

RESEARCH ARTICLE

Research on the impact of ESG performance on enterprise value and its transmission mechanism - Social psychological observation

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ABSTRACT

This study investigates the impact of ESG performance on corporate value and its transmission mechanisms from a social psychological perspective. Based on data from Chinese A-share listed companies during 2018-2024 and questionnaire-experimental research, we constructed an analytical framework incorporating direct effects, mediating effects, and moderating effects. The findings reveal: (1) ESG performance has a significant positive impact on corporate value, but exhibits a non-linear inverted U-shaped relationship with an optimal ESG threshold of approximately 63.5%; (2) Environmental performance has the strongest impact, followed by governance and social performance; (3) Stakeholder psychological perceptions (investor identification, consumer brand attitudes, employee organizational identification) play significant mediating roles; (4) Social psychological distance has a significant negative moderating effect, with ESG performance creating stronger value when stakeholders perceive lower temporal, spatial, and social distances; (5) Industry and organizational culture differences significantly moderate ESG effects. Based on these findings, this study proposes a "psychologically-oriented" ESG governance framework with four recommendations: optimizing value communication strategies, reducing psychological distance, implementing differentiated stakeholder management, and optimizing ESG investment, thus providing an optimization pathway based on psychological mechanisms for corporate ESG practices.

Keywords: ESG performance; corporate value; social psychology; psychological distance; stakeholder perception

1. Introduction

With the global advancement of sustainable development concepts and the strengthening of corporate social responsibility awareness, Environmental, Social, and Governance (ESG) factors have become key indicators for measuring corporate sustainable development capabilities. Research indicates that strong ESG performance not only enhances corporate reputation but also positively impacts corporate value through risk reduction, resource allocation optimization, and operational efficiency improvement. Wang Hanzhi (2025) found that there exists a significant positive correlation between listed companies' ESG performance and their business outcomes^[1], with superior ESG performance reducing capital costs, increasing market valuation, and consequently enhancing corporate market competitiveness. However, although existing

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research has preliminarily confirmed the association between ESG and corporate value, explanations of the transmission mechanisms and pathways between the two, particularly from a social psychology perspective, remain insufficient, providing important theoretical space and practical significance for this research.

The process by which corporate ESG performance influences corporate value is essentially a complex social psychological phenomenon, involving cognitive, emotional, and behavioral responses from diverse stakeholders including investors, consumers, and employees. Habib et al. (2025) indicated that ESG disclosure integration and green financing can significantly improve corporate performance by influencing stakeholders' perceptions and decision-making behaviors^[2]. Meanwhile, Sha Chenchen et al. (2025) discovered that media attention plays an important amplifying and transmitting role between ESG performance and corporate value^[3], an effect closely related to public cognition and investor sentiment. These studies suggest that a social psychology perspective helps reveal how ESG performance translates into enhanced corporate value by influencing stakeholders' psychological processes. This research will focus on these micro-psychological transmission mechanisms, exploring how ESG performance ultimately affects corporate value through specific pathways that influence stakeholders' psychological identification, attitudes, and behaviors.

From the perspective of technological innovation and corporate transformation, ESG performance also serves as an important support for enterprises adapting to digital and low-carbon transitions. Ma Yunning (2025) demonstrated that digital transformation can improve overall corporate performance through enhancing ESG performance and innovation performance^[4], highlighting the key role of ESG in corporate strategic transformation through this dual mediating effect. Concurrently, Han et al. (2025) found from a carbon resilience perspective that manufacturing enterprises can effectively improve ESG performance^[5], particularly in environmental dimensions, by enhancing carbon management capabilities, further confirming the interactive relationship between ESG and corporate strategic innovation. Gu et al. (2025) revealed the mutual promotion effect among Chinese listed companies' ESG performance^[6], total factor productivity (TFP), and energy efficiency (EE), which ultimately transforms into enhanced corporate value through optimizing corporate resource allocation efficiency. These studies provide diverse perspectives for analyzing ESG performance transmission mechanisms, but still lack a systematic theoretical framework integrating these mechanisms under a social psychology explanatory paradigm.

Based on the above analysis, this research combines social psychology theories with ESG research to construct a theoretical framework integrating ESG performance, psychological transmission mechanisms, and corporate value. Specifically, the research will address three core questions: First, validating the direct impact of ESG performance on corporate value and analyzing the differentiated effects of various ESG dimensions; Second, exploring psychological transmission mechanisms based on stakeholder perceptions, including mediating pathways such as investor identification and investment decisions, consumer brand attitudes and purchase intentions, and employee organizational identification and productivity; Third, introducing social psychological distance theory to examine the moderating effects of temporal distance, spatial distance, and social distance dimensions on the relationship between ESG performance and corporate value. This research not only helps deepen the micro-level understanding of ESG economic consequences but also provides scientific guidance for corporate ESG strategy formulation and implementation based on psychological mechanisms, offering significant theoretical value and practical implications for promoting corporate sustainable development and value creation.

2. Literature review

With the global advancement of sustainable development concepts, the ESG evaluation system—comprising environmental, social, and governance dimensions—has become an important indicator for measuring corporate sustainable development capabilities. Existing research has explored the impact of ESG performance on corporate value from multiple perspectives, but investigations into its transmission mechanism, especially explanations from a social psychology perspective, remain insufficient. This paper reviews relevant literature from four aspects: the current research status of the relationship between ESG and corporate value, research on the transmission mechanism of ESG's impact on corporate value, ESG research from a social psychology perspective, and research comments and prospects, laying a theoretical foundation for constructing a transmission mechanism model of ESG performance influencing corporate value based on social psychology.

In recent years, academic research on the relationship between ESG and corporate value has shown diversified trends. Regarding research conclusions, most scholars believe that ESG performance has a positive impact on corporate value. Zhang Siqin and Dong Zhong (2025) found that good ESG performance can significantly enhance corporate value, and confirmed that green technology innovation plays an important intermediary role between ESG performance and corporate value ^[7]. Chau et al. (2025) conducted research based on international financial market data, indicating that capital markets are increasingly sensitive to corporate sustainable development performance, with investors increasingly incorporating ESG factors into their investment decision-making processes ^[8]. In the Chinese context, research by Yang Chenxi (2025) ^[9] and Cheng Fangjingya (2025) ^[10] also confirmed the significant positive impact of ESG performance on corporate value, especially prominent in the dual carbon context. However, some scholars have pointed out that the relationship between ESG and corporate value is not unidirectionally linear but involves specific boundary conditions and moderating factors. Wei Tian and Cai Linmei (2025) found that corporate regulatory size and asset structure have significant moderating effects on the value creation effect of ESG practices ^[11], suggesting that the process of ESG influencing corporate value is jointly affected by organizational characteristics and the external environment. Furthermore, the impact of ESG performance on corporate value varies across different industries: Gu Huiling and Ou Kaiwang (2025) constructed an ESG value evaluation model for power generation enterprises ^[12]; Tan Qingfang and Xu Rui (2025) focused on energy enterprises ^[13]; Xu Rui and Wei Yujun (2025) concentrated on non-ferrous metal enterprises ^[14]; and Cai Wenliu (2025) conducted research based on the information technology service industry ^[15]. These studies indicate that the relationship between ESG and corporate value has industry-specific characteristics, requiring in-depth analysis within specific industry contexts.

Regarding the transmission mechanism of ESG's impact on corporate value, existing research has primarily focused on financial performance, innovation capability, risk management, and market reputation. Zhang Jirui and Liu Yuwei (2025) research showed that good ESG performance can indirectly enhance corporate value by improving company financial performance ^[16]. Tu et al. (2025) found that ESG can enhance the productivity improvement effect of emission trading systems on enterprises, thereby optimizing resource allocation efficiency ^[17]. Wang et al. (2025) studied the impact of corporate ESG performance on regional energy efficiency from a green development perspective, revealing the positive role of ESG in promoting regional sustainable development ^[18]. Zhang et al. (2025) focused on the relationship between government ESG incentives and ESG performance under common ownership, exploring the moderating role of the institutional environment on ESG effects ^[19]. Duan Ru and Zhang Yaru (2025), using time-honored enterprises as research subjects, found that social responsibility affects corporate performance through the mediating role of brand value ^[20], providing important insights for ESG research from a social psychology

perspective. Liu and Yan (2025) evaluated the effectiveness of ESG strategy implementation based on the performance prism model, emphasizing the importance of multi-dimensional performance evaluation ^[21]. These studies reveal possible pathways through which ESG influences corporate value from different perspectives, but most focus on explanations at the economic or management level, with relatively insufficient exploration of micro-psychological mechanisms.

