

The Value of Red Culture: Evidence from Enterprise environmental Performance

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Abstract: As an indispensable part of the red culture, the spirit of Long March has important guiding significance for the current enterprise environmental performance management and the supervision of violations. This paper uses the series of activities marking the 80th anniversary of the victory of the Long March to construct a quasi-natural experiment, and the regression analysis finds that in 2016 and the following years, the level of environmental performance of enterprises located along the Red Army's Long March has significantly improved, indicating that the spirit of Long March can promote the improvement of corporate environmental responsibility awareness. At the same time, from the perspective of entrepreneurial literacy and environmental supervision, this paper explores the mechanism of Long March spirit to improve enterprise environmental performance, so as to provide an example for the development path of socialist culture with Chinese characteristics.

Keywords: Long March Spirit, Enterprise environmental performance, Red culture.

1. Introduction

In the tapestry of Chinese cultural heritage, the spirit of the Long March stands as an indelible thread, weaving through the fabric of history and into the contemporary business landscape. This research delves into the profound influence of the Long March spirit, an integral component of Red Culture, on the environmental performance management and oversight of corporate misconduct in the present day. The Long March, an epic journey of resilience and determination, has transcended its historical context to become a beacon of inspiration for modern enterprises, particularly in the realm of environmental stewardship.

This paper leverages the 80th anniversary of the Long March victory and its associated activities as a quasi-natural experiment to explore the impact of Red Culture on corporate environmental performance. Through rigorous regression analysis, we uncover a significant enhancement in the environmental performance levels of enterprises located along the historical route of the Red Army's march, particularly in the years following 2016. This empirical evidence suggests that the spirit of the Long March not only endures but also actively promotes a heightened sense of environmental responsibility among businesses.

Furthermore, this study peels back the layers to reveal the mechanisms through which the Long March spirit elevates corporate environmental performance. By examining the perspectives of entrepreneur quality and environmental supervision, we shed light on how this cultural ethos translates into tangible improvements in environmental governance. Our findings aim to contribute to the discourse on the development path of socialism with Chinese characteristics, offering a template for how cultural values can be harnessed to drive positive change in corporate sustainability practices.

2. Literature Review and Article Hypotheses

2.1. Red Culture

Red Culture, deeply rooted in the history of China's revolutionary struggle, has been a subject of extensive academic inquiry due to its significant role in shaping the nation's identity and values. This body of literature, which spans across various disciplines including political science, sociology, and cultural studies, unanimously agrees on the importance of Red Culture as a cornerstone of China's socialist ethos. Scholars have explored its historical development, from its inception during the revolutionary period to its continued influence in modern times, emphasizing how it has evolved as a response to both internal and external challenges, including the threat of cultural imperialism and the need to maintain national cohesion and ideological consistency.

The educational and developmental aspects of Red Culture have also been a focal point in the literature. It is recognized not only as a preserver of historical memory but also as a dynamic force in contemporary society, particularly in the context of youth education and the cultivation of socialist values. Research has shown that the integration of Red Culture into educational curricula and public policy has been instrumental in fostering a sense of national pride and commitment to the country's socialist path. Moreover, the literature highlights the innovative approaches being taken to adapt Red Culture to the digital age, ensuring its continued relevance and impact on future generations.

Finally, the contemporary relevance of Red Culture is underscored by its role in enhancing national identification and combating historical nihilism. It serves as a powerful narrative against the backdrop of globalization, where cultural homogenization threatens to erode unique cultural identities. The literature discusses the challenges and strategies for preserving and promoting Red Culture in the face of these pressures, advocating for a balanced approach that leverages both traditional and modern mediums to communicate its

messages. Overall, the literature on Red Culture presents a compelling case for its enduring significance in the cultural, educational, and political spheres of China and its potential to inform the development of a socialist culture with distinct Chinese characteristics.

2.2. Corporate Environmental Performance

The concept of corporate environmental performance (CEP) has evolved significantly over the past decades, with a growing recognition of the need for businesses to balance economic objectives with environmental sustainability. CEP encompasses the measurement and evaluation of a company's operations in terms of their impact on the natural environment and the effectiveness of their environmental management systems.

