ESG and stock market performances in the innovation management: evidence from Chinese wellness tourism industries

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Abstract

With the aging population, rising middle-class health awareness, and improved wellness infrastructure, the wellness tourism sector in China has demonstrated significant potential. This study investigated the relationship between Environmental, Social, and Governance (ESG) scores and stock market performance among Chinese public companies in the wellness and tourism industries. Using panel regression and Granger causality analysis from 2015 to 2021, the results revealed that higher ESG, governance, and risk scores significantly improved stock returns, while better ESG, governance, and management scores reduced return volatility. Granger causality tests further confirmed a bidirectional influence between ESG performance and capital market outcomes. These findings suggest that improving ESG performance not only enhances stock returns but also mitigates investment risk. Practical recommendations include strengthening ESG disclosures, integrating ESG strategy into corporate governance, and developing dual-track policies to align financial and ESG goals. This research offers valuable insights for investors, policymakers, and industry practitioners seeking to align sustainable practices with financial performance.

Keywords: ESG Scores; Stock Returns; Stock Risk; Chinese Markets; Wellness and Tourism Industries

Introduction

Topics about corporate social responsibility (CSR) have become mainstream in corporate finance studies in the past decade, the Environmental, Social, and Governance (ESG) scores, as the most

straightforward measures, are widely concerned. Numerous studies have found that ESG scores could quantitatively describe the company's ESG performance, and thus essentially affect firm's financial situations. Pedersen et al. (2021) showed that a firm's ESG score revealed important information about its fundamentals, thus determining investor preferences. As a result, ESG scores significantly affect the required return of stocks. Lööf et al. (2022) proposed that in companies with higher ESG scores, their exposure to downside risk was lower, and their upside return potential was also lower.

Over the past decade, China has introduced a succession of regulations and incentive schemes aimed at heightening ESG consciousness among businesses and investors. This initiative began with the issuance of the Green Credit Guidelines by the China Banking Regulatory Commission in January 2001. These measures have not only profoundly influenced Chinese corporations and the nation's economy but have also had a notable effect on the country's social landscape. To investigate the impacts of ESG performances on firms' financial situation in China, this paper examines the relationship between ESG scores and capital market performance of firms in the wellness and tourism industries in China.

This paper focuses on the wellness and tourism industries for the following two reasons. First, the wellness industry encompasses a wide range of activities and services aimed at promoting physical and mental well–being; thus, ESG considerations play a crucial role. Companies that focus on environmental sustainability, such as those using eco–friendly materials or reducing their carbon footprint, tend to attract environmentally conscious consumers. Social factors, including employee welfare, community engagement, and customer satisfaction, also significantly impact a company's reputation and financial success in this industry. Governance aspects, such as transparent leadership and ethical business practices, further enhance investor confidence and market performance.Similarly, in the tourism industry, which includes travel, hospitality, and leisure activities, ESG factors are becoming increasingly important. Companies that prioritize sustainable tourism practices, such as preserving natural resources and supporting local communities, often gain a competitive edge. Social initiatives, like ensuring the well–being of employees and providing excellent customer service, contribute to a positive brand image and customer loyalty. Strong governance, including responsible management and adherence to ethical standards, helps build trust among stakeholders and can lead to improved stock market performance.

As a result, the integration of ESG principles into business strategies has become essential for companies in the wellness and tourism industries. Those that effectively address ESG issues are likely

to experience enhanced stock market performances, driven by increased investor interest and improved stakeholder relationships. As the importance of ESG continues to grow, it is expected to play an even more significant role in shaping the financial success of these industries in the future.

