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The Power of Civilization: The Role of Civilized Cities in Corporate ESG Performance

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Civilization usually has a societal impact that is created by well-integrated members of society. The present study argues that government-led construction of a national civilized city encourages enterprises to assume more ESG investments, including social and environmental practices. Based on panel data of Chinese listed firms, we found that if the firm's residence is rated as a national civilized city, the corporate ESG performance improves. This effect is only significant for environmental practices, which are easily quantified and of high concern for the government. In addition, this positive effect is only significant in state-owned firms with a close relationship with the government. We also found that the spotlight effect of the media is an essential guarantee for civilized city policies to improve corporate ESG performance. This study confirms the role of government-led civilized city construction as a soft restraint mechanism in enhancing corporate environmental practices, but also found that there is insufficient motivation for other social responsibilities. These findings expand research on the influencing factors of corporate ESG performance.

Keywords: civilized city, ESG performance, environmental practices, state ownership, media attention

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INTRODUCTION

The uncoordinated nature of urbanization and development patterns in China has promoted economic growth, but it has also led to a series of social issues such as environmental pollution and lack of public order (Lu et al., 2021; Yang et al., 2022a; Zhang et al., 2022). To improve the quality of citizens' lives and promote the sustainable development of cities, the Chinese government has undertaken the construction of civilized cities from top to bottom through national civilized city selection activities. Since firms are economic agents of urban development and should take responsibility for promoting sustainable urban development (He et al., 2019; Xiong et al., 2020; Chai et al., 2022), the present study investigates China's civilized city policy, which aims to improve corporate environmental, social and governance (ESG) performance, exploring the mechanism of this relationship.

ESG is an enterprise evaluation standard or investment concept that pays attention to the environmental, social, and governance performance of enterprises rather than financial performance. Corporate ESG performance can reflect the contribution of enterprises in promoting sustainable economic development and fulfilling social responsibility and is an important factor for investors in the capital market to consider when making investment decisions. CSR covers a wider range of

contents, concerns more stakeholders, and applies to a wider range of fields. ESG and CSR have the same goal, that is, enterprises may achieve long-term and steady development and create value for both shareholders and society. How to improve corporate ESG performance has become a hot issue of academic interest. Previous literature has conducted a series of studies from micro perspectives, such as senior executives' moral cultivation (Campbell, 2007), education level (Manner, 2010), management confidence level (Tang et al., 2015), and corporate governance directors' network (Nandy et al., 2020). Some literature has explored the incentive and restraint mechanisms from a macro perspective, such as regional legal systems (Gainet, 2010) and institutional quality (Ucar and Staer, 2020). However, few studies have explored the impact of government-led soft restraint mechanisms on corporate ESG performance from the pilot policies of civilized cities. Zhang et al. (2021) investigated the impact of national civilized city selection on corporate environmental performance and found that the environmental performance of firms was better after their location was selected as a national civilized city. Chai et al. (2022) also found evidence that firms were more active in their social responsibility, especially for the environment, in similar conditions.

We extend the aforementioned literature by examining the impact of civilized cities on corporate ESG performance. Specifically, our original contributions are reflected in the following aspects: first, we conducted various robustness tests, including propensity-score matching with a difference-in-differences (PSM-DID) estimator, event study analysis, and alternative variables method. A series of modern quantitative analysis methods were used to make our findings more convincing. Second, we discovered the important links between politics and business, and the media spotlight effect on the impact of civilized cities on corporate ESG performance. Third, unlike the findings of Chai et al. (2022), we found that after being selected as a national civilized city, corporate ESG practices are characterized by on-the-spot performance, that is, firms are more active in environmental investments, which are more likely to be noticed by the government and more easily quantified. Yet despite this, they place less emphasis on social responsibility, which is not easily captured by external stakeholders.

RESEARCH BACKGROUND

The selection of national civilized cities is a top-down recognition policy implemented by the Chinese government. Its purpose is to praise and encourage cities to improve their civilization and achieve sustainable development (Fu et al., 2021; Li et al., 2021). As early as 1996, the Chinese government included the construction of spiritual civilization in national policy documents, calling for the improvement of citizenship and urban civilization. In 1999 and 2002, the Chinese central government honored progressive cities across the country for creating civilized cities, which was a precursor to the national civilized city policy. To further improve the effectiveness of the construction of urban civilization, the central government raised the national civilized city standards in 2003 and announced the evaluation indicators the following year. In 2005, China announced the first batch of national civilized cities, and since then, the central government has selected national civilized cities every 3 years.

