

# The Influence of ESG Recognition, Government Incentive Policy on the High-Quality Development of Enterprise based on Qualitative Analysis

Muyi Yang<sup>1</sup>, Anan Wang<sup>2,\*</sup>, Zhihan He<sup>3</sup>

<sup>1</sup>*Housing and Urban-Rural Development Bureau of Ma'anshan, Anhui, China*

<sup>2</sup>*Student Affairs Department, Dali University, Yunnan, China*

<sup>3</sup>*Finance Office, Dali University, Yunnan, China*

*\*Corresponding Author*

**Abstract:** The study aim to explore the effect of ESG recognition and government incentive policy on the high-quality development of enterprises and assess the potential effect using the mediating impact of green innovation and innovative organization culture between ESG recognition, government incentive policy, and the high-quality development of enterprise based on qualitative analysis. 20 senior executives were interviewed in depth interviews were conducted, and data was analyzed involving opening, axial, and selective coding. The study revealed that green innovation positively mediates the relationship between ESG recognition and the high-quality development of enterprises. ESG recognition positively influences innovation organization culture, which, in turn, has a significant positive impact on the high-quality development of enterprise to underscore the importance of a positive attitude in improving ESG recognition and innovation organization culture.

**Keywords:** ESG Recognition; Government Incentive Policy; High-Quality Development of Enterprise

## 1. Introduction

From more than 100 renowned universities and research institutions worldwide, over 400 experts and scholars attend the 2024 International Conference on Climate and Energy Finance (ICEF2024), such as the Chinese Academy of Sciences, Peking University, Tsinghua University, Hong Kong University of Science and

Technology, Hong Kong City University, Macau University of Science and Technology, the National University of Singapore, the University of Bristol in the UK, Kyushu University in Japan, etc., to jointly explore the new challenges, new topics, new opportunities, and new achievements in the climate and energy finance of developing countries against the backdrop of climate change[1]. The impact of global warming on the ozone layer and the prevalence of droughts, floods, melting polar ice, deforestation, wind, and storms have created a multifaceted obstacle for humankind. The frequency of extreme weather events has captured the global community's attention, highlighting the profound challenges environmental concerns pose, and sustainable development has gained widespread support [2]. The Intergovernmental Panel on Climate Change (IPCC) AR6 Synthesis Report: Climate Change 2023, detailed the devastating consequences of global warming caused by rising global greenhouse gas emissions[3]. Rising global temperatures also increase the risk of the climate system reaching a critical point[4]. Temperatures crossing the critical point may trigger internal enhancement effects such as permafrost melting or large-scale forest withering, exacerbating global warming and further leading to sudden and irreversible substantial changes in the climate system[5]. The concept of ESG is that companies cannot only focus on the value of the products they create and their profits but also need to pay attention to their impact on the environment, internal governance of the company, and, more

broadly, some social issues[6]. Now, ESG has become a new concept of corporate social responsibility.

The concept of ESG (Environmental, Social, Governance) was first introduced by the United Nations Environment Programme in 2004, which advocates enterprises should consider ESG performance in three main areas: environment, social responsibility and governance, including the need to pay attention to environmental protection, social responsibility and corporate governance[7]. In the new stage of high-quality economic development, achieving higher quality, more efficient, more equitable and more sustainable development has become the direction and goal of corporate development[8]. In 2017, for the first time, China clearly put forward the strategic choice of high-quality development. Since then, with high-quality development as the theme, the relevant policy framework has been continuously enriched and improved, the practice of reform and development has continued to advance, and a series of important achievements have been made[9]. It can be said that high-quality development has become the underlying logic of China's development in the new era. However, at the international level, governments, enterprises and observers have not paid enough attention to this fundamental change in China's development logic[10]. China clearly put forward the strategic choice of high-quality development in 2017 for the first time. Since then, the relevant policy framework has been continuously enriched and improved, the practice of reform and development has continued to advance, and a series of important achievements have been made with high-quality development as the theme.