Research objectives

1. To investigate the impacts of a firm's ESG on its equity market performance in the wellness and tourism industries.

2. To examine the reverse effects of the equity market's performance on the firm's ESG scores.

Literature Review

1. ESG's impacts on equity performance

Because ESG performance becomes a critical factor in determining corporate values, numerous studies examine the measures for firms' ESG performances and the relationship between firms' ESG performances and their financial performances. Yang et al. (2021) suggested that environmental and social issues should be prioritized, including 34 items in 12 categories for the environment and 48 items in 30 categories for society. Although the development of the ESG rating system for Chinese companies started late, it has progressed rapidly in recent years. Chen et al. (2023) mentioned the General Plan for the Reform of the Ecological Civilization System released in September 2015, which required the domestic financial market to establish a mandatory environmental information disclosure mechanism for listed companies. In 2021, the Chinese regulatory authorities issued a series of policies involving the ESG system. In June 2021, the China Securities Regulatory Commission (CSRC) published new guidelines on the format and content of annual and semi-annual reports of listed companies, in which a separate section on "environmental and social responsibility" becomes a required chapter. In October 2021, the China Insurance Asset Management Association established a professional committee on responsible investment in ESG, aiming to coordinate and promote the construction of a comprehensive governance system for ESG investment. Qiu and Yin (2019) examined the relationship between corporate ESG performance and financing cost and found that the quality of information disclosure was an important factor in determining this relationship. Chen et al. (2023) explores whether companies with better non-financial performance could achieve higher investment returns based on the data of A-share companies

in China. Based on stakeholder theory, Yin et al. (2023) document that both financial performance and corporate innovation ability play partial mediating roles in the correlation between ESG performance and stock returns. Lin et al. (2021) analyzed the effects of property rights on innovation and the mediating role ESG performance played using data from 2629 Chinese listed companies between 2007 and 2015.

The ESG scores, developed by several rating agencies, provide quantitative indicators for firms' non–financial performances. Broadstock et al. (2020) show that high–ESG portfolios outperform low–ESG portfolios, especially during financial crises. Pedersen et al. (2021) propose that ESG score provides information about firm fundamentals and affects investor preferences, which affects the required return of stocks. Avramov et al. (2022) document that the market premium increases and demand for stocks declines under ESG uncertainty. According to Zhang et al. (2021), high ESG portfolios earning significantly higher abnormal returns, and good ESG profiles predicting higher future excess returns. Lööf et al. (2022) find that better ESG ratings are associated with lower downside risk and lower upside return potential. Li et al. (2022a) find that higher ESG ratings mitigate firms' default risk. He et al. (2022) finds that firms with ESG information disclosure have lower idiosyncratic risk than their counterparts. Li et al. (2022b) provide evidence for the argument of enhancing ESG scores leads to higher returns and lower risks. Li et al. (2022c) propose that better ESG performances raise the investors' attentions, and thus enhance stock returns. Liu et al. (2023) show that ESG can significantly and robustly reduce stock market volatility and is more pronounced during market downturns. Yin (2024) state that the ESG performance of a company is not significantly correlated with its stock excess returns, but negatively correlated with its stock price volatility. This means that good ESG performance can reduce stock price volatility, but has no definite impact on excess returns. Wu et al. (2022) investigate the impact of ESG certification on the pricing efficiency in Chinese listed firms and examines the internal mechanism of this impact. Their empirics reveal that stocks included in the ESG lists have relatively better pricing efficiency performances.

2. Equity performance's feedback on corporate governance

Recent studies around the world, country–specific or cross–border, examine the impact of corporate governance on firm performance. These research studies have made valuable contributions to corporate governance literature, as they have provided insight into the impact of firm performance. Ownership concentration is positively related to all measures of performance. CEO Duality is positively related to earnings per share only. Cheng and Warfield (2005) observed different effects of the

