Article

CSR and Sustainable Growth in China’s Technology Firms between 2010 and 2021

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Abstract: In this study, we examine the relationships between CSR (e.g., CSR aimed at employees, customers, suppliers, and governments) and firm sustainable growth, and how dysfunctional competition moderates these relationships. Based on resource dependence theory, we argue that CSR aimed at four chosen groups of stakeholders (e.g., employees, customers, suppliers, and governments) is positively related to firm sustainable growth and that the levels of dysfunctional competition will positively moderate these relationships. Our results, using a sample of technology firms in China, provide support for these arguments. We find that CSR aimed at employees, customers, suppliers, and governments is positively related to firm sustainable growth. In addition, using the contingence approach, we find that CSR aimed at the four chosen groups of stakeholders has a stronger positive relationship with firm sustainable growth when the level of dysfunctional competition is high than when it is low. Our findings have important theoretical and managerial implications, which are discussed in this study.

Keywords: corporate social responsibility; firm sustainable growth; dysfunctional competition; institutional contexts

1. Introduction

Recently, research has paid increasing attention to firm sustainable growth [1,2]. According to Aldrich and Ruef [3], firm sustainable growth is used to indicate the extent to which a firm continues to grow or decline using its own resources within a certain population. Firm sustainable growth is a vehicle for catalyzing economic growth and promoting social welfare [4]. Not surprisingly, governments in many countries have placed firm sustainable growth at the center of their development policies [5,6].

Unfortunately, it has been reported that more than 67.09% of China’s technology firms experienced decline or unstable growth in the past 20 years, and, among them, some appeared nearly impoverished [7]. Why, then, could some technology firms grow in a sustainable way while others could not? Considering the social and economic importance, what factors can have a positive effect on firm sustainable growth? Some researchers focused on the external resource conditions by arguing that industrial resources, government policies, culture, traditions, and social networking, with access to cutting-edge technologies and information, help firms develop their capacities, which in turn can bring them sustainable growth [8–10]. Other researchers underscored the important role of firms’ relationship with their stakeholders, such as employees, customers, suppliers, and governments [11,12]. For example, Andersen et al. [13] observed that suppliers help firms continue to grow. Sandhya and Kumar [14] found that employees played a big part in firm sustainable growth. Likhitkar and Verma [15] argued that firm sustainable growth depends on building trustworthy relationship with employees, by which firms can improve their capabilities, processes, and products.
While these researchers contributed significantly to our nascent understanding of what factors can affect firm sustainable growth, gaps still exist in the extant literature. Previous studies, as noted, focused either on the role of external resource conditions, such as culture, traditions, and government policies or on relationships with specific firm stakeholders such as suppliers and employees. Beyond these two views, considering that multiple stakeholders can usually simultaneously affect firms, it is likely that relationships with multiple stakeholders will have important consequences for firm sustainable growth. To date, no studies have addressed this issue. We adopt resource dependence theory to explore how firms’ CSR aimed at stakeholders, especially employees, customers, suppliers, and governments, affects their sustainable growth. According to resource dependence theory, it is important for firms to establish trustworthy relationships with their stakeholders to keep competitive advantages, sustain growth, and achieve success [16,17]. Previous studies have argued that practicing CSR plays an important role for firms to establish a trustworthy relationship with their stakeholders [18–21]. CSR has been defined by Waldman et al. [22] as “actions on the part of the firm that appear to advance, or acquiesce in the promotion of some social good, beyond the immediate interests of the firm and its shareholders and beyond that which is required by law”. CSR reflects firms’ broad array of strategies and operating practices that are designed and developed to deal with internal and external stakeholder relationships [23]. The aims of firms’ practicing CSR are to meet what is required by and build a harmonious and trustworthy relationship with their multiple stakeholders. As Tong et al. [23] pointed out, a trustworthy relationship between firms and their stakeholders can work as an implicitly mutual and reciprocal contract, enabling firms to gain competitive advantages and achieve better performance. We, thus, expect that firms’ CSR can build a trustworthy relationship with their stakeholders, which in turn helps firms achieve sustainable growth.

More importantly, the relationship between CSR and firm sustainable growth is not universal but rather could be context-specific. Previous research noted that transition economics represent an important institutional context, which is characterized by a lack of well-established legal frameworks [24]. Therefore, the institutional characteristics of transition economies are able to impact the effect of CSR on firm sustainable growth. So far, however, there is no research in the extant literature to address this issue, which limits the theoretical completeness and is a significant gap in the literature.

The aim of this study is to address the above gaps in the literature by examining the effect of CSR aimed at four chosen groups of stakeholders (e.g., employees, customers, suppliers, and governments) on firm sustainable growth. Specifically, we are going to address two research questions. First, how is CSR aimed at employees, customers, suppliers, and governments related to firm sustainable growth in China’s transition economy? Second, how do institutional contexts (e.g., dysfunctional competition in a market) moderate the relationships between CSR aimed at various stakeholders and firm sustainable growth? Thus, our study has important practical and theoretical implications. Our findings allow us to have a better understanding of why and how CSR (e.g., CSR aimed at employees, customers, suppliers, and governments) affects firm sustainable growth. Theoretically, our findings can provide evidence on how firms’ relational factors, such as CSR, and institutional factors simultaneously affect firm sustainable growth. Empirically, we test how CSR affects the sustainable growth of technology firms in China. We use China’s transitional economy context as our research setting because the emergence of a market economy in China can potentially affect the efficacy of firms’ investments (e.g., investment in CSR activities) [25]. Therefore, trustworthy relationships with stakeholders are deemed to play a big part in the sustainable growth of China’s technology firms due to the fact that institutional voids often handicap the effect of firms’ CSR activities on firm sustainable growth. Accordingly, China’s transitional economy offers a rich context to examine the proposition that trustworthy relationship with stakeholders resulting from firms’ CSR can contribute to the firms’ sustainable growth. The rest of this study is organized as follows. First, we introduce the background of this study. Second, we review the extant literature
and develop our hypotheses. Third, we introduce the research design of this study. Fourth, we present our statistical results. Finally, we elaborate on both the theoretical implications and policy insights of these empirical results and conclude by discussing the limitations and further directions of this research.

2. Background of the Study

Considering that understanding CSR and dysfunctional competition in China’s institutional context can help us have a preliminary knowledge of how CSR affects firm sustainable growth and how dysfunctional competition moderates this relationship, we think it is necessary to provide the background associated with CSR and dysfunctional competition in China’s institutional context.

Over the past several decades, large quantities of research have paid increasing attention to the role of CSR in firm performance [26]. As a result, China’s governments (both local and central) came to believe that CSR was a powerful vehicle for catalyzing economic growth at the national and firm levels. For example, on 14 March 2011, the Chinese central government launched the Outline of the Twelfth Five-Year Plan for National Economic and Social Development of the People’s Republic of China, which is also called China’s Twelfth Five-Year Plan. China’s Twelfth Five-Year Plan was enacted and implemented under the background that the Chinese government had emphasized time and again “sustainable growth” in recent years. The plan proposed the concept of “firm green development” for the first time in history. After carefully reading China’s Twelfth Five-Year Plan, we came to the conclusion that the main aim of the plan was to drive Chinese firms to actively practice CSR, which in turn would help to accelerate the construction of an environmentally friendly society.

Indeed, China’s Twelfth Five-Year Plan put exogenous institutional strain on Chinese firms to initiate and practice CSR activities. To understand this, we should first know that the Communist Party of China (CPC) is the major agent in initiating and implementing Chinese economic and social development, and that China’s Twelfth Five-Year Plan, like other Chinese central government plans, was launched from the top down rather than from the bottom up. As a result, while China’s Twelfth Five-Year Plan contained detailed mandatory CSR guidelines for Chinese provinces, it put a heavy strain on Chinese firms. For example, firms that are regarded as engaging in poor CSR are fined and levied high levels of income taxes. On the other hand, firms that are regarded as actively engaging in CSR enjoy preferential policies, such as tax reductions and import privileges, which bestow legitimacy and create business opportunities. This is especially the case for firms located in the developed cities of China. For example, technology firms in Shanghai, one of the largest cities in China, which are classified as practicing CSR pay an income tax of 15%, a breathtakingly advantageous tax rate, which gives Chinese firms the ability to achieve a competitive advantage and sustainable growth, given that the normal tax rate is usually more that 33%. In fact, the benefits for firms actively practicing CSR go beyond this. Some coastal developed cities, such as Shanghai and Shenzhen, provide even more attractive tax opportunities for firms that are deemed to have performed excellent CSR activities over the past three years, such as waiving their taxes for the subsequent three years. Since the fundamental purpose of preferential CSR policies for firms is to propel firms to actively practice CSR, only qualified firms have the right to be entitled to such policies as tax reductions, import privileges, and facility-use rights. To qualify for a good or excellent standing by practicing CSR, a firm has to be certified as “moral” by the Communist Party of China (CPC) by actively engaging in CSR activities, which is accomplished by having at least 2% of sales revenues spent on CSR activities.