The national civilized city is considered to be the highest honor for Chinese cities (Shi et al., 2019). The latest national selection of civilized cities contains nearly 200 indicators to construct a strict evaluation mechanism. Thus, being selected as a national civilized city has a long-term impact on the city's economy and society. In addition, the Chinese government has a high authority (Yang et al., 2022b). The top-down leadership of the Chinese government in constructing civilized cities can often be supported by local businesses and individuals (Liu et al., 2021a; Liu et al., 2021b; Zhang et al., 2021). Therefore, the national civilized city policy may encourage firms to take on more social and environmental responsibilities.

The goal of national civilized city construction and corporate ESG performance is consistent, which is to achieve sustainable economic and social development (Chai et al., 2022). Firms need to fulfill the social responsibility entrusted to them by the city government to obtain legitimacy from local governments (Xu et al., 2021). The environment is the core indicator of a civilized city (Shao et al., 2021; Yue et al., 2021). The construction of a national civilized city has put forward higher and stricter requirements for corporate environmental responsibility (Zhang et al., 2021). Therefore, in the process of constructing a civilized city, firms tend to invest more in ESG practices to meet government expectations (Chai et al., 2022).

METHODOLOGY

Sample and Data

Our initial sample consists of China's A-share listed firms in the Shanghai and Shenzhen stock exchanges from 2010 to 2017. We selected observations in the light of the following criteria: 1) excluding observations in the banking, insurance, and other financial industries; 2) excluding observations with transaction statuses of special treatment (ST), suspension from trading (*ST) or particular transfer (PT); 3) excluding observations with only one-year data; and 4) excluding observations with missing and unavailable data. Finally, we obtained the unbalanced panel data of 13,119 observations as the final sample.

The financial data related to the listed firms come from the China Stock Market and Accounting Research (CSMAR) database and Wind database. City-level data came from the China City Statistical Yearbook. Corporate social responsibility data is an evaluation index sourced from the Hexun Database[1]. This index started in 2010, and the civilized city pilot was implemented for two sessions before 2010. To eliminate the interference of the two civilized city selection activities on the empirical results, we excluded the sample of cities that were covered by the two selections mentioned above.

[1]The corporate social responsibility index is available at: http://stockdata.stock.hexun.com/zrbg/Plate.aspx?date=2021-12-31.

TABLE 1 | The impact of civilized cities on corporate ESG performance.

	(1)	(2)	(3)	(4)	(5)	(6)
Civ_City	0.049**		0.057**	0.045**	0.054**	0.049**
	(2.393)		(2.154)	(2.175)	(2.302)	(2.191)
Civ_City (–3)		0.009				
		(0.252)				
Civ_City (–2)		–0.018				
		(–0.522)				
Civ_City (–1)		0.046				
		(1.350)				
Civ_City (0)		0.055				
		(1.482)				
Civ_City (1+)		0.058*				
		(1.649)				
Civ_City (2+)		0.072*				
		(1.836)				
Civ_City (3+)		0.076*				
		(1.693)				
Control Variables	YES	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Observations	13,199	13,199	7,507	13,199	11,587	13,199
Adj_R2	0.460	0.460	0.479	0.466	0.483	0.460

*Robust standard errors are in parentheses; ***, **, * are significant at the 10%, 5%, and 1% levels, respectively; control variables are included in the regressions.*

Estimation Models

Considering that the national civilized cities are selected in batches, we set the following progressive difference-in-difference (DID) model:

$$\boldsymbol{LnESG_{ict} = a_0 + a_1 Civ\_City_{ct} + \sum a_j Controls_{cit} + \delta_t + \theta_i + \varepsilon_{cit}}$$

Among them, $LnESG_{ict}$ represents the ESG performance of enterprise i in year t. Civ_City_{ct} means whether city c was rated as a national civilized city in the year t. $Controls_{cit}$ is a set of control variables at the city and firm levels. The fixed effect of the firm (θ_i) and year fixed effect (δ_t) is added to the model, and ε_{cit} is a random disturbance term.

Variables

Corporate ESG performance is the dependent variable. We used the corporate social responsibility index evaluated by Hexun because this corporate social responsibility index includes the main content of ESG performance (Long and Zhang, 2021). In order to avoid the problem of heteroscedasticity caused by the absolute value, we used its logarithm value.

The national civilized city is the core explanatory variable, and we used a dummy variable to indicate whether the policy was implemented. The two civilized city selection times involved in the sample period were 21 December 2011, and 28 February 2015. Therefore, we set the corresponding city policy time to 2012 and 2015, respectively.