aggregate ownership of other large shareholders and the remuneration of top executives on firm value. Mouselli and Hussainey (2014) used a multiple regression model to examine the association between corporate governance, analyst coverage, and firm value for a sample of UK firms listed on the London Stock Exchange from 2003 to 2008. They found that overall corporate governance quality is positively associated with the number of analysts following UK firms. Fallatah and Dickins (2012) found that corporate governance and firm performance are unrelated, but corporate governance and firm value are positively related. Velnampy and Niresh (2012) examined the relationship between corporate governance and firm performance with a sample of 28 manufacturing companies using the data representing the periods of 2007–2011. Board structure, board committee, board meeting, and board size, including executive directors, independent non–executive directors, and non–executive directors, were used as the determinants of corporate governance, whereas return on equity and return on assets were used as the measures of firm performance. This study found that determinants of corporate governance are uncorrelated to the organization's performance measures. One can conclude that corporate governance does not affect companies' ROE and ROA. Guo and Kga (2012) found that board size and proportion of non–executive directors on the board have a marginal negative relationship with the firm value; the firm size and director shareholdings significantly impact the performance of listed firms in Sri Lanka. A sample of 37 companies had been selected from the top 50 listed companies in the Lanka Monthly Digest 50 for 2003 and 2007. Both board composition and committees are also significantly related to performance, as measured by Tobin's Q in 2007.

3. Equity performance and corporate governance of wellness and tourism companies in China

Numerous recent studies have examined the relationship between equity performance and corporate governance in China. Irani et al. (2021) examines the effects of business and finance conditions on the stock performances of firms operating in the tourism, hospitality, and leisure industries around the world, including the greater China area. The transfer of controlling rights in listed companies, being a regulated capital operation, requires a complex and variable process, which imposes higher demands on the transaction structure design, post–transfer financial management, and standardized operations. Gonçalves et al. (2024) examined earnings management in the hospitality industry and identify research gaps to be investigated in future research. The extant literature uses various models in different countries

to calculate the earnings gap and panel data regression to analyze the link between earnings management and corporate performance in these companies.

The wellness and tourism industries are research–focused on the field of ESG and equity performance studies. Tisdell and Wen (1991) provide an overview of tourism investment in China, with following–up studies that evaluate the market performance of the tourism sector comprehensively. Through this meticulous examination, the article arrives at some quite resilient and reliable conclusions regarding the investment merits of publicly listed tourism companies based in China. Geng et al. (2021) highlight the economic value added in analyzing the sustainability of performance of tourism listed companies from 2013 to 2015, a topic that has sparked debate among scholars and governments. The article explores the complexities of listing these companies in China's tourism sector, suggesting that it is a practical and efficient operational approach for tourism destinations, which requires continuous development. Jin et al. (2021) are primarily concerned with an in–depth investigation into the real and tangible effects of corporate governance structure on the operational performance of companies in the tourism sector. Moreover, it aims to scrutinize the varying impacts of different types of asset restructurings on the reformation outcomes of these publicly listed tourism companies. The intention is to furnish those involved in decision–making within tourism enterprises with valuable insights that could inform their strategies regarding asset restructuring. Kalia and Aggarwal (2023) show that the ESG performance of listed companies in the pharmaceutical and healthcare industry has a positive impact on stock returns, but the impact of ESG performance on stock returns is not significant for companies in the developing world. As the functionary channel, the financial performance and corporate competitiveness may play a partial mediating role in the mechanism of ESG performance on stock returns.

Conceptual Framework

The Conceptual framework as Figure 1.

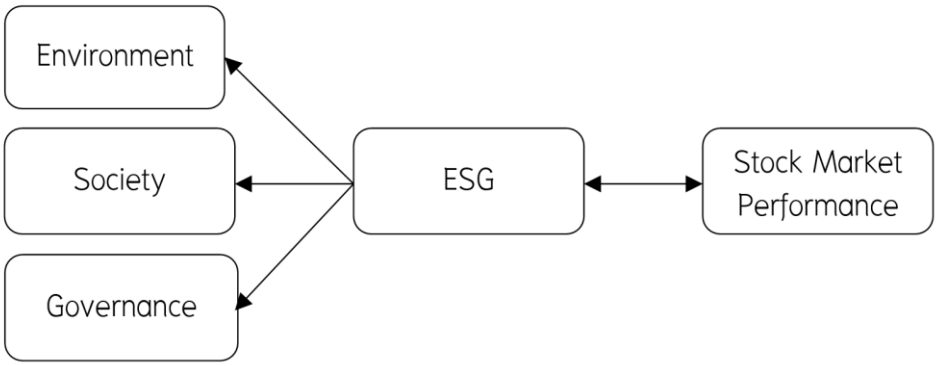

Figure 1 The conceptual framework (Source: Constructed by researcher, 2024)

Research Methodology

1. Population and sample

This study used census method. The sample includes 181 listed companies in the health tourism industry classified and regulated by the China Securities Regulatory Commission. That is, all 181 listed companies in the wellness and tourism industries within A-share market of China are my research subjects.