A systematic literature review conducted by researchers has identified various approaches, tools, and techniques used to assess sustainability performance at the business level. These include the application of established guidelines, normative frameworks, management systems, index systems, and rating/ranking systems. The study analyzed 38 related articles from 2000 to 2021 and found that there is no consensus on which method or tool is best for Business Sustainability Performance Assessment (BSPA).

The economic consequences of corporate culture and environmental performance have also been a subject of interest. Research indicates that strong corporate culture can lead to enhanced organizational productivity, firm value, and long-term orientation through high investment in R&D, which in turn can improve environmental performance. A study examining the impact of corporate culture on environmental performance over the period of 2002–2018 found that stronger corporate culture improves environmental performance, measured by the amount of toxic chemical release (TCR).

Another strand of literature focuses on the role of corporate culture in shaping environmental performance. It has been found that cultural norms of innovation, quality, and teamwork, as well as a technology-oriented corporate culture, have a significant impact on enhancing environmental performance. Managerial competence and strong institutional ownership have been identified as factors that moderate the relationship between corporate culture and environmental performance.

The integration of sustainability into business operations has been encouraged as a response to environmental degradation and social problems caused by unsustainable activities. Businesses are increasingly being held accountable for their environmental and social impacts, leading to a growing interest in transparency and efforts to reduce these impacts.

In conclusion, the literature on corporate environmental performance is vast and multifaceted, covering a range of topics from the impact of corporate culture to the effectiveness of various assessment tools and techniques. There is a clear trend towards recognizing the importance of CEP in achieving sustainable development, with businesses increasingly adopting practices that balance environmental, social, and economic goals.

2.3. Red Culture and Corporate Environmental Performance

The intersection of red culture and corporate environmental performance (CEP) has emerged as a significant area of study

within the realm of sustainable business practices. Red culture, deeply rooted in the revolutionary history and values of China, is increasingly being recognized for its potential to influence corporate behavior and ethical standards, particularly in environmental sustainability.

A study by Dongxin Shu delves into the sources, representations, and contemporary relevance of red culture in China. Shu emphasizes that red culture, comprising 'red legacies' and 'red spirit', has been instrumental in mobilizing the Chinese people and shaping their cultural identity. This culture, evolved under the leadership of the Communist Party of China (CPC), is seen as a bulwark against cultural imperialism and a catalyst for building a prosperous socialist culture with Chinese characteristics. The paper suggests that red culture could play a pivotal role in raising awareness and promoting the protection of traditional culture, which in turn could influence corporate environmental practices.

Research has also begun to explore the impact of national culture on corporate social responsibility (CSR) and firm performance. A study by Hsiao-Fen Hsiao, Tingyong Zhong, and Jun Wang investigates how national culture moderates the relationship between CSR and firm performance. While not explicitly focused on red culture, the study underscores the importance of cultural factors in shaping CSR activities, which could include environmental performance as a key dimension.

The influence of corporate culture on environmental performance has been empirically examined in another study, which finds that a stronger corporate culture is associated with better environmental performance, as measured by the reduction in toxic chemical releases. This research highlights the role of cultural norms such as innovation, quality, and teamwork in enhancing environmental performance. It suggests that a corporate culture oriented towards these values can drive ethical behavior and improve a firm's environmental footprint.

Furthermore, the study by Junhong Shen, Deen Wu, and Jianqiong Wang examines corporate ESG performance from the perspective of Chinese red culture. It posits that red culture, with its emphasis on collective values and national identity, can significantly enhance green innovation and contribute to better ESG performance. This aligns with the notion that cultural elements, especially those rooted in nationalism and revolutionary spirit, can inspire corporate responsibility and sustainability initiatives.

In conclusion, the literature indicates a growing interest in understanding how red culture, as a form of national culture, can influence corporate behavior, particularly in the area of environmental performance. Studies suggest that the values and spirit inherent in red culture can foster a corporate culture that prioritizes environmental sustainability, thereby contributing to better CEP. As research in this area continues to evolve, the potential for red culture to shape corporate environmental practices and outcomes becomes increasingly evident.