## 2. Literature Review

### 2.1 Influencing Factors and Realization

Researchers, both domestic and international, have studied the high-quality development of enterprise. Achieving high-quality development requires combining innovative growth with sustainable development practices. Hou et al. suggest

that the rationalization and upgrading of industrial structures can act as a mediator between the green technology innovation of industrial enterprises and high-quality economic development. Markard argues that creating a power transformation system for technological innovation, industrial innovation, financial innovation, management innovation, and business-type innovation can promote high-quality development. Clauss et al. found that business model innovation can positively impact high-quality development, specifically through value creation, value delivery, and value realization. Government incentives, such as carbon information index regulations, can also positively regulate the high-quality development of enterprise. Shen and Li discovered that corporate tax burden has a negative correlation with the level of corporate green innovation and mediate the relationship between corporate tax burden and total factor productivity. In their study, Wu et al. examined the impact of government subsidies, specifically green credit policies, on technological innovation and the quality of enterprise development. They found that such subsidies can play a crucial role in promoting technological innovation and enhancing enterprise development quality. Liu et al. conducted research that revealed that the effects of subsidies on enterprise development quality can be both positive and negative. While subsidies can encourage enterprise development quality, they can also hinder it, depending on how they are designed and implemented. Su and Fan explored the factors that contribute to high-quality enterprise development. Li and Mei[20] have argued that the level of enterprise intelligence can also be a significant contributor to high-quality development. They suggest that enterprises that prioritize knowledge management and invest in research and development are more likely to achieve high-quality development. Moscoso has proposed that digital finance promote the high-quality development of state-owned enterprise. Digital finance can help reduce

financing constraints and operating costs, thereby creating a more favorable environment for high-quality development. Peng and Tao have suggested that developing smart cities can significantly enhance the growth of businesses. They argue that constructing intelligent cities can reduce financing constraints and operating costs for enterprises, thereby promoting their high-quality development. Finally, Zhao et al. have studied the role of corporate ESG performance in promoting high-quality development. They have found a link between corporate ESG performance, innovation investment, and corporate performance. Moreover, they suggest that implementing an employee stock ownership plan by state-owned enterprises more than twice a year can positively enhance the quality of enterprise development.

## 2.2 Influencing Results of ESG

Global ESG reviews of grades need to be conducted. Companies such as Apple, Google, and Walmart, for example, have pledged to meet their energy demands with renewable energy sources such as solar and wind power by 2050 by participating in the "Renewable Energy 100" program. Financial research has found that a company's ESG initiatives, market and leadership, and its shareholders' qualities, risks, performance, and value are all closely associated. As interest in ESG management rises, research reflecting a variety of scholarly and practical viewpoints and financial evaluation indicators related to investments is becoming increasingly important. In a study on the current state of ESG studies and future directions conducted by Janah & Sassi, it was stressed that a quantitative study methodology and systematic literature evaluation are required to ensure thorough coverage of the subject matter. Emerging ESG management studies focus on ESG consumption, market perspectives, non-financial factors, organizational development, and employee appreciation.

Ben-Amar Belgacem stressed the need for efficient performance in ESG management operations. As a result, companies must ensure that their ESG management initiatives are carried out to maximize their efficacy and efficiency. Kothari et al. stressed the need to recognize employees' ESG efforts and active

participation in developing ESG management projects.

As a result of applying ESG management principles, organizational cultures, roles, and procedures change. As a result, internal organizational individuals in managerial roles experience shifts in job recognition, attitude, and work environment. For a company to effectively lead ESG activities, stakeholders and workers must share a commitment to practice and measures. This entails cultivating an open and accountable atmosphere in which all parties involved in implementing ESG management practices are informed and participate in the process.

Most ESG research has been on the impact on business performance. An empirical study found that ESG evaluation and profit management significantly impact on corporate value. Furthermore, several components of ESG evaluation information influence corporate value. Based on 212 samples of Thai residents' interactions with corporate initiatives. Puriwat & Tripopsakul claimed that an organization's ESG initiatives could boost its brand perception and even affect its financial success by impacting its ability to seek external investment. Companies that are forthright and open about ESG policies are more appealing to financial investors. Lower loan costs result from increased ESG transparency. Ellili used empirical evidence to demonstrate that ESG disclosure promotes transparency, reduces knowledge asymmetry, and improves investment efficiency. Wang and Sun conduct a helpful investigation into how ESG performance influences corporate green innovation and indicate that positive ESG performance promotes green innovation.