2. Research tools

Research tools use panel regression analysis to examine the relationships between variables in a panel data set after obtaining data from a database. Research tools also perform causal tests. They determine whether there is a causal relationship between two variables. These tools ensure the integrity of the conclusions drawn from data analysis.

3. Data collection

This thesis mainly uses quantitative research methods.I first obtain the annual ESG scores from the SynTao Green Finance STαR ESG Database for all companies in China's wellness and tourism industry. Since the vendors have been reporting ESG scores in China since 2015, our sample period covers from 2015 to 2021. Secondly, we collect the return data of the stock market of the same companies for the CSMAR database, which includes 1,267 annual observations and 15,204 monthly observations in the sample period. Finally, the financial characteristic variables, such as market

capitalization, book–to–market ratio, Pastor and Stambaugh liquidity indicator, momentum factor, profitability factor, and investment factor, are also collected from the CSMAR database.

4. Data analysis

The summary statistics of all variables are shown in the following tables.

Table 1 Summary statistics of financial variable

	Return (%)	CAP (million)	N (days)	Liquidity (10^{-4})
Mean	0.634	13.357	20.451	0.403
Standard Dev.	16.136	56.700	2.050	16.530
5^{th} percentile	–18.983	0.769	16	–3.561
25^{th} percentile	–7.555	2.161	19	–0.708
Median	–0.868	4.243	21	–0.092
75^{th} percentile	6.574	9.212	22	0.327
95^{th} percentile	24.398	39.528	23	2.442
Skewness	5.725	18.727	–0.773	–10.833
Excess Kurtosis	127.916	503.196	–0.295	6246.283

Note: Skewness and Kurtosis are standardized, so do not have units.

Table 1 indicates that Chinese equities generally had positive monthly returns within the specified period, but with significant variability. Monthly returns ranged from a low of –19% to a high of nearly 25%, showing a wide performance gap. The distribution of returns is skewed to the right with heavy tails, suggesting higher volatility and unpredictability in the stock market.Notably, over three–fourths of companies have capitalization below the median of over 13 million yuan, revealing that a few large companies control most of the market capitalization. The skewed and fat–tailed distribution of capitalization, with positive skewness and high kurtosis, further indicates that large companies disproportionately influence the total stock market capitalization. This underscores the need for investors to carefully consider the distribution of capitalization when making investment decisions.

Trading activity remains steady, with most stocks traded over 16 days monthly, indicating a stable and active market. The Pastor and Stambaugh liquidity indicators show a negative skew, meaning more illiquid stocks than liquid ones. On average, stocks have moderate liquidity, but the high kurtosis indicates a leptokurtic distribution, with many stocks having very low liquidity. Such a pattern suggests

that while most stocks trade regularly, a noticeable portion are infrequently traded in large volumes, which can cause price volatility. Investors should carefully consider liquidity when making investment decisions, as it affects stock price and trading volume.

Table 2 Descriptive statistics of ESG variables

	ESG Score	Manage Score	Risk Score	Govern Score
Mean	48.074	16.894	94.840	44.679
Standard Dev.	4.258	8.040	6.147	6.294
5^{th} percentile	42.75	8.13	82.5	34.48
25^{th} percentile	45.5	11.67	92.5	40.52
Median	47.5	15	97.5	44.64
75^{th} percentile	49.75	19.38	100	49.11
95^{th} percentile	56.25	34.58	100	54.85
Skewness	1.331	1.800	–2.064	–0.010
Excess Kurtosis	3.740	4.099	6.025	0.498

Note: Skewness and Kurtosis are standardized, so do not have units.

