The interplay of CSR, ethical leadership, and corporate governance on Indonesia's construction material firm performance

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Abstract

This study investigates how Corporate Social Responsibility (CSR), Ethical Leadership (EL), and Corporate Governance (CG) influence firm performance in Indonesia's construction materials industry. Using a quantitative research approach, the study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze survey data collected from 84 industry professionals. The results reveal that corporate governance has a significant direct positive effect on firm performance, whereas CSR and ethical leadership exhibit no direct impact. However, corporate governance serves a critical moderating role, weakening the effect of CSR on firm performance while strengthening the impact of ethical leadership. These findings underscore the necessity of a strong governance framework to translate CSR and ethical leadership initiatives into improved business outcomes. The study contributes to stakeholder theory and offers practical recommendations for businesses and policymakers to enhance corporate governance mechanisms that align with CSR and ethical leadership objectives. Addressing a notable research gap, this study focuses on the underexplored construction materials sector, which is crucial to Indonesia's infrastructure development and broader sustainability challenges.

Keywords: *CSR, ethical leadership, firm performance, corporate governance, construction material industry.*

Introduction

According to Statista (2023), the construction industry in Indonesia contributes the fourth largest portion of the country's GDP, and the country receives some of the highest construction investment levels in Asia. This significant numbers shows how important the contribution of Indonesia's construction material industry to the country, making it also important for the government to ensure the industry's growth by developing the archipelago's infrastructure to improve connection.

The Indonesian construction market is projected to grow from USD 264.34 billion in 2023 to USD 379.41 billion by 2028, with a CAGR of 7.5%. This growth aligns with a 20% increase in government infrastructure spending, from USD 359.2 billion (2015–2019) to USD 429.7 billion (2020–2024) (Mordor Intelligence). Rising infrastructure development is driving demand for construction materials, as confirmed by Volvo Construction Equipment's report on increased need for aggregates and quarrying machinery.

As the fourth-largest contributor to GDP in 2023, Indonesia's construction sector faces growing scrutiny over unethical practices and poor governance. Environmental violations by firms like PT Merak Jaya Beton (Yuantisya & Muhtarom, 2023) and PT Power Steel (Ma'arif, 2023), as well as the 2013 Mambu River pollution incident (Fernandes), highlight ongoing waste disposal issues. Additionally, labor concerns persist, such as the fatal

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explosion at PT Indonesia Tsingshan Stainless Steel in December 2023, which killed 19 workers (BBC News, 2023). These cases underline the urgent need to address corporate responsibility in the sector.

Indonesia's rapidly growing construction sector faces key challenges, including environmental degradation, unsafe labor practices, and regulatory shortcomings. These issues underscore the need for stronger corporate responsibility. This study examines how corporate social responsibility, ethical leadership, and effective governance contribute to improved organizational performance. It offers a framework for companies seeking sustainable growth through responsible and well-managed business practices.

The impact of CSR on firm performance has been widely studied in Asian countries like Vietnam, China, and India (Nguyen et al., 2021; Qazi & Aspal, 2021; Dai et al., 2021). In contrast, Indonesian research has not focused specifically on the construction sector, often using samples from publicly listed firms across industries (Novitasari & Tarigan, 2022). The relationships among CSR, ethical leadership, corporate governance, and performance indicators remain underexplored in this sector—particularly the role of governance as a moderating factor. This study addresses this gap, offering practical insights into how CSR and leadership strategies can enhance performance in an important but understudied industry.

Indonesia's construction market, projected to exceed $13 billion by 2026 (Globe Newswire, 2023), and generate $38 billion in revenue from hardware and building materials in 2023 (Anisah, 2022), is growing rapidly, with over 175,000 building material businesses. As competition intensifies, companies are turning to CSR and ethical leadership to differentiate themselves amid rising stakeholder expectations. With ongoing issues like unsafe work conditions Ghuzdewan and Damanik (2021) and improper waste disposal (US EPA, 2024), responsible practices are becoming essential—not just for reputation, but for long-term success in a sector critical to Indonesia's economy.

As stated by Nguyen et al. (2021), The justification for the moderating effects is as follows: whether or not the workers believe that the leader is morally upright may have an impact on their perceptions of the work environment, including CSR values. Encouraging employee involvement and supporting moral leaders in their corporate decision-making are two benefits of an ethical workplace. A company's reputation and financial performance may be impacted by any of these consequences. On the other hand, the local communities and neighbourhoods that construction companies operate in are directly impacted by the new projects they work on. Therefore, it is one of the construction company's professional responsibilities to do CSR in order to manage these impacts in a way that minimises disruption and maximises benefits for all parties.

