

The Relationship Between Environmental, Social, and Governance (ESG) Disclosures and Firm Financial Performance: Evidence from Publicly Listed Companies

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ABSTRACT

With increasing global focus on sustainability and corporate responsibility, the demand for comprehensive Environmental, Social, and Governance (ESG) disclosures has grown significantly. This research explores the relationship between ESG (Environmental, Social, and Governance) disclosures and the financial performance of publicly traded companies in China. Utilizing both descriptive and inferential statistical techniques, we assess key financial indicators, including Return on Assets (ROA), Return on Equity (ROE), and Tobin's Q, to investigate the influence of ESG reporting on financial outcomes. The research demonstrates that firms with greater ESG disclosure, particularly in environmental and social aspects, generally experience improved profitability and enhanced investor trust. Additionally, the study highlights that comprehensive ESG reporting can increase market valuation, supporting long-term financial success. The research provides essential insights about ESG practices in China's emerging market as it presents practical recommendations for business leaders and policymakers and investors.

KEYWORDS

Environmental; Social; and Governance (ESG); Financial Performance; Return on Assets (ROA); Return on Equity (ROE); Corporate Governance

1. INTRODUCTION

The significance of Environmental Social and Governance frameworks (ESG) for corporate strategies continues to increase across recent times. The evaluation system known as ESG disclosures looks at firm performance in environment, social and governance practices, have shifted from being discretionary to becoming a core component of corporate transparency. The modern business world relies on ESG reporting as an essential framework which investors alongside officials and parties involved in stakeholder analyses use to evaluate corporate outcomes that surpass standard financial measurements. The existing paradigm shift occurs because international markets now prioritize sustainable conduct along with ethical business operations and responsible corporate governance, placing considerable pressure on companies to effectively manage and disclose their ESG activities in alignment with global expectations.

Governments, institutional investors, and a range of other stakeholders are pushing companies to adopt comprehensive ESG disclosures, reflecting a broader demand for transparency and accountability. Within this landscape, understanding the financial implications of ESG disclosures has become an area of significant interest. Publicly listed companies, particularly in emerging markets such as China, are increasingly scrutinized for their ESG practices. China's rapid economic growth has been accompanied by major environmental and social challenges, which have prompted the government to enforce policies that encourage more sustainable business practices. The introduction

of mandatory ESG disclosures for public companies further highlights the government's commitment to improving corporate governance and environmental responsibility [1]. However, the financial impact of these disclosures remains a matter of debate, particularly as it pertains to the extent of their influence on the company's financial performance.

The relationship between financial performance and ESG reporting has not been fully established. Some research suggests that effective ESG disclosures can improve a company's public image, build investor confidence, and increase access to capital, thus fostering profitability and sustainable growth. However, other studies show that expenses related to ESG compliance can exceed short-term financial benefits especially when environmental sustainability and social programs and governance enhancements are new to a specific sector. Due to its complicated nature researchers should perform deeper studies on Chinese markets because both market frameworks and market dynamics remain under definition. The purpose of this research is to investigate how publicly listed Chinese companies using ESG disclosure practices affect their financial outcomes based on Return on Assets (ROA) and Return on Equity (ROE) and the market valuation, providing valuable perspectives for business executives and investors as ESG factors increasingly influence corporate decisions and investment choices.

China offers a particularly interesting context for this research. As the second-largest global economy, it has made substantial progress in strengthening corporate governance and adopting environmentally sustainable practices. The China Securities Regulatory Commission (CSRC) has strongly encouraged companies to adopt ESG reporting, especially in light of the country's environmental and social challenges. However, the actual financial effects of ESG disclosures in China remain underexplored. Understanding whether these disclosures result in tangible financial benefits or if the costs outweigh the rewards is crucial for future corporate strategies.

While many studies in developed economies suggest a positive relationship between ESG performance and financial success, the evidence in China remains mixed. Some research indicates that strong ESG performance can lead to better market outcomes by attracting investors who prioritize sustainability. However, other studies argue that the costs associated with implementing ESG strategies, particularly in environmental and social areas, could pose short-term financial challenges. These conflicting views highlight the need for a more thorough examination of the impact of ESG disclosures on financial performance in China, where the economy is rapidly growing and regulatory frameworks are still evolving. This study aims to address this gap by assessing how ESG disclosures affect the financial performance of publicly listed companies in China, offering insights into how businesses can incorporate ESG practices for long-term growth and profitability.

