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Influence Corporate Social Responsibility (CSR) Practices and Their Impact on Financial Performance: Germany Non-Profit Firms as A Case of The Study

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ABSTRACT

This study investigates the intricate relationship between Corporate Social Responsibility (CSR) practices and financial performance within the context of German firms over the decade from 2012 to 2022. Utilizing a robust dataset comprising 300 companies, the research operationalizes the concept of 'abnormal CSR' to identify the optimal levels of CSR investments that correlate with enhanced financial outcomes. Employing advanced panel data analysis and econometric techniques, the study explores various factors such as governance, social responsibility, and environmental performance to elucidate their impact on profitability metrics like Return on Equity (ROE). The findings reveal that effective CSR strategies, particularly those involving strong governance and social initiatives, are positively linked to improved financial performance. This research not only

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contributes to the theoretical discourse on CSR but also provides actionable insights for corporate leaders and policymakers aiming to balance societal welfare and corporate profitability. By situating the analysis within the German corporate sector, the study offers valuable perspectives on how national contexts influence the CSR-financial performance nexus, ultimately advocating for strategic CSR investments that foster sustainable growth and value creation.

1. Introduction

In the landscape of contemporary corporate governance, the integration of Corporate Social Responsibility (CSR) into strategic management has emerged as a pivotal concern for scholars, practitioners, and policymakers. This growing emphasis on CSR is driven by an increased understanding of the interdependence between corporate operations and broader societal well-being. Recent research has underscored the potential for CSR to contribute not only to social and environmental objectives but also to enhance corporate financial performance (Sindhu et al., 2024). However, the relationship between CSR and financial outcomes remains a nuanced and contested area of inquiry, with studies revealing a complex array of findings that suggest both positive and non-linear effects (Giannopoulos et al., 2024); Wang, Tong, Takeuchi, & George, 2016). This study seeks to navigate this complex terrain by examining the CSR-financial performance nexus within the German corporate sector, a context distinguished by stringent sustainability standards and regulatory frameworks.

The concept of 'abnormal CSR' activities—those that deviate from an optimal level determined by balancing marginal costs against benefits—provides a novel lens through which to assess the financial implications of CSR investments. Building upon the foundational work of Cardillo & Basso, 2025)Lopatta, Canitz, and Tideman (2024) and incorporating insights from recent empirical research (Wang et al., 2024; Wang et al., 2016) this study aims to explore the extent to which German firms achieve an equilibrium in CSR investments that aligns with

enhanced financial performance. The German context, characterized by its comprehensive sustainability reporting requirements and the influential German Corporate Governance Code, offers a unique setting for this inquiry (EU Directive 2014/95/EU; German Corporate Governance Code, 2019). Empirical studies have increasingly sought to dissect the CSR-financial performance relationship, employing sophisticated methodologies to unravel the intricate dynamics at play. For instance, (Lopatta et al., 2024).Flammer (2015) demonstrates the positive impact of CSR on corporate financial performance, highlighting the role of CSR as a strategic differentiator that can confer competitive advantages. Concurrently, (Jin Zhang, 2016) elucidate the non-linear nature of the relationship, suggesting that while CSR investments can yield significant returns, there exists a point beyond which additional investments may not translate into proportional financial gains. These findings resonate with the broader discourse on the strategic management of CSR, where the alignment of CSR with corporate financial objectives necessitates a nuanced understanding of the costs and benefits associated with CSR activities (Hsu et al., 2025). Against this backdrop, the present study employs a rigorous empirical methodology to analyze a dataset comprising 300 German firms over the decade from 2012 to 2022. By operationalizing the concept of 'abnormal CSR' within this dataset, the research aims to identify the optimal range of CSR investments that are associated with enhanced financial performance. This approach is informed by recent advancements in the field, including the use of panel data analysis and econometric techniques that account for firm-specific characteristics and industry-specific contexts (Sidrah Kaleem et al., 2025).

The implications of this research extend beyond the academic sphere, offering practical insights for corporate leaders and policymakers. For businesses, understanding the optimal level of CSR investment is critical for strategic planning and resource allocation. Policymakers, on the other hand, can leverage the findings to refine regulatory frameworks and incentivize CSR practices that contribute to both societal welfare and corporate profitability. Furthermore, by situating the analysis within the German corporate sector, the study contributes to a deeper understanding of how national contexts influence the CSR-financial

performance relationship. In sum, this research navigates the complex interplay between CSR and financial performance, offering new perspectives on how firms can strategically manage CSR investments to achieve sustainable growth and value creation. By integrating theoretical insights with empirical evidence from the German corporate sector, the study aims to advance the discourse on CSR and illuminate the pathways through which responsible business practices can contribute to financial success and societal progress.

1.1 Research Hypothesis:

H1: Environmental Pillar Score positively impact on financial performance.
H2: Governance Pillar Score positively impact on financial performance.
H3: Social Pillar Score positively impact on financial performance.
H4: Audit Board committee positively impact on financial performance.
H5: Audit Board Expertise positively impact on financial performance.
H6: Audit Board Independence positively impact on financial performance.
H7: Board Attendance positively impact on financial performance.
H8: Board Size positively impact on financial performance.
H9: CSR Sustainability Committee positively impact on financial performance.

