchers. During the past decades, many scholars examine the antecedents of CSR [1]. To date, the research on antecedents of CSR can be divided into three categories: environmental factors, firm-level factors, and managerial factors. Specially, since upper echelons theory was established [2], the research on managerial factors has attracted more and more scholars' interest [3]. The upper echelons theory holds that the strategic choice of an enterprise is not only influenced by the internal and external environment factors, but also by the limited rationality and cognitive model of top managers [2]. Those scholars have examined the antecedents of CSR from personality traits of executives, CEO leadership styles and demographics [4], and managerial cognition [5]. Extant research typically explains the characteristics of managers' demographic background and psychological factors can effectively affect the organizational outcomes (strategic choice and enterprise performance). More recently, some scholars begin from the perspective of attention-based view, combining with upper echelons, to study the influence of managerial attention on firm strategy. For example, some studies suggested that CSR would be improved as managers pay more attention to CSR or social issues [6–10]. However, the relationship between managerial attention to CSR and CSR seems straightforward.

Attention-based view suggest that the organization is an attention allocation system and the attention of organizational decision makers is a scarce resource. In a sense, if you want to understand the behavior of an enterprise, you must understand how the decision makers allocate their attention firstly [11]. Top managers face various contradictory points [12]. In fact, the scarce resources that many companies now lack are not "information" but the ability to process information when it comes to attention and choice. Attention is an important bottleneck in organizational activity, and this bottleneck becomes narrower and narrower as you are closer to the upper layers of the organization [13]. Therefore, due to the limitation, high substitution, perishability and indirectness of the attention, the opportunity cost of top managers' attention is very high, and they need to be very cautious in the distribution of

attention. Until now, most of the previous studies have focused on shareholders, social issues and the CSR itself [14–16].

As a new research area in the field of psychology, psychology of sustainability and sustainable development enlarge the concept of sustainability by overcoming a perspective exclusively based on the ecological and socio-economic environment, and seek to improve the quality of life of each human being with and in the environments [17,18]. They also introduce a new axis of psychological reflection on what is sustainable for individuals in the environments which consistent with humanistic value to some extent [17,18]. Humanistic value connotation with respect for humanity, develop the humanitarian, guarantee of human rights, social rights and other rights [19]. The above all offer contributions to promote effective and sustainable well-being for individuals and environments from a psychological research perspective [17–19]. Based on the attention-based view and humanistic value, we argue that CSR will be improved as managers pay more attention to human. Research over the past 30 years has yielded substantial evidence that firm strategy and decision-making are determined collectively by TMT members [2] and that a set characteristics of TMT members (e.g., TMT tenure, TMT demographics, and TMT diversity) are able to influence firm strategy and decision-making outcomes [20,21]. Our study adds to this literature that managerial attention refers to a collective attention that is shared by TMT members [21]. We specifically focus on humanistic attention shared by members of the top management team (TMT) of a firm—hereby managerial humanistic attention. In this study, managerial humanistic attention refers to a collective psychological state that is shared by TMT members. In other words, managerial humanistic attention reflects TMT members' attention paid to internal and external human. CSR plays a critical role in organizational adaptation and evolution and is a key determinant of firm long-term value. However, TMT members are reluctant to make investments in CSR because TMT members are loss-averse and they give more weights to the potential loss than the potential gains incurred by CSR in short-term. However, in this paper we propose that several mechanisms of managerial humanistic attention enable more TMT members to invest more in CSR. Humanistic value theory holds that people, as the most valuable asset of an enterprise, are also an important source of competitive advantage [22]. Managerial humanistic attention will encourage TMT members do more stakeholder-related activities and decisions. In addition, psychological research has established that attentiveness toward the needs of others inside the organization (i.e., one's colleagues) is an organization-level manifestation of identity-driven, other-directed concern [23,24]. We argue that an attention focus directed at human also plays a key role in the likelihood that an organization allocates resources toward the stakeholder-related activities and decisions, because organizational identity drives organizations to manage external relationships in the same way they manage their internal relationships [25,26].

Besides attempting to address whether managerial humanistic attention affects CSR, we also try to explain when managerial humanistic attention affects CSR. We suggest that this relationship has boundary conditions and that it is constrained by certain factors. Specifically, we propose that this relationship is strengthen by firm characteristics that constrain managerial discretion. CSR plays a critical role in organizational adaptation and evolution and is a key determinant of firm long-term value, therefore, the returns of CSR remain uncertain in the short time [27] so that shareholders do not always value CSR [28]. Although, TMT members are reluctant to make investments in CSR because TMT members are loss-averse, and they give more weights to the potential loss than the potential gains incurred by CSR in short-term, firm characteristics such as firm age, firm size, and slack resource may strengthen the influence of managers' humanistic attention on CSR. Identifying these boundary conditions can help us to understand under what circumstances managers' humanistic attention may or may not result in improving CSR. We empirically confirm our predictions that attention to human positively affects CSR and that the positive influence of attention to human is moderated by firm age, firm size, and slack resource.

The rest of our study is organized as following: (1) the next section briefly reviews the related literature around managerial humanistic attention and CSR, and then develops direct and moderating

Sustainability **2018**, *10*, 4029 3 of 18

hypotheses. (2) The third section describes the empirical setting of this study and then reports the empirical results. (3) The final section discusses the theoretical implications and limitations and then concludes the study.