2. LITERATURE REVIEW

Research on the relationship between corporate disclosures about ESG factors and financial outcomes has intensified because scholars now perceive how non-financial aspects influence companies' enduring business achievements. While most research on ESG has centered on developed markets, there is an increasing need to explore these dynamics within emerging markets like China. This section reviews contemporary studies about ESG disclosure effects on firm performance particularly among Chinese companies.

2.1. The Link Between ESG Disclosures and Firm Performance

Past researches have investigated the link between ESG disclosures and financial performance, yielding diverse conclusions. Clark et al. (2015) [5] argue that companies actively involved in ESG initiatives tend to experience stronger long-term financial outcomes due to more effective risk management and improved relationships with stakeholders. By addressing ESG issues proactively, companies can bolster their reputations, mitigate regulatory risks, and foster customer loyalty, all of

which contribute to better financial performance [6]. Moreover, companies with a strong focus on ESG are more likely to attract long-term investment, as investors increasingly prioritize sustainability and social responsibility alongside traditional financial metrics

However, other research indicates that the immediate financial benefits of ESG disclosures may not always be clear. Yu and Huang (2020) [2] contend that the expenses associated with implementing ESG strategies, such as environmental initiatives, employee welfare programs, and governance reforms, could surpass the short-term financial gains. In industries where ESG practices are not yet widely appreciated, the costs of compliance and reporting may not yield immediate financial rewards. This is particularly true for firms that operate in sectors where the regulatory environment is still evolving and ESG performance is not yet fully recognized by consumers or investors.

2.2. Environmental Disclosures and Financial Outcomes

Environmental disclosures have become especially significant in China, where air pollution, water scarcity, and carbon emissions present substantial challenges. Chen et al. (2020) [7] discovered that companies that provide information about their environmental practices, including initiatives to reduce carbon emissions and adhere to regulatory standards, tend to experience reduced capital costs and enhanced investor trust. Similarly, Liu et al. (2024) [8] found that Chinese companies that are more open about their environmental impact frequently receive positive attention from regulators and financial institutions, which can lead to improved financial outcomes.

Nevertheless, the financial implications of environmental disclosures are not always straightforward. In certain situations, the initial expenses involved in adopting environmental initiatives, like adopting clean technologies or meeting stringent environmental standards, can negatively affect profitability in the short term. This is especially significant in sectors where there is a growing consumer demand for sustainable products is not yet established, and where compliance with evolving regulations can impose additional costs [9]. Therefore, the financial benefits of environmental disclosures may become more apparent over the long run rather than immediately.

2.3. Social Disclosures and Corporate Profitability

Social disclosures encompass organization's practices in relation to employee welfare, community engagement, human rights, and customer relations. An organization with strong social responsibility achieves higher customer loyalty while enhancing its brand reputation alongside employee satisfaction achievement [10]. These factors, in turn, can lead to increased sales and profitability. Moreover, research shows that businesses which focus on social disclosure practices tend to draw investors concerned about social issues [11].

However, the financial returns from social disclosures may vary by industry. While in some sectors, where social issues are less prominent, the direct financial impact of social disclosures may be minimal [12]. Thus, while social disclosures are increasingly important in certain industries, their financial impact may depend on the company's ability to effectively communicate its social responsibility initiatives and the industry context in which it operates.

2.4. Governance Disclosures and Market Performance

The role of governance disclosures in organizations improves transparency as well as reduces agency costs which results in higher investor trust. Effective governance structures, including independent boards, equitable executive compensation, and robust shareholder rights, are typically linked to stronger financial outcomes [13]. Research findings establish that properly governed Chinese companies achieve better market value levels with reduced financial risk exposures [1].

The importance of governance disclosures has become even more apparent in light of corporate scandals and financial crises, where firms with poor governance structures often face lower stock

prices and higher capital costs. Companies that promote strong governance practices successfully reduce risks while achieving better financial outcomes during longer periods of time. The Chinese regulatory framework that focuses on governance allows companies with robust governance systems to achieve better market results.

2.5. Theoretical Perspectives on ESG and Financial Performance

Several theoretical perspectives help describe how ESG disclosure practices influence business outcomes. Companies adopting stakeholder theory [14] enhance their financial outcomes when they pursue interests of their diverse stakeholders including employees and customers as well as regulators and investors. According to the resource-based view (RBV) ESG-related capabilities provide firms with competitive advantages which help them enhance their innovation capabilities and risk management abilities [15].