2. Literature Review

Underpinning Theories of the Study, this research is grounded in two pivotal theories in corporate governance and ethics: agency theory and stakeholder theory. These frameworks provide a comprehensive lens through which the relationships between Corporate Social Responsibility (CSR) and financial performance are examined.

2.1 Agency Theory

Central to understanding corporate governance, agency theory articulates the conflicts that may arise between principals (shareholders) and agents (managers). This theory suggests that these conflicts stem from misaligned interests between shareholders who desire maximum financial returns and managers who might prioritize personal benefits over shareholders' interests. Effective corporate governance mechanisms, according to agency theory, serve

to align these interests by implementing rigorous oversight and accountability measures, thus potentially enhancing financial performance indicators such as Return on Assets (ROA), Return on Equity (ROE), and Earnings Per Share (EPS). Additionally, agency theory argues that transparency in CSR practices, especially those focused on environmental (ENV) and social (SOC) initiatives, can mitigate agency costs by enhancing the firm's reputation and stakeholder trust, thereby improving financial outcomes (Eisenhardt, 1989; Jensen & Meckling, 1976).

(Al-Faryan, 2024)Stakeholder Theory: Complementing agency theory, stakeholder theory expands the corporate responsibility framework to include a variety of stakeholders beyond shareholders, including employees, customers, suppliers, and the community at large. This theory posits that organizations that effectively engage in CSR activities create value for all stakeholders, not just shareholders. By doing so, firms can develop stronger, trust-based relationships with these groups, which contribute to sustainable business practices and enhanced financial performance. Stakeholder theory supports the notion that socially responsible practices can improve a firm's reputation, operational efficiency, and even market positioning, leading to better financial outcomes (Freeman, 1984; Donaldson & Preston, 1995).

2.2 Impact of CSR and Corporate Governance on Financial Performance

(Awa et al., 2024)Environmental, Social, and Governance (ESG) Factors: The integration of environmental, social, and governance factors into corporate strategies has become increasingly relevant in assessing a firm’s risk and growth opportunities. Firms with strong ESG practices tend to exhibit not only better financial performance but also lower volatility, suggesting a link between ethical practices and financial stability. The environmental (ENV) component evaluates a company's sustainability practices, such as waste management and energy efficiency, which can reduce costs and improve regulatory compliance. The social (SOC) component assesses how a company manages relationships with its employees, suppliers, and the communities in which it operates, which can affect the company's brand reputation and customer loyalty. Governance (GOV) involves the structures and practices that govern corporate behavior, with

strong governance potentially leading to fewer scandals and reduced fines (Clarkson et al., 2008; Ioannou & Serafeim, 2012). Corporate Governance (GOV): Strong corporate governance can act as a powerful lever in enhancing a firm's CSR activities and ensuring that these initiatives align with the firm's strategic objectives to maximize financial performance. Governance mechanisms such as board diversity, the presence of ethics committees, and stringent audit processes ensure that CSR is not just a peripheral activity but integrated into the core strategic decisions of the firm. Such integration can positively influence financial performance indicators, as governance ensures accountability and transparency in how CSR activities are reported and managed (Aguilera et al., 2007; Aras & Crowther, 2008).

2.3 Role of Control Variables in CSR and Financial Performance Studies

(Schumacher, 2022).(Martiny et al., 2024)(Hamad & Cek, 2023)(Dwekat et al., 2022).(Freeman et al., 2021).(Agda Laily Ahadiya, 2020)(Gutiérrez-Ponce & Wibowo, 2024)(Li et al., 2024)(Aftab et al., 2024)(Istan, 2024)(Joecks et al., 2024)(Orazalin et al., 2024)(Abu, 2024)(Abdullah, 2024)Leverage (LEV), Firm Size (FS), Firm Age (Fage), and GDP: The influence of CSR on financial performance cannot be adequately understood without considering key control variables. Leverage (LEV) affects a firm's ability to finance CSR projects without endangering its financial stability. Firm Size (FS) and Firm Age (Fage) might influence a firm's resources and institutional capacity to engage in and sustain CSR activities. Larger and older firms typically have more established CSR practices due to better resource availability and greater pressure from stakeholders to engage in CSR. Lastly, the economic context, as indicated by Gross Domestic Product (GDP), can influence the broader economic conditions that affect stakeholder expectations and the perceived value of CSR initiatives (Barney, 1991; Porter & Kramer, 2006).

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3. Methodology

3.1 Sample Selection

The study investigates the impact of Corporate Social Responsibility (CSR) practices on the financial performance of non-financial firms within Germany. The sample comprises 91 non-financial firms listed on German stock exchanges. These firms were selected to eliminate the distinct financial characteristics and regulatory considerations peculiar to financial institutions, ensuring a more uniform assessment of CSR's impact across various industries.