In addition, we also added the following control variables in the regression. At the regional level, we controlled GDP per capita (*LnPGDP*), measured by the logarithm value of GDP per capita, and population density (*Population*), measured by the ratio of urban population to the administrative area. At the firm level, we controlled firm size (*Size*), measured by the logarithm value of total assets, financial leverage (*Lev*), measured by the ratio of total liabilities to total assets, profitability (*Roa*), measured by the ratio of total profits to total assets, firm age (*Age*), measured by the logarithm value of the years since its establishment, and property right (*Soe*), measured by the dummy variable coded as 1 if the firm is a state-owned.

RESULTS

Benchmark Regression

Table 1 shows the results of the impact of the selection as the national civilized cities on corporate ESG performance. In Model 1, the coefficient of *Civ_City* is significantly positive at the level of 5%, indicating that national civilized cities enhance corporate ESG performance. This is consistent with the conclusion of Chai et al. (2022) that the construction of a national civilized city led by the Chinese government has effectively strengthened the sense of corporate social responsibility. Under the government pressure and soft restraint mechanism brought about by the national civilized city selection policy, firms often help create a national civilized city by assuming more social responsibilities. Therefore, local governments constructing national civilized cities make a top-down pressure transmission mechanism for local firms, forcing them to invest in ESG actively.

The basic premise for applying the DID model is that there is no systematic difference in the corporate ESG performance between the experimental group and the control group before implementing the policy. To test whether this premise is confirmed, we refer to the practice of Li et al. (2016) and try whether the parallel trend condition is satisfied based on the event study analysis. Specifically, we proposed the following estimation model:

$$\boldsymbol{LnESG_{ict} = a_0 + \sum_{k=-3}^{3+} \alpha_k Civ\_City_k + \sum a_j Controls_{cit} + \delta_t + \theta_i + \varepsilon_{cit}}$$

Among them, Civ_City_k represents the dummy variable of the kth year of policy implementation, valuing 1 when the experimental group is in the kth year of policy implementation and 0 otherwise. Model 2 in **Table 1** shows the results estimated by the above estimation model. In each year before the policy was implemented, the coefficients of *Civ_City* are not significant, which satisfies the assumption of parallel trends, and the DID model is suitable for the evaluation of policy effects in this study.

To further test whether the above results are robust, we conducted the following tests: 1) to reduce the effect of selection bias on the empirical results, we provided the results of the estimation of samples based on the propensity score matching method after 1:1 proximity no-put back matching in Model 3; 2) to eliminate the interference of the development trend of different industries on the empirical results, we controlled the fixed effect of industry-year multiplication in Model 4; 3) to alleviate the problems caused by missing values

TABLE 2 | Heterogeneity analysis.

	(1)	(2)	(3)	(4)	(5)	(6)
	Different types of responsibilities		Nature of property rights		Media attention	
	Environmental responsibility	Shareholder responsibility	State-owned	Non-state-owned	High attention	Low attention
Civ_City	0.054**	0.023	0.082**	0.005	0.065**	0.042
	(2.507)	(1.482)	(2.517)	(0.195)	(1.991)	(1.283)
Control Variables	YES	YES	YES	YES	YES	YES
Firm FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Observations	13,199	12,994	5,727	7,432	5,344	5,330
Adj_R2	0.184	0.427	0.483	0.507	0.529	0.479

*Robust standard errors are in parentheses; ***, **, * are significant at the 10%, 5%, and 1% levels, respectively; control variables are included in the regressions.*

of data, we further increased the variables at the city level in Model 5, including the proportion of the added value of the tertiary industry to GDP, the size of the government (the ratio of fiscal expenditure to GDP), and the level of opening up (the ratio of foreign direct investment to GDP). At the firm level, we added the proportion of intangible assets to total assets, the proportion of tangible assets to total assets, and the proportion of shares held by the top ten shareholders; and 4) to alleviate the serial autocorrelation problem of residuals among firms, we clustered the standard errors of coefficients at the firm level in Model 6. The above results show that the coefficients of Civ_City are always positive at the 5% level of significance, indicating that national civilized cities will improve corporate ESG performance, which is consistent with our main findings.

Further Analysis of the Heterogeneity of Different Social Responsibilities

Our dependent variable, corporate ESG performance, is measured by the corporate social responsibility index evaluated by Hexun, which mainly consists of the environmental responsibility index and shareholder responsibility index. We separated the two indexes to estimate the regressions. Models 1 and 2 in **Table 2** show the results. It can be seen that after the city is selected as the national civilized city, corporate environmental responsibility has been significantly increased, but the impact on shareholder responsibilities is not significant. This finding is contrary to Chai et al. (2022) but is consistent with the logic of corporate behaviors under government regulation. Firms assuming social responsibility have the characteristics of acting on the spot. Specifically, when the city is selected as the national civilized city, the local government requires firms to assume more social responsibility, primarily environmental responsibility. Firms pursuing economic interests are more willing to take on environmental responsibilities that are highly quantifiable while ignoring shareholder responsibilities that the government is less concerned about and hard to supervise.