With the support of the governments of China in terms of tax breaks, facility-use rights, and business opportunities, the number of firms that actively initialize and implement CSR has grown dramatically; however, they have grown differently. It may, then, be worth asking a few related questions. Why have they grown differently? What factors account for the firm sustainable growth consequence of CSR? In our study, based on
resource dependence theory, we argue that dysfunctional market competition affects the sustainable growth consequence of CSR. Therefore, to have a better understanding of how dysfunctional competition affects the sustainable growth consequence of CSR, we need to have a fine-grained knowledge about dysfunctional competition in the Chinese institutional context. Dysfunctional competition refers to the extent to which the competitive behavior of firms in a market is opportunistic, unfair, or even unlawful. Relative to developed Western markets, Chinese market institutions have not been well-developed. Compared to developed Western markets, dysfunctional competition is more salient in China, in which institutional support, such as the protection of intellectual property rights, is weak. Previous studies found that local governments may, in subtle or not so subtle ways, provide tacit support for Chinese firms to expropriate multinational companies’ intellectual property rights or technologies [24]. In addition, previous studies found that it was especially difficult for Chinese administrations to govern market transactions and to define and protect property rights [27]. Therefore, as Li et al. [28] put it, it is not unusual for Chinese firms to engage in widespread opportunistic and unlawful behaviors. Therefore, one consequence is that firms, especially technology firms in China, may suffer unsustainable growth or decline. The intellectual property rights of new technology firms may go unprotected, which makes the firms’ investments highly risky and less profitable activities. Government departments’ support, reflecting the extent to which governments offer support for firms to reduce the adverse effect of dysfunctional market competition, can play an important role in strengthening the positive effect of CSR on firm sustainable growth, since such support, as Zhang et al. [29] put it, can circumvent the risks and resource constraints for Chinese technology firms. Therefore, under the condition of the high levels of dysfunctional competition within a market, firms’ trustworthy relationships with their stakeholders, such as governments, become especially vital for their sustainable growth. As mentioned earlier, the dysfunctional competition in China’s institutional context provides us with a unique opportunity to investigate how the levels of dysfunctional competition affect the firm sustainable growth consequence of CSR. In the next section, we draw upon resource dependence theory to develop our theoretical framework and hypotheses.

3. Literature Review and Hypotheses Development

3.1. Theoretical Literature Review

Our hypotheses are informed by resource dependence theory [16,17]. Resource dependence theory stresses that how firms can maintain their competitiveness, sustain growth, and achieve better success in the marketplace is determined by their relations to stakeholders (e.g., employees, customers, suppliers, and governments) as well as institutional conditions [17]. It has two tenets that are fundamentally relevant to our study. The first tenet of resource dependence theory argues that firms’ relationships with their stakeholders that control their critical resources constrain how they can achieve better performance [16]. More specifically, this argument claims that a firm’s long-term success is determined by whether they can establish trustworthy relationships with their stakeholders [16]. Previous studies support this argument. For example, Antoncic et al. [30] found that establishing a trustworthy relationship with employees can have a positive effect on firm sustainable growth. Bennett and Levinthal [31] found that employees’ trustworthy relationship with firms is positively related to firm sustainable growth. In addition, previous studies also provided evidence that building a trustworthy relationship with customers, suppliers, and governments could also strengthen firm sustainable growth [32–34]. As such, we argue that establishing a trustworthy relationship with stakeholders can help firms maintain sustainable growth in the product innovation and marketing stages.

In the product innovation stage, it should be noted, as Wolpert put it, that no firm is smart enough to know what to do with every new opportunity it finds, and no company has enough resources to pursue all the opportunities it might execute [35]. To create new products that will fit in with market demand by combining knowledge elements, firms must build a trustworthy relationship with their stakeholders. Information provided by
stakeholders can help firms maintain sustainable growth in three important ways. First, information about other firms’ innovation activities can make innovation opportunities more visible to firms [36,37]. Second, information provided by stakeholders can enrich firms’ knowledge pools and offer more choices as to how best to fulfill the needs of the market [38]. Third, information provided by stakeholders helps firms locate external complementary resources and capabilities that are important for them to create new products [35]. Therefore, establishing trustworthy relationships with stakeholders is critical for firms to maintain sustainable growth, in that they help firms gain information related to innovation more rapidly, richly, and accurately, which, thus, strengthens their capability, velocity, and flexibility to create new products [35].

In the marketing stage, whether a new product can produce a desirable result is also determined by people’s desire to purchase and recommend it. Unlike mature products, new products often lack enough information for people to trust and accept them. Due to the fact that people’s trust in a firm can usually spread to their trust in its products, the extant literature suggests that one of the most important ways for people to accept these new products is for firms to establish a trustworthy relationship with their customers [39]. Then, there is an important question worth asking. What should firms do to establish trustworthy relationships with their stakeholders to maintain their sustainable growth in both the product innovation stage and marketing stage? To answer this question, we argue that practicing CSR is an important way for firms to build trustworthy relationships with customers, suppliers, governments and employees, which, thus, can maintain their sustainable growth.

While the extant literature has emphasized the important role of establishing a trustworthy relationship with stakeholders (e.g., governments, universities, and customers) in product innovation strategies [40], no studies address the problem of how firms can build a trustworthy relationship with their core stakeholders as a way to maintain their sustainable growth. We expect that practicing CSR aimed at stakeholders can have a positive effect on firm sustainable growth. The foundation for this argument is that a firm with a high level of CSR can build a trustworthy relationship with its stakeholders, who, in turn, tend to develop a sense of belonging and a shared destiny and identity with the firm. In this study, we examine four chosen groups of stakeholders that have been highlighted in the previous CSR literature: employees, customers, suppliers, and governments.

3.2. Empirical Literature Review and Hypotheses Development

3.2.1. CSR Aimed at Four Chosen Groups of Stakeholders and Firm Sustainable Growth

First, establishing trustworthy relationships with employees can improve firm sustainable growth, mainly in the product innovation stage. Employees can cut both ways, since, under unfavorable conditions, they can hurt firms’ innovation activities. For example, if an employee transfers from a firm to the external labor market, they may leak the firm’s intellectual property to other firms, which undermines the effectiveness of the firm’s innovation capabilities and, in turn, undermines the firm’s sustainable growth. Previous studies suggested that establishing trustworthy relationships with employees by practicing CSR activities can effectively decrease turnover intentions [41] and, thus, alleviate the possibility of employees leaking the firms’ intellectual property to other firms. Under favorable conditions, employees help firms improve their sustainable growth in many ways. For example, establishing trustworthy relationships with employees, as Tong et al. [23] put it, can effectively help employees develop a sense of belonging and a shared identity and destiny with their firms. Employees who have high levels of belonging and identity with their firms, in turn, tend to help their firms realize goals by improving their knowledge, working skills, and work efficiency. This can contribute to reducing innovation costs and improving firm sustainable growth.

In addition, firms’ establishing trustworthy relationships with employees can render the employees to internalize the trustworthy relationships as part of their disposition [23], which makes them likely to trust other employees, even if they do not have any prior inter-
actions or common experiences [23]. Previous studies showed that an employee who trusts others is able to communicate with them in a manner that is happier, more informative, and more effective than those who do not trust others [42,43], which in turn also helps their firm maintain sustainable growth. More importantly, effective communication enables employees to plug into firms’ innovation networks by providing or sharing knowledge and information about innovation. In this respect, previous studies have indicated that firms’ innovation activities are often handicapped or delayed by ineffective communication [44]. As mentioned earlier, trustworthy relationships enable employees to internalize the mutual trust as part of their disposition [23]; thus, we expect that practicing CSR aimed at employees, which helps firms establish trustworthy relationships with their employees, can strengthen firm sustainable growth. Additionally, previous studies have indicated that practicing CSR aimed at employees can also strengthen their job satisfaction [45,46], affective commitment [47,48], and work involvement [49,50]. All these empirical studies suggest that CSR aimed at employees can potentially have a positive effect on firm sustainable growth because employees’ work-related attitudes, such as job satisfaction and affective commitment, are positively related to firm sustainable growth.

Second, practicing CSR aimed at customers can maintain firm sustainable growth mainly in the marketing stage. When a new product is introduced, people are not quite sure whether this product is good or safe enough for them to use. Therefore, it is especially important for firms to take measures to make customers believe that their new products are safe and reliable. Previous studies have shown that customers’ trust in firms can spread to their trust in the firms’ products [51,52], and, because practicing CSR can efficiently strengthen customers’ trust in firms [53–55], we argue that customers tend to purchase and recommend a firm’s new products when the firm performs CSR well. Thus, in the marketing stage, practicing CSR is able to maintain firm sustainable growth by enhancing customers’ trust in firms and their new products. In this respect, the extant literature found that practicing CSR aimed at customers can strengthen the customers’ attitudes and behaviors toward the firms, which in turn can help the firms maintain their sustainable growth [56]. For example, previous studies found that CSR aimed at customers can effectively improve customers’ purchase and recommendation intentions [57,58], which in turn can help firms maintain their sustainable growth.