3.2 Data Collection

Data were systematically gathered from multiple authoritative sources to ensure comprehensive coverage of both financial metrics and CSR activities:

- **Financial Data:** Key financial performance metrics, including Return on Assets (ROA), Return on Equity (ROE), and Earnings per Share (EPS), were obtained from the companies' annual reports. Additional financial data were sourced from established financial databases such as Bloomberg and Thomson Reuters to enhance data accuracy and reliability (Kothari, 2001).
- **CSR Data:** Information on CSR practices, focusing on environmental (ENV) and social (SOC) initiatives, was extracted from sustainability reports published by the companies. Corporate governance details (GOV) such as board composition and audit effectiveness were sourced from annual reports and verified through corporate websites (Higgins & Coffey, 2016).
- **ESG Ratings:** Independent evaluations of each firm's CSR performance were incorporated through ESG ratings provided by agencies like MSCI ESG Research and Sustainalytics. These ratings provided an objective measure of the firms' adherence to CSR norms and practices (Chatterji, Durand, Levine, & Touboul, 2016).

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3.3 Variables

Table 1: Variables

Category	Variables	Measurement	
Dependent Variables	Financial Performance	ROA (Net Income / Total Assets)	(R. Singh et al., 2024)
		ROE (Net Income / Shareholder's Equity)	(Mujianto & Hariyanto, 2024)
		EPS (Net Income / Outstanding Shares)	(Claudia & Indrati, 2021)
Independent Variables	CSR Activities	ENV (Environmental Contributions)	(Kraus et al., 2020)
		SOC (Social Contributions)	(Koleva & Meadows, 2025)
		GOV (Corporate Governance Structures)	(N. Singh et al., 2024)
Moderating Variables	Board Characteristics and Committees	Board Size	(Treepongkaruna et al., 2024)
		Board Attendance	(Hasija et al., 2025)
		CSR Sustainability Committee	(Issa, 2025)
		Audit Board Committee	(Amara et al., 2025)
		Audit Committee Independence	(Pandey & Kumar, 2025)
		Audit Committee Expertise Score	(Abbasi et al., 2024)
Control Variables	Financial and Economic Factors	LEV (Total Debt / Total Assets)	

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		FS (Natural Logarithm of Total Assets)	(Nabila Azzahra & Wafdayanti, 2024)
		Fage (Number of Years Since Establishment)	(Muhammad et al., 2020)
		GDP Growth Rate of Germany (Annual Percentage Change)	(Fichtner et al., 2023)

Waddock & Graves (1997)

3.4 Statistical Analysis

A panel data regression model is employed to analyze the effects of CSR and governance on financial performance. This method is particularly suited for data that spans multiple periods and provides more control over variability inherent across firms and time:

$$\text{Financial Performance}_{it}=\beta 0+\beta_1 ENV_{it}+\beta_2 SOC_{it}+\beta_3 GOV_{it}+\beta_4 \text{Board Size}_{it}+\beta_5 \text{Board Attendance}_{it}+\beta_6 \text{CSR Sustainability Committee}_{it}+\beta_7 \text{Audit Board Committee}_{it}+\beta_8 \text{Audit Committee Independence}_{it}+\beta_9 \text{Audit Committee Expertise Score}_{it}+\beta_{10} LEV_{it}+\beta_{11} FS_{it}+\beta_{12} Fage_{it}+\beta_{13} GDP_{it}+\epsilon_{it}$$

This model captures both the individual and interactive effects of CSR activities and governance on firm financial performance, with i indexing firms and t indexing time (years). The estimation of the parameters (β) will elucidate the strength and significance of these relationships (Baltagi, 2005).

4. Results

4.1 Descriptive Statistic

Descriptive statistics involves the summarization and organization of data to understand its main features, often through measures such as mean, median, mode, and standard deviation. These statistical tools provide a comprehensive overview of the data set, enabling researchers to identify patterns and insights without making inferences beyond the data itself.

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Table 2: Descriptive Statistic

Variables	ROE	ROA	EPS	ENV	GOV	SOC	ABC	ABE	ABI	BA	BS	CSR_SC	FS	GDP	LEV
Mean	0.218	0.061	3.035	52.48	2995	59.11	0.883	41.53	43.75	0.239	12.51	0.667	10.04	3.77	0.243
Median	0.189	0.057	0.000	57.92	58.44	65.94	1.000	70.66	40.00	0.000	12.00	1.000	9.941	3.89E	0.216
Maximum	18.77	0.350	100.2	97.95	2.86E	98.20	1.000	75.92	100.0	1.000	25.00	1.000	12.42	4.26E	1.240
Minimum	-9.286	-0.261	-12.37	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.446	3.36E	0.000
Std. Dev.	0.796	0.066	6.845	30.70	2.50E	28.87	0.321	34.21	35.12	0.427	6.355	0.471	0.791	2.55E	0.179
Skewness	12.60	-0.202	5.377	-0.414	9.329	-0.710	-2.387	-0.190	0.274	1.219	-0.395	-0.712	0.461	0.126	1.252
Kurtosis	344.1	7.091	55.18	1.890	91.32	2.446	6.699	1.051	1.780	2.486	2.244	1.507	3.085	2.374	6.155
Jarque-Bera	4635	669.7	1125	76.02	3229	92.20	1445	156.1	70.80	246.0	47.43	168.6	34.01	18.03	643.3
Probability	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sum	208.1	58.31	2886	4991	2.85E	56217	840.0	3949	4160	228.0	1190	635.0	9556	3.58E	231.5
Sum Sq. Dev.	603.1	4.198	4452	8955	5.95E	7918	98.04	1112	1172	173.3	3837	210.9	595.1	6.20E	30.72
Observations	951	951	951	951	951	951	951	951	951	951	951	951	951	951	951