Hypothesis H1: Red culture can promote the green transformation of enterprises

3. Empirical Analysis

3.1. Descriptive Statistical Analysis

In order to more intuitively show the mathematical characteristics of each variable and indicator used in this paper, descriptive statistical analysis will be carried out in this

section. This paper selects the panel data from 2010 to 2022 as the data of the empirical part. The explained variable is corporate environmental performance. The core explanatory variable is did, which is the interaction term of treat and post. If the enterprise's office is located in the 14 provincial administrative regions along the Long March path, the treat item is assigned a value of 1. If the data date is 2016 or later,

the post item is assigned a value of 1; otherwise, it is 0. This paper selects the ratio of fixed assets to total assets (fix), the ratio of main business income to total assets (rate), per capita income (rate) and asset-liability ratio (debt) as control variables. The following is a descriptive statistical analysis of the above variables.

Table 1. Descriptive statistical analysis

VarName	Obs	Mean	SD	Min	Median	Max
eep	39103	1.9301	2.538	0.00	0.00	12.00
did	39229	0.2450	0.430	0.00	0.00	1.00
fix	39088	9.61e+05	3.10e+07	0.00	275863.34	4.04e+09
rev	39088	1.89e+06	6.78e+06	-6.49e+05	939481.03	6.09e+08
rate	39106	34.1182	15.053	0.29	31.82	89.99
debt	37974	0.4179	0.214	0.01	0.41	4.03

3.2. Multiple Regression Analysis

In order to more accurately explore and present the

relationship between explanatory variables and explained variables, after model testing, this paper decides to build the following two-way fixed effect model:

$$EEP_{it} = \beta_0 + \beta_1 treat_i \times post_t + controls + firm + year + \varepsilon \quad (1)$$

The explained and explanatory variables in the above equations have been introduced in the previous section; therefore, only the rest of the equation is introduced in this part. Since the formula fixed the time effect and the regional effect, i and t are marked in the subscript respectively, indicating the data of a certain variable in city i in year t. β_0 is the intercept term of the equation, β_1 is the coefficient of the explanatory variable, indicating the degree of influence of the explanatory variable on the explained variable; year and firm represent fixed time and individual effects, respectively, and ε are a random disturbance term. The equation and related data in the equation are imported into stata software for multiple regression analysis, and the results are shown in Table 2.

As can be seen from Table 2, under the premise of two-way fixed effects, the promotion effect of did item on eep is positively and significantly at the level of 5% regardless of whether control variables are added, which proves that red culture can significantly improve corporate environmental performance. Hypothesis H1 is verified.

3.3. Robustness Test

The empirical strategy of this paper includes the use of the DID method, and the premise of the use of the DID method is to pass the parallel trend test. Based on this, this paper conducts a parallel trend test on the DID model before deciding to use it, and the results are shown in Figure 1.

Table 2. Regression analysis

	(1)	(2)
	eep	eep
did	0.091**	0.096**
	(0.038)	(0.039)
fix		-0.000***
		(0.000)
rev		0.000
		(0.000)
rate		-0.003**
		(0.001)
debt		-0.149*
		(0.077)
_cons	1.902***	2.090***
	(0.012)	(0.062)
N	38758	37522
F	5.867	4.590
r2	0.663	0.665
Standard errors in parentheses		
* p < 0.1, ** p < 0.05, *** p < 0.01		