Third, practicing CSR aimed at suppliers can maintain firm sustainable growth in both the product innovation and marketing stages. In the product innovation stage, previous studies have underscored that firms’ external ties with suppliers play an important role in their innovation by facilitating firms’ innovation search [25]. As Zhang and Li [25] argued, one of the most important role suppliers are able to play is that they can facilitate the exchange of information about innovation among firms; since suppliers providing components of products sit at the intersection of many firms, they potentially have information about other firms’ innovation, and, thus, they can broaden the scope of firms’ innovation search and reduce their innovation search cost, which in turn maintain firm sustainable growth. In this respect, Saxenian pointed out trustworthy relationships with suppliers allowed Silicon Valley’s firms to continually create new products and flexibly react to the market [59]. It has been found that trustworthy relationships between firms and suppliers are able to enhance firm performance [60,61]. In the marketing stage, establishing trustworthy relationships with suppliers not only helps firms acquire the components required for their new products but also provides reputation benefits for the effective marketing of their new products [28]. Considering that practicing CSR can effectively build trustworthy relationships between firms and their suppliers, we expect that practicing CSR aimed at suppliers can maintain firm sustainable growth.

Fourth, governments also play a big part in maintaining firm sustainable growth. A trustworthy relationship with governments can maintain firm sustainable growth in both the product innovation and marketing stages. In the innovation stage, trustworthy relationships with governments can maintain firm sustainable growth for two reasons. First, it should be noted that government interference exists more or less in both the market
economies of advanced countries, such as the United States or Japan, and the transitional economies of developing countries, such as China. Since a trustworthy relationship with governments is able to substitute for the insufficient formal infrastructure, as Li and Zhang argued [24], it can offer firms a more flexible resource allocation in an environment where governmental interference exists. Therefore, firms can maintain sustainable growth only if they can effectively address the risky environments where appropriability hazards exist. In addition, as was mentioned earlier, a trustworthy relationship with governments can work as an implicit contract that enables governments to develop a sense of shared destiny and identity with firms; thus, it can offer support for firms to effectively address the appropriability hazard they may face. Second, governments can provide strong support for firms to acquire information about innovation and, even in some cases, services that can be directly used for innovation. Governments have long been argued as entities that have close connections with universities and research institutions [28]; therefore, establishing trustworthy relationships with governments can potentially help firms quickly gain access to previously unknown information and knowledge generated by universities and research institutions that are needed to create new products. This is why prior studies have underscored the importance of establishing a reliable relationship with governments in firms’ success [62]. In the marketing stage, establishing trustworthy relationships with governments can also help firms maintain sustainable growth. The reason is somewhat similar to that of suppliers. Governments can provide firms with reputation benefits [28], and, thus, establishing trustworthy relationships with governments can improve firms and their new products’ prestige by strengthening customers’ confidence and trust in such firms. Since practicing CSR aimed at governments can effectively build and strengthen firms’ trustworthy relationships with governments [23], we expect CSR aimed at governments can maintain firm sustainable growth. Relative to developed Western countries, in the case of China, the empirical context of this study, establishing trustworthy relationships with Chinese governments, who still control substantial numbers of resources and have great power to allocate these resources, should play a more important role in firm sustainable growth. This is because firms located in China are often faced with an insufficient formal infrastructure, as the formal institutional framework has not been well-established or -developed [25]. Considering that CSR aimed at governments can build a trustworthy relationship between firms and governments, which in turn help firms maintain their sustainable growth, we argue that CSR aimed at governments is positively related to firm sustainable growth.

On the whole, based on the above discussions, we propose the following hypothesis:

**Hypothesis 1.** CSR aimed at (1a) employees, (1b) customers, (1c) suppliers, and (1d) governments is positively related to firm sustainable growth.

### 3.2.2. Moderating Role of Dysfunctional Competition

The second tenet of resource dependence theory argues that the long-term consequences of a firm’s activities (e.g., firms’ CSR activities) are determined by institutional contexts. Prior studies have noted that dysfunctional competition represents an important institutional context. Therefore, we argue that dysfunctional competition, which has long been argued in previous studies as an important hallmark of transitional economy, impacts the effect of CSR on firm sustainable growth. As mentioned earlier, dysfunctional competition refers to the extent to which the competition in a firm’s environment is unethical, opportunistic, or even unlawful [28].

We further discuss and examine the moderating effect of dysfunctional competition on the relationship between CSR and firm sustainable growth. As noted earlier, practicing CSR can maintain firm sustainable growth because it can build trustworthy relationships between firms and their stakeholders. This logic suggests that the value of practicing CSR in firm sustainable growth is determined by the extent to which the firms rely on the trustworthy relationships resulting from CSR. In other words, when firms rely more on
trustworthy relationships with their stakeholders to maintain sustainable growth, practicing CSR is more important for firms to maintain sustainable growth, and vice versa. According to this logic, we argue that dysfunctional competition positively moderates the relationship between CSR and firm sustainable growth. The reasons are as follows.

First, when the levels of dysfunctional competition in a market are high, the trustworthy relationship between firms and their stakeholders (e.g., customers, suppliers, governments, and employees) can circumvent the risk of the firms’ property rights being stolen or leaked to other firms and substitute for imperfect market mechanisms and insufficient laws. For example, previous studies suggested that when market laws are inappropriate or weak, firms tend to use their relationships with governments to win product licenses and contracts, even if their products and technologies are not better than those of their competitors [27]. Therefore, when there is widespread dysfunctional competition in the market, practicing CSR aimed at the four chosen groups of stakeholders (e.g., governments) can effectively maintain firm sustainable growth.

Second, previous studies found that when there is widespread dysfunctional competition in the market, employees, suppliers, and customers may act as conduits, facilitating the diffusion of firms’ intellectual property rights to other firms through networks of interactions [25]. This is because when employees, suppliers, and customers have frequent interaction and information exchanges with firms, they have opportunities to gain the firms’ knowledge and information and may pass them on to other firms in the market for their own interests [23]. Thus, when there is widespread dysfunctional competition in the market, reducing the risk of firms’ knowledge being leaked by employees, suppliers, and customers to other firms is particularly important for firms to maintain sustainable growth. In this respect, we argue that when the level of dysfunctional competition is high, practicing CSR can help firms effectively alleviate the risk of their knowledge being leaked to other firms for two reasons. (1) Practicing CSR can effectively promote the quality of firms’ relational capital and stakeholder management [23]. Firms’ relational capital works as valuable implicit contracts between firms and their stakeholders (e.g., employees, suppliers, and customers) [23]. Implicit contracts, unlike explicit contracts, which are court-enforceable, are self-enforcing. Since implicate contracts are mutual and reciprocally obligatory, through binding the actions of one party to those of the other party by making unethical behaviors costly, firms’ stakeholders will not choose to breach the implicit contract. As Tong [23] argued, the breaches of implicit contracts commonly carry substantial implicit cost to the firms’ employees, suppliers, and customers, such as lost trust and reputation. Therefore, when there is widespread dysfunctional market competition, practicing CSR associated with valuable explicit contracts helps firms circumvent the risk of their intellectual property rights being stolen or leaked by their employees, suppliers, and customers to other firms, which in turn helps firms maintain sustainable growth. (2) Practicing CSR helps firms develop a moral culture. Since a moral culture fosters stakeholders’ beliefs, values, and practices over time, stakeholders tend very strongly to internalize a moral culture as part of their disposition [65]. More importantly, such a propensity to act ethically can be carried across situations and contexts, even when interacting with unfamiliar parties and actors [64]. Therefore, the internalized moral culture resulting from CSR can enable firms’ employees, suppliers, and customers to act ethically, such as not stealing firms’ intellectual property rights or leaking them to other firms, even when there is a widespread dysfunctional competition in the market, which also helps firms maintain sustainable growth.

On the other hand, when the levels of dysfunctional competition are low, firms can capture and maintain sustainable growth without worrying about the risk of their intellectual property rights being stolen or leaked to other firms. Therefore, practicing CSR is less important in maintaining sustainable growth when the level of dysfunctional competition is low than when it is high. Accordingly, we propose the following hypothesis:
Hypothesis 2. The positive relationship between CSR aimed at (2a) employees, (2b) customers, (2c) suppliers, and (2d) governments is stronger when the level of dysfunctional competition is high than when it is low.

