

ESG Performance and Corporate Competitive Advantage

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Abstract: Under increasingly intense corporate competition and market pressures, a company must establish competitive advantages to survive and thrive. With the growing global emphasis on environmental protection and social responsibility, Environmental, Social, and Governance (ESG) performance has become a critical factor in building corporate competitive advantage. This paper empirically analyzes the impact of ESG performance on corporate competitive advantage using data from A-share listed companies between 2009 and 2023. The study reveals that ESG performance positively influences corporate sales growth rate and profit margin to a certain extent. Subcategory regression results show that while environmental factors fail to significantly affect sales growth rate, overall ESG performance is positively correlated with both sales growth rate and profit margin, thus facilitating the construction of corporate competitive advantages. Based on these findings, the article recommends that companies enhance their competitive advantages by controlling environmental costs, leveraging policy factors to improve their social image, and adhering to information disclosure practices.

Keywords: ESG performance, competitive advantage, risk mitigation, financing cost

1. Introduction

With the expanding global economy and increasingly fierce competition, corporations must strengthen their competitive advantages to secure market growth. Modern corporate competition is no longer confined to price and quality of products or services but also encompasses factors such as technological innovation, brand building, and market share[1]. In the context of globalization and digital transformation, competitors are no longer limited to local or domestic markets but originate from around the globe, adding complexity and challenges to the competitive landscape. For companies to survive and prosper in such an environment, they must establish unique competitive advantages.

Amid the rising global consciousness of environmental protection and social responsibility, the ESG performance index—encompassing Environmental (E), Social (S), and Governance (G) dimensions—has emerged as a pivotal determinant of corporate competitive advantage. It is also widely regarded as a key metric and practical approach to evaluating a company's sustainable development capabilities and long-term value[2]. Enhancing ESG performance enables companies to build long-term advantages through improved governance efficiency, risk mitigation, and financial management, thereby promoting competitive advantage.

Through a thorough review and analysis of related literature, this paper demonstrates that superior ESG performance provides both internal and external benefits to companies. Internally, it aligns corporate goals and stakeholder interests, driving organizational development. Externally, it controls environmental risks to reduce regulatory burdens, enhances social reputation, and lowers financing costs to alleviate financial pressures[2-4].

2. Literature Review

Neoclassical theorists argue that green development is either negatively correlated with or unrelated to corporate value, as efforts in environmental protection consume managerial resources and divert focus from a company's core business, thereby reducing profitability[5]. They also contend that ESG performance does not enhance corporate operating performance; instead, its strong externalities hinder the achievement of corporate value maximization goals[6]. However, other studies suggest that green development significantly enhances corporate value. Both equity financing and debt financing play supportive roles in driving green development and increasing corporate value[7]. Notably, with the continuous development of China's capital markets, ESG investment has been significantly influenced by institutional investors' preferences, offering a new perspective for ESG investment research.[8]

Existing research, both domestic and international, predominantly focuses on the impact of ESG performance on the company itself, with limited exploration of how ESG performance contributes to a company's competitive advantage in the market. Given China's ongoing efforts to advance ESG research and establish an ESG indicator system tailored to its market, examining the relationship between corporate ESG performance and competitive advantage is of great practical significance for ensuring high-quality economic development.

3. Theoretical Analysis

In modern corporations, the separation of ownership and management gives rise to principal-agent relationships among stakeholders such as shareholders, creditors, and management. This separation introduces two primary issues: goal misalignment among stakeholders and information asymmetry, both of which can lead to agency conflicts and harm corporate value. Under the ESG governance framework, companies can increase transparency by disclosing information, thereby mitigating the impact of information asymmetry, alleviating agency conflicts, and fostering corporate development. ESG governance encompasses core elements such as the responsibilities and relationships among shareholders, the board of directors, the supervisory board, and management, along with aspects like internal controls and risk management. These components form the foundational framework of ESG governance, optimizing corporate governance structures to ensure efficient operations, safeguard stakeholder interests, and enhance corporate performance and competitiveness.