Table 2 presents a comprehensive summary of the annual Environmental, Social, and Governance (ESG) scores for each publicly listed company across China. Here we focus on the scores that related to firms' internal operations, because the wellness and tourism companies in China do not execute much environmental or social practices. Therefore, we report the ESG scores, as well as several sub–scores related to internal performance, management scores, risk scores, and governance scores. The ESG–related variables, when evaluated as a whole, exhibit a degree of consistency and stability, with most maintaining relatively consistent scores across various percentiles. However, it is within the management score where we observe the most significant variation, with a broad spectrum of scores observed between different percentiles.

When examining the higher moments of the distribution, we find that the overall ESG score and the management score are positively skewed. Conversely, the risk and governance scores demonstrate a negative skew. The excess kurtosis of these scores approaches zero, indicating that the distribution tapers off gradually rather than having a sharp peak or heavy tails.

As a result, at the firm level, the ESG–related scores tend to approximate a normal distribution. The mean values are closely aligned with the median values, and the higher moments are nearly negligible, especially true for the governance score. The skewness of the governance score is minimally negative (–0.01), and the excess kurtosis is a mere 0.498, suggesting a distribution that is quite close to a standard bell curve. This finding underscores the balanced and symmetrical nature of the governance scores among these publicly listed companies in China, ensuring a fair assessment.

Research Results

1. ESG for companies in the wellness tourism industries has an impact on their stock market performance.

To investigate the relationship between ESG scores and capital market performances, we first develop a correlation table to report the correlations among ESG scores, stock returns, stock return variations, and other financial characteristics in Table 3.

Table 3 Correlation matrix between ESG and capital market performances

	ESG Score	Manage Score	Risk Score	Govern Score
Return	0.040	–0.011	0.090	0.047
	(<0.001)	(0.262)	(<0.001)	(<0.001)
Std of Return	–0.069	–0.133	0.140	–0.062
	(<0.001)	(<0.001)	(<0.001)	(<0.001)
Skewness of Return	–0.015	–0.045	0.062	0.011
	(0.100)	(<0.001)	(<0.001)	(0.244)
Kurtosis of Return	–0.034	–0.041	0.020	–0.023
	(<0.001)	(<0.001)	(0.032)	(0.016)
CAP	0.183	0.353	–0.375	0.080
	(<0.001)	(<0.001)	(<0.001)	(<0.001)
N	0.165	0.157	–0.022	0.105
	(<0.001)	(<0.001)	(0.022)	(<0.001)
Liquidity	0.059	0.084	–0.063	0.027
	(<0.001)	(<0.001)	(<0.001)	(0.005)

Note: the numbers in brackets are p–values.

Table 3 reports the correlations among ESG scores, capital market performances, and financial characteristics. ESG scores correlate significantly with most financial variables; return is uncorrelated with management scores, and skewness is uncorrelated with ESG and governance scores. Furthermore, ESG and governance scores correlate positively with stock return but negatively with return variations. Conversely, the manage score is negatively correlated with both return and variations, while the risk score is positively correlated with both return and variations.

I also run multi–factor regressions to detect the influences of ESG on the capital market performances. The regression equations are shown as below:

$$Return_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \sum \beta_F F_{i,t} + \varepsilon_{i,t} \quad (1)$$

$$Std_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \sum \beta_F F_{i,t} + \varepsilon_{i,t} \quad (2)$$

where $ESG_{i,t}$ represents for the ESG score, manage score, risk score, and governance score, and $F_{i,t}$ is the vector of controlling variables. To test the significance of the coefficients, the study uses the two–tail *t*–test, while the study uses *F*–test and adjusted R^2 to examine the validity of the regression equations.