2. Literature Review and Research Hypothesis

2.1. Managerial Humanistic Attention and CSR

The behavioral decision theory [29] suggests that the enterprise is an organization that solves the problem of limited attention, and that the behavior and decision-making of the enterprise depend on how the organizational decision makers allocate their attention [11]. The company attention-based holds that the attention of organizational decision makers is a scarce resource, and the focus point of organizational decision makers represents the extent of "subjective representations of the external environment are dominated by concepts related to one (or more) domain over others" [5,30]. From this point of view, what the managers' attention focus is also able to influence the strategic choice and action of enterprises [31]. Top managers are confronted with a variety of conflicting notions of attention [12]. As we known, the company always has a lot of sub goals [29], such as innovative technologies [7,32], organizational performance and size [33], technological changes [34], emerging technologies. Because of the limitation, high substitution, perishability and indirectness of attention, the opportunity cost of attention of top managers is very high, and they must to be very careful when they deal with the distribution of attention.

The upper echelons theory holds that the strategic choice of an enterprise is not only influenced by the internal and external environment factors, but also by the limited rationality and cognitive model of top managers. The attention and interpretation of the internal and external environment of top managers will affect the strategic choice of the company [2]. Upper echelons theory is based on the bounded rationality of human beings. It integrates the characteristics of top managers, strategic choices and organizational performance into the model of upper echelons theory, highlighting the role of demographic characteristics in the cognitive model of managers and the impact on organizational performance. According to the behavioral decision theory [29], Hambrick and Mason (1984) [2] suggest that top managers are faced with a lot of complex and vague information far beyond their own processing capacity, so they often make decisions through the selected mechanisms that integrate their experience and their own preferences to cope with the intrinsic complexity of strategic decision-making. In addition, these scripts and patterns are shaped by similar experiences [35]. First, managers' vision is limited, which has a serious impact on the final strategic decision. Secondly, managers can only selectively pay attention to some phenomena in the field of vision, which further limits their decision-making. Finally, managers interpret the selected information through a selected mechanism based on top managers' perceptions and values, and managers' final perceptions of events combining with their values provide a basis for strategic choice [36]. Managerial values have attracted widespread attention for many years [37] and many researchers propose that managerial values are associated with corporate social responsibility in a particular corporate context [38,39]. Management values strongly influence observable organizational behavior, such as CSR activities [2,40]. Strategic actions and decisions in organizational operation can be regarded as a reflection of top managers' values. Managerial values reflect the behavioral philosophy of how managers treat members both inside and outside the company and play a fundamental role in management decisions [40], which in turn strongly affects organizational performance [41]. There are many kinds of managerial values, of which there is a significant correlation with corporate social responsibility is the humanistic values, to a certain extent, emphasizing the importance of people that is similar to the stakeholder theory.

Humanism is a philosophical and ethical stance that emphasizes the value and agency of human beings, individually and collectively [19,42]. In a company, the humanistic value of the top managers is a collective value, which flows out of human relationships and informs their life [43,44]. Subsequently it helps shape company institutions and practices that may influence CSR. In this

Sustainability **2018**, *10*, 4029 4 of 18

paper, humanistic attention reflects the extent to which human are important, urgent, or legitimate to managers or the degree to which managers give priority to human issues [22]. Based on the managerial humanistic value, managerial humanistic attention will encourage top managers to do some stakeholder-related activities and make decisions. For example, from the internal view of the company, top managers will pay more humanistic attention-oriented management and employee development, and cultivate outstanding talents. From the external perspective, top management will pay more attention to customers, customer satisfaction and feedback. An enterprise is a complex organization consisting of internal and external stakeholders such as shareholders, creditors, suppliers, managers, employees and customers, and forming a series of multilateral contracts among them. Collaboration to jointly address risks arising from an uncertain environment, both internal and external, forms a community of interests [45]. In addition, many study found that humanistic management can bring better corporate financial performance and corporate social responsibility performance.

There are three interrelated principles in the basic concept of corporate attention-based view: (1) the focus of attention, that is, what decision-makers make depends on the issues they are concerned about and their solutions; (2) the structured distribution of attention, that is, what specific situations decision-makers find themselves in and how they pay attention to these situations depend on how the organization's rules, resources and social relations adjust and control issues and their solutions, as well as the specific activities, communications and procedures of decision makers; (3) the situation of attention, that is, what issues the decision-maker is concerned about and how they solve them and what they do depend on their particular situation [11]. Drawing on the first two principles of attention, one might expect that humanistic attention can lead to CSR [6]. The first principle is attention focus [31]. Specifically, managers' humanistic attention not only facilitates their perceptions and actions toward stakeholders' issues but also inhibits their perceptions and actions toward other issues [40]. Therefore, humanistic attention triggers organizational decision makers' actions and practices to address stakeholders' related issues, thereby improving CSR. The second attention principle is attention intensity, which reflects attention quality—the extent to which decision-makers concentrate their attentional resources on the attended issues [31,46,47]. As managers allocate more attentional resources to CSR, the intensity of their humanistic attention increases. Finally, top managers initiate more practices and programs to address human issues, resulting in greater CSR. Therefore, we suggest that

Hypothesis 1. *Managerial humanistic attention is positively associated with corporate social responsibility.*