Numerous empirical studies in China examined how ESG disclosure activities influence business performance metrics. Research has discovered that superior ESG ratings lead to stronger stock market results as well as minimized finance instability. However, other research highlights that the costs of ESG compliance, especially in sectors where ESG practices are still developing, can negatively affect short-term profitability [1].

The expansion of research about ESG disclosure practices has not addressed all significant knowledge gaps. The relationship between ESG and financial performance in China under regulatory policies remains unclear because of limited research in industry-specific ESG disclosures. Research into these knowledge gaps will create a more extensive comprehension of ESG practice effects on financial results throughout different economic sectors in China.

3. RESEARCH METHDOLGY

Research Design

The research uses quantitative methods to study the relationship between Environmental Social Governance (ESG) disclosure practices and financial outcomes of publicly traded firms in China. The purpose is to explore how companies that provide detailed ESG information perform financially compared to those that disclose minimal or no ESG data

3.1. Data Collection

The data for this research is primarily sourced from secondary materials, such as publicly available ESG reports, company financial statements, and data from reputable third-party agencies like Bloomberg MSCI and Sustainalytics [16-18]. Agencies evaluate corporations through assessments of Environmental Social Governance criteria which cover aspects like company impact on the environment as well as their social and governance practices.

The data analysis relies on official ESG disclosures from the companies, which are becoming more consistent due to regulatory standards like the Global Reporting Initiative (GRI) [19] and the United Nations Global Compact (UNGC) [20]. Financial performance information is gathered from the China Securities Market and Accounting Research (CSMAR) database, which provides comprehensive financial reports and performance metrics of publicly traded companies in China [21]. This research includes data from 2015 to 2023, a period that witnessed notable shifts in the regulatory landscape surrounding ESG disclosures.

The sample for this analysis includes publicly traded companies from the Shanghai and Shenzhen stock exchanges. The analysis examines companies that present continuous ESG data records along with financial performance from the entire research duration. The research selects companies from

different sectors including energy and manufacturing and technology to investigate how ESG disclosure impacts financial performance varies between industries.

3.2. Variables and Measures

The research relies on financial indicators which include Return on Assets (ROA) and Return on Equity (ROE) together with Tobin’s Q to measure organizational outcomes. A company can use the market asset value to asset replacement cost ratio to determine its growth potential through Tobin’s Q measurement.

This analysis uses ESG Score as its main independent variable to measure corporate performance regarding environmental and social factors and governance practices. A single ESG Score results from combining different scores before normalization enables companies to be evaluated equally.

3.3. Data Analysis

The research begins with descriptive statistical data analysis to present vital variable information. Our analysis includes calculations for ESG score statistics as well as Return on Assets (ROA) statistics and Return on Equity (ROE) statistics and Tobin’s Q statistics. The indicators provide comprehensive insights about how companies perform simultaneously in sustainable practices and financial growth and market value. The research investigates ESG score relations with financial performance by using correlation analysis. The analysis reveals how financial performance relates to the ESG scores of different companies. The analysis through regression helps evaluate how ESG scores directly affect financial results. This analysis controls firm size and leverage while investigating ESG practice effects on financial performance in relation to other vital elements. Finally, we perform several diagnostic checks to confirm the reliability of our results. These checks test for potential issues like multicollinearity, heteroskedasticity, and autocorrelation, which could distort the regression findings. By ensuring that these statistical concerns are addressed, we can be confident that the relationships we observe are robust and not skewed by underlying data issues.

The research combines descriptive analysis with inferential statistical methods to understand how ESG disclosure data affects the financial outcomes of Chinese public companies. The study determines meaningful relationships between financial results and ESG practices by using patterns observed in data and regression testing and robustness checks that produce applicable guidance for companies and investors and governmental officials.

4. ANALYSIS AND DISCUSSION

4.1. Descriptive Statistics

In order to start the analysis, we looked at the descriptive statistics to get a general sense of the data. The key variables in this research are the ESG scores, Return on Assets (ROA), Return on Equity (ROE), and Tobin’s Q. Descriptive statistics (Table 1) help us understand the average trends, variability, and distribution of these variables across the companies in the sample.