Amid rising competition from low-cost imports and new suppliers, businesses are adopting strategies to attract investors and expand market share, such as building international partnerships, improving the political and economic environment, and enhancing service sector practices (Nugraheni et al., 2021). However, growing pressure demands new approaches. In this context, CSR and ethical leadership are becoming vital differentiators. CSR involves accountability for social and environmental impacts, while ethical leadership emphasizes fairness and transparency. For construction suppliers, these practices can improve market access, equity, and stability. Studying these factors is essential for sustainable growth and long-term competitiveness.

As the background explained while given the research gaps and need for evidence-based insights on leveraging corporate character, the following study will be conducted on Indonesia's Construction Material Firm Performance. Unlike previous studies that focus on firms listed on the stock exchange (Novitasari & Tarigan, 2022), this research uniquely examines the construction materials sector, which plays a vital role in Indonesia's infrastructure development. Beyond its GDP contribution, this sector significantly influences environmental sustainability, labor conditions, and regulatory compliance. Despite these critical implications, limited studies have specifically investigated CSR and corporate governance in this sector, creating a substantial research gap.

Literature Review

Stakeholder theory, originally introduced by Freeman (1984), posits that organizations should consider the interests of all stakeholders, not just shareholders, in their decision-making processes. Over time, the theory has evolved, with (2016) expanding the framework to address the increasing complexities of stakeholder relationships in a globalized, interconnected world. Companies today face greater scrutiny from a wider variety of stakeholders, including environmental groups, regulatory bodies, and local communities, all of whom expect businesses to demonstrate social responsibility. Recent work by Le (2023) has emphasized the importance of adapting stakeholder theory to emerging markets, where cultural, political, and social dynamics often influence corporate behavior. Additionally, Maon et al. (2022) argue that integrating sustainability into corporate strategies is no longer optional but essential for organizations seeking to maintain their social license to operate.

The stakeholder theory provides a strategic view of corporate responsibility Katsoulakos and Katsoulacos (2007), suggesting that CSR costs may indirectly lead to financial benefits through improved stakeholder relationships (Wu, 2006; Hammann et al., 2009; Sweeney, 2007). Scholars argue that the concept of stakeholders is fundamental to CSR Maon et al. (2009), as it concerns managing both internal and external stakeholders ethically and responsibly while maintaining company profitability (Hopkins, 2005). The theory has been widely used to explain the correlation between CSR and company performance Adeneye and Ahmed (2015), with evidence suggesting that socially responsible activities can positively impact financial performance through enhanced stakeholder relationships (Le, 2022).

Corporate Social Responsibility (CSR) has been shown to provide both direct and indirect benefits to firms. Directly, CSR can lead to tangible efficiency gains and attract consumers, which in turn increases profitability. Indirectly, CSR enhances a company's reputation and drives innovation, as demonstrated in emerging market contexts (Bahta et al., 2021; Novitasari & Tarigan, 2022). Moreover, CSR has been found to strengthen employee retention and satisfaction, suggesting a potential positive impact on overall firm performance (Le, 2022). These findings highlight the importance of CSR not only as a tool for external market engagement but also as a driver of internal organizational success. The absence of a direct effect of CSR on firm performance may reflect industry-specific conditions. In the Indonesian construction materials sector, CSR initiatives often focus on regulatory compliance rather than strategic differentiation. Many firms engage in CSR due to external pressure rather than voluntary commitment, which may dilute its impact on

business performance. Furthermore, the industry's cost-driven nature prioritizes financial efficiency over sustainability, reducing the perceived value of CSR investments. Based on these insights, we propose the following hypothesis:
H_1: CSR has a significant effect on firm performance

While recent research on the direct impact of CSR and Ethical Leadership on firm performance remains limited, several studies have explored their related effects. Ethical leadership, for example, has been linked to improved organizational citizenship behaviors among employees, which can positively influence overall performance (Nemr & Liu, 2021). Ethical leadership, defined as leading by example with integrity, fairness, and transparency, fosters a work environment that enhances employee commitment and productivity. Given these potential benefits, we propose the following hypothesis:
H_2: Ethical Leadership has a significant effect on firm performance