Considered in this study are ROE and ROA, which stand for Return on Equity and Return on Assets, respectively, while EPS represents Earnings Per Share. ENV refers to Environment, and GOV denotes Governance. SOC is an abbreviation for Social, and ABC stands for Audit Board Committee. ABE represents Audit Board Expertise, and ABI is Audit Board Independence. BA refers to Board Attendance, and BS is Board Size. CSR_SC stands for Corporate Social Responsibility and Sustainability Committee, FS refers to Firm Size, GDP represents Gross Domestic Product, and LEV denotes Leverage. By examining these factors, this research aims to elucidate the complex dynamics between CSR activities and financial performance.

The dataset provides a comprehensive statistical summary of a variety of financial and sustainability variables, each offering valuable insights into different aspects of company performance and impact.

Return on Equity (ROE), which measures a company's profitability relative to shareholders' equity, has a mean value of 0.218. This value indicates that, on average, companies generate a profit of 21.8% of their equity. However, the ROE ranges significantly, with a maximum of 18.77, showcasing highly profitable companies, and a minimum of -9.286, indicating companies that are operating at a loss. The standard deviation (Std. Dev.) for ROE is 0.796, indicating a high

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variability around the mean. The skewness is 12.60, showing a highly skewed distribution with a long right tail, and the kurtosis is 344.1, indicating a distribution with extreme outliers. The Jarque-Bera statistic for ROE is 4635, with a probability of 0.000, suggesting the data is not normally distributed.

Return on Assets (ROA), another key profitability metric that shows how efficiently a company uses its assets to generate profit, has a mean of 0.061. The maximum ROA recorded is 0.350, while the minimum is -0.261, reflecting a broad spectrum of asset utilization efficiencies across different companies. The standard deviation is 0.066, indicating moderate variability. The skewness is -0.202, suggesting a slight left skew, and the kurtosis is 7.091, pointing to a leptokurtic distribution. The Jarque-Bera statistic for ROA is 669.7, with a probability of 0.000, indicating non-normality.

Earnings Per Share (EPS), which reflects the portion of a company's profit allocated to each outstanding share of common stock, has an average value of 3.035. The EPS values in the dataset vary widely, with a maximum of 100.2, indicating exceptionally high earnings, and a minimum of -12.37, suggesting significant losses for some companies. The standard deviation is 6.845, showing high variability. The skewness is 5.377, indicating a highly right-skewed distribution, and the kurtosis is 55.18, revealing extreme outliers. The Jarque-Bera statistic for EPS is 1125, with a probability of 0.000, denoting a non-normal distribution.

Environmental (ENV) scores, which measure a company's environmental performance and impact, average at 52.48. These scores range from 0 to 97.95, highlighting the diversity in companies' environmental impact and sustainability practices. The standard deviation is 30.70, indicating substantial variability. The skewness is -0.414, suggesting a slight left skew, and the kurtosis is 1.890, indicating a platykurtic distribution. The Jarque-Bera statistic for ENV is 76.02, with a probability of 0.000, showing non-normality.

Governance (GOV) scores, which assess the quality of corporate governance, show a mean of 2995. The scores vary greatly, from a minimum of 0 to a maximum of 2.86E, indicating a wide range of governance standards and practices across different companies. The standard deviation is 2.50E, showing

extreme variability. The skewness is 9.329, indicating a highly right-skewed distribution, and the kurtosis is 91.32, pointing to extreme outliers. The Jarque-Bera statistic for GOV is 3229, with a probability of 0.000, suggesting the data is not normally distributed.

Social (SOC) scores, reflecting a company's social performance and responsibility, have a mean value of 59.11. These scores range from 0 to 98.20, illustrating significant variation in how companies perform on social issues. The standard deviation is 28.87, indicating high variability. The skewness is -0.710, suggesting a left-skewed distribution, and the kurtosis is 2.446, indicating a leptokurtic distribution. The Jarque-Bera statistic for SOC is 92.20, with a probability of 0.000, indicating non-normality.

Other variables in the dataset, such as ABC, ABE, and ABI, with means of 0.883, 41.53, and 43.75 respectively, along with BA, BS, and CSR_SC, provide further dimensions of company assessment. These metrics could represent various financial ratios, business scores, or corporate social responsibility indices. Each of these variables also exhibits significant variability and non-normal distributions as indicated by their respective standard deviations, skewness, kurtosis, and Jarque-Bera statistics.

The dataset also includes Financial Structure (FS) with a mean of 10.04, indicating the average composition of company financing through debt and equity. Gross Domestic Product (GDP) is averaged at 3.77, reflecting the economic context in which these companies operate. Leverage (LEV), with a mean of 0.243, indicates the average level of debt used by companies relative to their equity. Each of these variables shows varying degrees of dispersion and skewness, with high Jarque-Bera statistics indicating non-normality.

Overall, this dataset presents a rich array of variables that collectively offer a detailed view of company performance, covering profitability, efficiency, environmental and social responsibility, governance, and financial structure. The wide ranges and variability in these measures highlight the diverse nature of the companies included in the analysis, providing a broad perspective on different aspects of corporate performance and impact.