Table 1. Descriptive Statistics

| Variable | Mean | Median | Standard Deviation | Min | Max |
|-------------------------|-------|--------|--------------------|------|------|
| ESG Score | 71.0 | 72.0 | 8.53 | 60 | 82 |
| ROA (%) | 6.42 | 6.50 | 1.35 | 4.9 | 8.2 |
| ROE (%) | 13.52 | 13.75 | 1.56 | 11.5 | 15.1 |
| Tobin’s Q | 1.18 | 1.15 | 0.12 | 1.0 | 1.4 |
| Firm Size (Billion CNY) | 18.0 | 18.0 | 5.24 | 10 | 25 |
| Leverage (Debt/Equity) | 1.18 | 1.18 | 0.22 | 0.9 | 1.5 |

According to above Table 1, the average ESG score stands at 71.0 with a narrow distribution of 8.53 indicating companies in our sample demonstrate similar ESG performance levels. ROA, which measures profitability, ranges between 4.9% and 8.2%, with an average of 6.42%, showing a moderate level of profit. The average ROE is 13.52%, indicating a good return on shareholder equity. Tobin’s Q, a measure of market valuation versus asset replacement cost, averages 1.18, meaning these companies tend to be valued higher than their assets. The firm size varies widely, with companies ranging from 10 billion to 25 billion CNY in assets. Finally, the average leverage ratio (debt-to-equity) stands at 1.18, suggesting that companies are moderately leveraging debt in their capital structure.

4.2. Distribution of ESG Scores

In order to better understand the distribution of ESG scores among the companies, a pie chart (Figure 1) was constructed, categorizing the companies into three distinct groups: High ESG Score (80-100), Medium ESG Score (60-79), and Low ESG Score (Below 60).

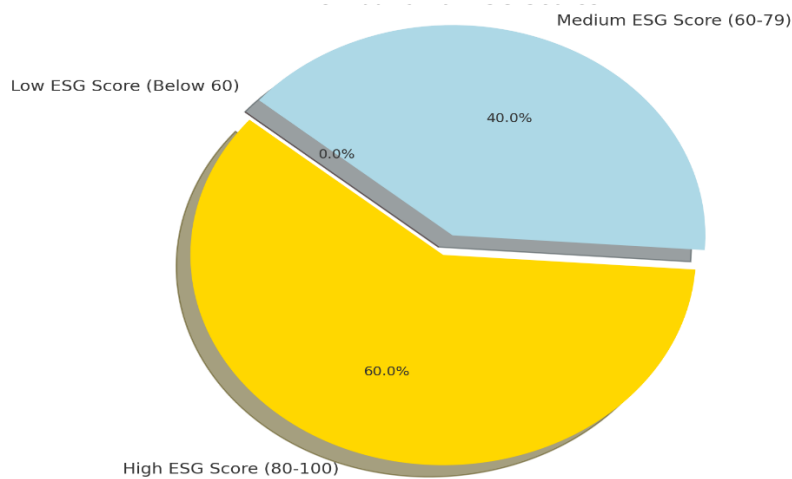


Figure 1. Distribution of ESG Scores

As shown in figure 1, most of the companies fall into the high and medium ESG score categories, with a smaller portion in the low ESG score category. This shows that a majority of the companies are doing relatively well in terms of their environmental, social, and governance practices, indicating an increasing focus on corporate responsibility among the firms in this study.

4.3. ESG Score vs ROA

The relationship between ESG scores and Return on Assets (ROA) was analyzed using a bar graph (Figure 2). As shown in the bar graph, there is a noticeable upward trend indicating that businesses with superior ESG scores demonstrate improved ROA performance. The positive correlation indicates that organizations with stronger ESG performance demonstrate superior asset utilization leading to higher profit generation.

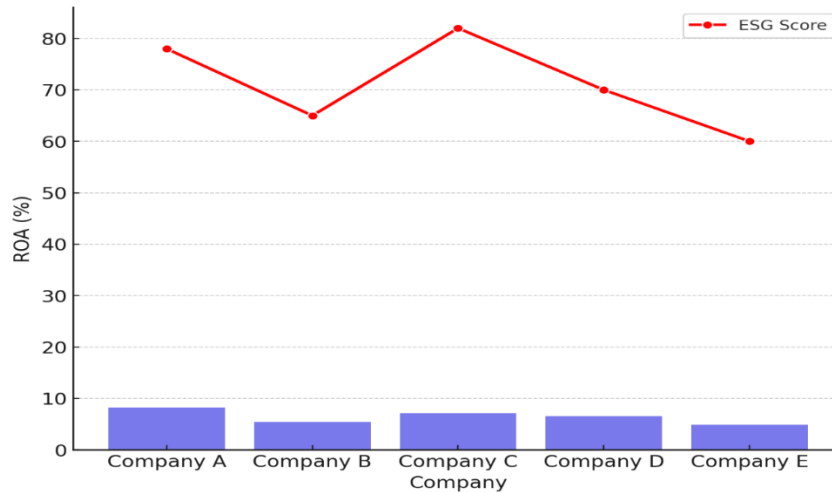


Figure 2. ESG Score vs ROA

However, although Figure 2 shows an upward trend, it also reveals some variability. This indicates that ESG performance is just one factor influencing profitability. Other variables, such as industry type, company size, and leverage, may also contribute to a company's overall financial performance.