Corporate Governance moderates the link between CSR and Firm Performance by influencing the effectiveness of CSR initiatives. The study by Siddiqui et al. (2023) found a moderate effect of corporate governance on both CSR disclosure and corporate reputation (CR), which in turn contributes to firm performance. Specifically, CEO integrity and ownership concentration were identified as critical factors that enhance the relationship between CSR and firm performance, suggesting that effective governance mechanisms can lead to better outcomes from CSR activities. In the other hand, as evidenced by findings from Wu et al. (2015) in the context of CEO Ethical Leadership, it has been established that such leadership positively influences CSR through the moderation of organizational ethical culture. This relationship is further moderated by factors such as managerial discretion, which includes aspects like CEO founder status and firm size. Corporate Governance serves as a crucial moderator in the relationship between Ethical Leadership and Firm Performance through three key mechanisms: it enhances the effectiveness of CSR initiatives through ownership concentration and CEO integrity; influences managerial discretion, which strengthens the connection between CEO ethical leadership and organizational ethical culture; and impacts CSR disclosure and corporate reputation management, where well-governed firms more effectively communicate their ethical practices, ultimately leading to improved firm performance through these interrelated channels (Wu et al., 2015).

However, more recent studies, such as Siddiqui et al. (2023), have explored how governance mechanisms, particularly board independence and transparency, influence CSR disclosures and ultimately the reputation and financial performance of firms. Kotsantonis et al. (2021) provide a comprehensive review of governance practices in the context of ESG, emphasizing the growing need for robust governance frameworks to address environmental and social challenges. Furthermore, Sweeney (2022) explores the evolving role of corporate governance in promoting ethical leadership and CSR initiatives, noting the increasing importance of governance in driving long-term business sustainability.
H_3: Corporate Governance moderates the link between CSR and Firm Performance.
H_4: Corporate Governance moderates the link between Ethical Leadership and Firm Performance

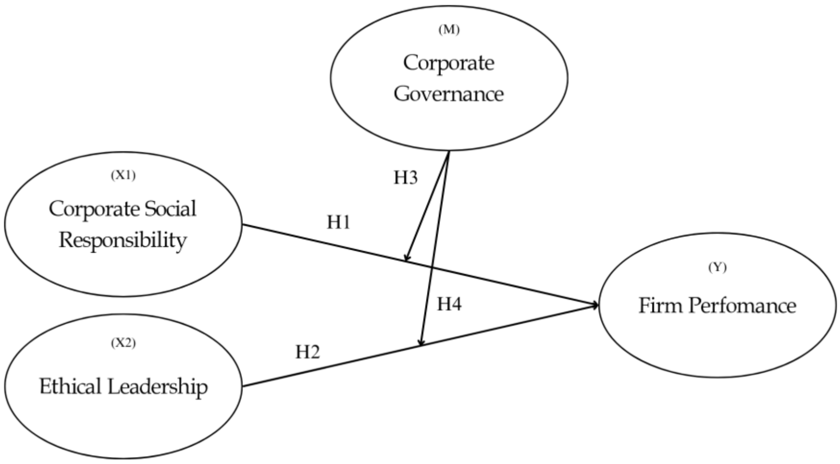

Figure 1. Research Design

Methods

The partial least squares (PLS) regression approach will be used to statistically analyse the data collected via questionnaires as part of this study's quantitative research methodology. The survey incorporates a 5-point Likert scale measurement system, where participants can respond with the options of "Strongly Disagree" to "Strongly Agree" for most questions, and from "Worse" to "Better" for measurement items of Firm Performance. The survey link was distributed through various social media platforms.

To determine the appropriate sample size for this study, we employed G*Power, a statistical tool designed for power analysis calculations. Our focus was on linear multiple regression with a fixed model approach. The analysis parameters were set as follows: 3 number of predictors, significance level (α) at 0.05, medium effect size (f^2) at 0.15, and statistical power at 0.80. These settings ensure an 80% probability of detecting true effects while maintaining a 5% risk of false positives. Based on these parameters, G*Power calculated that a minimum sample size of 77 participants would be required to achieve statistically robust and reliable results.

This research specifically targets employees representing companies in the construction materials industry, with two essential qualifying criteria: the company must be actively implementing CSR projects and must operate within Indonesia. To identify suitable participants, the study will employ purposive non-probability sampling. This targeted approach helps maintain focus on the Indonesian market context, which may have unique characteristics or regulations, thereby ensuring the collected data is relevant and meaningful to the study's objectives.

Result and Discussions

Out of 129 potential respondents, 84 completed the survey, yielding a 65.12% response rate. Table 2 presents demographic data, showing a diverse organizational profile. Most respondents were Middle Managers (20.2%), followed by Directors (17.7%), Senior Managers and Team Leaders (16.7% each), CEOs (10.7%), and Owners (8.4%). A majority (39.2%) had 11–20 years of experience, and the 41–50 age group was most common (29.8%). Respondents were well-educated, with 45.2% holding bachelor's and 32.1%

master's degrees.