4. Research Design
4.1. Sample and Data Collection

The data were collected from several sources. Following the extant literature, we first collected CSR from an independent rating agency (Rankins CSR ratings or “RKS”). Second, we accessed the China Stock Market and Accounting Research database (http://www.gtarsc.com (accessed on 22 December 2022)), which provides data on each firm’s annual sales revenue, number of employees from the first year the firm was founded. During our data collection, we employed four research assistants from Shanghai Jiao Tong University to telephone firm administrators to collect data, and examine and verify information gained from public sources, which helped us resolve questions when information conflicted across different sources or when it was almost impossible to obtain information from public sources. To have a better understanding of Chinese firms’ sustainable growth, we conducted a set of exploratory and semi-structured interviews with CEOs or managers from 79 Chinese firms. Further, we carefully studied the Chinese central government’s policies and regulations regarding firm sustainable growth to figure out additional factors which might affect firm sustainable growth. Based on data from Chinese Statistical Yearbooks for the relevant years, we identified several variables that might influence firm sustainable growth, such as firm size, firm age, firm industry, and firm location.

Because these firms are well delineated in term of industry, and geography by the Chinese governments (both local and central). There is no empirical ambiguity regarding the industry and geographic location of a firm. In addition, the size and the founding date of these firms are clearly reported on the websites, which allows us to avoid model misspecification and biased conclusions in term of patterns of firm sustainable growth. In our model estimations, the dependent variable lags by one year behind the independent variables. Finally, we collected a sample of 705 Chinese listed technology firms during the period 2010–2021 (inclusive).

4.2. Measurement
4.2.1. Independent Variable

CSR. We measured Chinese listed firms’ CSR by employing ratings that had been published by RKS. To create a rating system of Chinese firm’s corporate social responsibility, RKS adapted the MSCI KLD 400 Social Index framework and the standards of the Global Reporting Initiative (GRI 3.0). There are more than 70 subdimensions to rate the extent to which the firms engage in activities. Based on this study, we alternatively selected 21 subdimensions that reflect the extent of the firms’ performing CSR aimed at employees, customers, suppliers, and governments. Specifically, the 7 indicators fall into CSR aimed at employees, 5 to customers, 5 to suppliers, and 4 to governments. Experts assess the firms along these indicators using an anchored scale of 0 to 1, with an interval of 0.1 points. The RKS score is a weighted average of scores, ranging from 0 (the worst) to 1 (the best). Previous studies also have employed the same data source to measure the extent to which Chinese firms perform CSR [62,65–67]. Finally, considering that there were industries that were more socially responsible than others, we further operationalized CSR as industry-adjusted CSR, which was obtained by subtracting the industry median CSR (excluding the focal firm) from the focal firm’s CSR.

4.2.2. Dependent Variable

Firm sustainable growth. To test the effect of CSR on firm sustainable growth, we estimate models of sustainable growth in terms of a firm’s annual sales revenues. Following previous studies on organizational sustainable growth [68–71], we model firm sustainable
growth in sales revenue as a function of a firm’s sales revenue and a number of covariates that can affect firm sustainable growth:

\[
\frac{S_{i,t+1}}{S_{i,t}} = S_{i,t}^{\alpha-1} \times \exp(\beta X_{i,t} + \epsilon_{i,t+1})
\]  

(1)

where \(i\) indexes firms, \(t\) indicates observation years, \(S\) is a time-varying measure of firm sales revenue, \(\alpha\) is an adjustment parameter that reflects how firm sustainable growth rates depend on firm sales revenue, and \(\beta\) is a vector of parameters characterizing the effects of covariates \((X_{i,t})\). Alternatively, the above model can be replaced by the following log-linear model using the log of Equation (1):

\[
\ln(S_{i,t+1}) = \alpha \ln(S_{i,t}) + \beta X_{i,t} + \epsilon_{i,t+1}
\]  

(2)

4.2.3. Moderating Variable

Dysfunctional competition: Because prior research had found that top managers provide dysfunctional competition data as reliable and valid as those from multiple data and objective data [72,73], we collected dysfunctional competition data through selecting the CEOs or general managers of these 705 technology firms in 2022, who processed comprehensive knowledge and represented a reliable and valid source, as the informants. Dysfunctional competition was measured with four items which reflect the extent to which the firms’ principal industry has experienced dysfunctional competition over the past 6 years [28].

These questions are presented in Table 1. The fit indexes indicate that the measurement model of dysfunctional competition fits the data well (e.g., \(\chi^2/\text{d.f.} = 1.6\); RMSEA = 0.05; GFI = 0.94; NNFI = 0.95; NFI = 0.96; CFI = 0.96; IFI = 0.96). All the items loaded on dysfunctional competition are larger than 0.7 and significant at the 0.001 level.

<table>
<thead>
<tr>
<th>Indicate the extent to which your principal industry has experienced the following in the last 10 years ((\alpha = 0.83); AVE = 0.72):</th>
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<tbody>
<tr>
<td>Unlawful competitive practices such as illegal copying of new products</td>
</tr>
<tr>
<td>Counterfeiting of your firm’s own products and trademarks by other firms</td>
</tr>
<tr>
<td>Ineffective market competitive laws to protect your firm’s intellectual property</td>
</tr>
<tr>
<td>Increased unfair competitive practices by other firms in the industry</td>
</tr>
</tbody>
</table>

Note: The measurement is sourced from Li and Atuahene-Gima [28].

4.2.4. Control Variables

To rule out some alternative explanations of empirical results of this study, we included a set of control variables. First, previous studies have found that the size of a firm affects the firm sustainable growth [27]. Therefore, we controlled for firm size, which was measured by the natural logarithm of the number of full-time employees. Second, we controlled for firm age, which may affect firm sustainable growth. Firm age was measured using the number of years since the firm was founded. Third, given that the state-owned firms in China are by and large affected and even controlled by the governments (especially the central government), the sustainable growth of a firm located in China is likely to be determined by its form of ownership. Thus, we controlled for form of ownership. In this study, we used dummy variable to measure form of ownership. Form of ownership was coded 1 if the firm was state owned, and 0 if it was privately owned. Fourth, considering that nearly half of the sample was from the bioengineering industry, we coded the bioengineering industry as 1 and coded all other firms as 0 to rule out industry effects. Finally, previous studies have found that firm sustainable growth varies significantly across regions in China [74]. For example, the development of the firms in the southeast coastal cities or provinces of China was mainly driven by innovation in recent years, thus we created a dummy variable
to measure firms’ location. Location was coded 1 if the firm was located in the southeast coastal cities or provinces (e.g., Shanghai, Ningbo, and Jiangsu), and 0 otherwise.

4.3. Endogeneity Check

The main aim of our study is to examine the effect of CSR aimed at four chosen groups of stakeholders, such as employees, customers, suppliers, and governments on firm sustainable growth. A possible reversed causal relationship is that when the level of a firm’s sustainable growth is high, the firm is able to invest more of its resources in CSR activities. Thus, CSR expenditure (relatedly, the levels of CSR aimed at various stakeholders) may be partially determined by firm sustainable growth.

To rule out this possible reversed causal explanation, we conducted the following endogeneity check [75]. We regressed the levels of firm CSR expenditure in year t (or the change of the levels of CSR investment from year t-1 to year t) on firm sustainable growth in year t-1. We further regressed the levels of CSR aimed at stakeholder i in year t (or the change of the levels of CSR aimed at stakeholder i from year t-1 to year t) on firm sustainable growth in year t-1. If any one of the predictors had been significant, it would have provided some evidence of endogeneity concern [75]. Our empirical results indicated that none of these predictors was significant, suggesting that the reversed causal relationship is unlikely to occur in our data.

5. Empirical Results and Discussion

5.1. Hypotheses Tests

Table 2 presents means, standard deviations, and correlations. To examine the hypotheses of this study, we used a firm fixed-effect hierarchical model with robust standard errors clustered by provinces. To alleviate the potential problem of multicollinearity, we created interaction terms in which all variables were mean-centered. We employed VIF (variance inflation factors) to check the problem of multicollinearity for each regression model. We further used the residual centering procedure to handle multi-collinearity problem [76]. This method has two stages. In the first stage, we established the regression model in which the interaction term was regressed on its constituent parts and saved the residuals. In the second stage, we replaced the original interaction terms with the residuals that had been calculated from the regression model established in the first stage. The results showed that VIFs associated with each regression coefficient ranged from 1.02 to 2.18, indicating that there were no serious problems with multicollinearity for each regression model. Table 2 presents the means, standard deviations, and Pearson correlations between the variables of this study. Table 3 presents the regression results for the hypotheses of this study.

Table 2. Correlation matrix and summary statistics (N = 6707).