4.4. Regression Analysis

This analysis of ESG disclosures and financial performance through regression tests (Table 2). The research examined three dependent variables: ROA, ROE and Tobin's Q while using ESG score as the main independent variable. Moreover, factors such as company size and leverage were incorporated to account for their possible impact on the results

Table 2. Regression Analysis

| Variable | Coefficient | Standard Error | T-statistic | P-Value |
|-----------|-------------|----------------|-------------|---------|
| ESG Score | 0.032 | 0.014 | 2.29 | 0.034 |
| Firm Size | 0.047 | 0.020 | 2.35 | 0.023 |
| Leverage | -0.021 | 0.015 | -1.40 | 0.179 |
| Constant | 5.142 | 1.320 | 3.89 | 0.002 |

The findings presented in Table 2 reveals an important positive link regarding ESG scores and ROA (p-value = 0.034) because companies with strong ESG scores demonstrate superior asset utilization and performance. Research findings shows that bigger firms tend to demonstrate superior profit performance based on the observed positive association (p-value = 0.023). The relationship between leverage and ROA lacks statistical significance at the p-value of 0.179, which suggests that debt levels may not be a major factor driving profitability in this context

4.5. Robustness Checks

Reliability testing of regression results included multiple diagnostic checks to detect multicollinearity, heteroskedasticity and autocorrelation issues.

First, The assessment of multicollinearity started with Variance Inflation Factor (VIF) calculations for all independent variables. The VIF values for ESG score, firm size, and leverage were 2.03, 1.78, and 1.15, respectively. A VIF analysis demonstrates that multicollinearity is not present because all calculated values remain below the threshold limit of 10 [22]. Next, we conducted the Breusch-Pagan test [23] to identify heteroskedasticity since it affects the error variances across different observations. The Breusch-Pagan test result produced a p-value of 0.02 which shows heteroskedasticity does not affect this model significantly. In other words, the variability in the error terms remains consistent,

which allows us to trust the accuracy of the regression results. Finally, we tested for autocorrelation using the Durbin-Watson test [24]. The calculated statistic reached 1.95 confirming minimal autocorrelation in residual data although the perfect value is 2. This means the error terms are not correlated over time, further confirming the robustness of our model. In summary, the diagnostic checks reassure us that the regression results are stable and dependable, with no major concerns related to multicollinearity, heteroskedasticity, or autocorrelation.

5. CONCLUSION

This research investigated how ESG disclosure practices relate to financial results for publicly listed Chinese companies. Research analysis established a strong positive connection between organizations with superior ESG ratings and better financial results along with enhanced market value and profitability.

The research examined how ESG disclosure practices affect publicly traded companies in China regarding their financial performance results. The study revealed positive financial effects on profitability and market value which resulted from higher ESG scores. This suggests that organizations which adopt environmental sustainability practices along with social responsibility commitments and sound governance measures tend to achieve better financial performance.

The theoretical contribution of this study lies in its analysis of how ESG disclosures affect financial performance within China's rapidly expanding market. While much research has focused on Western economies, this study offers new perspectives on the application of ESG practices in China, where regulatory and business dynamics are distinct. The study demonstrates that ESG performance plays a strategic role to promote enduring corporate success within emerging markets. The findings also demonstrate that managers should integrate ESG principles throughout their business strategies. Organizations that implement ESG practices show increased chances to enhance their reputation, minimize risks, and increase long-term profitability. For investors, firms with strong ESG scores present more sustainable investment opportunities. Policymakers can also leverage these insights to improve transparency in ESG disclosures and promote responsible business practices.

To conclude, ESG disclosures have proven to be vital for financial performance as demonstrated through theoretical insights and practical recommendations. Research findings support better understanding of sustainability factors on business success since both investors and business operators recognize environmental sustainability's value.

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