Table 1. Demographic and Respondents' Characteristics Data Result

Position	N	%
Owner	7	8%
CEO	9	11%
Director	15	18%
Senior Manager	14	17%
Middle Manager	17	20%
Assistant Manager	7	8%
Team Leader	14	17%
Sales	1	1%
Total	84	100%
Years of Experience		
≤ 5	16	19%
6 – 10	21	25%
11 – 20	33	39%
> 20	14	17%
Total	84	100%
Age		
< 25	5	6%
25 – 30	15	18%
31 – 40	17	20%
41 – 50	25	30%
51 – 60	20	24%
> 60	2	2%
Total	84	100%
Education		
High School	5	6%
Diploma	9	11%
S1	38	45%
S2	27	32%
S3	5	6%
Total	84	100%

Company Products	N	%
Porcelain	3	4%
Metal	9	11%
Paint	35	42%
Glass	3	4%
Plastics	1	1%
Ceramics	4	5%
Hardware Tools	3	4%
Wooden Construction	2	2%
Tiles, Bricks, Floor Tiles, etc	12	14%
Cement, Limestone, Sand and Stone	12	14%
Total	84	100 %
Company Type		
Family companies managed by internal and external board of directors	12	14%
Family companies managed by internal family members	8	10%
Non-family companies managed by board of directors	40	48%
Non-family companies without board of directors, managed by management team	24	29%
Total	84	100 %
Number of Employees		
5 – 9 People	7	8%
20 – 99 People	22	26%
≥ 100 People	55	65%
Total	84	100 %
Company Age		
≤ 5 Years Old	7	8%
6 – 10 Years Old	5	6%
11 – 20 Years Old	25	30%
21 – 49 Years Old	31	37%
≥ 50 Years Old	16	19%
Total	84	100 %

Most companies operated in the paint industry (41.7%), followed by tiles/bricks and cement/limestone (14.3% each). Non-family firms with boards of directors (47.6%) and large enterprises (65.5%) were dominant. Additionally, 36.9% of firms were 21–49 years old, indicating business maturity.

The study's measurement model underwent reliability and validity testing for all key constructs (CSR, EL, CG, and FP). The analysis revealed strong reliability, with both Cronbach's Alpha and composite reliability exceeding 0.7 for most of variables, meeting established thresholds (Hair et al., 2014, 2016a). Based on the survey, the indicator items CSR6, CSR7, CSR13, and FP19 are eliminated. Apart from that, the model also demonstrated good convergent validity, as factor loadings surpassed 0.7 and Average Variance Extract (AVE) values were above 0.5, meeting acceptance criteria (Henseler et al., 2009). For discriminant validity, following Fornell and Larcker's (1981) criteria, the square root of each construct's AVE exceeded its correlations with other constructs, confirming that each construct was distinctly different from others (Hair et al., 2014). These results, shown in Tables 3 and 4, validate the measurement model's overall reliability and validity, satisfying Fornell and Larcker's (1981) requirements.

Table 2. Discriminant Validity Results

Fornell-Larcker

Variables	CG	CSR	EL	FP
CG	0.974			
CSR	0.322	0.857		
EL	0.154	0.015	0.981	
FP	0.708	0.309	0.088	0.975

Heterotrait-monotrait ratio (HTMT)

Variables	CG	CSR	EL	FP
CG				
CSR	0.324			
EL	0.155	0.052		
FP	0.708	0.309	0.086	

Notes: Corporate Governance (CG), Corporate Social Responsibility (CSR), Ethical Leadership (EL), Firm Performance (FP)

For alternatives, according to Hair et al. (2021), HTMT minimum score needs to be less than 0.85. It is shown by the data analysis (refer to appendix) that every HTMT number is less than 0.85. These findings support the validity of the factors implemented in this study.

The analysis of the results highlights strong and significant linkages between corporate governance (CG), ethical leadership (EL), corporate social responsibility (CSR), and firm performance (FP), with corporate governance emerging as the most impactful factor. The factor loading values for all constructs exceed the 0.70 threshold, indicating strong indicator reliability and confirming the robustness of the measurement model (Hair et al., 2014).