Table 4 Regression of return and standard deviation on ESG scores

	Return				**Std of Return**			
	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
ESG Score	0.039 [4.26]				–0.121 [–7.36]			
Manage Score		–0.005 [–1.12]				–0.123 [–14.23]		
Risk Score			0.061 [9.60]				0.169 [15.05]	
Govern Score				0.031 [4.97]				–0.074 [–6.63]
Intercep t	–0.592 [–1.34]	1.377 [15.05]	–4.452 [–7.44]	–0.099 [–0.35]	18.438 [23.28]	14.73 [90.45]	–3.421 [–3.20]	15.941 [31.63]
Adj R^2	0.15%	0.00%	0.80%	0.21%	0.47%	1.76%	1.96%	0.38%

Note: the numbers in brackets are t–values.

Table 4 illustrates the relationship between the ESG scores and the financial metrics of return and volatility. The data presented immediately reveal that a significant majority of the ESG scores significantly impact stock returns and their associated volatility. This revelation underscores the pivotal role that environmental, social, and governance factors play in companies' financial performance.

Moreover, a detailed examination of the coefficients reveals that each coefficient corresponding to return is positive. This positive alignment suggests that there is a direct and positive relationship between the level of corporate governance and the returns that a company experiences in the capital market. In essence, the better the corporate governance practices, the higher the potential for stock returns. More importantly, the ESG scores, as well as the specific scores for management and governance, exhibit negative coefficients when correlated with the standard deviation of stock returns. This inverse relationship indicates that as the level of corporate governance improves, the risk associated with the stock returns diminishes, providing a reassuring insight into the potential for risk management. This finding aligns with the extensive body of academic research that has consistently highlighted the role of good governance in mitigating risk.

2. The performance of the stock market has an impact on the ESG scores of listed companies in the wellness tourism industry.

To thoroughly examine the relationship between the stock market's efficiency and the ESG framework, I chose to employ the Granger Causality test to examine the causality between capital market performances and ESG scores. To conduct this test with a high degree of precision, I utilize an F–test that incorporates a lag of two time periods. The specific formula for the test statistic used in this study is $F = \frac{(RSS_R - RSS_U)/q}{RSS_U/(T-k)}$, where RSS_R and RSS_U denote the sums of squared residuals from the restricted regression model and the unrestricted regression model, respectively. The variable q represents the number of parameters present in the restricted model being evaluated. T stands for the total count of observations collected for the study, while k is the corresponding number of parameters from the unrestricted model that is not constrained in the regression analysis. The results are reported in Table 5.

Table 5 Granger Causality Test

Dependent	Independent	F-Statistics	p-value
ESG Score	Return	3.694	0.019
Manage Score		7.629	0.000
Risk Score		7.542	0.000
Govern Score		4.507	0.011
Return	ESG Score	4.527	0.011
	Manage Score	10.610	0.000
	Risk Score	5.596	0.004
	Govern Score	3.038	0.048
ESG Score	Std of Return	5.709	0.003
Manage Score		40.037	0.000
Risk Score		65.504	0.000
Govern Score		3.926	0.020
Std of Return	ESG Score	34.424	0.000
	Manage Score	54.547	0.000
	Risk Score	22.199	0.000
	Govern Score	29.333	0.000

The results suggest that stock return granger-causes manage score and risk score at 1% significance level, while manage score and risk score also Granger-cause stock returns. Moreover, stock return and the other two scores are Granger-cause each other at a 5% significance level. The results show a similar pattern for the causality test of the standard deviation of return, and the results are more significant. The standard deviation of return and all four scores are Granger-cause each other at a 1% significance level, except that the Standard deviation of return Granger-cause governance score is at a 5% level.

Discussion

This study extends the existing literature by providing empirical evidence of the dual relationship between ESG performance and capital market indicators in China's wellness and tourism industries. The

findings confirm and refine several strands of prior research. For instance, the positive relationship between ESG scores and stock returns aligns with Broadstock et al. (2020) and Li et al. (2022c), who found that companies with stronger ESG practices tend to attract more investor attention and enjoy enhanced financial outcomes. Our results further suggest that ESG also plays a crucial role in mitigating return volatility–an insight supported by Liu et al. (2023), who demonstrated that ESG engagement reduces idiosyncratic risk, especially in turbulent markets.