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>S.D.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Sustainable growth (log)</td>
<td>7.66</td>
<td>1.27</td>
<td></td>
<td></td>
<td>0.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. CSR aimed at customers</td>
<td>0.24</td>
<td>0.08</td>
<td>0.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. CSR aimed at suppliers</td>
<td>0.19</td>
<td>0.01</td>
<td>0.26</td>
<td>0.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. CSR aimed at governments</td>
<td>0.36</td>
<td>0.04</td>
<td>0.28</td>
<td>0.35</td>
<td>0.24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. CSR aimed at employees</td>
<td>0.15</td>
<td>0.05</td>
<td>0.28</td>
<td>0.27</td>
<td>0.28</td>
<td>0.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Dysfunctional competition</td>
<td>3.34</td>
<td>0.86</td>
<td>-0.15</td>
<td>-0.28</td>
<td>-0.17</td>
<td>-0.19</td>
<td>-0.11</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7. Firm size</td>
<td>3.62</td>
<td>1.49</td>
<td>0.21</td>
<td>0.19</td>
<td>0.21</td>
<td>0.24</td>
<td>0.17</td>
<td>0.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Firm age</td>
<td>7.65</td>
<td>6.53</td>
<td>0.15</td>
<td>0.26</td>
<td>0.18</td>
<td>0.28</td>
<td>0.16</td>
<td>-0.06</td>
<td>0.23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Firm ownership</td>
<td>0.15</td>
<td>0.36</td>
<td>-0.06</td>
<td>0.08</td>
<td>0.06</td>
<td>0.08</td>
<td>0.03</td>
<td>-0.03</td>
<td>0.29</td>
<td>-0.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Industry</td>
<td>0.43</td>
<td>0.22</td>
<td>-0.09</td>
<td>0.05</td>
<td>0.02</td>
<td>0.01</td>
<td>0.08</td>
<td>0.04</td>
<td>0.13</td>
<td>0.02</td>
<td>0.02</td>
<td></td>
</tr>
<tr>
<td>11. Location</td>
<td>0.54</td>
<td>0.53</td>
<td>0.15*</td>
<td>-0.02</td>
<td>0.01</td>
<td>0.07</td>
<td>0.04</td>
<td>0.05</td>
<td>0.08</td>
<td>0.07</td>
<td>-0.04</td>
<td>-0.05</td>
</tr>
</tbody>
</table>

Significance level: * p < 0.05, ** p < 0.01.
Hypothesis 1 proposes that CSR aimed at employees, customers, suppliers, and governments is positively related to firm sustainable growth. The empirical results examining Hypothesis 1 are summarized in Tables 3–6. Model 2 of Table 3 shows that CSR aimed at employees is positively related to firm sustainable growth ($\beta = 0.15$, $p < 0.01$), providing empirical support for Hypothesis 1a. Model 2 of Table 4 shows that CSR aimed at customers is positively related to firm sustainable growth ($\beta = 0.14$, $p < 0.01$), providing support for Hypothesis 1b. Model 2 of Table 5 shows that CSR aimed at suppliers is positively related to firm sustainable growth ($\beta = 0.21$, $p < 0.001$), providing empirical support for Hypothesis 1c. Finally, Model 2 of Table 6 shows that CSR aimed at governments is positively related to firm sustainable growth ($\beta = 0.14$, $p < 0.001$), providing empirical support for Hypothesis 1d. On the whole, these results suggest that CSR aimed at employees, customers, suppliers, and governments are positively related to firm sustainable growth, providing empirical support for Hypothesis 1.

### Table 3. CSR aimed at employees and firm sustainable growth.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>0.25 ***</td>
<td>0.16 ***</td>
<td>0.18 ***</td>
</tr>
<tr>
<td>Firm age</td>
<td>0.06</td>
<td>0.09</td>
<td>0.06</td>
</tr>
<tr>
<td>Firm ownership</td>
<td>0.06</td>
<td>0.08</td>
<td>0.06</td>
</tr>
<tr>
<td>Industry</td>
<td>−0.11</td>
<td>−0.06</td>
<td>−0.03</td>
</tr>
<tr>
<td>Location</td>
<td>−0.11</td>
<td>−0.04</td>
<td>−0.05</td>
</tr>
<tr>
<td><strong>Predictors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSR aimed at employees</td>
<td></td>
<td>0.15 **</td>
<td>0.16 **</td>
</tr>
<tr>
<td>Dysfunctional competition</td>
<td>−0.11 **</td>
<td>−0.14 **</td>
<td></td>
</tr>
<tr>
<td>CSR * Dysfunctional competition</td>
<td>0.11 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm fixed effects</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Clustering by provinces</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td>6707</td>
<td>6707</td>
<td>6707</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.09</td>
<td>0.14</td>
<td>0.15</td>
</tr>
<tr>
<td>Number of firms</td>
<td>705</td>
<td>705</td>
<td>705</td>
</tr>
</tbody>
</table>

Significant level: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$, two-tailed tests. Standardized coefficients reported.

### Table 4. CSR aimed at customers and firm sustainable growth.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>0.25 ***</td>
<td>0.19 ***</td>
<td>0.20 ***</td>
</tr>
<tr>
<td>Firm age</td>
<td>0.06</td>
<td>0.05</td>
<td>0.06</td>
</tr>
<tr>
<td>Firm ownership</td>
<td>0.06</td>
<td>0.07</td>
<td>0.04</td>
</tr>
<tr>
<td>Industry</td>
<td>−0.11</td>
<td>−0.09</td>
<td>−0.05</td>
</tr>
<tr>
<td>Location</td>
<td>−0.11</td>
<td>−0.13</td>
<td>−0.12</td>
</tr>
<tr>
<td><strong>Predictors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSR aimed at customers</td>
<td></td>
<td>0.14 **</td>
<td>0.13 **</td>
</tr>
<tr>
<td>Dysfunctional competition</td>
<td>−0.19 ***</td>
<td>−0.17 ***</td>
<td></td>
</tr>
<tr>
<td>CSR * Dysfunctional competition</td>
<td>0.16 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm fixed effects</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Clustering by provinces</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td>6707</td>
<td>6707</td>
<td>6707</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.09</td>
<td>0.13</td>
<td>0.16</td>
</tr>
<tr>
<td>Number of firms</td>
<td>705</td>
<td>705</td>
<td>705</td>
</tr>
</tbody>
</table>

Significant level: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$, two-tailed tests. Standardized coefficients reported.
Hypothesis 2 proposes that dysfunctional competition positively moderates the relationship between CSR and firm performance. The empirical results for testing Hypothesis 2 are summarized in Tables 3–6.

The results in Model 3 of Table 3 show that the interaction term between CSR aimed at employees and dysfunctional competition is positive and significant \( (\beta = 0.11, p < 0.01) \), providing empirical support for Hypothesis 2a. To facilitate interpretation of the moderating effect of dysfunctional competition on the relationship between CSR aimed at employees and firm sustainable growth, we plotted this moderating effect in Figure 1. Figure 1 was created by three steps. First, all samples were separated into two groups according to the median of CSR aimed at employees. Second, firm sustainable growth was regressed based on the two groups of samples, respectively. Third, two regression lines were plotted through statistic software SAS 9.4, respectively. Figure 1 presents the moderating effect of dysfunctional competition on the relationship between CSR aimed at employees and firm sustainable growth. As shown in Figure 1, the positive relationship between CSR aimed at employees and firm sustainable growth is stronger when the level of dysfunctional competition is high than when it is low. Using the approach suggested by Aiken and West [77], we calculated the slopes associated with the two lines in Figure 1. When the level of dysfunctional competition is high, the slope is 0.64, which is significant at the level of \( p < 0.001 \). In contrast, when the level of dysfunctional competition is low, the

### Table 5. CSR aimed at suppliers and firm sustainable growth.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>0.25 ***</td>
<td>0.17 ***</td>
<td>0.15 ***</td>
</tr>
<tr>
<td>Firm age</td>
<td>0.06</td>
<td>0.08</td>
<td>0.05</td>
</tr>
<tr>
<td>Firm ownership</td>
<td>0.06</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td>Industry</td>
<td>−0.11</td>
<td>−0.03</td>
<td>−0.07</td>
</tr>
<tr>
<td>Location</td>
<td>−0.11</td>
<td>−0.10</td>
<td>−0.12</td>
</tr>
<tr>
<td>Predictors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSR aimed at suppliers</td>
<td>0.21 ***</td>
<td>0.15 **</td>
<td></td>
</tr>
<tr>
<td>Dysfunctional competition</td>
<td>−0.14 **</td>
<td>−0.14 **</td>
<td></td>
</tr>
<tr>
<td>CSR * Dysfunctional competition</td>
<td>0.09 *</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm fixed effects</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Clustering by provinces</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td>6707</td>
<td>6707</td>
<td>6707</td>
</tr>
<tr>
<td>R2</td>
<td>0.09</td>
<td>0.12</td>
<td>0.14</td>
</tr>
<tr>
<td>Number of firms</td>
<td>705</td>
<td>705</td>
<td>705</td>
</tr>
</tbody>
</table>

Significant level: * \( p < 0.05 \); ** \( p < 0.01 \); *** \( p < 0.001 \), two-tailed tests. Standardized coefficients reported.