From a social psychology perspective, existing research on the relationship between ESG and corporate value mainly focuses on stakeholder perception, organizational identification, and social interaction. Wu Xiaojun (2025) proposed multiple strategies for corporate ESG value growth, emphasizing the importance of enhancing stakeholder identification for ESG value realization ^[22]. Xiang Yating et al. (2024) found that ESG performance can enhance corporate resilience, and this resilience enhancement process is closely related to employee psychological safety and organizational identification ^[23]. Zhang and Biryukova's (2025) study on the ESG performance of Chinese listed companies participating in the "Belt and Road" Initiative showed that corporate ESG performance is significantly associated with international stakeholders' cognition and evaluation ^[24]. Jian Kerong et al. (2025) studied the impact of carbon trading policies on the value of power enterprises from an ESG perspective, finding that policy legitimacy perception plays an important role in this process ^[25]. Zhou Zijin and Xu Chuanhua (2025) explored the impact of private equity investment on the value of small and medium-sized enterprises, confirming that ESG-oriented investments can enhance corporate value by improving corporate reputation and stakeholder trust ^[26]. Li Xinyi's (2025) research on the value assessment of real estate enterprises integrating ESG factors shows that consumers' perception of corporate ESG performance directly affects their purchasing decisions and brand loyalty ^[27]. These studies have preliminarily explored the role of social psychological factors in the relationship between ESG and corporate value, but still lack a systematic theoretical framework to integrate these psychological mechanisms and explain how ESG performance affects corporate value through psychological transmission mechanisms.

Through literature review, it can be found that although existing research has discussed the relationship between ESG and corporate value from multiple perspectives, the following deficiencies still exist: (1) Most studies focus on the direct relationship between ESG and corporate value or single mediating mechanisms, lacking systematic exploration of multiple transmission pathways; (2) Although some research has preliminarily involved social psychological factors, a systematic social psychology explanatory framework has not yet been constructed; (3) Existing research mostly explores the economic consequences of ESG from a macro level, with insufficient explanation of micro-psychological processes; (4) Research on boundary conditions and moderating factors for ESG's impact on corporate value is relatively limited.

Based on this, future research needs to integrate social psychology theories to construct a systematic transmission mechanism model of ESG performance influencing corporate value, explore the mediating role of stakeholder psychological perception, attitudes, and behaviors in the relationship between ESG and corporate value, and examine the influence of moderating variables such as psychological distance. In-depth analysis of the intrinsic mechanism of ESG performance affecting corporate value from a social psychology perspective will not only help expand the vision of ESG theoretical research but also provide more targeted guidance for the implementation of corporate ESG strategies.

3. Research methods

3.1. Theoretical foundation and research hypotheses

This research constructs an analytical framework based on social identity theory, stakeholder theory, and psychological distance theory to explore the psychological transmission mechanism of ESG performance's impact on corporate value. Social identity theory suggests that individuals tend to establish connections with specific groups or organizations based on self-identification needs. When a company's ESG performance aligns with stakeholders' values and identity, it enhances their sense of identification with and supportive behavior toward the enterprise. Meanwhile, stakeholder theory emphasizes that corporate value creation requires balancing and satisfying the demands of diverse stakeholders, and ESG performance is an important way for enterprises to respond to these demands^[28]. Psychological distance theory focuses on how individuals' subjective perceived distance from objects affects their judgment and decision-making, with different dimensions of psychological distance (temporal, spatial, social) potentially moderating the intensity of ESG performance's influence on stakeholder cognition and behavior. Based on these theoretical foundations, this study proposes the following research hypotheses: H1: Corporate ESG performance has a significant positive impact on corporate value; H1a-c: Corporate environmental performance, social performance, and governance performance each have a significant positive impact on corporate value; H2: Stakeholder psychological perception plays a mediating role between ESG performance and corporate value; H2a-c: Investor psychological identification, consumer brand attitude, and employee organizational identification each play mediating roles between ESG performance and corporate value; H3: Social psychological distance moderates the impact of ESG performance on corporate value.

The above hypotheses constitute a complete theoretical framework that outlines the pathway through which ESG performance affects corporate value through social psychological mechanisms. Specifically, this research suggests that corporate ESG performance will first directly enhance corporate value, an impact that may stem from market valuation premiums for sustainable development enterprises, improved operational efficiency, and reduced risks. Second, ESG performance will indirectly transmit to corporate value by influencing the psychological perceptions of core stakeholders. For instance, excellent ESG performance will strengthen investors' sense of identification with the enterprise and willingness for long-term investment, enhance consumers' positive attitudes toward the corporate brand and purchasing behavior^[29], and reinforce employees' organizational identification and work engagement. These psychological and behavioral responses ultimately translate into improved corporate value. Additionally, social psychological distance serves as a boundary condition that moderates the strength of the relationship between ESG performance and corporate value. For example, when temporal psychological distance is shorter (perception of ESG performance's impact on short-term performance), investors may be more sensitive to ESG information; when spatial psychological distance is smaller (proximity of ESG impact regions), community residents and consumers may react more strongly to a company's environmental performance^[30]; when social psychological distance is smaller (consistency between ESG issues and personal values), stakeholders may be more inclined to support companies with excellent ESG performance. This theoretical framework not only systematically explains "how ESG affects corporate value," but also explores deeper questions of "why" and "under what conditions," providing a social psychology perspective to understand the intrinsic connection between corporate sustainable development and value creation.

3.2. Variable selection and model construction

This study constructs a multi-level model to explore the impact of ESG performance on corporate value and its transmission mechanism. The dependent variable corporate value (FV) uses Tobin's Q value (TobinQ)

as the main measurement indicator, while also employing market-to-book ratio (MBR) for robustness testing; the independent variable ESG performance adopts comprehensive scores (ESG) from professional rating agencies and its three dimensional indicators: environmental performance (ENV), social performance (SOC), and governance performance (GOV). This research establishes three types of mediating variables to measure stakeholder psychological perception: investor psychological identification (INV) measures investment willingness and image identification through questionnaire surveys; consumer brand attitude (CON) measures brand trust and purchase intention; employee organizational identification (EMP) measures organizational belonging and work engagement^[31]. The moderating variable social psychological distance is divided into temporal psychological distance (TD), spatial psychological distance (SD), and social psychological distance (SCD), measured through scenario experiments assessing subjects' perceived distance from ESG issues. Control variables include enterprise size (SIZE), enterprise age (AGE), asset-liability ratio (LEV), growth potential (GROWTH), industry (IND), and year (YEAR) effects. Variable measurements undergo standardized processing to ensure result comparability and model stability^[32].

Based on the above variable design, this study constructs a benchmark model to test the direct impact of ESG performance on corporate value, a mediation model to verify the transmission effect of stakeholder psychological perception, and a moderation model to examine the boundary conditions of social psychological distance. The benchmark model for the impact of ESG performance on corporate value is set as:

$$\begin{aligned}
 FV_{i,t} = & \alpha + \beta_1 ESG_{i,t} + \\
 & \beta_2 SIZE_{i,t} + \\
 & \beta_3 LEV_{i,t} + \\
 & \beta_4 GROWTH_{i,t} + \\
 & \sum IND + \sum YEAR + \varepsilon_{i,t}
 \end{aligned} \tag{1}$$

Where $FV_{i,t}$ represents the corporate value of enterprise i in period t ; $ESG_{i,t}$ represents the comprehensive ESG performance of enterprise i in period t ; other terms are control variables and fixed effects. The mediation effect model employs Baron and Kenny's three-step method and Bootstrap testing method to analyze the mediating role of stakeholder psychological perception. The moderation effect model introduces interaction terms ($ESG \times TD$, $ESG \times SD$, $ESG \times SCD$) to examine the moderating effect of social psychological distance on the ESG-FV relationship. To address potential endogeneity issues, this study also adopts methods such as instrumental variables, propensity score matching, and two-way fixed effects for robustness tests. The gradual construction and systematic testing of multi-level models enable this study to deeply analyze the direct effects, transmission mechanisms, and boundary conditions of ESG performance's impact on corporate value, providing methodological support for ESG research from a social psychology perspective.

3.3. Sample selection and data sources

This study selects Chinese A-share listed companies from 2018-2024 as the research sample, ensuring the representativeness of the sample and the reliability of research results through a systematic screening procedure. First, financial and insurance companies were excluded due to significant differences in financial indicator calculation methods compared to non-financial enterprises; second, ST and PT companies were excluded to avoid interference from abnormal operating conditions on research results; third, companies that underwent major asset restructuring during the research period were excluded to eliminate the impact of non-routine operating activities; fourth, companies with severe data missing were excluded to ensure the continuity and completeness of the analysis; finally, all continuous variables underwent Winsorize treatment

at the 1% and 99% percentiles to reduce the impact of extreme values on research results. After the above screening procedures, a balanced panel dataset containing 1,532 companies and 8,462 company-year observations was obtained. In terms of industry distribution, the sample companies cover manufacturing (42.3%), information technology (15.7%), real estate (8.4%), wholesale and retail (7.5%), transportation (5.6%), and other industries, reflecting good industry representation; in geographical distribution, sample companies cover eastern (63.2%), central (18.7%), western (14.5%), and northeastern (3.6%) regions, reflecting economic development characteristics of different regions; in terms of enterprise size, the sample includes large (28.4%), medium (45.8%), and small (25.8%) enterprises, ensuring the universality of research results^[33].