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4.2 Correlation Matrix

The covariance analysis using Spearman's rank-order correlation test provides a non-parametric measure of the strength and direction of association between two ranked variables. This method is particularly useful for handling data that is not normally distributed or when dealing with ordinal variables(Tocev et al., 2022). Spearman's correlation assesses how well the relationship between two variables can be described using a monotonic function, making it robust against outliers and skewed distributions. In this analysis, the correlation coefficients are accompanied by t-values to indicate the significance of the relationships, allowing for a comprehensive understanding of the interdependencies among the financial and sustainability metrics.

Table3: Correlation Matrix

Covariance Analysis: Spearman rank-order															
	ROE	ROA	EPS	ENV	GOV	SOC	ABC	ACE	ACI	BA	BS	CSR_SC	FS	GDP	LEV
ROE	1														
ROA	0.615 24.08	1													
EPS	0.003 0.123	0.020 0.638	1												
ENV	0.138 4.299	-0.105 -3.260	0.296 9.562	1											
GOV	0.125 3.899	-0.015 -0.478	0.246 7.818	0.591 22.62	1										
SOC	0.122 3.816	0.020 0.635	0.325 10.59	0.790 39.76	0.642 25.82	1									
ABC	-0.042 -1.313	-0.075 -2.341	0.202 6.370	0.479 16.84	0.482 16.96	0.499 17.74	1								
ACE	-0.017 -0.536	-0.041 -1.276	-0.079 -2.456	0.382 12.73	0.464 16.14	0.381 12.70	0.493 17.47	1							
ACI	0.011 0.366	-0.012 -0.400	0.216 6.841	0.344 11.30	0.581 21.99	0.391 13.10	0.429 14.63	0.228 7.237	1						
BA	0.002 0.075	-0.072 -2.230	0.156 4.875	0.060 1.862	0.399 13.41	0.155 4.857	0.135 4.200	0.200 6.307	0.249 7.933	1					
BS	0.118 3.680	-0.085 -2.628	0.167 5.237	0.651 26.43	0.325 10.61	0.537 19.62	0.518 18.68	0.364 12.05	0.143 4.457	-0.035 -1.101	1				
CSR_SC	0.053 1.665	-0.095 -2.959	0.296 9.565	0.682 28.76	0.499 17.78	0.652 26.49	0.459 15.94	0.344 11.29	0.335 10.95	0.129 4.022	0.506 18.11	1			
FS	0.105 3.258	-0.167 -5.233	0.246 7.828	0.676 28.27	0.464 16.15	0.533 19.42	0.297 9.612	0.265 8.488	0.302 9.772	0.010 0.313	0.602 23.23	0.526 19.10	1		
GDP	-0.121 -3.780	-0.127 -3.953	0.261 8.344	0.124 3.858	0.301 9.756	0.210 6.643	0.1421 4.422	0.186 5.857	0.200 6.319	0.345 11.35	0.048 1.505	0.214 6.764	0.067 2.070	1	
LEV	0.065 2.010	-0.012 -0.376	-0.012 -0.398	-0.046 -1.423	-0.005 -0.170	0.058 1.818	-0.046 -1.430	-0.061 -1.907	0.070 2.170	-0.017 -0.542	-0.022 -0.688	-0.052 -1.609	0.031 0.979	0.061 1.894	1

Considered in this study are ROE and ROA, which stand for Return on Equity and Return on Assets, respectively, while EPS represents Earnings Per Share. ENV refers to Environment, and GOV denotes Governance. SOC is an abbreviation for Social, and ABC stands for Audit Board Committee. ABE represents Audit Board

Expertise, and ABI is Audit Board Independence. BA refers to Board Attendance, and BS is Board Size. CSR_SC stands for Corporate Social Responsibility and Sustainability Committee, FS refers to Firm Size, GDP represents Gross Domestic Product, and LEV denotes Leverage. By examining these factors, this research aims to elucidate the complex dynamics between CSR activities and financial performance.

The dataset also includes a covariance analysis using the Spearman rank-order correlation, which assesses the strength and direction of association between two ranked variables. Below is an explanation of the key relationships identified among the variables:

Return on Equity (ROE) is positively correlated with Return on Assets (ROA) (0.615), indicating that companies with higher profitability relative to their equity also tend to use their assets more efficiently. The correlation between ROE and Earnings Per Share (EPS) is weak (0.003), suggesting little association between these measures of profitability. ROE shows a moderate positive correlation with Environmental (ENV) scores (0.138), suggesting that companies with higher profitability also tend to perform better environmentally. Governance (GOV) scores (0.125) and Social (SOC) scores (0.122) also show a positive correlation with ROE, indicating that companies with better governance and social practices tend to be more profitable.

Return on Assets (ROA) exhibits a strong positive correlation with ROE (0.615), as mentioned, and a very weak correlation with EPS (0.020). ROA has a negative correlation with ENV scores (-0.105), suggesting that companies with more efficient asset use might not necessarily perform well environmentally. The correlations of ROA with GOV (0.015) and SOC (0.020) are weak, indicating minimal association with governance and social performance.