## 3. Method

Specify the Goals of the Interview. The purpose of this section is to ascertain the significance underlying the objective phenomenon that will be explored and examined through an interview. Designing a research hypothesis for qualitative research differs from that for quantitative research. The interview questions will undergo continual adjustments and modifications during the implementation process, while the basic study theme remains set. Select suitable interview candidates depending on the research topic, ensuring that these individuals possess

adequate expertise and relevance to the topics of your concern. Hence, it is crucial to establish a predetermined sample criterion and make selections accordingly. Managers who have substantial experience and insight into the sustainable development processes within EV. Careers who can provide in-depth information about the role of Innovation Behavior in the field. For this study, TOP 10 EV companies of China in Shanghai will be identified, and 20 experts will be interviewed. The top 10 companies have high visibility and a high likelihood of adopting ESG, and are generally subject to incentive policies. The choice between individual interviews, symposiums, or focus groups depends on considerations such as time and cost constraints, as well as the level of depth, reliability, and usefulness of the interview data acquired. Create an interview framework based on the chosen interview subject. This section does not need to be comprehensive. Through the process of engaging with the interviewees, the investigator will uncover other matters that are directly linked to the study subject, consequently enhancing the interview inquiries.

Interview questionnaire includes two parts,

I. Background Information (name, title, enterprise or organization name, work experience /years),

II. Open Question:

a. What is your view on applying ESG in EV and its possible risks?

b. How does your company assess and mitigate threats related to ESG in the field of EV?

c. Could you describe ESG recognition, high-quality development of enterprises, and green innovation in EVs?

d. Could you describe ESG recognition and high-quality development of enterprises and innovation organization culture in EV?

e. Enterprises, and green innovation in EVs?

f. Could you describe government incentive policy and high-quality development of enterprises and innovation organization culture in the field of EV?

g. How does your company cultivate and implement

Theory serves as a set of tools, but it is crucial to revisit the perception of the research problem's significance. Encodes text material word by word without any presets to find the

main factors affecting the quality development of enterprise. During coding, the key words in the interview text data were used as the basic coding, and 414 codes were initially generated, such as innovation, ESG, culture, policy, management, technology, responsibility, etc. 6 categories are separated from 414 codes of open coding. Repeatedly determine the expression of the above six categories in the text material, and invite experts to comment. The results of material finishing were analyzed and discussed repeatedly, and the main influencing factors of high-quality development of enterprise were finally determined: ESG recognition, government incentive policy, green innovation, innovation organization culture.

## 4. Code and Data Analysis

### 4.1 Open Coding

Researchers mainly use NVivo software for data analysis in qualitative research. 1999 QSR (Qualitative Solutions and Research Pty Ltd.) developed the first version of NVivo software, which has now been upgraded to version 11. NVivo. The software can assist researchers in completing the collection and arrangement of text, pictures, sounds, and even videos. Analysis and presentation work can enhance the rigor, fidelity, and interest of qualitative research. The "word frequency" function in NVivo software represents the frequency of a specific word or sentence in the text and can be visually displayed using the "word cloud" function. The font size in the "word cloud" represents how often the word or sentence appears in the policy text, and the larger the font size, the more times it appears, and vice versa. Figure 1 shows the application of NVivo11 software to 20 ESG items to recognize the Government Incentive Policy on the high-quality development in EV. Word cloud derived from the source material of Industry text by "word frequency" statistics. The advantage of this description is that it is very intuitive, and the level of attention is proportional to the font size.

After encoding 20 interview texts, NVivo11.0 software was used to create 66 reference points, so as to extract 17 conceptual indicators and summarize them into 6 initial categories as shown in Table 3. The 6 categories were defined as follows: A1: The

direct influence of ESG recognition, A2: The mediating role of green innovation, A3: The effect of green innovation on high-quality development of enterprise, A4: The direct influence of government incentive policy, A5: The mediating role of innovation organization culture, A6: The effect of innovation organization culture on high-quality development of enterprise.