2.2. Moderating Role of Firm Characteristics

As mentioned above, there are three interrelated principles in the basic concept of corporate attention-based view: the focus of attention, the structured distribution of attention, and situational attention. According to this vein, situational attention facilitates specific attention choices and drives organizational behavior and outcomes [48]. Upper echelons theory insists that the influence of top management team on organizational performance also depends on the degree of managerial discretion. The managerial discretion refers to the size of the choice of top managers when making strategic decisions. In high degree of freedom organizations, managers are less restricted and more likely to reflect their will to the process of organizational strategy formulation and implementation, thus affecting organizational performance. At the same time, when the degree of freedom of management is high, managers pay more attention to a wide range of areas and the homogeneity of executive attention is lower, more effective access to knowledge and information accompanying by making better strategic decisions. Existing studies have shown that managerial discretion is composed of task environment factors, firm factors, managerial personality characteristics and Chinese situational factors. Some researchers [49] find that, in China, CEO duality and ownership structure are particularly important factors that determine the extent of managers' impacts on firms. Another study [7] suggests that corporate governance mechanisms (i.e., CEO duality and ownership structure) on the relationship Sustainability **2018**, *10*, 4029 5 of 18

between attention to social issues and CSP [50]. In this section, we choose a different perspective and we will demonstrate how certain firm-level characteristics (i.e., firm age, firm size and slack resource) can moderate the positive relationship between managerial humanistic attention and CSR.

2.2.1. Firm Age

Age has been considered an important indicator of organizational inertia [36]. A large number of studies have shown that managers feel more comfortable following established practices [51,52], and subconsciously restrict exploratory research behavior [46] along with the firm grows older. Older firms will be constrained by more seemingly natural thinking and adopt more rigid communication patterns [53]. However, the increase of the firm age often leads to the increase of the firm size and the accumulation of capital. For listed companies, this phenomenon is even more serious. They often have more resources and higher liquidity of assets, thus guaranteeing adequate corporate social responsibility capital, and encouraging executives to have a higher managerial discretion to make strategic decisions according to their preferences. Especially in the context of industrial transformation and upgrading, large enterprises are constantly seeking their own breakthroughs, trying to break through the rigid model to deal with the increasingly fierce competition environment. In addition, the older the enterprise is, the deeper the cultural precipitation is. Moreover, older firm will pay more attention to their good corporate image that takes their many years. Therefore, we propose that

Hypothesis 2. The positive relationship between managerial humanistic attention and CSR is moderated by firm age. Specifically, this relationship becomes stronger when a firm grows older.

2.2.2. Slack Resources

Considering the factors of organizational change, Bourgeois [54] defines slack resources as an excessive, controlled resource that can be used at will by the organization. This kind of resource is similar to a kind of buffer in the organization's function, which can make the organization successfully cope with the pressure brought by the implementation of organizational strategy adjustment because of the environment change. Cyert and March [29] point out that resource availability can affect managerial discretion. Top managers of companies with abundant transferable resources (e.g., cash reserves, unused credit-selling capacity and available managerial and technical personnel) can seek a wider range of options in making decisions [55]. Companies such as Google, Microsoft and Intel now have plenty of available resources, so top managers can explore broader strategic options. However, despite the abundant resources available to these companies, their executives may face serious bureaucracy and all kinds of costs, which in turn inhibits the managerial discretion of executives, indicating a complex relationship between managerial discretion and many organizational factors. This paper argues that more abundant slack resources will be conducive to the implementation of corporate CSR behavior, and more available resources will lead to some activity's expenditure, which may aggravate the degree of information asymmetry between insiders and outsiders, thereby increasing the managers' power and managerial discretion [56]. Based on the above, we argue that although there is a complex relationship between managerial discretion and the resource availability of the organization, the degree of resource availability of the organization still positively promotes the degree of managerial discretion. Therefore, we propose that

Hypothesis 3. The positive relationship between managerial humanistic attention and CSR is moderated by slack resources. Specifically, this relationship becomes stronger when a firm has greater slack resources.

Sustainability **2018**, *10*, 4029 6 of 18

2.2.3. Firm Size

Many researchers have commonly chosen firm size as parsimonious indicators of firm-level managerial discretion [49,57]. The complex stakeholder structure of a bigger firm affords its TMT little managerial discretion [55]. Top managers of bigger firms have to answer to a powerful governing board, as the resources in bigger firms are generally sufficient and the firms have more incentive to employ independent outside directors [58]. Smaller firms, by the contrary, may have less incentive to employ independent outside directors so that managerial discretion is also enhanced in smaller firms by the dual managerial role they often play [55]. Such top managers not only ratify and direct their firms' strategies, but also participate more directly in their day-to-day implementation, a role played by operating managers in larger firms [57]. This gives small-firm top managers more opportunities to be active in the discretionary domain and to directly influence their decisions and firms' strategies. In China, especially, small firms were only established after the demise of central planning as outcomes of the business reform and privatization campaign [59]. Because of the less favorable position, being privately owned, small firms have less access to various resources. While, they are less constrained by the government, top managers in small firms have more direct involvement in the promotion of many entrepreneurial initiatives. In this vein, we suggest that the influence of managerial humanistic attention on CSR will becomes weaker in bigger firms. Therefore, we propose that

Hypothesis 4. The positive relationship between managerial humanistic attention and CSR is moderated by firm size. Specifically, this relationship becomes weaker when a firm grows bigger.

3. Research Methodology

3.1. Sample Description and Data Resource

The initial sample included the listed manufacturing firms in Shanghai Stock Exchange over the 2010–2014 periods. The reasons for choosing to manufacture are as follows: First, the same industry means that the external environment is basically the same, so it can more accurately measure the internal factors of TMT, such as managerial attention, managerial discretion and other impacts on company strategic decision-making. Second, according to industry classification indicators, as of 2012, manufacturing firms have accounted for 60% of listed firms in China, while the distribution of firms in other industries is more scattered, and the number is smaller, less than 200, showing the important position of manufacturing firms in China. Finally, the CSR of manufacturing firms is easy to measure. It also has the sufficient sample size. In addition, the volatility, dynamics and complexity of the industry are high, leading to the result that the TMT needs to have good capabilities to process information. This is also an important prerequisite for studying the relationship between TMT and CSR.