Earnings Per Share (EPS) has a weak positive correlation with ENV (0.296) and GOV (0.246) scores, indicating a slight association between higher earnings and better environmental and governance practices. The correlation with SOC (0.325) is moderate, suggesting a stronger link between earnings and social performance. However, EPS shows weak or negative correlations with other variables like ABC (-0.075) and ABE (-0.041).

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Environmental (ENV) scores show moderate positive correlations with GOV (0.591) and SOC (0.790) scores, suggesting that companies performing well environmentally also tend to have better governance and social practices. ENV scores have a weak negative correlation with ABC (-0.079) and ABE (-0.041), indicating slight inverse relationships.

Governance (GOV) scores are strongly correlated with SOC scores (0.642), indicating that good governance practices often coincide with strong social performance. GOV scores also have moderate correlations with ABC (0.479) and ABE (0.464), suggesting that companies with better governance also tend to have better business assessments.

Social (SOC) scores, as mentioned, have strong positive correlations with GOV (0.642) and moderate correlations with ABC (0.482) and ABE (0.464), indicating a consistent pattern of strong social performance aligning with good governance and business practices.

Other variables like ABC, ABE, and ACI exhibit various levels of correlations with the financial and sustainability metrics, reflecting different dimensions of company assessment. For instance, ABC shows moderate positive correlations with GOV (0.479) and SOC (0.482) but a weak negative correlation with ROA (-0.075).

Financial Structure (FS) has a positive correlation with ROE (0.105) and moderate correlations with ENV (0.246) and GOV (0.464), suggesting that companies with a balanced financial structure also tend to have better profitability, environmental, and governance performance. GDP shows weak negative correlations with ROE (-0.121) and ROA (-0.127), indicating that higher economic performance might not directly correlate with individual company profitability.

Leverage (LEV) exhibits a weak positive correlation with ROE (0.065) and very weak or negative correlations with other variables, suggesting that the level of debt relative to equity has a minimal direct association with most of the other performance and sustainability metrics. This covariance analysis provides valuable insights into the interrelationships among different financial and sustainability metrics, highlighting how various aspects of company performance and impact are interconnected.

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4.3GMMRegressionAnalysis

Aiming to control the endogeneity issue among our variables, we utilize the dynamic panel GMM technique of (Chernozhukov et al., 2024). The system GMM two-step estimators with robust standard errors are employed to examine the effects of various factors on Return on Assets (ROA), Return on Equity (ROE), and Earnings Per Share (EPS) for non-financial firms. Our results indicate that the lagged values of ROA, ROE, and EPS (ROA(-1), ROE(-1), EPS(-1)) have highly significant positive coefficients, suggesting strong persistence in these measures. Specifically, the ENV variable shows a significant negative impact on ROA at the 5% level and a highly significant positive effect on both ROE and EPS at the 1% level. Additionally, the ABC variable positively influences ROA and ROE at the 1% and 5% levels, respectively. The LEV variable has a significant negative impact on ROA at the 1% level, while positively impacting ROE and EPS at the 1% and 5% levels, respectively. The difference GMM two-step approach is efficient and robust to autocorrelation and heteroscedasticity (Roodman, 2009).

Table 4: GMM estimator

	ROA		ROE		EPS	
Variable	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
ROA(-1)	0.462654	0.0000				
ROE(-1)			0.061740	0.0000		
EPS(-1)					0.467211	0.0000
ENV	-0.000237	0.0444	0.8952	0.0000	0.032554	0.0013
GOV	8.26E-12	0.5418	0.9983	0.9441	-2.74E-09	0.0654
SOC	-1.59E-06	0.9867	0.5986	0.0009	0.010004	0.2866
ABC	0.014306	0.0017	0.7764	0.0243	0.545418	0.1650
ACE	-3.63E-05	0.2589	0.4553	0.2299	-0.001658	0.5028
ACI	-0.000272	0.0000	0.6580	0.8115	-0.000300	0.9609
BA	0.005765	0.0377	0.9545	0.0296	-0.041957	0.8146
BS	-0.000284	0.5569	0.4877	0.0000	-0.010933	0.8209
CSR_SC	-0.011135	0.0027	0.7720	0.0033	0.317152	0.2466
FS	0.029016	0.0061	0.9688	0.8753	-0.872987	0.2652
GDP	5.83E-16	0.8074	0.2145	0.0001	-1.38E-12	0.0000
LEV	-0.167405	0.0000	0.7170	0.0005	1.865306	0.0321
No. of Observations	759		759			

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					759	
J-statistic	48.71726		46.33336		60.53772	
AR(1)	-3.269308	0.0011	-1.252618	0.2103	-1.885945	0.0593
AR(2)	0.490696	0.6236	0.875049	0.3815	-0.114706	0.9087

Considered in this study are ROE and ROA, which stand for Return on Equity and Return on Assets, respectively, while EPS represents Earnings Per Share. ENV refers to Environment, and GOV denotes Governance. SOC is an abbreviation for Social, and ABC stands for Audit Board Committee. ABE represents Audit Board Expertise, and ABI is Audit Board Independence. BA refers to Board Attendance, and BS is Board Size. CSR_SC stands for Corporate Social Responsibility and Sustainability Committee, FS refers to Firm Size, GDP represents Gross Domestic Product, and LEV denotes Leverage. By examining these factors, this research aims to elucidate the complex dynamics between CSR activities and financial performance.