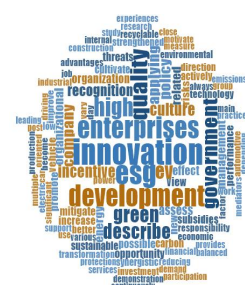


Figure 1. Word Frequency Statistics

Table 1. Open Code

Code	Original Data	Conceptualization	Categorization
a1	When enterprise managers realize that the implementation of ESG is critical, it will have a positive impact on enterprise innovation.	innovation	A1: The direct influence of ESG recognition
a2	Practice green development and low-carbon transformation, technological innovation and research and development, intellectual property and patent protection are key governance areas in the new energy industry direction.	technology	
a3	When business managers have ESG recognition, it will have a positive impact on employee performance to form a good culture.	employee job culture	
a4	ESG management and green technology innovation of enterprises are in the spotlight.	green innovation	A2: The mediating role of green innovation
a5	While actively improving ESG performance to attract financial subsidies and external financial support, to further establish and maintain a good image of green responsibility practitioners.	financial subsidies	
a6	While actively improving ESG performance to attract financial subsidies and external financial support and maintain a good image as green responsibility practitioners, enterprises will also increase R&D investment to promote innovation to meet stakeholder demands.	green responsibility	A3: The effect of green innovation on high-quality development of enterprise
iy			
a8	There are many ways by which green technology innovation can drive high-quality economic growth.	economic growth	
a9	New energy vehicles are the main direction of the transformation and upgrading of the global automobile industry and the green development.	green development	A4: The direct influence of government incentive policy
a10	government subsidies significantly promote the output of innovation results, and this effect has a time lag.	innovation results	
a11	Preferential government policies provide advantages for cultural atmosphere.	cultural atmosphere	
a12	The social factor among ESG activity recognition factors had a positive effect on innovation-oriented culture.	innovation-oriented culture	A5: The mediating role of innovation organization culture
a13	We will leverage market forces to encourage enterprises to engage in innovation. We will boost the principal role of enterprises in innovation, and encourage leading enterprises to establish innovation consortia.	innovation consortia	
a14	Innovation has an increasing effect on enterprise performance, the effects of tax incentives on enterprise performance are becoming less and smaller.	enterprise performance	
a15	Organizational innovation can better motivate employees,	motivate	A6: The

	make them realize they are the company's owners, and increase their participation in the business's day-to-day operations.	employees	effect of innovation organization culture on high-quality development of enterprise
a16	The impact of ESG performance on high-quality development of enterprise may vary depending on the role of organizational innovation mechanisms as mediators.	innovation mechanism	
a17	Organizational enterprise innovation should be strengthened. Organizational innovation is a key measure for enterprises to enhance their competitive advantages.	competitive advantage	

## 4.2 Data Analysis

### (1) The Mediating Role of Green Innovation in ESG Recognition and High-quality Development of Enterprise

Out of 20 interviewees, 17 mentioned the mediating role of green innovation in ESG recognition and high-quality development of enterprise. The management is aware of the importance of ESG, which is crucial for enterprises to implement green and low-carbon implementation technology innovation, and the realization of green innovation is conducive to the high-quality development of enterprises. *For example, XX, the interviewee, said that ESG recognition, which includes environmental performance, social responsibility, and internal governance, is a strategy with both internal and external advantages and an important starting point for innovation, and innovation of EV enterprises is conducive to sustainable development at the macro and micro levels, to achieve high-quality development. If enterprises do not adopt ESG, it does not align with the national development strategy and hinders innovation. For example, interview subject DDS said on that ESG needs to be adopted; the management strategy is more financially oriented and always focuses on its development rather than social progress, which is not in line with the national strategy.*

### (2) The Mediating Role of Green Innovation in Government Incentive Policy and High-quality Development of Enterprise

Out of 20 interviewees, 12 mentioned the mediating role of green innovation in government incentive policy and high-quality development of enterprise. The government implements EV incentive policies and provides financial subsidies and tax incentives for enterprises, which is

crucial for enterprises to implement green and low-carbon innovation. Innovation requires a lot of financial, human, and material support, which enterprises need help implementing independently and requires government support. *For example, interviewee DQQ said that government incentive policy includes tax incentives and government subsidies, which are crucial for our company to introduce new technologies and improve the efficiency of battery use. Government support is crucial for the development of enterprises, especially the EV industry, which is an emerging industry. Interviewee XYA said: In recent years, the EV industry has developed rapidly, thanks to the government's support for the green and low industry, and the government incentive policy has an impact on the development of our company.*

### (3) The Mediating Role of Innovation Organization Culture in ESG Recognition and High-quality Development of Enterprise

Out of 20 interviewees, 10 mentioned the mediating role of green innovation in government incentive policy and high-quality development of enterprise. ESG recognition is the consciousness of enterprise management, especially the consciousness of senior management, which helps to form a consistent corporate culture, and corporate culture is crucial to the unity of employee behavior. *The interviewee LLS said that the enterprise reform needs the support of employees and consistent action from top to bottom, which is conducive to forming an innovation culture, and the innovation atmosphere is conducive to the higher quality development of the enterprise. Interviewees TQ said that enterprise innovation culture is a change vane, indicating the determination of enterprise development,*

and the formation of such a culture needs the strong support of senior managers.