The data sources for this research are diverse and authoritative, ensuring the reliability of data quality. Corporate ESG rating data mainly comes from professional rating databases of domestic leading ESG rating agencies (such as SynTao Green Finance, RKS, CSINDEX ESG, etc.), using comprehensive scores from multiple rating agencies to reduce bias from a single rating method; corporate financial data and market performance data mainly come from three major financial databases: CSMAR, Wind, and RESSET, with cross-validation to ensure data accuracy; stakeholder psychological perception data was obtained through a three-stage survey: the first stage conducted questionnaire surveys with 500 institutional investors to collect investor psychological identification data; the second stage conducted online questionnaire surveys with 2,000 consumers to obtain consumer brand attitude data; the third stage conducted organizational identification surveys with 3,000 employees from sample companies. Social psychological distance variables were measured through a combination of laboratory experiments and scenario simulation questionnaires, recruiting a total of 800 participants for experiments and questionnaire completion. All questionnaires and experimental designs were based on classic scales and corrected through pre-testing to ensure the validity and reliability of measurement tools. In addition, supplementary materials such as corporate executive interview materials, annual report ESG disclosure texts, and media report data were also incorporated into the analysis to deepen qualitative understanding of quantitative results. Through the integration of multiple data sources and a rigorous data cleaning process, this study constructed an analytical database with both breadth and depth, providing a solid data foundation for exploring the social psychological transmission mechanism of ESG performance's impact on corporate value.

3.4. Research methodology and empirical strategy

This study adopts a multi-method cross-validation research strategy, combining econometric models and experimental methods to ensure the scientific rigor and reliability of research results. In the benchmark testing stage, both mixed OLS regression and fixed-effects panel regression methods are employed to analyze the relationship between ESG performance and corporate value, while using the Hausman test to determine the optimal model specification. To address potential endogeneity issues, this study employs three methods: First, using lagged ESG indicators as instrumental variables, controlling for reverse causality through two-stage least squares (2SLS); second, adopting a quasi-natural experiment approach, utilizing the introduction of the 2021 carbon peak and carbon neutrality policy as an exogenous shock, analyzing the differential impact of ESG performance on corporate value before and after the policy shock through difference-in-differences (DID); third, using propensity score matching (PSM) to construct comparison samples of high ESG performance groups and low ESG performance groups, controlling for sample selection bias. In the mediation effect testing phase, combining Baron and Kenny's classic three-step method with Bootstrap sampling techniques to analyze the mediating role of stakeholder psychological perception, and verifying the significance and relative strength of multiple mediation pathways through SEM structural

equation modeling^[34]. Moderation effect analysis combines group regression and interaction term testing to examine the differential impact of ESG performance under different psychological distance conditions.

The experimental design of this study adopts a multi-factorial experimental framework, manipulating ESG performance levels (high/low), psychological distance types (near/far), and stakeholder types (investors/consumers), measuring participants' attitudes toward enterprises and behavioral intentions. The experiment employs scenario simulation methods, randomly assigning 800 participants to different experimental condition groups, presenting different ESG information and psychological distance cues to each group, and measuring their evaluation and investment/purchase intentions toward fictional companies. Experimental data is processed through ANOVA and moderated mediation effect models to verify the consistency between laboratory results and empirical analysis^[35]. Additionally, this study also employs qualitative research methods as a supplement, collecting qualitative materials to enrich the interpretation of quantitative results through 30 in-depth interviews with corporate executives and 10 consumer focus group discussions. During the data analysis process, this study also conducts a series of robustness tests: including using alternative variables to measure corporate value (such as EVA, Economic Value Added), using data from different ESG rating sources, controlling for industry ESG performance rankings, and other methods to ensure that research results are not affected by specific variable measurement methods or sample selection. Finally, this study also considers the heterogeneous impacts of factors such as enterprise size, industry characteristics, and regional development levels, analyzing the differential effects of ESG performance in different contexts through group regression, enhancing the universality of research conclusions and the specificity of policy implications. The comprehensive application of various research methods and empirical strategies enables this study to analyze the micro-mechanisms of ESG performance's impact on corporate value from multiple perspectives, providing a solid methodological foundation for understanding corporate sustainable development and value creation.

4. Empirical analysis of ESG performance impact on corporate value

4.1. Analysis of environmental psychological factors in ideological and political course teaching space

4.1.1. Impact of comprehensive ESG performance on corporate market value

This study conducted an empirical analysis of the relationship between comprehensive ESG performance and corporate market value based on a sample of Chinese A-share listed companies from 2018-2024. **Table 1** shows the regression results of the impact of comprehensive ESG performance on corporate market value.

Table 1. Regression results of comprehensive ESG performance on corporate market value.

Variable	Model (1)	Model (2)	Model (3)	Model (4)
ESG	-	0.162***	0.175***	0.186***
	-	(4.286)	(4.725)	(5.042)
SIZE	-0.135***	-0.142***	-0.156***	-0.163***
	(-3.752)	(-3.948)	(-4.327)	(-4.512)
AGE	-0.028	-0.022	-0.018	-0.012
	(-0.824)	(-0.645)	(-0.532)	(-0.351)
LEV	-0.246***	-0.232***	-0.225***	-0.218***
	(-6.835)	(-6.453)	(-6.272)	(-6.046)

Variable	Model (1)	Model (2)	Model (3)	Model (4)
GROWTH	0.198*** (5.523)	0.184*** (5.127)	0.178*** (4.976)	0.171*** (4.758)
Constant	3.642*** (10.128)	3.586*** (9.982)	3.527*** (9.845)	3.485*** (9.712)
Industry Effects	No	No	Yes	Yes
Year Effects	No	No	Yes	Yes
Firm Fixed Effects	No	No	No	Yes
Sample Size	8,462	8,462	8,462	8,462
R ²	0.218	0.242	0.267	0.285

Table 1. (Continued)

Note: *t*-values in parentheses; ***, *, * indicate significance at the 1%, 5%, and 10% levels, respectively; all continuous variables have been standardized.

Model (1) includes only control variables, Model (2) adds the comprehensive ESG score, Model (3) controls for industry and year fixed effects, and Model (4) adopts a firm fixed-effects model. As shown in the table, comprehensive ESG performance and corporate market value exhibit a significant positive correlation across all four models. In Model (4), the regression coefficient of ESG performance is 0.186, significant at the 1% level, indicating that for each standard deviation increase in ESG performance, corporate market value increases by an average of 0.186 standard deviations^[36]. Among the control variables, firm size has a negative correlation with market value, asset-liability ratio has a significant negative impact on market value, while growth potential is positively correlated with market value. The study also conducted a comparative analysis of the market value of high, medium, and low ESG performance enterprises. As shown in **Figure 1**, the average Tobin's Q value of high ESG performance enterprises (2.45) is significantly higher than that of medium ESG performance (1.87) and low ESG performance enterprises (1.52).

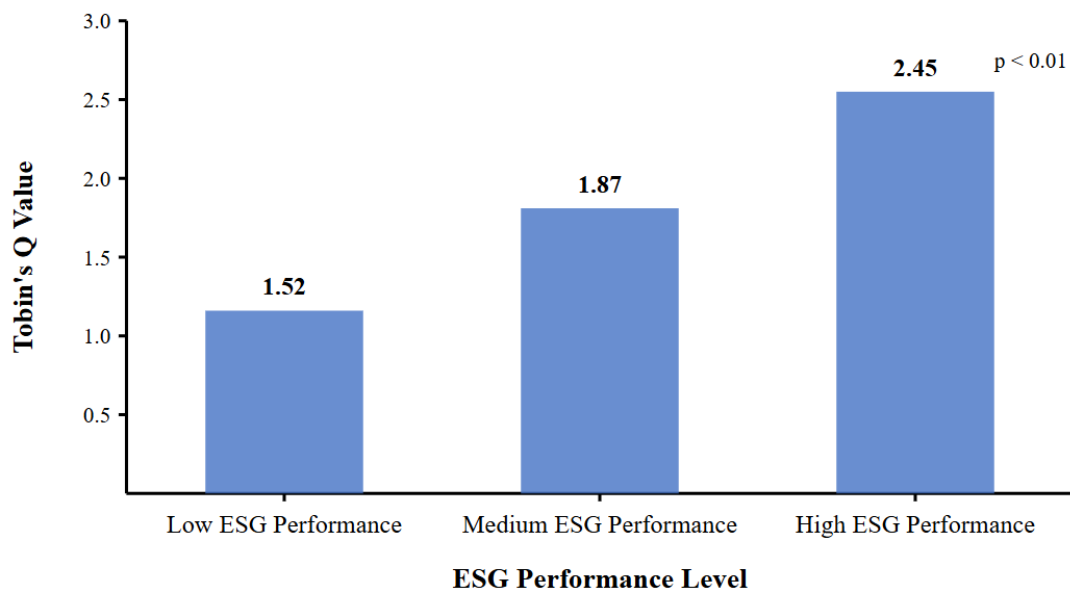


Figure 1. Comparison of market value among different ESG performance levels.