### Table 6. CSR aimed at governments and firm sustainable growth.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>0.25 ***</td>
<td>0.19 ***</td>
<td>0.21 ***</td>
</tr>
<tr>
<td>Firm age</td>
<td>0.06</td>
<td>0.04</td>
<td>0.10</td>
</tr>
<tr>
<td>Firm ownership</td>
<td>0.06</td>
<td>0.08</td>
<td>0.06</td>
</tr>
<tr>
<td>Industry</td>
<td>−0.11</td>
<td>−0.10</td>
<td>−0.09</td>
</tr>
<tr>
<td>Location</td>
<td>−0.11</td>
<td>−0.05</td>
<td>−0.10</td>
</tr>
<tr>
<td>Predictors</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>CSR aimed at governments</td>
<td>0.14 ***</td>
<td>0.13 ***</td>
<td></td>
</tr>
<tr>
<td>Dysfunctional competition</td>
<td>−0.19 ***</td>
<td>−0.17 ***</td>
<td></td>
</tr>
<tr>
<td>CSR * Dysfunctional competition</td>
<td>0.22 ***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm fixed effects</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Clustering by provinces</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td>6707</td>
<td>6707</td>
<td>6707</td>
</tr>
<tr>
<td>R2</td>
<td>0.09</td>
<td>0.13</td>
<td>0.16</td>
</tr>
<tr>
<td>Number of firms</td>
<td>705</td>
<td>705</td>
<td>705</td>
</tr>
</tbody>
</table>

Significant level: * \( p < 0.05 \); ** \( p < 0.01 \); *** \( p < 0.001 \), two-tailed tests. Standardized coefficients reported.
slope is 0.06, which is not significantly different from zero, which proved further support for Hypothesis 2a.

![Figure 1](image1.png)

**Figure 1.** CSR aimed at employees and firm sustainable growth: the moderating role of dysfunctional competition.

The results in Model 3 of Table 4 show that the interaction term between CSR aimed at customers and dysfunctional competition is positive and significant ($\beta = 0.16$, $p < 0.01$), providing empirical support for Hypothesis 2b.

To facilitate the interpretation of the moderating effect of dysfunctional competition on the relationship between CSR aimed at customers and firm sustainable growth, we plotted this moderating effect in Figure 2 the way we plotted Figure 1. Figure 2 presents the moderating effect of dysfunctional competition on the relationship between CSR aimed at customers and firm sustainable growth. As shown in Figure 2, the positive relationship between CSR aimed at customers and firm sustainable growth is stronger when the level of dysfunctional competition is high than when it is low. Using the approach suggested by Aiken and West [77], we calculated the slopes associated with the two lines in Figure 2. When the level of dysfunctional competition is high, the slope is 0.58, which is significant at the level of $p < 0.001$. In contrast, when the level of dysfunctional competition is low, the slope is 0.15, which is significant at the level of $p < 0.05$, which proved further support for Hypothesis 2b.

![Figure 2](image2.png)

**Figure 2.** CSR aimed at customers and firm sustainable growth: the moderating role of dysfunctional competition.

The results in Model 3 of Table 5 show that the interaction term between CSR aimed at suppliers and dysfunctional competition is positive and significant ($\beta = 0.09$, $p < 0.05$), providing empirical support for Hypothesis 2c.
To facilitate interpretation of the moderating effect of dysfunctional competition on the relationship between CSR aimed at suppliers and firm sustainable growth, we plotted this moderating effect in Figure 3 the way we plotted Figure 1. Figure 3 presents the moderating effect of dysfunctional competition on the relationship between CSR aimed at suppliers and firm sustainable growth. As shown in Figure 3, the positive relationship between CSR aimed at suppliers and firm sustainable growth is stronger when the level of dysfunctional competition is high than when it is low. Using the approach suggested by Aiken and West [77], we calculated the slopes associated with the two lines in Figure 3. When the level of dysfunctional competition is high, the slope is 0.36, which is significant at the level of $p < 0.001$. In contrast, when the level of dysfunctional competition is low, the slope is 0.13, which is significant at the level of $p < 0.05$, which proved further support for Hypothesis 2c.

Figure 3. CSR aimed at suppliers and firm sustainable growth: the moderating role of dysfunctional competition.

The results in Model 3 of Table 6 show that the interaction term between CSR aimed at governments and dysfunctional competition is positive and significant ($\beta = 0.22, p < 0.001$), providing empirical support for Hypothesis 2d. To facilitate interpretation of the moderating effect of dysfunctional competition on the relationship between CSR aimed at governments and firm sustainable growth, we plotted this moderating effect in Figure 4 the way we plotted Figure 1. Figure 4 presents the moderating effect of dysfunctional competition on the relationship between CSR aimed at governments and firm sustainable growth. As shown in Figure 4, the positive relationship between CSR aimed at governments and firm sustainable growth is stronger when the level of dysfunctional competition is high than when it is low. Using the approach suggested by Aiken and West [77], we calculated the slopes associated with the two lines in Figure 4. When the level of dysfunctional competition is high, the slope is 0.45, which is significant at the level of $p < 0.001$. In contrast, when the level of dysfunctional competition is low, the slope is $-0.09$, which is not significantly different from zero, providing further support for Hypothesis 2d.

On the whole, these results suggest that the relationships between CSR aimed at employees, customers, suppliers, governments and firm sustainable growth are positively moderated by dysfunctional competition, providing support for Hypothesis 2.
the way we plotted Figure 1. Figure 4 presents the moderating effect of dysfunctional competition.

When the level of dysfunctional competition is high, the slope is 0.45, which is significant at the level of 0.001. In contrast, when the level of dysfunctional competition is low, the slope is which is not significantly different from zero, providing further support for Hypothesis 0.2.

In our main study, we found that CSR aimed at four chosen groups of stakeholders (e.g., CSR aimed at employees, customers, suppliers, and governments) is positively related to firm sustainable growth and that dysfunctional market competition positively moderated these relationships. However, there remains a concern regarding how overall CSR aimed at all groups of stakeholders (e.g., local societies, firm competitors, and communities) affects firm sustainable growth, when one considers that overall CSR aimed at all groups of stakeholders is different from CSR aimed at the four chosen groups of stakeholders. We do not think that, at this stage, we can provide sufficient empirical evidence or strong logic to predict how overall CSR that is aimed at all groups of stakeholders may affect firm sustainable growth. Therefore, it should be noted that we cannot propose a formal hypothesis to predict how overall CSR aimed at all groups of stakeholders affects firm sustainable growth; instead, we explored this question by adopting overall CSR aimed at the four chosen groups of stakeholders. We regressed firm sustainable growth on overall CSR, which was measured by a weighted average of scores for the CSR aimed at the four chosen groups of stakeholders. The results are reported in Table 7.

The results of Model 2 in Table 7 show that overall CSR is positively related to firm sustainable growth ($\beta = 0.15, p < 0.01$), providing further support for Hypothesis 1. Furthermore, the results in Model 3 of Table 7 show that the interaction term between overall CSR and dysfunctional competition is positive and significant ($\beta = 0.14, p < 0.01$), providing further support for Hypothesis 2. The plot and slope analyses of the moderating effect of dysfunctional competition on the relationship between overall CSR and firm sustainable growth is fundamentally consistent with those discussed above (the result is available from the authors upon request).

Issues associated with the sample. Because in our sample, over a fifth of the observations have not reported any dysfunctional competition, there remains a concern about whether our empirical findings are biased. To address this potential problem, we re-estimated the regression models listed in Tables 3–7 by employing the two-stage model suggested by Heckman [78]. The two-stage model, as Heckman put it, generates consistent and asymptotically efficient estimates [78]. In the first stage, we estimated the regression model:

$$Dysfunctional\ competition_{it} = \beta_1 + \beta_2 * Firm\ size_{it-1} + \beta_3 * Firm\ age_{it-1} + \beta_4 * Firm\ ownership_{it-1} + \beta_5 * Industry_{it-1} + \beta_6 * Location_{it-1} + \alpha_i + \epsilon_{it}$$

Figure 4. CSR aimed at governments and firm sustainable growth: the moderating role of dysfunctional competition.

5.2. Robustness Tests

We conducted several important robustness tests to ensure the robustness of our results. Concerns associated with overall CSR aimed at all groups of stakeholders. In our main study, we found that CSR aimed at four chosen groups of stakeholders (e.g., CSR aimed at employees, customers, suppliers, and governments) is positively related to firm sustainable growth and that dysfunctional market competition positively moderated these relationships. However, there remains a concern regarding how overall CSR aimed at all groups of stakeholders (e.g., local societies, firm competitors, and communities) affects firm sustainable growth, when one considers that overall CSR aimed at all groups of stakeholders is different from CSR aimed at the four chosen groups of stakeholders. We do not think that, at this stage, we can provide sufficient empirical evidence or strong logic to predict how overall CSR that is aimed at all groups of stakeholders may affect firm sustainable growth. Therefore, it should be noted that we cannot propose a formal hypothesis to predict how overall CSR aimed at all groups of stakeholders affects firm sustainable growth; instead, we explored this question by adopting overall CSR aimed at the four chosen groups of stakeholders. We regressed firm sustainable growth on overall CSR, which was measured by a weighted average of scores for the CSR aimed at the four chosen groups of stakeholders. The results are reported in Table 7.