The research data comes from three sources: the CSR score is from Hexun.com that is a leading of Chinese professional financial company (http://stockdata.stock.hexun.com/zrbg/Plate.aspx); the frequency used to measure the managerial humanistic attention is taken from the 2010–2014 annual report of the listed company, published by Shanghai Stock Exchange (http://www.sse.com.cn/). The main financial data involved in the control variables and moderators are obtained from the China Stock Market & Accounting Research Database (CSMAR), and the missing data is supplemented through Wind. After removing the outliers and missing values, 2347 observations were finally obtained. In addition, the annual firm samples size is listed in Table 1.

Table 1. Distribution of Sample.

Year	2010	2011	2012	2013	2014	Total
Sample size	440	464	479	484	480	2347

Sustainability **2018**, *10*, 4029 7 of 18

Because the attention of TMT needs to be reflected in CSR by a series of processes, such as strategy formulation, strategy implementation and strategic output. Therefore, the attention of TMT has a time lag in the impact of CSR. This paper lags the dependent variable by one year, instead of simply using the simultaneous segment data for empirical research. Finally, we measure the independent variable, control variables, and moderators with t years, and measure the dependent variables with t + 1 year.

3.2. Definition of Main Variables

3.2.1. Managerial Humanistic Attention

Constructing a direct measure of managerial attention has been problematic for researchers, particularly for those desiring to conduct statistical analyses [60]. One must construct a variable from data that are consistent across firms and over time and amenable to quantitative measurement. Duria, Reger et al. found that text analysis has high reliability and validity in capturing managerial attention and can be useful in longitudinal research designs [61].

Following recent management scholarship [21,62], we used a count of humanistic words appearing in the Management Discussion and Analysis (MD&A). The content of the MD&A bearing the signature of a firm's managers is a regular part of its annual report. It is largely voluntary and provide investors with an opportunity to see the company through the eyes of management, and present past events and future trends in demand, events, commitments, plans and uncertainties [63,64]. Below, I address two concerns one might have about this approach: the appropriateness of MD&A as the source material and the usefulness of word counts per se.

With regard to the use of MD&A, substantial evidence suggests that they are reasonable sources of data for measuring managerial attention [65,66]. Other kinds of statements by managers, such as those obtained through interviews or surveys, might initially appear to be attractive sources, but they are impractical for larger samples of firms over long periods. Such sources might be subject to the risk of retrospective bias; Managers would likely adapt their memories of their views in prior years to subsequent outcomes. Given the long periods involved in this analysis and the dramatic shifts that occurred in the focal industry, it seemed unlikely that such bias could be adequately mitigated. As a result, it was imperative to locate consistent sources of information on managers' contemporary, prospective views across firms and over time. Some have argued that MD&A may be outcomes of public relations work or symbolic management activities and therefore decoupled from leaders' real actions [67]; however, both theoretical and empirical rationales suggest one can construe these documents to be important evidence of managerial attention.

Firstly, although it is the case that the bulk of each annual report is written by the communications department in a firm, evidence substantiates that MD&A is written or closely reviewed and edited by the managers [68]. The letter goes out under the managers' consent. Secondly, recent studies use computer-intensive techniques to study a large sample of MD&A's. Li (2010) uses a Bayesian machine-learning algorithm to assess the tone of forward-looking disclosures in MD&A between 1994 and 2007 [69]. Li finds that the optimistic tone of forward-looking MD&A sentences is positively associated with future earnings and helps mitigate the mispricing of accruals. The MD&A section reflects the managerial attention from a strategic aspect. Taken together, this evidence suggests that MD&A can be construed to be a reasonable proxy for managerial attention to what is important for a company's performance and future prospects.

The managerial attention can be manifested in the specific words used in a text [21]. We use automated text analysis of MD&A to gauge attention patterns. Widely used throughout the social sciences for measuring attention, automated text analysis is based on the Whorf-Sapir hypothesis that the attention categories through which individuals attend to the world are embedded in the words they use [70,71]. Words that are frequently used are cognitively central and reflect what most on the user's mind is; words that are used infrequently or not at all are at the cognitive periphery, perhaps even representing uncomfortable or alien concepts [60].

Sustainability **2018**, *10*, 4029 8 of 18

In this study, we contend that TMT members' shared psychological state in which attention is paid to humanistic care can be reflected by the languages used in MD&A. Firstly, we adopted psycholinguistic approach to compute the word frequency suggested by Pennebaker et al. (2001) [72]. Then, this article developed a vocabulary with the aid of Chinese Linguistic Inquiry dictionary (SC-LIWC), which is based on the analysis of the traditional Chinese LIWC dictionary developed based on the English LIWC2007. We gradually increase or decrease the vocabulary in the list until the change of any vocabulary has the least impact on the entire vocabulary. Finally, we get the final keywords are "resident", "partner", "member", "citizen", "member" and "staff" etc. Assisting with this glossary, this article conducts a textual analysis of the annual report and measure the frequency of vocabulary to derive managerial humanistic attention, expressed in HA (detailed information in Table 1). HA = Total number of keywords in the text/total number of words \times 100%.