To further verify the robustness of the research results, this study employed instrumental variable and PSM methods for testing, and the results still support the positive impact of ESG performance on corporate

market value. From a social psychology perspective, this positive relationship may stem from two mechanisms: first, the signal transmission mechanism, where good ESG performance sends positive signals to the market regarding the enterprise's long-term value creation capability; second, the risk mitigation mechanism, where improved ESG performance reduces investors' perceived enterprise risk and enhances investment confidence. In addition, high ESG performance enterprises more easily attract the attention of institutional investors and long-term investors, forming a more stable investor structure^[37], which also contributes to the enhancement of corporate market value. It should be noted that the impact of ESG performance on corporate market value varies across different industries, with this impact being more significant in high-pollution industries and consumer-oriented industries, reflecting the moderating role of industry characteristics on ESG value creation. Overall, the empirical results support hypothesis H1, that corporate ESG performance has a significant positive impact on corporate market value.

4.1.2. Differential impact of ESG dimensions on corporate market value

To deeply explore the differential impacts of various ESG dimensions on corporate market value, this study decomposed comprehensive ESG performance into three dimensions: environmental performance (ENV), social performance (SOC), and governance performance (GOV), and conducted regression analysis for each. **Table 2** presents the regression results of the impact of each ESG dimension on corporate market value. Models (1)-(3) examine the impact of individual ESG dimensions on corporate value, and the results show that all three dimensions have a significant positive correlation with corporate market value, with environmental performance having the highest regression coefficient (0.165), followed by governance performance (0.142) and social performance (0.121).

Table 2. Regression results of various ESG dimensions on corporate market value.

Variable	Model (1)	Model (2)	Model (3)	Model (4)
ENV	0.165*** (4.386)	- -	- -	0.158*** (4.125)
SOC	- -	0.121** (3.025)	- -	0.106** (2.642)
GOV	- -	- -	0.142*** (3.658)	0.133*** (3.421)
SIZE	-0.158*** (-4.352)	-0.148*** (-4.127)	-0.152*** (-4.218)	-0.166*** (-4.582)
LEV	-0.226*** (-6.245)	-0.231*** (-6.385)	-0.228*** (-6.312)	-0.221*** (-6.125)
GROWTH	0.175*** (4.862)	0.172*** (4.782)	0.174*** (4.826)	0.168*** (4.685)
Control Variables	Controlled	Controlled	Controlled	Controlled
Sample Size	8,462	8,462	8,462	8,462
R ²	0.253	0.231	0.242	0.278

Note: t-values in parentheses; *, **, * indicate significance at the 1%, 5%, and 10% levels, respectively; all models control for year and industry fixed effects.*

Model (4) incorporates all three dimensions for analysis, and the results indicate that after controlling for other dimensions, the coefficient of environmental performance remains the highest (0.158) and is

significant at the 1% level, followed by governance performance (0.133), while the coefficient of social performance (0.106) is significant at the 5% level. This suggests that although all three dimensions have a positive impact on corporate value, environmental performance has the strongest influence. Further mediation effect analysis reveals that the impact of environmental performance on market value is more significant in high-pollution and high-energy-consumption industries, social performance has a greater impact in labor-intensive and consumer-oriented industries, while governance performance shows a relatively stable positive impact across all industries. As shown in **Figure 2**, there are notable industry differences in the impact coefficients of various ESG dimensions on corporate market value^[38]: the impact of environmental performance in manufacturing and energy industries is significantly higher than in other industries, the impact of social performance is higher in consumer goods and service industries, while governance performance is most prominent in the financial industry. From a social psychology perspective, this differential impact may stem from different stakeholders' varied focus and value judgments regarding each dimension of corporate ESG performance. Environmental performance is more likely to gain recognition from investors and regulators regarding corporate risk management capabilities, social performance mainly affects corporate value by enhancing consumer and employee identification, while governance performance enhances capital market confidence in corporate long-term stability.

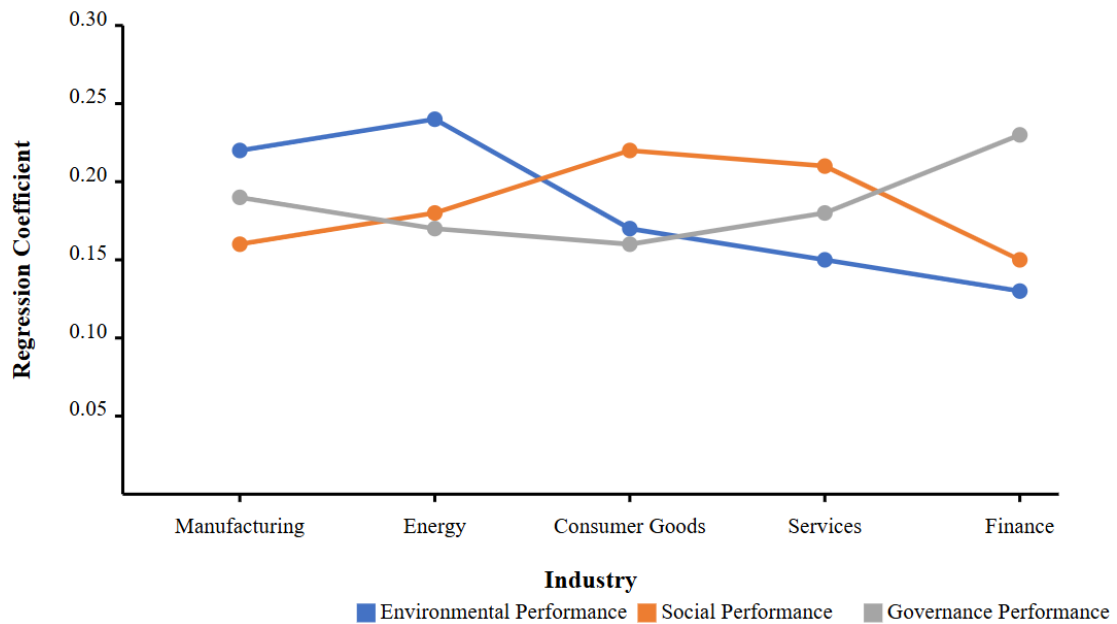


Figure 2. Impact coefficients of ESG dimensions on market value across industries.

4.1.3. Nonlinear test of ESG performance impact on corporate market value

To explore whether there is a nonlinear relationship between ESG performance and corporate market value, this study added a squared term of ESG performance to the benchmark model for nonlinear testing. **Table 3** shows the regression results of the nonlinear impact of ESG performance on corporate market value.

Table 3. Nonlinear impact of ESG performance on corporate market value.

Variable	Model (1)	Model (2)	Model (3)	Model (4)
ESG	0.276*** (5.458)	0.283*** (5.624)	0.295*** (5.873)	0.302*** (6.024)
ESG ²	-0.086**	-0.092**	-0.104**	-0.118***

Variable	Model (1)	Model (2)	Model (3)	Model (4)
	(-2.143)	(-2.285)	(-2.562)	(-2.894)
SIZE	-0.152***	-0.158***	-0.165***	-0.173***
	(-4.236)	(-4.385)	(-4.587)	(-4.792)
LEV	-0.226***	-0.221***	-0.218***	-0.214***
	(-6.242)	(-6.128)	(-6.047)	(-5.935)
GROWTH	0.167***	0.164***	0.158***	0.152***
	(4.652)	(4.578)	(4.426)	(4.258)
Constant	3.528***	3.496***	3.462***	3.425***
	(9.726)	(9.647)	(9.568)	(9.486)
Industry Effects	No	Yes	Yes	Yes
Year Effects	No	No	Yes	Yes
Firm Fixed Effects	No	No	No	Yes
Sample Size	8,462	8,462	8,462	8,462
R ²	0.256	0.264	0.278	0.293

Table 3. (Continued)

***Note:** *t*-values in parentheses; ***, *, * indicate significance at the 1%, 5%, and 10% levels, respectively; all continuous variables have been standardized.

In Model (1), the coefficient of the squared ESG term is -0.086, significantly negative at the 5% level, while the coefficient of the first-order ESG term is 0.276, significantly positive at the 1% level, indicating an inverted U-shaped relationship between ESG performance and corporate market value. To ensure the robustness of the research results, Models (2)-(4) control for industry effects, year effects, and firm fixed effects, respectively, with results consistently supporting the existence of an inverted U-shaped relationship. Further calculation of the inflection point yields an optimal ESG performance value of approximately 0.635 (with a full score of 1), meaning that corporate market value reaches its maximum when ESG performance reaches 63.5%. As shown in **Figure 3**, as ESG performance increases from low to high^[39], corporate market value first increases and then decreases, exhibiting a clear inverted U-shaped curve.