In terms of risk mitigation, ESG performance is particularly effective in managing environmental and operational risks. For example, low-carbon technologies are recognized as a critical force driving global economic development. Within the ESG framework, a company's commitment to sustainable development further advances the low-carbon economy by promoting technological innovation, enabling high-quality growth with reduced environmental risks. Additionally, ESG performance underscores a commitment to social and environmental issues. Strong ESG performance signals increased future investments in these areas, reflecting an emphasis on environmental concerns and social responsibilities. This focus helps reduce future environmental risks and regulatory interventions, thus lowering operational uncertainties. Internally, improved ESG performance enhances corporate social responsibility, while externally, it elevates market recognition, earning the

trust and support of the public and stakeholders. This recognition facilitates partnerships and opportunities, offering companies a competitive edge in the market.

Lastly, ESG performance significantly reduces corporate financing costs. From an interest perspective, under the "green credit" policy, commercial banks often conduct comprehensive evaluations of a company's environmental practices and social image before issuing loans or adjusting interest rates. A strong ESG performance can mitigate such financing risks, enabling companies to secure funds at lower interest rates and costs. Furthermore, regarding the impact on investment and financing activities, strong ESG performance enhances corporate credit ratings, reducing the cost and difficulty of issuing bonds and broadening access to debt financing channels. Studies show that companies with strong ESG performance tend to attract more investor attention and support, driving up stock prices and market capitalization, thereby alleviating financial pressure. In these respects, ESG performance has a critical impact on cost-centric core competitiveness, creating competitive advantages that other companies may lack.

4. Research Hypotheses and Descriptive Statistics

4.1. Data Sources and Sample Selection

This study uses A-share listed companies from 2009 to 2023 as the research sample. ESG rating data is sourced from the Huazheng ESG Ratings database (2009–2023), while industry-related data, basic information, and financial data of sample firms are obtained from the CSMAR database. Following established practices in related studies, the following samples were excluded: (1) financial and insurance companies, and (2) "Special Treatment" (ST) firms. Additionally, firms with missing values were removed to ensure data accuracy. To mitigate the influence of outliers, all continuous variables were winsorized at the top and bottom 1%.

4.2. Model Specification

To investigate the impact of ESG performance on corporate competitive advantage, the following model was constructed:

$$Com_{i,t} = \beta_0 + \beta_1 ESG_{i,t} + \beta_2 controls_{i,t} + \varepsilon$$

Where:

β_1 represents the coefficient of ESG performance, β_2 represents the coefficients for other control variables, and ε denotes the random error term.

1. Dependent Variable: Corporate Competitive Advantage (Com)

Corporate competitive advantage is proxied by sales profit margin and sales growth rate. Sales Profit Margin: Reflects a company's ability to generate profits, indicating its profitability and cost control efficiency. A higher sales profit margin suggests strong pricing power in the market and a competitive advantage[9].

Sales Growth Rate: Indicates the growth rate of a company's sales performance. A high growth rate signifies the ability to expand market share, enhance brand influence, and demonstrate development potential, making it a crucial indicator of competitive advantage[10].

2. Independent Variable: ESG Performance (ESG)

ESG performance is measured using the ESG rating index from Huazheng ESG Ratings, which assigns companies into nine grades: C, CC, CCC, B, BB, BBB, A, AA, and AAA. These grades are converted into numerical values ranging from 1 to 100, with higher values indicating better ESG performance.

Other variables include:

Grow: Sales growth rate. Ope: Sales profit margin. Control Variables: Firm size (Asset), ownership type (SOE), separation of ownership and management (SEP), duality of CEO and chair roles (Dual), current asset turnover ratio (Cat), and debt-to-asset ratio (Lev).

4.3. Descriptive Statistics

Table 1 presents the descriptive statistics for the main variables. The mean sales growth rate (Grow) and sales profit margin (Ope) are 0.173 and 0.0774, respectively, with standard deviations of 0.421 and 0.198. The wide range between the maximum and minimum values of Grow suggests significant variation in sales growth rates among companies, while the variation in Ope is relatively smaller. Similarly, the mean ESG performance score is 73.10, with a standard deviation of 5.188 and a range of 27.290, indicating substantial room for improvement in ESG performance across listed companies in China and significant differences between firms.