#### (4) The Mediating Role of Innovation Organization Culture in Government Incentive Policy and High-quality Development of Enterprise

Out of 20 interviewees, 14 mentioned the mediating role of green innovation in government incentive policy and high-quality development of enterprise. The government implements EV incentive policies to provide financial subsidies and tax incentives for enterprises, so that more employees can see the development goals of enterprises. Hopefully, these cannot be implemented independently by enterprises, and government support is needed. For example, interview subject DQQ said: government incentive policy is a good signal, which helps employees to unite. Government support is crucial for the development of enterprises, especially the EV industry, which is an emerging industry.

#### 4.3 Axial Coding

Axial coding represents the subsequent phase in the coding process. To gain a

more comprehensive understanding of the initial categories derived from open coding in the first stage, it is imperative to conduct a thorough analysis of their attribute qualities and their interrelationships. Additionally, it is essential to regularly compare and study these categories. By using specific logical connections, the basic categories can be further organized to create more conceptual core categories. Ultimately, the key categories in the second step can be assigned names. The axial coding process in this study resulted in the formation of 5 core categories, as indicated in Table 4. These categories are: B1: The impact of ESG recognition on green innovation, B2: The impact of government incentive policy on green innovation, B3: The impact of green innovation on high-quality development of enterprise, B4: The impact of ESG recognition on innovation organization culture, B5: The impact of government incentive policy on innovation organization culture, B6: The impact of innovation organization culture on high-quality development of enterprise.

**Table 2 Axial Coding**

Core Category	Categorization	Number of Coding Points
B1: The impact of ESG recognition on green innovation	A1: The direct influence of ESG recognition	11
B2: The impact of government incentive policy on green innovation	A4: The direct influence of government incentive policy	10
B3: The impact of green innovation on high-quality development of enterprise	A2: The mediating role of green innovation	7
	A3: The effect of green innovation on high-quality development of enterprise	8
B4: The impact of ESG recognition on innovation organization culture	A1: The direct influence of ESG recognition	8
B5: The impact of government incentive policy on innovation organization culture	A4: The direct influence of government incentive policy	7
B6: The impact of innovation organization culture on high-quality development of enterprise	A5: The mediating role of innovation organization culture	6
	A6: The effect of innovation organization culture on high-quality development of enterprise.	9

#### 4.4 Selective Coding

Selective coding represents the ultimate phase of the coding process. By analyzing

the core category, we may establish a natural connection between the initial categories and the core category, allowing us to evaluate the relationship between

them. In essence, a comprehensive framework and meaning for grounded research is established through a mutually supporting and interrelated logical relationship, centered upon the core category. The interview content in this paper is used to establish a conceptual model that describes the impact of ESG recognition, government incentive policy on the high-quality development of enterprise in China. This model is

presented in Table 5.

## 5. Conclusions

This study adopted the qualitative research method and finds that the main influencing factors of high-quality enterprise development, including ESG recognition, government incentive policy, Green innovation, and innovation organization culture, played a mediating role as shown in table 6.

**Table 3. Selective Coding**

Selective Coding	Axial Coding	Open Coding
C: The Influence of ESG recognition, government incentive policy on high-quality development of enterprise: mediating effect of green innovation and innovation organization culture	B1: The impact of ESG recognition on green innovation	A1: The direct influence of ESG recognition
	B2: The impact of government incentive policy on green innovation	A4: The direct influence of government incentive policy
	B3: The impact of green innovation on high-quality development of enterprise	A2: The mediating role of green innovation
		A3: The effect of green innovation on high-quality development of enterprise
C: The Influence of ESG recognition, government incentive policy on high-quality development of enterprise: mediating effect of green innovation and innovation organization culture	B4: The impact of ESG recognition on innovation organization culture	A1: The direct influence of ESG recognition
	B5: The impact of government incentive policy on innovation organization culture	A4: The direct influence of government incentive policy
	B6: The impact of innovation organization culture on high-quality development of enterprise	A5: The mediating role of innovation organization culture
		A6: The effect of innovation organization culture on high-quality development of enterprise.

**Table 4. Summary of the Qualitative Study**

The Theme	Main factors affecting the theme
Theme 1: High-quality development of enterprise	innovation organization, corporate culture, atmosphere, green innovation, ESG management, ESG recognition, ESG performance, society, environment, governance, ...
Theme 2: High-quality development of enterprise	innovation organization, corporate culture, atmosphere, green innovation, government, policy, financial subsidy, Tax abatement, incentive mechanism, ...

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