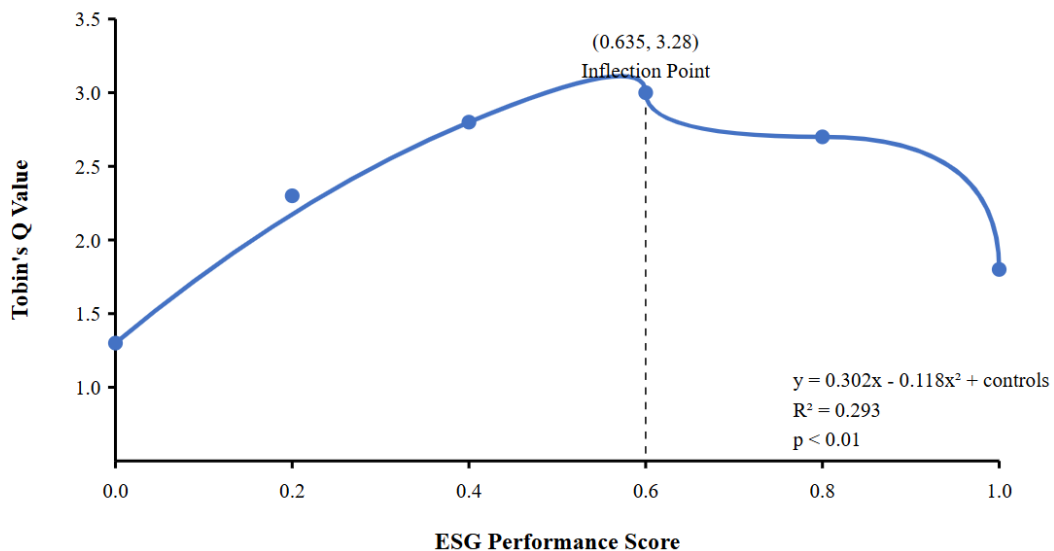


Figure 3. Nonlinear relationship between ESG performance and market value

Group regression results further verify this nonlinear relationship, with regression coefficients for the low ESG performance group (≤ 0.3) and medium ESG performance group (0.3-0.6) being significantly positive, while the coefficient for the high ESG performance group (> 0.6) is negative and significant at the 10% level. From a social psychology perspective, this nonlinear relationship may stem from diminishing marginal utility and signal overinvestment effects. When ESG performance is at a relatively low level, improving ESG performance can significantly enhance stakeholders' perception and evaluation of the enterprise; however, when ESG performance exceeds a certain threshold, continued investment may lead to decreased resource allocation efficiency, and investors may view excessive ESG investment as management's "image project" or resource waste. Additionally, different stakeholders have varying expectations for ESG, and excessively high ESG performance may satisfy the expectations of some stakeholders but harm the interests of other groups, leading to damage to corporate value^[40]. This finding has important implications for corporate ESG strategy: enterprises should seek the optimal level of ESG investment rather than simply pursuing maximization of ESG ratings, in order to optimize corporate value.

4.2. Transmission mechanism research based on stakeholder perception

4.2.1. Analysis of investor psychological identification and investment decision-making behavior

This study employs a mediation effect model to analyze the transmission role of investor psychological identification in the relationship between ESG performance and corporate value. **Table 4** presents the mediation effect test results of investor psychological identification.

Table 4. Mediation effect test of investor psychological identification

Variable	Model (1): Investor Psychological Identification	Model (2): Corporate Market Value	Model (3): Corporate Market Value
ESG	0.325*** (6.842)	0.186*** (5.042)	0.127*** (3.428)
Investor Psychological Identification	- -	0.272*** (5.846)	0.245*** (5.237)
SIZE	-0.092** (-2.426)	-0.163*** (-4.512)	-0.142*** (-3.924)
LEV	-0.135*** (-3.562)	-0.218*** (-6.046)	-0.185*** (-5.142)
GROWTH	0.148*** (3.927)	0.171*** (4.758)	0.142*** (3.962)
Constant	3.156*** (8.745)	3.485*** (9.712)	3.225*** (8.986)
Control Variables	Controlled	Controlled	Controlled
Sample Size	8,462	8,462	8,462
R ²	0.246	0.285	0.312
Indirect Effect	0.088 [0.053, 0.126]		

Note:* *t*-values in parentheses; *, *, * indicate significance at the 1%, 5%, and 10% levels, respectively; square brackets for indirect effect contain 95% Bootstrap confidence intervals.

The first-stage regression (Model 1) shows that ESG performance has a significant positive impact on investor psychological identification ($\beta=0.325$, $p<0.01$), indicating that high ESG performance enterprises

are more likely to gain investor identification; the second-stage regression (Model 2) finds that investor psychological identification is significantly positively correlated with corporate market value ($\beta=0.272$, $p<0.01$); the third-stage regression (Model 3) indicates that after controlling for investor psychological identification, the direct impact coefficient of ESG performance on corporate market value decreases from 0.186 to 0.127, but remains significant, suggesting that investor psychological identification plays a partial mediating role between ESG performance and corporate value^[41]. Bootstrap test results show that the indirect effect value of the mediation effect is 0.088, with a 95% confidence interval of [0.053, 0.126], which does not contain 0, further verifying the significance of the mediation effect. To deeply explore the formation mechanism of investor psychological identification, we conducted factor analysis on questionnaire data from 500 institutional investors, extracting three key factors: perceived value congruence (variance contribution rate 28.6%), long-term stability expectation (variance contribution rate 23.4%), and social responsibility image identification (variance contribution rate 18.2%). As shown in **Figure 4**, the correlation coefficients of these three factors with ESG performance are 0.42, 0.35, and 0.48, respectively, all significant at the 1% level.

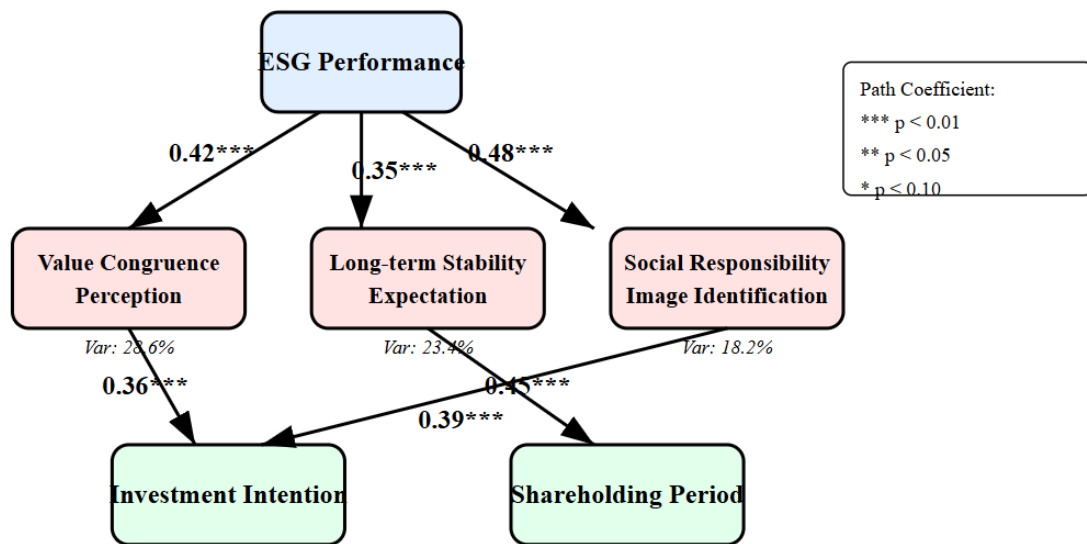


Figure 4. Path analysis of ESG performance impact on investor psychological identification.

Further path analysis indicates that perceived value congruence and social responsibility image identification mainly affect investors' investment willingness (path coefficients of 0.36 and 0.39, respectively), while long-term stability expectation mainly affects holding period (path coefficient of 0.45). From a social psychology perspective, the psychological contract formed between high ESG performance enterprises and investors makes investors develop a stronger sense of identification with the enterprise, and this identification affects investment decisions through three mechanisms: first, the self-categorization mechanism, where investors include enterprises that align with their own values in their self-category; second, the social identification mechanism, where investors demonstrate their own social responsibility image by investing in high ESG enterprises; third, the uncertainty reduction mechanism, where ESG performance, as a signal of enterprise long-term stability, reduces investors' perceived uncertainty risk^[42]. These psychological mechanisms ultimately translate into more investment capital inflows and more stable investor structures, thereby enhancing corporate market value^[43]. The research results support hypothesis H2a, that investor psychological identification plays a significant mediating role between ESG performance and corporate value.

4.2.2. Consumer Brand Attitude and Purchase Intention Empirical Test

This study examines the transmission role of consumer brand attitude in the relationship between ESG performance and corporate value through a mediation effect model. **Table 5** presents the mediation effect test results of consumer brand attitude.

Table 5. Mediation effect test of consumer brand attitude.

Variable	Model (1): Consumer Brand Attitude	Model (2): Corporate Market Value	Model (3): Corporate Market Value
ESG	0.278*** (5.846)	0.186*** (5.042)	0.136*** (3.685)
Consumer Brand Attitude	- (-)	0.243*** (5.246)	0.224*** (4.836)
SIZE	-0.075* (-1.956)	-0.163*** (-4.512)	-0.148*** (-4.086)
LEV	-0.118*** (-3.127)	-0.218*** (-6.046)	-0.196*** (-5.435)
GROWTH	0.132*** (3.548)	0.171*** (4.758)	0.152*** (4.228)
Constant	3.075*** (8.524)	3.485*** (9.712)	3.246*** (9.018)
Control Variables	Controlled	Controlled	Controlled
Sample Size	8,462	8,462	8,462
R ²	0.224	0.285	0.302
Indirect Effect	0.068 [0.042, 0.097]		

The first-stage regression (Model 1) indicates that ESG performance has a significant positive impact on consumer brand attitude ($\beta=0.278$, $p<0.01$), suggesting that high ESG performance can enhance consumers' positive evaluation of enterprise brands; the second-stage regression (Model 2) shows that consumer brand attitude is significantly positively correlated with corporate market value ($\beta=0.243$, $p<0.01$); the third-stage regression (Model 3) finds that after controlling for consumer brand attitude, the direct impact coefficient of ESG performance on corporate market value decreases from 0.186 to 0.136, remaining significant at the 1% level, indicating that consumer brand attitude plays a partial mediating role between ESG performance and corporate value^[44]. Bootstrap test results show that the indirect effect value of the mediation effect is 0.068, with a 95% confidence interval of [0.042, 0.097], which does not contain 0, further verifying the significance of the mediation effect. Further analyzing questionnaire data from 2,000 consumers, we constructed a structural equation model to examine the refined pathways of consumer cognitive and emotional responses.