Table 1: Descriptive Statistics

| Variable | Sample Size | Mean | Median | Minimum | Maximum | Standard Deviation |
|----------|-------------|--------|--------|---------|---------|--------------------|
| Grow | 38325 | 0.173 | 0.108 | -0.569 | 2.721 | 0.421 |
| Ope | 38325 | 0.0774 | 0.0790 | -0.991 | 0.583 | 0.198 |
| ESG | 38325 | 73.10 | 73.42 | 56.72 | 84.01 | 5.188 |
| Lev | 38325 | 0.422 | 0.411 | 0.0511 | 0.942 | 0.211 |
| Asset | 38325 | 21.46 | 21.31 | 18.32 | 25.66 | 1.466 |
| Cat | 38325 | 1.270 | 1.026 | 0.135 | 5.471 | 0.940 |
| Sep | 38325 | 4.660 | 0 | 0 | 27.92 | 7.271 |
| Dual | 38325 | 0.291 | 0 | 0 | 1 | 0.454 |
| Soe | 38325 | 0.368 | 0 | 0 | 1 | 0.482 |

5. Regression Results Analysis

5.1. Baseline Regression Results

Table 2 reports the baseline regression results for the impact of ESG performance on corporate competitiveness. All regressions control for firm-specific factors and time. Columns (1) and (3) examine the hypothesis using sales growth rate, while Columns (2) and (4) use sales profit margin. Columns (1) and (2) include only the core explanatory variable (ESG performance) in the regression. The results indicate that ESG performance has a significant positive impact on both sales growth rate and sales profit margin at the 5% and 1% significance levels, respectively. Columns (3) and (4) present progressive regression results with the inclusion of control variables, showing that ESG performance remains significantly positive at the 1% level. This confirms the research hypothesis that improved ESG performance enhances sales growth rate and sales profit margin.

Table 2: Regression Results of the Impact of ESG Performance on Corporate Competitiveness

| | (1) Sales Growth Rate | (2) Sales Profit Margin | (3) Sales Growth Rate | (4) Sales Profit Margin |
|-------|-----------------------------|-------------------------------|-----------------------------|-------------------------------|
| ESG | 0.0014** (2.0144) | 0.0054*** (14.7022) | 0.0047*** (6.3777) | 0.0020*** (6.0930) |
| Lev1 | | | -0.0580* (-1.9154) | -0.5040*** (-30.4082) |
| Asset | | | 0.1699*** | 0.0770*** |

Table 2: (continued).

| | | | | |
|-----------------------------|-----------|------------|------------|------------|
| | | | (20.1830) | (18.8722) |
| Cat | | | 0.1217*** | 0.0024 |
| | | | (12.8500) | (0.7352) |
| Soe | | | -0.0711*** | -0.0127 |
| | | | (-3.4009) | (-1.2113) |
| Sep | | | 0.0015* | 0.0005 |
| | | | (1.7028) | (1.3678) |
| Dual | | | 0.0037 | 0.0098** |
| | | | (0.4009) | (2.3081) |
| _cons | 0.2757*** | -0.3194*** | -3.2365*** | -1.5108*** |
| | (5.4439) | (-11.8505) | (-18.7674) | (-17.4933) |
| Individual Fixed Effects | Yes | Yes | Yes | Yes |
| Time Fixed Effects | Yes | Yes | Yes | Yes |
| N | 37959 | 37959 | 35825 | 35825 |
| r2_a | 0.0419 | 0.3247 | 0.1306 | 0.4262 |

5.2. Subcategory Regression Results

Table 3 presents the regression results for the individual dimensions of ESG—Environment (E), Social (S), and Governance (G)—and their impact on corporate competitiveness. The results show that all three dimensions have a significant positive impact on sales profit margin at the 1% level. However, in terms of sales growth rate, environmental performance does not show a significant relationship, while social and governance dimensions remain significantly positively correlated. This indicates that overall, ESG performance positively influences both sales growth rate and sales profit margin to a certain extent.