3.2.2. Corporate Social Responsibility

This article uses the professional CSR evaluation system of Hexun website. The corporate social responsibility rating data is based on the social responsibility report and the annual report published on the official website. Data from Hexun.com has been used in the latest CSR research and has alsobeen recognized in international journals with high influence [73].

Hexun CSR assessment net consist of five first-class indexes, 13 second-class indexes and 37-third-class indexes. The five first-class indexes involve the aspects of: (1) shareholders; (2) employees; (3) customers, community and suppliers; (4) environment; and (5) social responsibility. CSR score = 30% CSR_1 + 30% CSR_2 + 15% CSR_3 + 15% CSR_4 + 10% CSR_5. This article uses the overall CSR score published on Hexun website as a measure of CSR. At the same time, this paper lag CSR score by one year to avoid the problem of reverse causality in empirical research.

3.2.3. Managerial Discretion

This paper selects firm age, slack resources and firm size as moderators to study the influence on the relationship between managerial attention to human and CSR.

Firm age. Firm age was included as a moderated variable, as it reflects the firm life cycle stage, which affects profitability and managerial priorities [74]. Firm age was coded as the number of years from the listing of a firm to the year we count.

Firm size. When measuring the firm size, the previous literature usually uses three indicators: the sales revenue of the firm, the total assets of the firm, or the total number of employees of the firm. Because CSR is closely related to the profits of the company, this paper selects the sales revenue of the firm as the firm size. Firm size was measured as the natural logarithm of sales.

Slack resource. Studies have found that it has an important impact on CSR [75]. Wiseman et al. divided the slack resources into three dimensions: Available Slack, Recoverable Slack and Potential Slack [76]. In recent years, Iyer and Miller (2008) have divided the precipitated slack resources and non-precipitated slack resources for slack resources and used the ratio of sales expenses to sales revenue of firm and the current ratio of the firm to measure [77]. In order to facilitate statistics, the slack resources are not subdivided, and the formula is defined as the ratio of cash flow to total assets of the firm [78].

At the same time, in order to avoid the regression analysis of the multicollinearity effect model caused by the multiplication of the regulatory variables and the independent variables, the independent variables and the regulatory variables are centralized in this paper with reference to the recommendations of Aiken and West [79].

3.2.4. Control Variables

We controlled for a set of variables in Table 2. Prior studies have reported profitability, R&D, financial leverage, and market munificence may influence CSR [80]. In the study, the profitability use returns on assets (ROA), the ratio of net profit to total assets. R&D intensity uses R&D expenditures

Sustainability **2018**, 10, 4029 9 of 18

divided by sales [81]. However, some data on R&D expenditures were missing in CSMAR database. We adopted a common practice to set a missing R&D expenditure as zero. Market munificence describes an environment's ability to support sustained growth [82] and is positively related to firm growth [83]. We measured market munificence using the average growth in net sales and growth in operating income in dominant industry [84], using annual figures across all firms in each relevant industry. We treated the natural logarithms (a linear transformation) of each in a time series approach.

Variable	Symbol	Variable Definitions				
Dependent Variable						
Corporate Social Responsibility	CSR	The comprehensive score of five first-class CSR indexes calculated by the weighted average method, range from 0 to 100				
Independent variable						
Managerial humanistic attention	MH_A	The ratio of the keywords appearing in the MD&A part of an annual report				
Moderator						
Firm Age Firm Size	Age Size	Listing age, defined as the number of years a firm's stocks have been listed The natural logarithm of sales				
Slack Resource	Slack	The ratio of cash flow to total assets of the firm				
Control variable						
Market munificence	Market	Average growth in net sales and growth in operating income in dominant industry				
Research and Development Intensity	R&D	Corporate R&D expenditures divided by sales				
Rate of Return on Asset	ROA	The ratio of net profit to total assets				

Table 2. Definitions of Variables.

3.3. Empirical Model

To investigate effects of managerial humanistic attention on CSR performance, we estimated each hypothesis by the fixed effects model following ordinary least squares (OLS) baseline regressions. In this paper, we use STATA14 for regressions.

$$CSR_{i,t+1} = \beta_0 + \beta_1 Human_{i,t} + \beta_2 Age_{i,t} + \beta_3 Size_{i,t} + \beta_4 Slack_{i,t} + \beta_5 Human \times Age_{i,t} + \beta_6 Human \times Size_{i,t} + \beta_7 Human \times Slack_{i,t} + \gamma Control Variable_{i,t} + \sum Year + \varepsilon_{i,t}$$

$$(1)$$

The dependent variable is CSR, which is a total weighted CSR score of five primary category measures of CSR scores, which ranges from 0 to 100. $CSR_{i,t+1}$ represents lag CSR score one year. We choose the following variables as moderators in our regressions: firm age (Age), firm size (Size), slack resource (Slack), among which i indexes firms, and t indexes years. We controlled following variables in our regressions: market munificence (Market), rate of return on asset (ROA) and corporate research and development intensity (R&D), among which i indexes firms, and t indexes years. All the regressions include year fixed effects to control for differences across time trends in the outcome variables.

The detailed definitions can be seen in Table 2. The coefficient of interest in our regressions is β_1 , which captures the effects of managerial humanistic attention on CSR performance. According to the inferences above, we predicted β_1 is positive. In addition, β_5 , β_6 and β_7 capture the moderated effects of firm characteristics, which is firm age, firm size and slack resource.