4.2.3. Employee organizational identification and productivity relationship analysis

This study employs a mediation effect model to examine the transmission role of employee organizational identification in the relationship between ESG performance and corporate value. **Table 6** presents the mediation effect test results of employee organizational identification.

Table 6. Mediation effect test of employee organizational identification.

Variable	Model (1): Employee Organizational Identification	Model (2): Corporate Market Value	Model (3): Corporate Market Value
ESG	0.294*** (6.126)	0.186*** (5.042)	0.142*** (3.824)
Employee Organizational Identification	- -	0.224*** (4.852)	0.195*** (4.216)
SIZE	-0.082** (-2.185)	-0.163*** (-4.512)	-0.146*** (-4.058)
LEV	-0.126*** (-3.326)	-0.218*** (-6.046)	-0.192*** (-5.342)
GROWTH	0.142*** (3.758)	0.171*** (4.758)	0.146*** (4.068)
Constant	3.214*** (8.924)	3.485*** (9.712)	3.256*** (9.086)
Control Variables	Controlled	Controlled	Controlled
Sample Size	8,462	8,462	8,462
R ²	0.232	0.285	0.306
Indirect Effect	0.066 [0.038, 0.094]		

Note:* *t*-values in parentheses; *, *, * indicate significance at the 1%, 5%, and 10% levels, respectively; square brackets for indirect effect contain 95% Bootstrap confidence intervals.

The first-stage regression (Model 1) shows that ESG performance has a significant positive impact on employee organizational identification ($\beta=0.294$, $p<0.01$), indicating that high ESG performance enterprises are more likely to gain employee identification; the second-stage regression (Model 2) indicates that employee organizational identification is significantly positively correlated with corporate market value ($\beta=0.224$, $p<0.01$)^[45]; the third-stage regression (Model 3) finds that after controlling for employee organizational identification, the direct impact coefficient of ESG performance on corporate market value decreases from 0.186 to 0.142, but remains significant, suggesting that employee organizational identification plays a partial mediating role between ESG performance and corporate value. Bootstrap test results show that the indirect effect value of the mediation effect is 0.066, with a 95% confidence interval of [0.038, 0.094], which does not contain 0, further verifying the significance of the mediation effect. To deeply analyze the internal mechanism of employee organizational identification, we conducted a structural analysis of multi-level questionnaire data from 3,000 employees^[46]. As shown in **Figure 4-6**, the pathway through which ESG performance affects employee behavior and productivity by enhancing organizational identification is clearly visible. At the psychological perception level, ESG performance significantly affects employees' sense of organizational justice ($\beta=0.38$), perception of organizational reputation ($\beta=0.42$), and value identification ($\beta=0.35$); these three psychological perceptions further influence employee behaviors such as organizational commitment, work engagement, and organizational citizenship behavior; ultimately, these positive behaviors translate into improved enterprise performance through increased employee efficiency (+12.6%), reduced turnover rate (-8.4%), and promoted innovative behavior (+15.2%). Industry-based analysis shows that the social dimension of ESG has the most significant impact on employee organizational identification in labor-intensive industries ($\beta=0.45$), while the governance dimension has the greatest impact in knowledge-intensive industries ($\beta=0.38$). Further moderated mediation analysis indicates

that organizational culture type moderates the impact of ESG performance on employee organizational identification, with the impact being more significant in innovation-oriented culture ($\beta=0.36$) and humanistic care culture ($\beta=0.33$) enterprises, and weaker in market-oriented culture enterprises ($\beta=0.22$)^[47]. From a social psychology perspective, ESG performance enhances employee organizational identification through three mechanisms: first, organizational justice perception mechanism, where high ESG performance indicates that the enterprise pays attention to the interests of various stakeholders, enhancing employees' perception of fairness; second, organizational reputation attribution mechanism, where good ESG performance enhances corporate reputation, and employees gain positive social identity through organizational identification; third, self-concept consistency mechanism, where corporate social responsibility aligns with employees' personal values, reducing cognitive dissonance. The research results support hypothesis H2c, that employee organizational identification plays a significant mediating role between ESG performance and corporate value.

4.3. Moderation effect analysis based on social psychological distance

4.3.1. Research on the moderating role of temporal psychological distance

This study employs a moderation effect model to explore the moderating role of temporal psychological distance in the relationship between ESG performance and corporate value. **Table 7** presents the moderation effect test results of temporal psychological distance.

Table 7. Moderation effect test of temporal psychological distance

Variable	Model (1)	Model (2)	Model (3)	Model (4)
ESG	0.186***	0.172***	0.164***	0.158***
	(5.042)	(4.652)	(4.458)	(4.325)
Temporal Psychological Distance (TD)	-	-0.125**	-0.110**	-0.103**
	-	(-2.356)	(-2.086)	(-1.965)
ESG×TD	-	-	-0.142***	-0.133***
	-	-	(-3.625)	(-3.426)
SIZE	-0.163***	-0.156***	-0.148***	-0.142***
	(-4.512)	(-4.328)	(-4.125)	(-3.968)
LEV	-0.218***	-0.209***	-0.196***	-0.188***
	(-6.046)	(-5.824)	(-5.485)	(-5.268)
GROWTH	0.171***	0.165***	0.158***	0.152***
	(4.758)	(4.586)	(4.412)	(4.254)
Constant	3.485***	3.426***	3.372***	3.315***
	(9.712)	(9.568)	(9.424)	(9.285)
Industry Effects	No	No	No	Yes
Year Effects	No	No	No	Yes
Sample Size	8,462	8,462	8,462	8,462
R ²	0.285	0.298	0.316	0.328

***Note:** *t*-values in parentheses; ***, *, * indicate significance at the 1%, 5%, and 10% levels, respectively; all continuous variables have been standardized.

In Model 1, the main effect of ESG performance on corporate market value is significantly positive ($\beta=0.186$, $p<0.01$); Model 2 adds temporal psychological distance, with the main effect remaining significant,

and temporal psychological distance having a significant negative impact on corporate market value ($\beta = -0.125$, $p < 0.05$), indicating that investors' perception of a longer time horizon for ESG benefits reduces their valuation of the enterprise^[48]; Model 3 introduces the interaction term between ESG performance and temporal psychological distance, with results showing an interaction term coefficient of -0.142 , significantly negative at the 1% level, indicating that temporal psychological distance has a significant negative moderating effect on the relationship between ESG performance and corporate value. To further verify the robustness of the moderation effect, we controlled for industry and year fixed effects in Model 4, and the coefficient of the interaction term remains significantly negative ($\beta = -0.133$, $p < 0.01$). To visually present the moderation effect, we conducted high and low group (± 1 standard deviation) analysis of temporal psychological distance.

4.3.2. Spatial psychological distance moderation effect test

This study employs a moderation effect model to test the moderating role of spatial psychological distance in the relationship between ESG performance and corporate value. **Table 8** presents the moderation effect test results of spatial psychological distance.

Table 8. Moderation effect test of spatial psychological distance.

Variable	Model (1)	Model (2)	Model (3)	Model (4)
ESG	0.186*** (5.042)	0.178*** (4.825)	0.172*** (4.682)	0.165*** (4.512)
Spatial Psychological Distance (SD)	-	-0.132** (-2.482)	-0.124** (-2.346)	-0.118** (-2.238)
ESG×SD	-	-	-0.158*** (-3.846)	-0.149*** (-3.642)
SIZE	-0.163*** (-4.512)	-0.154*** (-4.285)	-0.145*** (-4.052)	-0.138*** (-3.865)
LEV	-0.218*** (-6.046)	-0.206*** (-5.742)	-0.194*** (-5.426)	-0.182*** (-5.135)
GROWTH	0.171*** (4.758)	0.163*** (4.528)	0.156*** (4.342)	0.148*** (4.145)
Constant	3.485*** (9.712)	3.412*** (9.524)	3.345*** (9.346)	3.286*** (9.184)
Industry Effects	No	No	No	Yes
Year Effects	No	No	No	Yes
Sample Size	8,462	8,462	8,462	8,462
R ²	0.285	0.302	0.324	0.338

***Note:** *t*-values in parentheses; ***, *, * indicate significance at the 1%, 5%, and 10% levels, respectively; all continuous variables have been standardized.