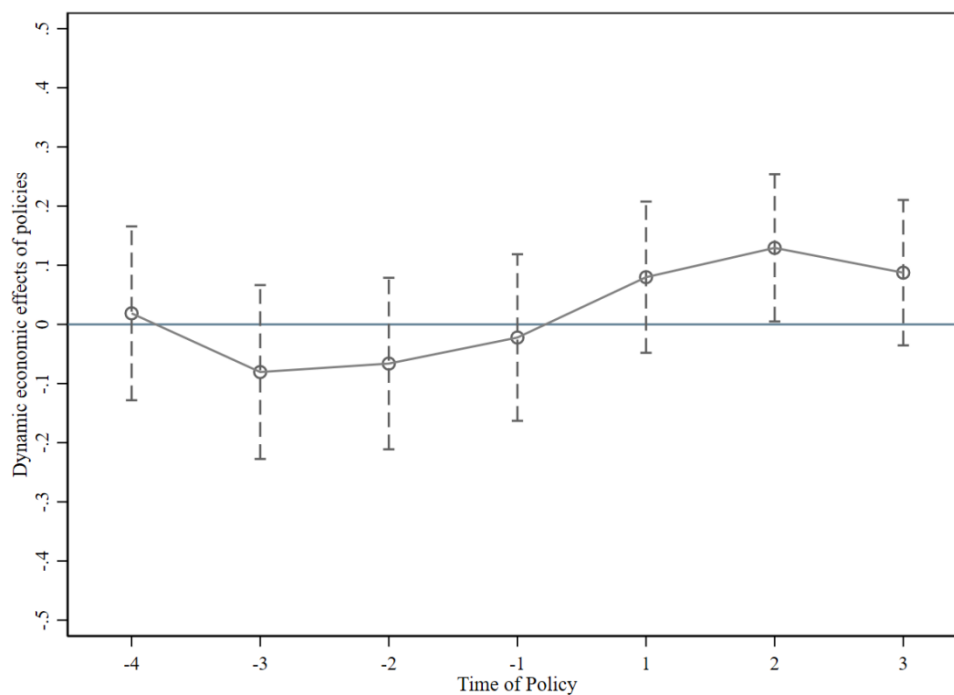


Figure 1. Parallel trend test

Figure 1 shows the parallel trends in the first 4 periods and the last 3 periods of the policy. It can be seen from the figure that there is no significant situation before the policy, so the test of the parallel trend passes.

4. Conclusion and Policy Suggestions

Firstly, it is of paramount importance to not only remember history but also to cherish and uphold our original aspirations, which are the very foundation of our collective identity. Inheriting the revolutionary spirit and bolstering cultural confidence are crucial for maintaining the vitality of our society and ensuring its resilience in the face of contemporary challenges. To achieve this, we must integrate the study of revolutionary history into educational curricula at all levels, from primary schools to universities, ensuring that the narratives of our past are not only taught but also critically analyzed and discussed. This integration should be accompanied by promoting public awareness campaigns that utilize various media platforms to reach a wide audience, including documentaries, social media, and public lectures. Additionally, encouraging scholarly research that delves into the significance of our revolutionary past is essential, as it provides a deeper understanding of the historical events and their impact on our present. By integrating these efforts, we can ensure that the values and spirit of our forebears are not only preserved but also serve as a guiding light for future generations, inspiring them to uphold the principles of justice, resilience, and progress that were fought for by those before them.

Secondly, there is a critical need to enhance the protection and preservation of historical sites and revolutionary sacred places, which are the physical embodiments of our shared history and collective memory. This involves significant investment in conservation efforts to prevent the deterioration of these sites and to maintain their integrity for future generations. Developing sustainable tourism practices that respect the sanctity of these sites is also essential, ensuring that visitors can learn and engage with history without causing harm to the sites themselves. This can be achieved

through the implementation of visitor management plans, educational programs for tourists, and the development of eco-friendly infrastructure. Additionally, creating interactive exhibits that bring history to life for visitors can make these sites more accessible and engaging, fostering a deeper understanding and appreciation of our revolutionary legacy. Such measures will not only safeguard our cultural heritage but also provide a tangible connection to the past, allowing individuals to physically and emotionally connect with the sacrifices and triumphs of those who came before us.

Lastly, the academic community should be encouraged to focus more on the study of revolutionary culture and the spirit of China, which are integral to understanding the nation's development and its role in the global context. This can be facilitated through the allocation of research grants that support scholars in exploring various aspects of revolutionary culture, from its historical roots to its contemporary manifestations. The establishment of interdisciplinary research centers can provide a platform for collaboration among scholars from different fields, such as history, sociology, political science, and cultural studies, fostering a comprehensive and nuanced understanding of the subject. The organization of conferences and seminars that bring together experts from various fields can also promote the exchange of ideas and the development of new perspectives on revolutionary culture and the Chinese spirit. By deepening our understanding of the revolutionary culture and the Chinese spirit, we can contribute to the development of a national identity that is rooted in our history and prepared for the challenges of the future, equipping us with the knowledge and values necessary to navigate the complexities of the modern world.

In summary, these policy recommendations aim to honor our past, protect our heritage, and inspire our future by promoting a deeper engagement with revolutionary culture and the spirit of China. Through these efforts, we can ensure that the legacy of our revolutionary history continues to inspire and guide us as we navigate the complexities of the modern world, providing a moral compass and a source of strength in times of uncertainty. By preserving our historical

memory and promoting its study, we can foster a society that is both proud of its roots and prepared to face the future with confidence and determination.

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