Table 3. Hypothesis Testing

Direct Effect							
Hyphotesis	Path	Original Sample	Sample Mean	Standard Deviation	T Statistic	P Values	Hypothesis Support
H1	CSR - FP	0.080	0.105	0.109	0.729	0.466	Not Supporting
H2	EL - FP	0.203	0.180	0.171	1.191	0.234	Not Supporting
	CG - FP	0.528	0.536	0.127	4.157	0.000	Supporting
Indirect Effect							
Hyphotesis	Path	Original Sample	Sample Mean	Standard Deviation	T statistic	P Values	Hypothesis Support
H3	CSR - CG - FP	-0.287	-0.297	0.137	2.100	0.036	Supporting
H4	EL - CG - FP	0.357	0.300	0.177	2.018	0.044	Supporting

Notes: Corporate Governance (CG), Corporate Social Responsibility (CSR), Ethical Leadership (EL), Firm Performance (FP)

Specifically, corporate governance exhibits a significant positive impact on firm performance, with a path coefficient of 0.528 (p-value: 0.000), signaling that governance mechanisms are a primary driver of organizational performance. In contrast, the direct effects of CSR and ethical leadership on firm performance are not statistically significant, with CSR yielding a path coefficient of 0.080 (p-value: 0.466) and ethical leadership showing a path coefficient of 0.203 (p-value: 0.234). These findings suggest that CSR and ethical leadership, while important, do not independently drive firm performance in the same way as corporate governance does. However, the moderating role of corporate governance reveals further nuances in the data: corporate governance dampens the negative indirect effect of CSR on performance (path coefficient: -0.287, p-value: 0.036), implying that effective governance systems may hinder the translation of CSR initiatives into tangible performance outcomes. On the other hand, corporate governance positively moderates the relationship between ethical leadership and firm performance (path coefficient: 0.357, p-value: 0.044), highlighting that ethical leadership can indeed influence performance, but only when it operates within the framework of strong governance structures. This reinforces the idea that while CSR and ethical leadership contribute to long-term success, it is corporate governance that acts as the critical enabler, ensuring these initiatives translate into meaningful business outcomes.