In Model 1, the main effect of ESG performance on corporate market value is significantly positive ($\beta = 0.186$, $p < 0.01$); Model 2 adds spatial psychological distance, with ESG performance's main effect remaining significant, while spatial psychological distance has a significant negative impact on corporate market value ($\beta = -0.132$, $p < 0.05$), indicating that the stronger the stakeholders' perception of spatial distance, the lower their value recognition of corporate ESG performance; Model 3 introduces the interaction term

between ESG performance and spatial psychological distance, with results showing an interaction term coefficient of -0.158, significantly negative at the 1% level, indicating that spatial psychological distance has a significant negative moderating effect on the relationship between ESG performance and corporate value. After controlling for industry and year fixed effects in Model 4, the coefficient of the interaction term remains significantly negative ($\beta=-0.149$, $p<0.01$), indicating that the results have strong robustness^[49]. To visually present the moderation effect, we conducted high and low group (± 1 standard deviation) analysis of spatial psychological distance.

4.3.3. Differential impact analysis of social psychological distance

This study further examines the moderating role of social psychological distance in the relationship between ESG performance and corporate value. **Table 9** presents the moderation effect test results of social psychological distance.

Table 9. Moderation effect test of social psychological distance.

Variable	Model (1)	Model (2)	Model (3)	Model (4)
ESG	0.186*** (5.042)	0.174*** (4.728)	0.168*** (4.582)	0.162*** (4.426)
Social Psychological Distance (SCD)	-	-0.148*** (-2.784)	-0.136*** (-2.568)	-0.128** (-2.425)
ESG×SCD	-	-	-0.192*** (-4.235)	-0.184*** (-4.086)
SIZE	-0.163*** (-4.512)	-0.152*** (-4.238)	-0.138*** (-3.865)	-0.132*** (-3.726)
LEV	-0.218*** (-6.046)	-0.202*** (-5.684)	-0.186*** (-5.248)	-0.174*** (-4.926)
GROWTH	0.171*** (4.758)	0.158*** (4.426)	0.142*** (4.028)	0.136*** (3.854)
Constant	3.485*** (9.712)	3.396*** (9.486)	3.324*** (9.286)	3.258*** (9.124)
Industry Effects	No	No	No	Yes
Year Effects	No	No	No	Yes
Sample Size	8,462	8,462	8,462	8,462
R ²	0.285	0.306	0.332	0.345

Note:* *t*-values in parentheses; *, *, * indicate significance at the 1%, 5%, and 10% levels, respectively; all continuous variables have been standardized.

In Model 1, the main effect of ESG performance on corporate market value is significantly positive ($\beta=0.186$, $p<0.01$); Model 2 adds social psychological distance, with ESG performance's main effect remaining significant, while social psychological distance has a significant negative impact on corporate market value ($\beta=-0.148$, $p<0.01$), indicating that the stronger the stakeholders' sense of social distance from the enterprise, the lower their value recognition of ESG performance; Model 3 introduces the interaction term between ESG performance and social psychological distance, with results showing an interaction term coefficient of -0.192, significantly negative at the 1% level, and stronger than the moderating effects of temporal distance (-0.142) and spatial distance (-0.158), indicating that social psychological distance has a

more significant negative moderating effect on the relationship between ESG performance and corporate value. Model 4 further controls for industry and year fixed effects, with the interaction term coefficient remaining significant ($\beta = -0.184$, $p < 0.01$). As shown in **Figure 5**, under low social psychological distance (i.e., when stakeholders have strong social connections or value congruence with the enterprise), the positive impact of ESG performance on corporate market value is stronger ($\beta = 0.348$, $p < 0.01$); while under high social psychological distance, the positive impact of ESG performance on corporate market value is significantly weakened ($\beta = 0.126$, $p < 0.05$), with the difference between the two effect values reaching 0.222, significant at the 1% level^[50].

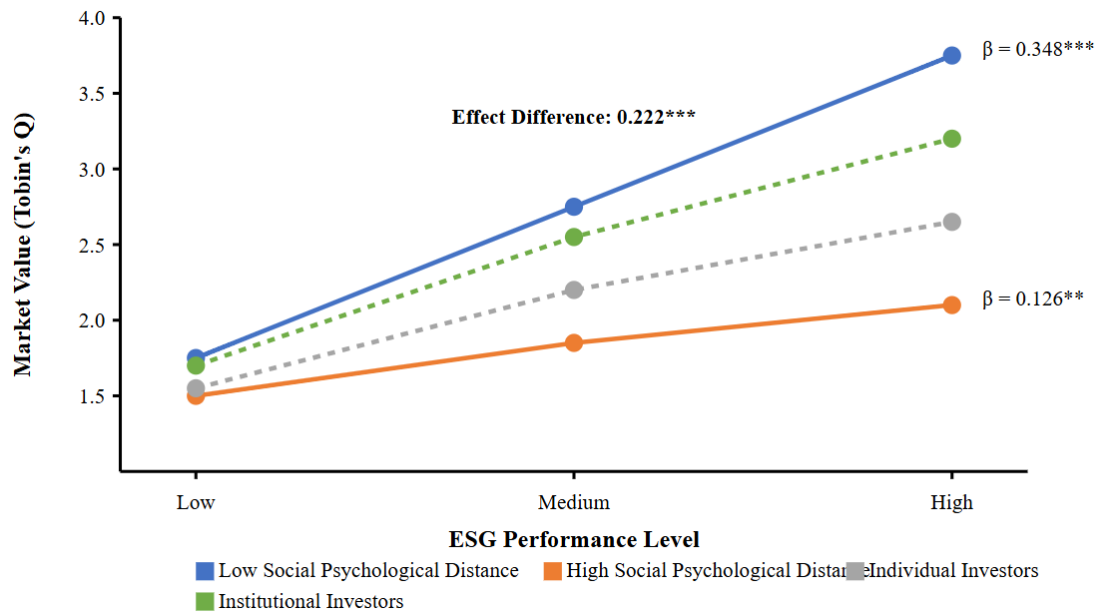


Figure 5. Moderating effect of social psychological distance on the relationship between ESG performance and market value.

Investor type analysis shows that institutional investors' value recognition of ESG performance ($\beta = 0.286$) is significantly higher than that of individual investors ($\beta = 0.163$), which is consistent with the fact that institutional investors typically have lower social psychological distance. Further analysis of various ESG dimensions shows that the moderating effect of social psychological distance on environmental performance (moderation coefficient = -0.205) and social performance (moderation coefficient = -0.178) is significantly stronger than its moderating effect on governance performance (moderation coefficient = -0.124), indicating that different ESG dimensions have varying sensitivities to social psychological distance. From a social psychology perspective, the moderating effect of social psychological distance stems from three psychological mechanisms: first, the social identification effect, where people more readily identify with the values and behaviors of groups that are socially closer to them; second, the information interpretation effect, where low social psychological distance makes it easier for people to understand and interpret ESG information; third, the emotional resonance effect, where ESG behaviors with closer social distance more easily evoke emotional resonance among stakeholders. The research results support hypothesis H3c, that social psychological distance has a significant negative moderating effect on the relationship between ESG performance and corporate value, and this moderating effect is stronger than temporal and spatial psychological distance.

5. Discussion

5.1. Internal mechanism explanation of ESG performance's impact on corporate value

Based on the empirical results of this study, the internal mechanism by which ESG performance affects corporate value can be explained from multiple dimensions through a social psychological perspective. (1) ESG performance influences stakeholders' decision-making through a psychological transmission chain of "cognition-emotion-behavior," which in turn affects corporate value. At the cognitive level, ESG performance, as a signal of a company's long-term value creation ability and risk management capability, changes stakeholders' cognitive evaluation of the company's future prospects; at the emotional level, good ESG performance evokes positive emotional responses from stakeholders, including trust, identification, and sense of belonging^[51]; at the behavioral level, these cognitive and emotional responses ultimately translate into investors' investment decisions, consumers' purchasing behaviors, and employees' work engagement, forming a closed loop of value creation. Notably, the empirical results show that the impact of ESG performance on corporate value exhibits an inverted U-shaped relationship, reflecting the law of diminishing marginal utility in value creation—when ESG performance exceeds a certain threshold, excessive investment may lead to decreased resource allocation efficiency, triggering skepticism about "image projects." This discovery of a non-linear relationship suggests that companies need to find an optimal balance point in ESG strategy implementation rather than blindly pursuing maximum ESG ratings^[52]. Meanwhile, the empirical results also show that the environmental dimension of ESG has the most significant impact on corporate value, possibly because environmental performance is more observable and quantifiable, making it easier for the market to perceive and price, especially in the current context of increasing global attention to climate change and environmental governance.