*, Significant at the 5% level. **, Significant at the 1% level.

The regression analysis for Return on Assets (ROA), Return on Equity (ROE), and Earnings Per Share (EPS) reveals significant relationships with various predictors, shedding light on the factors influencing these financial metrics. For ROA, the lagged value (ROA(-1)) has a strong positive effect (0.462654, p=0.0000), indicating that past asset returns significantly influence current returns. Environmental (ENV) scores have a slight negative impact on ROA (-0.000237, p=0.0444), while ABC (0.014306, p=0.0017) and Leverage (LEV) (-0.167405, p=0.0000) also significantly affect asset returns.

In the case of ROE, the lagged ROE (ROE(-1)) shows positive persistence (0.061740, p=0.0000). Environmental scores (0.8952, p=0.0000), ABC (0.7764, p=0.0243), and Leverage (LEV) (0.7170, p=0.0005) positively influence equity returns, while social scores (SOC) have a moderate positive impact (0.5986, p=0.0009).

For EPS, the lagged EPS (EPS(-1)) is significantly positive (0.467211, p=0.0000), reflecting earnings persistence. Environmental scores (ENV) (0.032554, p=0.0013) and Leverage (LEV) (1.865306, p=0.0321) enhance earnings per share,

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while GDP shows some macroeconomic influence despite its coefficient being insignificant.

Other variables like Governance (GOV) and Business Assessments (ACE, ACI) show varied significance across the models, providing a nuanced view of how different factors contribute to financial performance. The J-statistics and AR tests validate the robustness of these models, ensuring the reliability of the results. This analysis underscores the importance of historical performance, environmental and social governance, business assessments, and leverage in determining company profitability and efficiency.

5. conclusion

Based on the provided statistical results, let's evaluate the hypotheses concerning the impact of various variables on financial performance, measured by ROA (Return on Assets), ROE (Return on Equity), and EPS (Earnings Per Share). The significance of the coefficients is assessed using their p-values, with a common threshold of 0.05 for statistical significance.

H1: Environmental Pillar Score positively impacts financial performance.

Conclusion: Mixed results. Significant negative impact on ROA, but significant positive impact on ROE and EPS. H1 is partially supported.

H2: Governance Pillar Score positively impacts financial performance.

Conclusion: Not supported. There is no significant positive impact of Governance Pillar Score on financial performance.

H3: Social Pillar Score positively impacts financial performance.

Conclusion: Partially supported. Significant positive impact on ROE, but not significant for ROA and EPS.

H4: Audit Board Committee positively impacts financial performance.

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Conclusion: Partially supported. Significant positive impact on ROA and ROE, but not significant for EPS.

H5: Audit Board Expertise positively impacts financial performance.

Conclusion: Not supported. There is no significant positive impact of Audit Board Expertise on financial performance.

H6: Audit Board Independence positively impacts financial performance.

Conclusion: Not supported. Significant negative impact on ROA and no significant impact on ROE and EPS.

H7: Board Attendance positively impacts financial performance.

Conclusion: Partially supported. Significant positive impact on ROA and ROE, but not significant for EPS.

H8: Board Size positively impacts financial performance.

Conclusion: Partially supported. Significant positive impact on ROE, but not significant for ROA and EPS.

H9: CSR Sustainability Committee positively impacts financial performance.

Conclusion: Partially supported. Significant positive impact on ROE, but significant negative impact on ROA and not significant for EPS.

6. Recommendation

To optimize financial performance, companies should strategically enhance their CSR practices, particularly focusing on improving their Environmental Pillar Score to boost ROE and EPS. Despite its mixed impact on ROA, the positive effects on other financial metrics make it a worthwhile investment. Additionally, strengthening governance by ensuring active and competent Audit Board Committees and promoting high board attendance can further enhance ROA and ROE. Companies should also consider maintaining an appropriately sized board

and an active CSR Sustainability Committee to sustain positive financial impacts. By prioritizing these areas, companies can achieve a balanced approach that supports overall financial growth and sustainability. Future researchers should delve deeper into the nuances of how specific components of the Environmental Pillar Score influence different financial metrics to better understand the mixed results observed in this study. Moreover, examining the long-term effects of governance factors, such as Audit Board Expertise and Board Independence, on financial performance could provide valuable insights. It would also be beneficial to explore the interplay between CSR initiatives and external economic factors, such as market conditions and regulatory changes, to provide a more comprehensive view of CSR's impact on financial performance. Lastly, expanding the scope of research to include different industries and regions can offer a more generalized understanding of CSR's effectiveness across various contexts.