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Table 7. CSR expenditure and firm sustainable growth.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controls</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>0.25 ***</td>
<td>0.19 ***</td>
<td>0.22 ***</td>
</tr>
<tr>
<td>Firm age</td>
<td>0.06</td>
<td>0.09 **</td>
<td>0.11 **</td>
</tr>
<tr>
<td>Firm ownership</td>
<td>0.06</td>
<td>0.05</td>
<td>0.03</td>
</tr>
<tr>
<td>Industry</td>
<td>−0.11</td>
<td>−0.11</td>
<td>−0.04</td>
</tr>
<tr>
<td>Location</td>
<td>−0.11</td>
<td>−0.01</td>
<td>−0.03</td>
</tr>
<tr>
<td><strong>Predictors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall CSR</td>
<td></td>
<td>0.15 **</td>
<td>0.17 **</td>
</tr>
<tr>
<td>Dysfunctional competition</td>
<td>−0.18 ***</td>
<td>−0.12 **</td>
<td></td>
</tr>
<tr>
<td>Overall CSR * Dysfunctional</td>
<td>−0.18 ***</td>
<td>−0.12 **</td>
<td></td>
</tr>
<tr>
<td>competition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm fixed effects</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Clustering by provinces</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td>6707</td>
<td>6707</td>
<td>6707</td>
</tr>
<tr>
<td>R2</td>
<td>0.09</td>
<td>0.13</td>
<td>0.16</td>
</tr>
<tr>
<td>Number of firms</td>
<td>705</td>
<td>705</td>
<td>705</td>
</tr>
</tbody>
</table>

Significant level: *p < 0.05, **p < 0.01, ***p < 0.001; two-tailed tests. Standardized coefficients reported.

In this equation, \( i \) indexes firms, \( t \) indicates observation years, \( \alpha \) represents firm-specific fixed effects, and \( \epsilon_{i,t} \) is the error term. Dysfunctional competition \( _{i,t} \) is a dummy variable, coded 1 if it is greater than zero, and 0 if it is zero. Based on the regression results, we calculated the value for the inverse Mill’s ratio \( (\gamma_i) \). In the second stage, the inverse Mill’s ratio \( (\gamma_{i,t}) \) was included as a regressor in the regression models listed in Tables 3–7. The results are consistent with the results of our main analysis (these analyses are available from authors upon request). Moreover, we dropped the observations which have not reported any dysfunctional competition from the sample and re-estimated the regression models listed in Tables 3–7. The results are consistent with our main findings (the detailed results are available from the authors upon request).

Alternative measure of firm sustainable growth. In the main analysis, we estimate models of sustainable growth in terms of a firm’s annual sales revenues. Yet, there remains a concern that annual sales revenues alone cannot effectively and validly capture a firm’s sustainable growth, especially when one considers that the measurement of firm sustainable growth might be biased because of the lack of strict market regulation in China. We employed (1) return on assets, (2) market share growth, (3) cash flow from market operations, (4) profit growth, (5) sales growth to further analyses how CSR affects firm sustainable growth. For example, when market share growth is employed, the model is as follows:

\[
ln(\text{Market share growth}_{i,t+1}) = \alpha ln(\text{Market share growth}_{i,t}) + \beta X_{i,t} + \epsilon_{i,t+1}
\]

In this equation, \( i \) indexes firms, \( t \) indicates observation years, \( \alpha \) is an adjustment parameter that reflects how firm sustainable growth rates depend on market share growth, and \( \epsilon_{i,t+1} \) is the error term. \( \beta \) is a vector of parameters characterizing the effects of covariates \( (X_{it}) \). The regression results using the alternative measure of firm sustainable growth are consistent with our main findings (the detailed results are available from the authors upon request).

Model overfitting. Considering that our regressions contain a large set of variables, model overfitting might be a potential problem. In order to address this potential issue, we employed two methods. In the first method, we dropped all control variables, and reran all regression models. The results were statistically the same as the main analyses. In the second method, we only included firm size as a control variable in the regressions, because firm size is the only control variable that is significant in the main analyses. The results again were essentially consistent with our main findings (these results are available from the authors upon request).
Furthermore, we conducted several additional robustness tests. For example, in order to make sure that our results were not affected by outliers, we reran all regressions by winsorizing all continuous variables (e.g., CSR aimed at customers, CSR aimed at suppliers, CSR aimed at governments, overall CSR, and dysfunctional competition) at the 1% and 99% present levels. The results were consistent with the regressions using nonwinsorized measures (the detailed results are available from the authors upon request). In addition, prior studies have shown that institutional support and environmental turbulence affected the effectiveness of firm investments, such as CSR, on firm sustainable growth [28,79]. In supplementary analyses, we controlled for institutional support and environmental turbulence, and reran all regression models. The findings suggested that both institutional support and environmental turbulence did not significantly affect firm sustainable growth. The findings were fully consistent with the main findings of this study. In addition, it is likely that CSR stability and CSR discrimination affect the effectiveness of CSR on firm sustainable growth. We calculate CSR stability and CSR discrimination as follows:

\[
\text{CSR stability}_{it} = \frac{1}{n} \sum_{t=1}^{n} \left| \text{CSR}_{t} - \frac{1}{m} \sum_{k=1}^{m} \text{CSR to stakeholder}_{k,t} \right|,
\]

\[
\text{CSR discrimination}_{it} = \frac{1}{m} \sum_{k=1}^{m} \left| \text{CSR}_{k} - \frac{1}{n} \sum_{t=1}^{n} \sum_{k=1}^{m} \text{CSR to stakeholder}_{k,t} \right|,
\]

where \(i\) indicates firms, \(k\) indexes stakeholders, and \(t\) indicates observation years.

In our supplementary analyses, we controlled for CSR stability and CSR discrimination, and reran all regression models. The findings suggested that both CSR stability and CSR discrimination did not significantly affect firm sustainable growth.

5.3. Discussion

Our empirical results suggest that CSR aimed at the four chosen groups of stakeholders is positively related to firm sustainable growth. These findings contribute to our knowledge of how CSR can have a positive effect on firm sustainable growth. While previous studies examined the effects of CSR on firm financial performance [80–84], our findings suggest that a firm’s sustainable growth can benefit from its CSR activities. Our results also indicate that the relationship between CSR and firm sustainable growth is moderated by the levels of dysfunctional competition. In particular, the positive relationship between CSR and firm sustainable growth is stronger when the levels of dysfunctional competition are high than when they are low. These results suggest that under the condition of high dysfunctional competition, practicing CSR matters more to firm sustainable growth for establishing a trustworthy relationship with stakeholders. In contrast, under the condition of low dysfunctional competition, the value of practicing CSR in improving firm sustainable growth becomes limited. These results also support our arguments that when institutional support is weak, reflecting high levels of dysfunctional competition in a market, practicing CSR is particularly important for firms because it helps them develop a positive culture of mutual trust and valuable implicit contracts between them and their stakeholders [23,85], which in turn helps firms keep sustainable growth in both the product innovation stage and marketing stage. In contrast, when institutional support is strong, moral hazards in a market, such as contract breaking or violation of intellectual property rights, become less of a concern, so practicing CSR becomes less important for firms to maintain sustainable growth.

6. Conclusions

It has long been argued that firm sustainable growth is a powerful vehicle that not only raises people’s living standards and well-being, but also promotes social and economic stability [86,87]. However, only a few studies in the extant literature have examined what factors affect firm sustainable growth. Indeed, previous studies mainly focused on institutional factors (e.g., appropriability hazards, political networking, institutional support,
and environmental turbulence) that might affect firm sustainable growth. Drawing upon resource dependence theory, we systematically examined and found that CSR improves firm sustainable growth in both the product innovation stage and marketing stage by establishing trustworthy relationships with firms’ various stakeholders and that as the levels of dysfunctional market competition increase, practicing CSR becomes more important for improving firm sustainable growth. In the following section, we theoretically and practically elaborate on the implications of these results and conclude by discussing the limitations and directions for future research.

6.1. Theoretical Implications

The findings of this study contribute significantly to our knowledge of how firms can maintain sustainable growth by practicing CSR. Previous studies mainly focused on how CSR affects firm financial performance \[80–84\]. These studies predicted whether practicing CSR has a positive or negative effect on firm financial performance, regardless of whether CSR can have a positive effect on firm sustainable growth. The more important and interesting aspects are how CSR is related to firm sustainable growth and under what conditions CSR can have a positive effect on firm sustainable growth. Yet, to date, no studies have addressed these aspects. Our study indicates that CSR aimed at the four chosen groups of stakeholders (e.g., CSR aimed at employees, customers, suppliers, and governments) is positively related to firm sustainable growth. More importantly, our study provides theoretical evidence that the relationship between CSR and firm sustainable growth depends on the levels of dysfunctional market competition. Indeed, the empirical results of this study indicate that dysfunctional competition positively moderates the positive relationship between CSR and firm sustainable growth. These findings contribute to our understanding of how the link between CSR and firm sustainable growth varies across different levels of dysfunctional competition. In particular, this study makes the following theoretical contributions to the literature.