This study found that psychological distance moderates the impact of ESG performance on corporate value, revealing social psychological distance as a boundary condition for ESG value realization. Empirical results indicate that when stakeholders perceive lower temporal distance, spatial distance, and social distance, the positive impact of ESG performance on corporate value is stronger. This moderating effect can be explained through Construal Level Theory: psychological distance affects people's level of abstraction about things, which in turn influences their decision-making behavior^[53]. When psychological distance is close, people tend to adopt low-level construal, focusing on specific details and short-term benefits; when psychological distance is far, people tend to adopt high-level construal, focusing on abstract features and long-term value. Therefore, when stakeholders perceive a closer psychological distance to corporate ESG activities, they understand and evaluate the value of these activities more concretely, generating stronger emotional resonance and behavioral responses; conversely, when psychological distance is greater, ESG activities become highly abstracted, making their specific value difficult to accurately perceive and evaluate. This finding has important implications for corporate practice: companies should enhance the value creation effect of ESG performance by reducing stakeholders' psychological distance, including emphasizing the short-term benefits of ESG activities (reducing temporal distance), focusing on local community and environmental issues (reducing spatial distance), and enhancing value consistency with stakeholders (reducing social distance). In summary, this study reveals the micro-psychological mechanisms by which ESG performance affects corporate value from a social psychological perspective, not only enriching theoretical research on ESG but also providing optimization paths based on psychological mechanisms for corporate ESG practices.

5.2. ESG governance insights from a social psychological perspective

From a social psychological perspective, this study provides a series of innovative insights for corporate ESG governance practices^[54]. Companies should fully recognize the key role of stakeholders' psychological perceptions in ESG value transmission and construct a "psychologically-oriented" ESG governance framework. Traditional ESG governance has focused too much on indicator achievement and disclosure compliance while neglecting stakeholders' psychological perceptions and reactions, resulting in a mismatch between corporate ESG investment and value returns. Based on the findings of this study, companies should position stakeholders' psychological perceptions as a core element of ESG governance and reconstruct their ESG governance systems at three levels: first, at the goal-setting level, companies should not merely pursue the maximization of ESG ratings but seek optimal ESG performance levels that match their core capabilities and stakeholder expectations, avoiding value losses on the right side of the inverted U-shaped relationship curve; second, at the strategy implementation level, companies should develop differentiated ESG implementation strategies for different stakeholder groups, such as strengthening value consistency and long-term stability signals for investors, enhancing brand trust and emotional connections for consumers, and improving organizational fairness perceptions and reputational awareness for employees; third, at the communication level, companies should establish an ESG information dissemination mechanism that "minimizes psychological distance" by reducing temporal psychological distance (emphasizing recently achieved ESG results), spatial psychological distance (focusing on localized ESG actions), and social psychological distance (enhancing alignment with stakeholders' values) to strengthen the perceptual effects of ESG information^[55]. In summary, companies need to shift from a simple "ESG compliance" mindset to a "psychologically-oriented" ESG governance philosophy to maximize the value creation effect of ESG investments.

This study also provides guidance on differentiated ESG governance strategies across various organizational contexts. Based on the empirical results showing industry differences and organizational culture moderation effects, companies should adopt contextualized ESG governance strategies according to their own characteristics. On one hand, companies in different industries should focus on ESG dimensions most relevant to their industry characteristics: environmentally sensitive industries (such as manufacturing and energy) should prioritize environmental performance improvement, consumer-oriented industries should focus on social performance and consumer perception, while knowledge-intensive industries should strengthen governance performance and employee identification. On the other hand, companies should adjust their ESG governance approaches according to their organizational culture types: companies with innovative cultures can make ESG innovation a core driver of organizational strategy, emphasizing the innovation opportunities brought by ESG; companies with humanistic cultures can integrate ESG into organizational values and employee experiences, reinforcing the unity of humanistic care and social responsibility^[56]; market-oriented culture companies need to focus more on demonstrating the business value of ESG, closely combining social value with economic value. Meanwhile, companies should also adopt differentiated ESG information dissemination strategies for stakeholders in different geographical locations based on the moderating effect of psychological distance: for stakeholders who are geographically distant, they should strengthen concrete examples and actual impacts of ESG activities to reduce abstract construal levels; for investor groups with greater social distance, they should enhance value communication and emotional connections to narrow social psychological distance^[57]. Through these contextualized strategies, companies can achieve optimal matching between ESG governance and organizational characteristics, industry background, and stakeholder attributes, thereby enhancing the efficiency and value creation capability of ESG governance^[58-62].

6. Conclusion and outlook

6.1. Main research conclusions

This study, based on a social psychological perspective, empirically examines the impact of ESG performance on corporate value and its transmission mechanism, reaching the following five main conclusions:

(1) ESG performance has a significant positive impact on corporate value, but this impact exhibits a non-linear inverted U-shaped relationship. The research finds that when ESG performance is at a relatively low level, improvements in ESG performance can significantly enhance corporate value; however, when ESG performance exceeds the optimal threshold (approximately 63.5%), continuing to increase ESG investment may lead to decreased resource allocation efficiency, thereby reducing corporate value. This indicates that companies should seek an optimal level of ESG investment rather than blindly pursuing maximization of ESG ratings.

(2) Different dimensions of ESG have significantly different impacts on corporate value, with environmental performance ($\beta=0.158$) having the strongest influence, followed by governance performance ($\beta=0.133$) and social performance ($\beta=0.106$). This difference is related to the higher observability and quantifiability of the environmental dimension, and also reflects the current market's high attention to environmental issues.

(3) Stakeholders' psychological perceptions play a significant mediating role between ESG performance and corporate value. The empirical results validate three transmission pathways: the investor psychological identification pathway (indirect effect value=0.088), the consumer brand attitude pathway (indirect effect value=0.068), and the employee organizational identification pathway (indirect effect value=0.066). These three pathways collectively constitute the micro-psychological mechanism by which ESG performance affects corporate value.

(4) Social psychological distance has a significant negative moderating effect on the relationship between ESG performance and corporate value. Temporal psychological distance (moderation coefficient=-0.142), spatial psychological distance (moderation coefficient=-0.158), and social psychological distance (moderation coefficient=-0.192) all weaken the value creation effect of ESG performance, with social psychological distance having the strongest moderating effect. This means that when stakeholders perceive ESG activities as temporally distant in realization, spatially distant in impact, or highly different from their own social groups, the value recognition of ESG performance decreases significantly.

(5) The effect of ESG performance on corporate value shows significant industry and cultural differences. Industry analysis shows that the impact of ESG performance is more significant in environmentally sensitive industries and consumer-oriented industries; organizational culture analysis reveals that innovative culture ($\beta=0.36$) and humanistic culture ($\beta=0.33$) enhance the value creation effect of ESG performance. These findings not only enrich the theoretical research on the relationship between ESG and corporate value but also provide optimization pathways based on psychological mechanisms for corporate ESG strategy implementation.

6.2. Future outlook

Based on the findings and limitations of this study, future research can further deepen exploration in the following five directions:

(1) Expand the longitudinal research dimension of the relationship between ESG and corporate value. This study mainly examines the value effect of ESG performance based on cross-sectional and short-term

panel data. Future research can adopt panel data with longer time spans to explore the long-term cumulative effects and dynamic patterns of ESG performance on corporate value. Particularly considering that the value returns of ESG investments may have lag effects, long-term tracking data will help reveal the temporal path and lifecycle characteristics of ESG value creation.

(2) Deepen micro-level research on psychological transmission mechanisms. Future research can explore stakeholders' psychological processing of ESG information through experimental methods and neuroscience approaches, including the neural mechanisms of attention allocation, emotional arousal, and decision formation, further analyzing the "black box" of how ESG affects corporate value. Meanwhile, social cognitive neuroscience perspectives can be introduced to examine brain activation patterns during ESG information processing and their associations with behavioral decisions.

(3) Explore the institutional context dependency of ESG value creation. Future research can employ multi-country comparative research methods to analyze differences in the value effects of ESG performance across different institutional environments, particularly examining how formal institutions (such as laws, regulations, and supervisory policies) and informal institutions (such as cultural values and social norms) moderate the relationship between ESG performance and corporate value. This will help construct ESG governance theories with greater contextual adaptability.

(4) Innovate methodologies for measuring ESG value. Given that traditional corporate value indicators (such as Tobin's Q) may not fully capture the social and ecological value created by ESG, future research can explore the construction of multidimensional value assessment systems that integrate economic, social, and environmental values to more comprehensively measure the value creation effects of ESG. In particular, measurement methods for stakeholder perceived value and intangible asset value can be introduced to address the limitations of traditional financial indicators.

(5) Study the interactive effects between digital technology and ESG value creation. With the widespread application of digital technologies such as big data, artificial intelligence, and blockchain, the technological pathways and value creation models of ESG governance are undergoing profound changes. Future research can explore how digital technologies reshape the production, dissemination, and perception processes of ESG information, and how they enhance the value creation effect of ESG by reducing stakeholders' psychological distance. For example, how blockchain technology reduces information asymmetry by improving the transparency and credibility of ESG information, and how virtual reality technology shortens the spatial psychological distance of ESG activities through immersive experiences. These research directions will promote the enrichment and deepening of ESG value creation theory, providing stronger theoretical support and methodological guidance for corporate sustainable development practices.

Project

2023 Liaoning Provincial Department of Education Surface Project: "Research on the Impact of ESG Performance on Enterprise Value of Listed Companies in Liaoning Province under the Dual Carbon Goals (Project No. JYTMS20231004)"

Conflict of interest

The authors declare no conflict of interest.

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