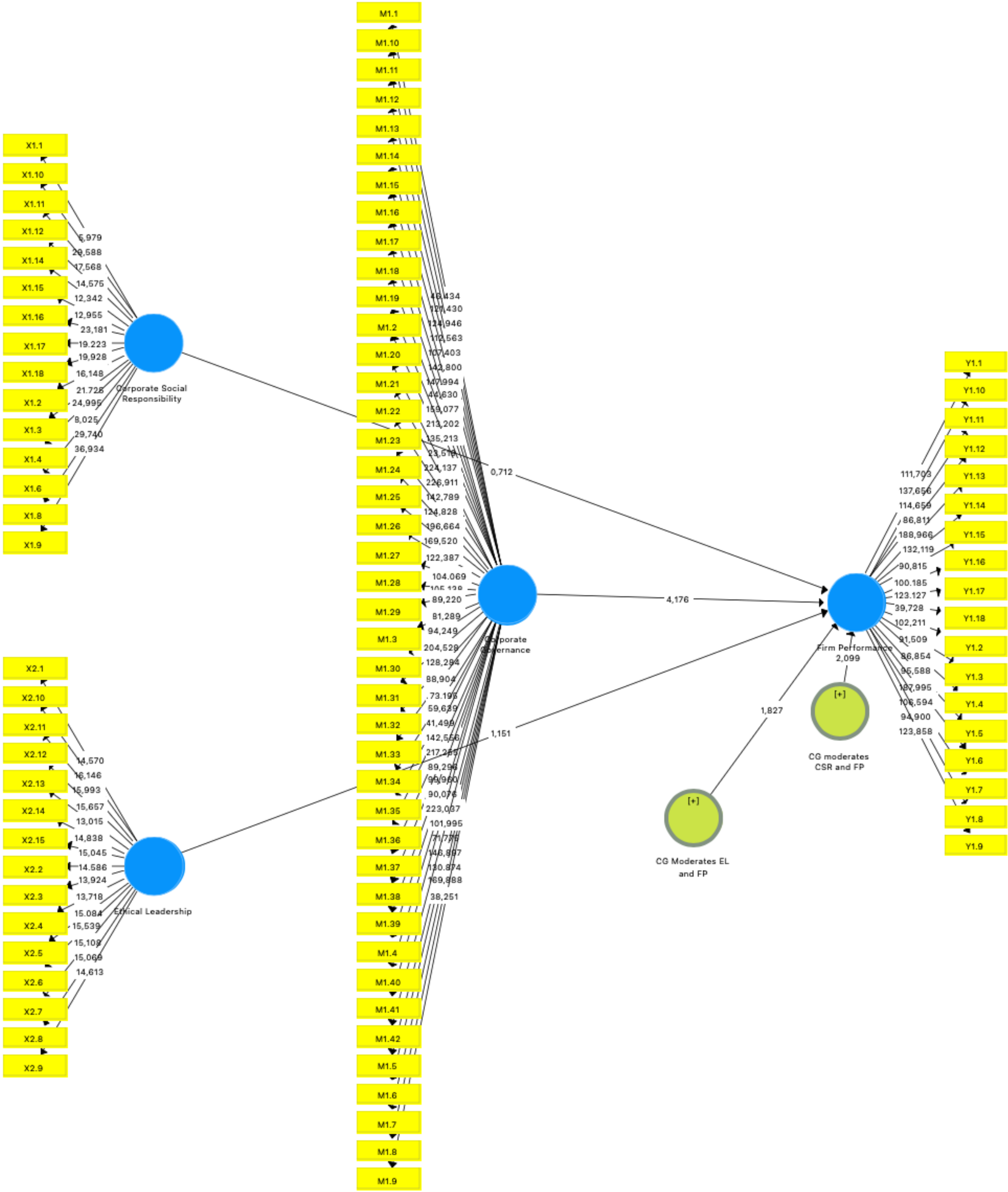

Figure 2. Inner Model

Discussions

The empirical findings from this study reveal complex relationships between corporate social responsibility (CSR), ethical leadership, corporate governance, and firm performance in Indonesia's construction materials industry. Our analysis of rejected hypotheses provides valuable insights into the industry's unique characteristics and challenges.

The findings indicate that CSR and ethical leadership alone do not significantly impact firm performance, suggesting that firms in this industry may view CSR as a compliance measure rather than a strategic investment. This aligns with previous studies that emphasize the moderating role of governance in ensuring CSR and ethical leadership contribute to organizational success.

The study found no significant direct link between CSR and firm performance. This contrasts with some earlier research and may be due to industry-specific factors. The COVID-19 pandemic worsened this by forcing firms to shift resources from CSR to core operations (Schwartz and Kay, 2023). Additionally, competition from imported materials has made cost efficiency a priority over social initiatives. These results differ from studies like Bahta et al. (2021) and Novitasari and Tarigan (2022), likely due to differences in industry focus and market maturity.

The non-significant direct relationship between ethical leadership and firm performance reveals important insights about leadership dynamics in the industry. This aligns with research findings that show Indonesian business culture is heavily influenced. by Javanese cultural values that emphasize respect for hierarchy and seniority in leadership (Sutanto & Sugiarti, 2023). Complex supply chains and diverse stakeholder relationships may also dilute the direct impact of ethical leadership, particularly given that Indonesian construction companies must navigate relationships across "1,340 ethnic groups, 742 regional languages, 7,241 cultures and 4 races" that influence business practices (Suprapto et al., 2023). This finding differs from Nemr and Liu (2021), suggesting that cultural context significantly shapes leadership effectiveness in ways that may not be captured by traditional ethical leadership frameworks.

However, our study found a strong positive relationship between corporate governance and firm performance, demonstrating that companies with robust governance structures show better financial and operational outcomes. Effective board oversight leads to more efficient resource allocation, while strong internal controls contribute to better risk management and operational efficiency. To enhance performance, companies should strengthen board independence and expertise, implement comprehensive risk management systems, enhance transparency in decision-making processes, develop clear accountability structures, and invest in modern governance technologies. This finding aligns with recent studies by Siddiqui et al. (2023) on governance's role in organizational effectiveness.

Further findings show how corporate governance yields different results on the effects of CSR and ethical leadership on firm performance. When governance is stronger, CSR has less impact on performance. In reality on the ground, this can possibly occur because CSR with corporate governance as its moderator provides better reputation, increases innovation, and creates better loyalty within the Company which results in better overall firm performance. However, this has several drawbacks such as additional costs to implement CSR, and the absence of long-term goals and commitment which results in CSR being merely a formality.

Other findings also show that the dynamics between corporate governance and ethical leadership make their effect on firm performance more effective. This could be due to several factors; When a leader acts ethically, honestly, and transparently, and is supported by a strong governance system, the trust of all stakeholders, such as investors, customers, and employees, will increase. This in turn will drive better company performance. Companies that are led ethically and have good governance tend to be more innovative, more efficient, and more resilient to crises. In short, ethical leadership and corporate governance are long-term investments that will provide sustainable benefits for the company.