4. Results and Discussion

4.1. Descriptive Statistics and Correlation Analysis

Based on the data collected from the database, we firstly conduct descriptive statistics. From Table 2, in the average test of 2347 samples, the average CSR score for the five years from

Sustainability **2018**, 10, 4029 10 of 18

2010 to 2014 was lower than 27.31, indicating that the overall quality of social responsibility of Chinese companies is poor. In the existing literature, this problem has been discovered. China's CSR started late, and its development is not perfect. The standard deviation of CSR is 21.62, which indicates that there are great differences in the corporate social responsibility of different enterprises in different enterprises. These may have certain links with the nature of the firm, firm culture and firm development goals. There are also some differences in the variances of other control variables. The SD of the company's age is greater than the SD of other variables, indicating that different companies are at different stages of development. In summary, the mean and variance of each variable are in the normal range, which also reflects a sufficient sample size indicates that the study is credible.

From the Table 3. Correlation results, there is no significant correlation between CSR and managerial attention. Because the correlation analysis only uses a simple regression, which may cause an estimation bias in the results. Therefore, it is necessary to use the regression method of panel data and introduce the time fixed effect to solve the missing variable problem with time.

For control variables, the CSR score of the firm has a significant positive correlation with the firm size, ROA, market munificence and slack resources, indicating that the control variables can play a good control role. Secondly, ROA has a significant positive correlation with firm size, indicating that firm size represents the profitability of the company to a certain extent. In short, the collinearity between the variables is weak, indicating the reliability of the model.

	N	Mean	SD	1	2	3	4	5	6	7	8
1 CSR	2347	27.31	21.62	1.00	-	-	-	-	-	-	-
2 MH_A	2347	2.59	1.57	0.01	1.00	-	-	-	-	-	-
3 ROA	2347	0.04	0.49	0.35 **	0.02	1.00	-	-	-	-	-
4 Market	2347	0.01	0.13	0.02	-0.12**	-0.05	1.00	-	-	-	-
5 R&D	2347	0.01	0.01	0.12 **	-0.01	0.22 **	0.15 **	1.00	-	-	-
6 Age	2347	13.99	4.09	-0.00	-0.02	0.05	-0.02	0.03	1.00	-	-
7 Size	2347	9.39	0.69	0.07 **	-0.04	0.08 **	-0.06 **	0.11 **	-0.05	1.00	-
8 Slack	2347	0.01	0.09	0.07 **	0.05	0.18 **	-0.02	0.03	0.01	-0.01	1.00

Table 3. Descriptive Statistics and Correlations.

Note: * p < 0.05, ** p < 0.01.

4.2. Regression Analysis

4.2.1. Managerial Humanistic Attention and CSR

Since this paper selects the manufacturing enterprises listed in Shanghai in 2010–2014, it only controls the year effect and analyzes it with the time fixed effect model.

First, we ran our baseline regression to test the relationship between managerial humanistic attention and CSR performance, which is also the main context of Hypothesis 1. Table 4 generally shows the results of our baseline regression. In Column 1, where we test the control variables, the empirical result shows that the coefficient on ROA (p < 0.001), market munificence (p < 0.01) and firm size (p < 0.05) are positive, and the corporate R&D intensity (p < 0.001) is negative. The results show that the better the business situation, the more contribution to CSR, and the firm profit is an important source of CSR. Firms can only undertake more CSR if they have good conditions; R&D investment and CSR are high risks and long-term strategies and are difficult to get returns in the short term. They are mutually substituted. Therefore, the firm R&D investment may reduce its corporate social responsibility performance to a certain extent.

In Column 2, we examined the relationship of managerial humanistic attention and CSR, the coefficient was positive and the significant at the 1% level. These results suggest that managerial humanistic attention has a statistically and significantly positive correlation with CSR performance. The empirical results of our baseline regression strongly support Hypothesis 1.

In addition, we can find in these results that they validate the upper echelons theory that TMT bounded rationality and attention models have an impact on corporate strategic choices. The degree of managerial humanistic attention reflects the values of managerial humanities to care people. On one hand, this will enable TMT to focus on employees and their development, and cultivate outstanding talents. On the other hand, they will focus on external stakeholders, including shareholders, distributors and customers. Such values will prompt them to take the initiative to undertake stakeholder activities, and encourage their firm to do more CSR.

4.2.2. Managerial Attention to Human, Managerial Discretion, and CSR

In Column 3, Column 4 and Column 5, we respectively examined the moderated effect of the firm age, the slack resources and the firm size to managerial humanistic attention and CSR. In Column 6 is a regression of all variables. In Column 3 and Column 6, we examined the moderated effect of firm age on managerial humanistic attention and CSR. In Column 6, the interaction coefficient is positive and significant at 5% level. Hypothesis 2 is established. Under the condition that the TMT have similar cognition, the old firm can do more social responsibility than the young firm can. From Figure 1, it can be found that the moderated effect of the firm age is obvious. Moreover, it is not difficult to find that under the condition that the TMT with low humanistic attention, the older companies do less CSR than the younger ones, while the TMT with high humanistic attention, the older do more CSR than younger. The empirical results are worth exploring.