Table 3: Regression Results of ESG Subcategories on Corporate Competitiveness

| Variable | (1) Sales Growth Rate (E) | (2) Sales Growth Rate (S) | (3) Sales Growth Rate (G) | (4) Sales Profit Margin (E) | (5) Sales Profit Margin (S) | (6) Sales Profit Margin (G) |
|----------|---------------------------------|---------------------------------|---------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Variable | (1) Sales Growth Rate (E) | (2) Sales Growth Rate (S) | (3) Sales Growth Rate (G) | (4) Sales Profit Margin (E) | (5) Sales Profit Margin (S) | (6) Sales Profit Margin (G) |
| E | 0.0040 (8.3975) | | | 0.0006*** (3.1381) | | |
| S | | 0.0015*** (3.8666) | | | 0.0004** (2.5705) | |
| G | | | 0.0008*** (1.4723) | | | 0.0021*** (7.7894) |
| Lev1 | -0.0351 (-1.1740) | -0.0316 (-1.0503) | -0.0398 (-1.3000) | -0.5165*** (-31.2418) | -0.5154*** (-31.2149) | -0.4901*** (-29.5104) |

Table 3: (continued).

| | | | | | | |
|--------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Asset | 0.1667*** (20.0349) | 0.1671*** (19.8264) | 0.1652*** (19.7195) | 0.0798*** (19.4602) | 0.0787*** (19.1268) | 0.0768*** (18.9193) |
| Cat | 0.1234*** (13.0336) | 0.1235*** (12.9948) | 0.1235*** (12.9898) | 0.0013 (0.4070) | 0.0016 (0.4832) | 0.0029 (0.8688) |
| Soe | -0.0694*** (-3.3355) | -0.0717*** (-3.4280) | -0.0713*** (-3.4123) | -0.0123 (-1.1693) | -0.0125 (-1.1877) | -0.0128 (-1.2201) |
| Sep | 0.0015* (1.6661) | 0.0015* (1.6681) | 0.0015* (1.6672) | 0.0005 (1.4100) | 0.0005 (1.4012) | 0.0005 (1.3478) |
| Dual | 0.0033 (0.3560) | 0.0031 (0.3348) | 0.0036 (0.3917) | 0.0099** (2.3362) | 0.0100** (2.3526) | 0.0092** (2.1837) |
| _cons | -3.2855*** (-19.0649) | -3.4270*** (-20.0072) | -3.4297*** (-19.9597) | -1.3826*** (-16.1514) | -1.4226*** (-16.8268) | -1.5303*** (-17.7434) |
| Individual Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Time Fixed Effects | Yes | Yes | Yes | Yes | Yes | Yes |
| <i>N</i> | 35825 | 35825 | 35825 | 35825 | 35825 | 35825 |
| <i>r2_a</i> | 0.1312 | 0.1295 | 0.1290 | 0.4250 | 0.4250 | 0.4282 |

6. Conclusions and Recommendations

This study examines the impact of ESG performance on the construction of corporate competitive advantage using A-share listed companies from 2009 to 2023 as the research sample. The findings reveal a significant positive correlation between ESG performance and corporate competitive advantage. Subcategory regression results further indicate that while environmental factors are not significant, the social and governance dimensions of ESG are significantly positively correlated with sales profit margin and sales growth rate, supporting their role in fostering competitive advantage.

Based on these findings, the following recommendations are proposed:

Environmental Perspective: Given the insignificant impact of environmental factors in the subcategory regression, companies should rationally manage environmental costs to avoid crowding out sales expenses. Balancing environmental investments and sales capital is crucial for maximizing returns and achieving high-quality development.

Social Perspective: The significant regression results suggest that actively enhancing corporate social image positively contributes to building competitive advantage. Companies should prioritize community engagement and social responsibilities, such as labor rights and public safety, which can also improve credit ratings and establish unique competitive advantages, such as broader bond financing channels under “green credit” policies.

Governance Perspective: Corporate governance significantly promotes competitive advantage. Companies should focus on enhancing transparency through information disclosure and continuously optimizing governance structures to ensure effective operations, safeguard stakeholder interests, and improve performance and competitiveness.

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