This research makes several important contributions to stakeholder theory. First, it demonstrates how effective governance mechanisms help balance diverse stakeholder interests and shows the importance of formal structures in stakeholder management. Second, it highlights the complexity of translating stakeholder-focused initiatives into performance outcomes and reveals potential tensions between stakeholder management and organizational efficiency. Third, it expands our understanding of how ethical leadership practices interact with governance structures and demonstrates the role of formal systems in translating leadership principles into stakeholder benefits.

In the context of Indonesia's construction materials industry, our findings provide unique perspectives on stakeholder theory application and identify industry-specific challenges in balancing stakeholder interests. The research suggests that while CSR and ethical leadership are important, their effectiveness depends heavily on the governance structures through which they are implemented. This adds nuance to traditional stakeholder theory perspectives in the context of emerging markets and specific industry sectors.

Our findings have important implications for practitioners. Companies in the construction materials industry should prioritize developing robust governance frameworks that can effectively integrate CSR initiatives and ethical leadership practices. This may require significant investment in governance systems and processes, but our results suggest such investments can lead to improved firm performance. Additionally, organizations should focus on developing mechanisms to better translate CSR and ethical leadership initiatives into tangible performance outcomes through their governance structures.

For policymakers, our research shows that they need to rethink how they encourage companies to be socially responsible and ethical in the construction materials industry. Instead of just making rules that companies must follow, policies should help companies build better management systems that turn good social practices and ethical leadership into better business results. This could include giving rewards to companies that improve their management systems and helping them build the skills they need to do this well.

Future studies could look at how these relationships change over time, especially how CSR and ethical leadership affect company performance as management systems get better. Also, studying different industries or countries could help us understand if what we found is specific to Indonesia's construction materials industry or if it happens in other growing markets too.

Conclusion

This research contributes to the understanding of organizational performance dynamics in Indonesia's construction materials industry by demonstrating the pivotal role of Corporate Governance in moderating the relationships between CSR, Ethical Leadership, and Firm Performance. The findings suggest that companies should focus on developing robust governance mechanisms that can effectively integrate CSR initiatives and ethical leadership practices. The study's results have significant implications for managers and stakeholders. First, investing in strong corporate governance can be a strategic lever for improving organizational performance. Second, while CSR and ethical leadership are important, their effectiveness is contingent upon how well they are integrated into the organizational governance framework. Companies in the construction materials industry should therefore prioritize developing governance systems that can effectively translate these practices into tangible performance outcomes.

Limitations of the study include the focus on the Indonesian construction materials sector, which may limit the generalizability of findings to other industries or geographical contexts. Future research could expand the scope to include comparative studies across different sectors and countries, and potentially explore more nuanced mechanisms through which CSR and ethical leadership impact firm performance. In conclusion, this research provides valuable insights into the complex interplay of CSR, Ethical Leadership, and Corporate Governance in driving firm performance. It underscores the importance of a holistic approach to organizational management, where governance serves as a critical mechanism for transforming ethical practices and social responsibility into strategic advantages.

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Appendix 1. Table Construct, Measurement Items, Validity and Reliability Results

	Measurement Items	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
Corporate Social Responsibility (CSR), (Turker, 2008 in Michel et al., 2021)					
CSR1	Our company participates in activities aimed at protecting and enhancing the quality of the natural environment.	0.711	0.974	0.976	0.734
CSR2	Our company invests in creating a better life for future generations.	0.851			
CSR3	Our company implements special programs to minimize its negative impact on the natural environment.	0.878			
CSR4	Our company targets sustainable growth that considers future generations.	0.893			
CSR5	Our company supports non-governmental organizations working in critical areas.	0.719			
CSR8	Our company's policies encourage employees to develop their skills.	0.922			
CSR9	Our company's policies encourage employees to advance their careers.	0.923			
CSR10	Our company's management primarily focuses on the needs and desires of employees.	0.926			
CSR11	Our company implements flexible policies to provide a good work-life balance for its employees.	0.864			
CSR12	Managerial decisions related to employees are usually fair.	0.847			
CSR14	Our company protects consumer rights beyond legal requirements.	0.811			
CSR15	Our company provides complete and accurate information about its products to customers.	0.852			
CSR16	Customer satisfaction is very important to our company.	0.886			
CSR17	Our company always pays its taxes regularly and sustainably.	0.863			
CSR18	Our company fully complies with legal regulations in a timely manner.	0.874			
Ethical Leadership (EL), (Connaughton & Bakar, 2023)					