Interestingly, this study also found that individual ESG components contribute differently to return and risk profiles. Governance and risk scores were particularly effective in boosting returns, while management and governance scores played greater roles in reducing volatility. This partially contrasts with Yin (2024), who argued that ESG affects volatility more than returns, but offers no definitive benefit in return enhancement. Such divergence may stem from differences in industry focus—Yin's work examined broad industrial sectors, while our research concentrated on wellness tourism, where governance and risk management are likely more visible and influential due to regulatory sensitivity and consumer trust factors.

Another novel contribution of this study lies in its confirmation of the two–way causality between ESG metrics and capital market performance. Unlike studies that treat ESG as an exogenous determinant (e.g., Avramov et al., 2022), this research shows that stock market success itself may encourage firms to improve ESG disclosures and governance transparency. This aligns with stakeholder theory and supports the notion of feedback loops between investor behavior and corporate sustainability efforts.

In sum, ESG should not only be viewed as a compliance or reputational metric but as a dynamic input–output element of firm strategy, especially in sectors where ethical, social, and environmental concerns are increasingly monetized.

Conclusion

This paper examines the relationship between ESG scores and the capital market performance of Chinese public–listed firms in the wellness and tourism industries. The results show that ESG scores significantly affect capital market performance in these industries in China.

Firms could raise their ESG, risk, and governance scores to enhance their stock returns. For each 1–unit improvement of ESG, risk, and governance scores, the stock return could increase by 3.9 bps,

6.1 bps, and 3.1 bps, respectively. For stock volatility management, firms could also raise their ESG scores. For each 1-unit improvement of ESG, management, and governance scores, the standard deviation of return could decrease by 0.121%, 0.169%, and 0.074%, respectively. Conversely, the risk score negatively affects return volatility mainly due to endogeneity issues; a firm's financial risk affects both the risk score and the standard deviation of stock return.

The Granger Causality Test results provide valuable insights into the relationship between ESG and capital market performance. It shows that ESG scores and capital market performances Granger-cause each other significantly. This suggests that firms in the wellness and tourism industries could enhance their stock market performance by improving their ESG scores. Furthermore, better capital market performances also provide support to firms' ESG efforts and performances.

Based on the results, the policy implications are twofold. First, policymakers could raise investor's attention about ESG by developing correct risk attitudes for most investors. Compared to risk, most investors, especially retail investors, consider solely about returns but ignore potential risk. Therefore, the enhancement of ESG investing both on return and risk could raise investor's abnormal return. Second, policymakers could also develop comprehensive polices that combine both firms' financial target and ESG performances. Based on the two-way effects between ESG performances and capital market performances, firms could build optimal operating strategies to reach both goals.

Suggestions

This study offers both theoretical and practical implications. Theoretically, it contributes to ESG and innovation management literature by revealing the bidirectional causality between ESG scores and stock performance. It supports a dynamic resource-based view of ESG, positioning it as both a strategic input and outcome. Future ESG models should account for this feedback mechanism, especially in sectors with strong regulatory oversight and public scrutiny.

Practically, firms in the wellness and tourism industries are advised to systematically integrate ESG into their core strategic and governance frameworks. Given that governance scores significantly affect both return and volatility, boards should prioritize ethical leadership, transparency, and long-term stakeholder engagement. Policymakers, on the other hand, should consider mandating ESG disclosures

and offering incentives to early adopters. Furthermore, investors should view ESG not merely as a risk filter but as a value-creating factor in portfolio construction.

However, several limitations must be acknowledged. First, the sample is constrained to Chinese A-share companies from 2015–2021 due to data availability. ESG rating standards in China are still evolving, and potential inconsistencies may affect measurement accuracy. Second, the study does not examine cross-industry differences, which may moderate ESG–performance relationships. Third, firm-level qualitative practices (e.g., ESG implementation depth) are not captured by score-based analysis.

Future research could extend the timeframe and include qualitative case studies to triangulate findings. Comparative studies between developed and developing markets would also be valuable, as would deeper explorations of how cultural values and government policy frameworks shape ESG-performance dynamics.

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