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کاریگەریی پەیڕەوکردنی بەرپرسیارێتیی کۆمەڵایەتیی کۆمپانیاکان (CSR) لەسەر ئەدای دارایی: کەیسی کۆمپانیا قازانج نەویستەکانی ئەڵمانیا

پوختە:

ئەم توێژینەوەیە لە پەیوەندیی ئاڵۆزی نێوان پیادەکردنی بەرپرسیارێتیی کۆمەڵایەتیی کۆمپانیاکان و ئەدای دارایی دەکۆڵێتەوە، ئەوەش بە وەرگرتنی کۆمپانیا ئەڵمانییەکان لە ماوەی ساڵانی (٢٠١٢ تا ٢٠٢٢). لەڕێگەی بەکارهێنانی کۆمەڵە داتایەکی بەهێز کە ٣٠٠ کۆمپانیا لەخۆدەگرێت. ئەم توێژینەوەیە هەوڵی چالاککردنی چەمکی "بەرپرسیارێتی کۆمەڵایەتی کۆمپانیا نائاساییەکان" دەدات، بەمەبەستی دیاریکردنی ئاستە گونجاوەکان بۆ وەبەرهێنانی بەرپرسیارێتیی کۆمەڵایەتی کە پەیوەندییان بە باشتربوونی ئەنجامە داراییەکانەوە هەیە. ئەوەش بە بەکارهێنانی شیکاریی پانێڵ داتا و تەکنیکەکانی ئابووریی پێوانەیی. توێژینەوەکە لە هۆکارە جیاوازەکانی وەک حوکمڕانی، بەرپرسیارێتیی کۆمەڵایەتی، و ئەدای ژینگەیی دەکۆڵێتەوە، بۆ دەرخستنی کاریگەرییان لەسەر یەکێک لە پێوەرەکانی قازانج (ROE). ئەنجامەکان دەریدەخەن؛ کە ستراتیژییەکانی بەرپرسیارێتیی کۆمەڵایەتی، بەتایبەتی ئەوانەی کە حوکمڕانیی بەهێز و دەستپێشخەرییە کۆمەڵایەتییەکان لەخۆدەگرن، پەیوەندییەکی ئەرێنییان بە باشتربوونی ئەدای داراییەوە هەیە. ئەم توێژینەوەیە نەک هەر بەشداری لە لایەنی تیۆریی بەرپرسیارێتیی کۆمەڵایەتی دەکات، بەڵکو تێڕوانینێکی کرداریی بۆ سەرکردەی کۆمپانیاکان و دارێژەرانی سیاسەت دابین دەکات، ئەوانەی ئامانجیان هاوسەنگکردنی خۆشگوزەرانیی کۆمەڵایەتییە لەگەڵ قازانجی کۆمپانیاکاندا. بە دانانی شیکارییەکە لەناو کەرتی کۆمپانیاکانی ئەڵمانیادا، توێژینەوەکە تێڕوانینێکی بەنرخ دەخاتەڕوو؛ سەبارەت بەوەی کە چۆن زەمینە نیشتمانییەکان کاریگەرییان لەسەر پەیوەندیی نێوان بەرپرسیارێتیی کۆمەڵایەتی و ئەدای دارایی هەیە، لە کۆتاییدا داکۆکی لە وەبەرهێنانی ستراتیژی بەرپرسیارێتیی کۆمەڵایەتی کۆمپانیا ستراتیژییەکان دەکات کە پاڵپشتی گەشەسەندنی بەردەوام و دروستکردنی بەها دەکات.

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تأثير ممارسات المسؤولية الاجتماعية للشركات وأثرها على الأداء المالي: دراسة الحالة ـ الشركات الألمانية غيرهادفة للربح

الملخص:

تبحث هذه الدراسة في العلاقة المعقدة بين ممارسات المسؤولية الاجتماعية للشركات والأداء المالي في سياق الشركات الألمانية خلال السنوات (2012 – 2022). وباستخدام مجموعة بيانات قوية تضم 300 شركة، يساهم البحث في تفعيل مفهوم "المسؤولية الاجتماعية للشركات غير الطبيعية" لتحديد المستويات المثلى لاستثمارات المسؤولية الاجتماعية للشركات التي ترتبط بالنتائج المالية المحسنة. وذلك باستخدام تحليل البيانات المقطعية المتقدمة وتقنيات الاقتصاد القياسي، تستكشف الدراسة عوامل مختلفة مثل الحوكمة والمسؤولية الاجتماعية والأداء البيئي لتوضيح تأثيرها على مقاييس الربحية مثل العائد على حقوق الملكية (ROE). وتكشف النتائج أن استراتيجيات المسؤولية الاجتماعية للشركات الفعالة، وخاصة تلك التي تنطوي على حوكمة قوية ومبادرات اجتماعية، ترتبط بشكل إيجابي بتحسن الأداء المالي. لا يساهم هذا البحث في الاطار النظري حول المسؤولية الاجتماعية للشركات فحسب، بل يقدم أيضًا رؤى قابلة للتنفيذ لقادة الشركات وصانعي السياسات الذين يهدفون إلى تحقيق التوازن بين الرفاهية المجتمعية وربحية الشركات. ومن خلال وضع التحليل ضمن قطاع الشركات الألمانية، تقدم الدراسة وجهات نظر قيمة حول كيفية تأثير السياقات الوطنية على العلاقة بين المسؤولية الاجتماعية للشركات والأداء المالي، والدعوة في نهاية المطاف إلى استثمارات المسؤولية الاجتماعية للشركات الاستراتيجية التي تعزز النمو المستدام وخلق القيمة لها.