Further Analysis of the Heterogeneity of Property Rights

From the perspective of property rights, state-owned firms have more political connections and are more closely related to the government (Lou et al., 2021). Compared with non-state-owned ones, they are more likely to reach agreements with government goals (Kim and Sumner, 2021). The civilized city policy may be more able to increase the ESG performance of state-owned firms. We divided the sample into two sub-samples, one for state-owned firms and another for non-state-owned firms. We found that national civilized cities have improved the ESG performance of state-owned firms, but the impact on non-state-owned firms is not significant. Models 3 and 4 in **Table 2** report this heterogeneous impact. This result is consistent with our logical conjecture. It also confirmed the findings of Cheng et al. (2021) that state-owned firms play an essential role in implementing government policies, while non-state-owned ones have relatively little feedback and implementation.

Further Analysis of the Role of Media Attention

The media is an external supplement to the corporate governance mechanism (Xiong and Luo, 2021). The brand effect of civilized cities will attract more media attention. When the city is selected as the national civilized city, corporate behaviors, especially social responsibility behaviors, receive special attention from the media, and the firms are required to perform more social responsibility (Zhou et al., 2019). We used the number of times a firm was reported in the news as a proxy variable for its media attention. Based on the median value of the number of reporting times in one industry each year, we divided the sample into two sub-samples, one for high media attention and another for low media attention. We found that firms that have received more media attention will have a better ESG performance when their cities are selected as the national civilized cities. However, the ESG performance of firms with low media attention has not been affected by the national civilized cities, as shown in models 5 and 6 in **Table 2**. This is a unique discovery of this paper. It can be seen that the spotlight effect of the media is an essential guarantee for civilized city policy to enhance corporate ESG performance. This result is similar to the findings of Xiong and Luo (2021), that is, the media spotlight effect will increase the transparency of corporate behavior, inhibit corporate anomie behavior, and encourage firms to fulfill their social responsibilities.

CONCLUSION

To regulate the social order and promote the sustainable development of cities, China encourages the construction of civilized cities from top to bottom. Based on the panel data of China from 2010 to 2017, using the PSM-DID method, this paper explores the role of civilized cities in corporate ESG performance. The main findings of this paper are as follows. First, national civilized cities improve corporate ESG performance. Second, civilized city policy can more significantly improve the ESG performance of state-owned enterprises, but has no significant impact on that of non-state-owned enterprises, which is similar to the conclusions of existing literature (Chai et al., 2022). This result might be because state-owned enterprises are more inclined to cooperate with local governments in the construction of civilized cities due to close political connections. Third, the civilized city policy can significantly improve corporate environmental responsibilities, but its impact on shareholder responsibilities is not significant. This is probably because ecological civilization is the core of civilized city construction and the focus of government attention. Thus, the effect of national civilized cities is only reflected in the environmental responsibility that the government pays more attention to and is easy to quantify. The incentive effect on other social responsibilities is insufficient. This is a unique finding of this paper and an important supplement to existing literature. Fourth, the civilized city policy can significantly improve the ESG performance of enterprises that have received more media attention, but its impact on enterprises with less media attention is not significant. In other words, the spotlight effect of the media is an essential guarantee for civilized city policies to enhance corporate ESG performance. This is an original discovery of this paper, and also an important breakthrough in this research field.

Our study also has some shortcomings. Due to ESG performance data restrictions, we only focused on listed firms in China. However, the impact of national civilized cities on the ESG performance of non-listed small- and medium-sized firms lacks a systematic study. In future research, we will add ESG evaluation indicators and use data from multiple countries. In addition, we have not conducted an in-depth investigation on external institutional factors. When studying the impact of government actions on corporate ESG performance, the institutional mechanism of external policies such as environmental regulations, cannot be ignored, which needs further research in the future.

DATA AVAILABILITY STATEMENT

The original contributions presented in the study are included in the article/Supplementary Material, further inquiries can be directed to the corresponding author.

AUTHOR CONTRIBUTIONS

Conceptualization, ZQ and WL; methodology, EZ and CW; data analysis, ZQ and EZ; validation, WL; investigation, ZQ; resources, WL; writing—original draft preparation, ZQ and EZ; writing—review and editing, CW and WL; visualization, ZQ; supervision, WL and CW; project administration, WL. All authors have read and agreed to the published version of the manuscript.

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