Corporate Social Responsibility Variable (1) (2)(5) (6) 1.378 *** (0.26) 1.417 *** (0.26) 1.393 *** (0.26) 1.446 *** (0.26) 1.506 ** (0.26) MH A 0.015 *** (0.00) 0.015 *** (0.00) 0.015 *** (0.00) 0.014 *** (0.00) 0.014 *** (0.00) 0.015 *** (0.00) ROA 0.029 ** (0.01) 0.036 *** (0.01) 0.035 *** (0.01) 0.035 *** (0.01) 0.036 *** (0.01) 0.035 *** (0.01) Market -0.015 *** (0.00) -0.014***0.00-0.014***(0.00)-0.014***(0.00)-0.014 *** (0.00) -0.014 *** (0.00) R&D -0.472 *** (0.13) -0.432 ** (0.13) -0.439 ** (0.13) -0.438 ** (0.13) -0.434 ** (0.13) -0.434*(0.13)Age 0.002 * (0.00) 0.002 * (0.00) 0.002 * (0.00) 0.002 * (0.00) Size 0.002*(0.00)0.002*(0.00)Slack 0.002 (0.00) 0.002 (0.00) 0.002 (0.00) 0.002 (0.00) 0.002 (0.00) 0.002 (0.00) 0.102 * (45.01) $MH_A \times Age$ 0.094*(0.05)0.001 * (0.00) 0.001 * (0.00) MH_A × Slack 0.000 + (0.00)0.000 + (0.00)MH A × Size 22.358 *** (2.38) 18.158 *** (2.05) 18.142 *** (2.49) 17.871 *** (2.49) 17.512 *** (2.50) 17.843 *** (2.50) Constant Year Yes Yes Yes Yes Yes Yes Observation 2347 2347 2347 2347 2347 2347 0.03 0.03 0.03 0.03 0.04 0.04

Table 4. Empirical Results of OLS Estimation.

Note: $^+$ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001; Standard errors in parentheses.

It is generally believed that the greater firm age, the stronger the inertia of the organization and the managerial discretion is naturally limited. However, this is different from our results. This article believes that this is closely related to Chinese traditional culture. The older the company, the more it will be influenced by Chinese traditional culture, which is customary to obey the authority, the command of the highest leader. In older companies, TMT tends to have more managerial discretion. Driven by the attention to human, companies will do more CSR.

In Column 4 and Column 6, we tested the moderated effect of slack resources on the relationship between managerial humanistic attention and CSR. The interaction coefficient in Column 6 is positive and at a significant at 5% level. The empirical results of our baseline regression strongly support Hypothesis 3. From Figure 2, the firm with more slack resources has higher CSR. This shows that under the similar condition of managerial humanistic attention, compared with the firm with less slack resources, the firm with more slack resources will do more CSR. For companies with more slack resources, managers can explore more strategic choices, so they tend to have more management discretion. In this situation, the influence of managerial humanistic attention on CSR can be effectively promoted. The empirical results are similar to Punit Arora and Ravi Dharwadkar's research [84].

Sustainability 2018, 10, 4029 12 of 18

In Column 5 and Column 6, we examined the moderated effect of firm size on managerial humanistic attention and CSR. From the results, the interaction coefficients are positive but partly significant, so H4 is not verified. The empirical results show that in the case of similar managerial humanistic attention, firm with a larger size will do more CSR, which is contrary to the hypothesis in this paper. Studies have shown that small companies with a simple board structure will encourage TMT to have more management discretion. A large firm, because of their organizational inertia, will reduce the management discretion of business managers. However, the empirical results show that it is not applicable in China. This may be because the industry selected in this paper is manufacturing. Therefore, there may be industry specificity. When measuring the CSR score of manufacturing, the proportion of environmental responsibility has been increased to 30%, which means firms need to reduce pollution. As we all know, the expenditure on the purchase of environmental protection is very large. Small firms cannot afford such a large expenditure because of their limited funds, so their promotion of CSR is very small. At the same time, a large firm will promote CSR to maintain a good image and get more political connection.

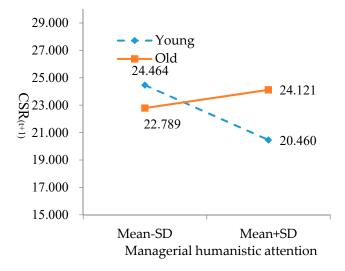


Figure 1. Moderating effect of firm age.

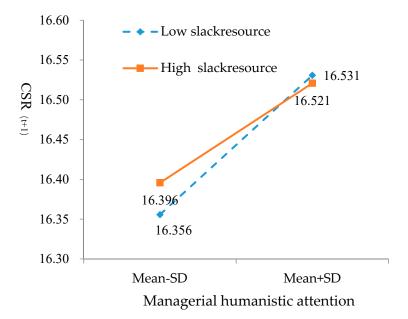


Figure 2. Moderating effect of slack resource.

5. Conclusions

In the past decade, CSR has developed deeply in China, from an alien word to a growing number of corporate values and codes of conduct. However, as a whole, the state of CSR coincides well with two key words describe contemporary contradictions, imbalance and insufficiency. Especially, as the digital process expands rapidly, more and more enterprises strive to bear a better social responsibility and become sustainable business enterprises. As we can see, a large number of existing empirical studies focus on the impact of profits, firm size, public pressure, policy environment, stakeholder behavior, and personal roles on social responsibility [85–87]. There are fewer areas study the effect on corporate social responsibility from the attention perspective. In this article, we focus on the managerial humanistic attention to study the antecedent of CSR, and use firm characteristics as moderators to explore its relationship with CSR.