First, we extend resource dependence theory into the context of CSR in an emerging market context. Resource dependence theory argues that the resource efficiency of a firm is mainly based on its institutional conditions and relationship with its stakeholders \[16,17\]. We propose that firms’ sustainable growth is determined by dysfunctional competition and CSR. In this regard, we provide hard evidence to support the resource dependence theory, regarding that dysfunctional competition reflects firms’ institutional conditions and CSR reflects firms’ relationships with their stakeholders, which jointly affect firm sustainable growth. Therefore, we advance the extant literature by developing a coherent and theoretical model to illustrate how dysfunctional competition and CSR affect the sustainable growth of a firm, respectively and jointly. While practicing CSR represents only one special way firms can deal with their relationship with stakeholders, it provides a unique opportunity to inquire into how firms’ relationships with stakeholders affect firms’ sustainable growth. For example, our theoretical model suggests that when institutional protection support is weak, establishing good relationships with stakeholders is more important for firms to maintain their sustainable growth. On the other hand, when institutional protection support is strong, establishing good relationships with stakeholders may not be as important for firms to maintain their sustainable growth. Therefore, our theoretical arguments can serve as an overarching model for inquiring into how firms can benefit from their CSR by establishing trustworthy relationships with their stakeholders across different institutional conditions such as dysfunctional market competition.

Second, our study can contribute to the literature on firms in transition economies. So far, most previous studies have demonstrated the important implications of CSR on firms in market economies \[88\]. However, it should be noted that the relationship between CSR and firm sustainable growth is not universal but rather can be context specific. So far, however, no studies have addressed this issue. In this respect, our focus on the Chinese transition economy provides us with a unique opportunity to contribute to this line of research. Our empirical findings represent an important addition to the literature because they suggest
that dysfunctional competition, which represents an important institutional context, affects the role of CSR in firm sustainable growth. Our findings suggest that CSR has stronger positive relationships with firm sustainable growth if institutional contexts are not able to provide support for firms to establish trustworthy relationships with their stakeholders. These findings provide insights into the interplay of CSR and institutional factors, such as dysfunctional competition. They demonstrate that the value of CSR fundamentally depends on the strength of a firm’s institutional context. Therefore, our findings contribute to the knowledge about the boundary of the linkage between CSR and firm sustainable growth.

6.2. Insights for Policy

Our findings also have important practical insights for policy makers such as CEOs and firm managers. Managers are commonly unaware of the important role of practicing CSR in maintaining firm sustainable growth. In addition, managers generally assume that in markets where institutional support is weak or where dysfunctional competition or unethical firm behaviors in the market are ubiquitous, it is useless for firms to practice CSR in the market.

First, our results suggest that while the role of external resource conditions, such as culture, traditions, and government policies, remain important, practicing CSR aimed at such stakeholders as employees, customers, suppliers, and governments is also crucial for firms to maintain their sustainable growth. More importantly, firms should attach importance to their stakeholders’ needs and welfare in order to establish trustworthy relationships with them, which in turn can help firms maintain their sustainable growth.

Second, the findings of our study suggest that the positive effect of CSR aimed at the four groups of stakeholders is more prominent under the condition of high dysfunctional market competition. In other words, the extent to which a firm can benefit from its CSR depends upon the strength of its institutional contexts. Therefore, rather than passively adapting to the market environments, a firm should proactively initiate and implement CSR activities in order to maintain its sustainable growth.

In summary, to maintain firm sustainable growth, policy makers, such as CEOs and firm managers, need to attach importance to establishing trusting and harmonious relationships with their stakeholders, such as employees, customers, suppliers, and governments, by actively practicing CSR, even if there is a high level of market dysfunction.

6.3. Limitations and Directions for Future Research

Our study has several limitations, which also suggest some interesting and important directions for future research.

First, the sample of this study is collected from China. Although, the context of China provides us the unique opportunity to examine the moderating effect of dysfunctional market competition on the relationship between CSR and firm sustainable growth, there are no studies in the extant literature examining this moderating effect in other contexts. Therefore, we had no comparison country. Thus, the findings of this study offer only within-country variance. For example, relative to the governments of most advanced Western countries, Chinese governments (both local and central) have considerably more power to approve projects and allocate resources [24]. Therefore, it seems that practicing CSR aimed at governments should play a bigger part in maintaining firm sustainable growth in China than in Western countries. Future research should further examine the effect of CSR on firm sustainable growth using other samples such as the firms in developed Western countries.

Second, based on resource dependence theory, we examined the moderating effect of dysfunctional competition on the relationship between CSR and firm sustainable growth. Other contingent factors might affect this relationship. For example, ethical leadership can strengthen the trustworthy relationship between firms and their core stakeholders, such as customers and employees [85]. Thus, according to the logic of resource dependence theory, ethical leadership should affect the relationship between CSR and firm sustainable growth. In addition, environmental turbulence was used to examine the contingent relationship
between innovation activities and firm performance in previous studies [28]. In line with these studies, a natural extension is to explore the joint moderating effect of dysfunctional competition and environmental turbulence on the relationship between CSR and firm performance. It is possible that, when environmental turbulence is high, practicing CSR should be more valuable for establishing trustworthy relationships between a firm and its stakeholders. Further research could investigate how environmental turbulence and dysfunctional competition individually and jointly affect the relationship between CSR and firm sustainable growth.

In conclusion, the findings of our study suggest that firms’ sustainable growth may not necessarily be able to benefit from their CSR activities and that firms need to actively practice CSR as a way to establish and strengthen trustworthy relationships with their stakeholders. Although preliminary, this is one of the first studies examining how a firm’s relational factors affect firm sustainable growth. In this respect, our study has significant theoretical and managerial implications and should serve as a catalyst for future studies.

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Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to ethical reasons.

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Conflicts of Interest: Author Ma, Chen declares that he has no conflict of interest. Author Yu, Changjiang declares that he has no conflict of interest. Author Latif, Yasir declares that he has no conflict of interest.

References
4. Ocak, M.; Fındık, D. The impact of intangible assets and sub-components of intangible assets on sustainable growth and firm value: Evidence from Turkish listed firms. *Sustainability* 2019, 11, 5359. [CrossRef]
8. Qian, W.; Liu, H.; Pan, F. Digital economy, industry heterogeneity, and service industry resource allocation. *Sustainability* 2022, 14, 8020. [CrossRef]


21. Farooq, M.; Farooq, O.; Cheffi, W. How do employees respond to the CSR initiatives of their organizations: Empirical evidence from developing countries. *Sustainability* 2019, 11, 2646. [CrossRef]


41. Shaikh, E.; Brahmi, M.; Thang, P.C.; Watto, W.A.; Trang, T.T.N.; Loan, N.T. Should I stay or should I go? Explaining the turnover intentions with corporate social responsibility (CSR), organizational identification and organizational commitment. *Sustainability* 2022, 14, 6030. [CrossRef]


46. Kim, M.; Kim, B. Analysis of the importance of job insecurity, psychological safety and job satisfaction in the CSR-performance link. *Sustainability* 2020, 12, 3514. [CrossRef]

47. Uçkun, S.; Arslan, A.; Yener, S. Could CSR practices increase employee affective commitment via moral attentiveness? *Sustainability* 2020, 12, 8207. [CrossRef]


49. Wei, S.; Sial, M.S.; Comite, U.; Thu, P.A.; Badulescu, D.; Popp, J. An examination to explain the mechanism of employees’ environment-specific behavior through CSR and work engagement from the perspective of stewardship theory. *Int. J. Environ. Res. Public Health* 2021, 18, 9370. [CrossRef]


51. Choi, B.; La, S. The impact of corporate social responsibility (CSR) and customer trust on the restoration of loyalty after service failure and recovery. *J. Serv. Mark.* 2013, 27, 223–233. [CrossRef]


53. Wei, S.; Sial, M.S.; Comite, U.; Thu, P.A.; Badulescu, D.; Popp, J. An examination to explain the mechanism of employees’ environment-specific behavior through CSR and work engagement from the perspective of stewardship theory. *Int. J. Environ. Res. Public Health* 2021, 18, 9370. [CrossRef]


82. Choongo, P. A longitudinal study of the impact of corporate social responsibility on firm performance in SEMS in Zambia. *Sustainability* 2017, 9, 1300. [CrossRef]


84. Lee, M.; Kim, H. Exploring the organizational culture’s moderating role of effects of corporate social responsibility (CSR) on firm performance: Focused on corporate contributions in Korea. *Sustainability* 2017, 9, 1883. [CrossRef]

85. Ma, C.; Latif, Y. How to improve employee psychological well-being? CSR as a sustainable way. *Sustainability* 2022, 14, 13920. [CrossRef]


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