This paper uses the sample of Chinese manufacturing companies listed in Shanghai stock market from 2010 to 2014 to analyze the relationship between managerial humanistic attention and CSR. The empirical results show that managerial humanistic attention can motivate CSR. Our finding contradicts those studies by using US samples [8,9,22]. One potential explanation is the measurement of managerial attention. It is because not only we use different analysis tool but also because we choose different focus that they pay attention to CSR while we focus on the human. Another possible explanation is that the relationship between managerial attention and CSR varies indifferent institutional contexts. There is a Chinese ancient saying tells that "be concerned about one's country and one's people". When a person cares about the people, he naturally goes back to do things that benefit the people. It is similar to our results. Moreover, firm characteristics have an impact on the relationship between executives' attention and CSR. This paper empirically finds that firm age, firm size and slack resources have a positive moderated effect on it. In addition, we also found the particularity in the Chinese context. The paper empirically finds that under certain Chinese contexts, the results of organizational factors for management discretion have also changed, such as firm age. Generally, the older the organization, the greater the inertia of the organization, thus the managers tend to stick to the rules and reduce their management discretion. However, due to the influence of traditional Chinese culture, that is, obeying authority; older companies are often more influenced by traditional culture, which in turn makes senior managers have management discretion. Organizational factors also change in different industries. The group generally believes that the larger the organization size, the higher-level managers' decision-making will be affected by many parties, which will reduce their management freedom. However, due to the special nature of manufacturing, its environmental protection equipment requires a lot of money. Therefore, larger companies are more capable of doing CSR than smaller companies are.

This paper has several theoretical implications. First, although many scholars have participated in the study of the CSR, only recently a few studies tarted to examine the CSR from the humanistic value and attention-based perspective [22]. Therefore, this is one of the few studies to explore CSR from an attention-based perspective with an emphasis on the moderating effect of firm characteristics [50]. Besides, "this domain of work is still new and intriguing" [50]. Our study responds to Di Fabio's call for more research on the innovative contribution that psychology can make to the theme of sustainability and sustainable development [17,18]. In this paper, we focus on CSR from the attention-based perspective and contribute to this emerging literature by finding that managerial humanistic attention can drive CSR. This is also an important supplement to the literature on upper echelons theory. Managerial attention can influence a company's strategic decisions and different concerns can produce different results. Second, the measurement of managerial attention has always been a problem. This article cleverly combines psychology with management by using a psycholinguistic tools—content analysis of the part of board discussion and analysis of corporate annual reports [7], while other studies used surveys to do so [8,9,22]. At the same time, by semantic analysis, the managerial attention is subdivided into the focus on humanity. This is an important complement to current research on managerial attention and provides a reliable method for measuring managerial attention. Third,

although it has been demonstrated for a long time that managerial attention influences CSR, there is little empirical literature to show that [7,8,22]. This article empirically suggests that managerial humanistic attention matters to CSR. Finally, we also emphasis on the moderating effect of firm characteristics, adding new insights to the existing studies on the relationship between managerial discretion and CSR. Meanwhile, this paper also contributes to the practice. In China, manufacturing CSR scores are generally low. CSR is an important part of a company's value for society. Therefore, it is necessary for China to develop a series of measures to promote CSR. According to the results of this study, China needs to strengthen managerial humanistic attention and formulate a series of honors and incentives to effectively promote the CSR trend of the whole society. Besides, enterprises should make efforts to excavate, utilize and control slack resources to engage in CSR behavior. This study shows that in the process of corporate social responsibility, slack resources promote the relationship between managerial humanistic attention and corporate social responsibility to some extent. As a realistic or potential resource buffer to cope with environmental changes, especially in the context of China's transition economy, the limited slack resources may become valuable resources [10]. Therefore, enterprises should strive to explore and utilize slack resources and make full use of slack resources to promote corporate social responsibility.

Of course, there are still some limitations existing in this study. Firstly, although we use a longitudinal data set, control for a set of firm-level variables, and a one-year lag in our empirical study, it is still possible that some unobservable variables drive both humanistic attention and CSR. In other words, the observed positive association between managerial humanistic attention and CSR in this article may be due to the effects of the unobservable variables, suggesting a potential endogenous problem. Moreover, the insufficient sample size and the limited sample source will affect the universality of the research conclusion to some extent. The following study can further expand the sample to improve the universality of the research. Secondly, for the measurement of managerial attention, future research can adopt qualitative, quantitative or mixed research methods according to the needs of research issues. Thirdly, we only examined the moderating effects of firm characteristics on the relationship between humanistic attention and CSR; this may contribute to CSR and managerial discretion research and limit the generalizability of our study to research. Therefore, we can further study the other dimensions of managerial discretion. Finally, the total R² is relative low. Although it is mentioned that it is normal that R² is low for using panel data for OLS in the book by Wooldridge [88], we still think there are some ways to improve our model. Considering Hexun's criteria for scoring CSR, new control variables need to be considered while considering traditional control variables. The firm classification secondary indicator, such as whether it is a heavily polluting enterprise, whether it is B2C, and the difference in corporate social responsibility policies of the company's location, may be helpful to improve our model, and this will guide us to improve and continue to our research in this area.

Although this study has several limitations, it does add some new insights into the literature examining CSR from a human-oriented perspective. More importantly, future studies may continue examining CSR from this humanistic attention perspective and further explore the mechanisms through which managerial attention influences CSR. As noted above, previous studies find that managerial attention has little effect on CSR. Our article shows that the relationship between humanistic attention and CSR is conditional on managerial discretion at firm level. In this sense, future studies may explore other contingent factors (e.g., environment factors, individual-level) that are able to distribute managers' attention and to influence firm strategy [30,34].

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Sustainability 2018, 10, 4029 15 of 18

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Sustainability **2018**, *10*, 4029 17 of 18

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Sustainability **2018**, 10, 4029 18 of 18

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