	Measurement Items	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
EL1	My manager/supervisor/leader demonstrates ethical values through their work.	0.980	0.997	0.997	0.963
EL2	In terms of work ethics. my manager/supervisor/leader sets an example through their actions.	0.973			
EL3	My manager/supervisor/leader talks about the reasons behind ethical values and work ethics within the organization.	0.975			
EL4	My manager/supervisor/leader discusses ethical values with me and others in the department.	0.972			
EL5	My manager/supervisor/leader discusses potential ethical implications with me and my team members before making important decisions.	0.978			
EL6	My manager/supervisor/leader holds every team member accountable for ethical practices.	0.985			
EL7	My manager/supervisor/leader informs me and my team members about how ethics and work values operate within the organization.	0.984			
EL8	My manager/supervisor/leader encourages ethical values among team members in the workplace.	0.992			
EL9	When there is an ethical dilemma in the group, my manager/supervisor/leader usually discusses it with team members to resolve it.	0.982			
EL10	My manager/supervisor/leader ensures that my team members work ethically.	0.982			
EL11	My manager/supervisor/leader seeks advice on how work tasks can be performed more ethically.	0.985			
EL12	My manager/supervisor/leader discusses the organization's ethical standards with me.	0.983			
EL13	My manager/supervisor/leader talks to me about ethics as an important personal value.	0.976			

EL14	My manager/supervisor/leader informs employees about the organization's ethics.	0.988			
EL15	My manager/supervisor/leader instructs me to practice ethics in my work.	0.983			
	Corporate Governance (CG), (Khongmalai, Tang, and Siengtai, 2010)				
	Measurement Items	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
CG1	The Board of Directors/Company Management understands the operational environment.	0.961	0.999	0.999	0.949
CG2	The Board of Directors/Company Management is independent in decision-making.	0.933			
CG3	The Board of Directors/Company Management has experience in the relevant industry.	0.966			
CG4	The Board of Directors/Company Management participates in strategic planning.	0.975			
CG5	The Board of Directors/Company Management has experience in finance or economics.	0.965			
CG6	The Board of Directors/Company Management ensures an effective management system.	0.978			
CG7	Management understands internal controls.	0.980			
CG8	Management implements control activities in all departments.	0.983			
CG9	Management develops internal control manuals for all departments.	0.958			
CG10	Management communicates clear separation of duties and authorization.	0.978			
CG11	Management reviews the effectiveness of internal controls.	0.977			
CG12	Auditors emphasize risk-based audits.	0.973			
CG13	Auditors possess consulting and recommendation capabilities.	0.972			

CG14	Auditors align the audit program with the company strategy.	0.979
CG15	Auditors have a diverse combination of auditing skills.	0.978
CG16	The company has an adequate number of qualified internal auditors.	0.959
CG17	Auditors provide recommendations to improve internal controls.	0.981
CG18	The company identifies key risk indicators at the corporate level.	0.986
CG19	The company aligns its risk management plan with the corporate strategy.	0.980
CG20	The company cascades key risk indicators to relevant departments.	0.987
CG21	The company directs risk management policies.	0.988
CG22	The company follows up on risk management outcomes.	0.981
CG23	The company integrates the risk management system across the organization.	0.975
CG24	The company collaborates in workforce management.	0.986
CG25	The company aligns human resource strategies with corporate strategies.	0.983
CG26	The company formulates human resource strategies to improve employee productivity.	0.979
CG27	The company aligns workforce plans with strategic business plans.	0.977
CG28	The company formulates human resource strategies to enhance employee satisfaction.	0.976
CG29	The company uses modern tools for human resource management.	0.968
CG30	The company collaborates in designing training and development programs.	0.966
CG31	The company implements performance-based compensation.	0.984

CG32	The company has career development plans for all levels of employees.	0.977			
CG33	The company uses tools to assess employee satisfaction.	0.973			
CG34	The company aligns employee key performance indicators (KPIs) with departmental and organizational KPIs.	0.965			
CG35	The company provides an executive information system.	0.955			
CG36	The company collaborates in developing information technology applications.	0.959			
CG37	The company has strong team collaboration capabilities in information technology.	0.982			
CG38	The company provides information technology to support risk management.	0.986			
CG39	The company offers an adequate number of information technology training programs.	0.972			
CG40	The company provides information technology to support internal controls and audits.	0.970			
Firm Performance (FP), (Rinawiyanti, Xueli, and As-Saber, 2022)					
	Measurement Items	Factor Loading	Cronbach's Alpha	Composite Reliability	AVE
FP1	Compared to our competitors, our customer service time efficiency is	0.975	0.997	0.997	0.950
FP2	Compared to our competitors, our delivery time is	0.971			
FP3	Compared to our competitors, our productivity is	0.977			
FP4	Compared to our competitors, our operational efficiency is	0.973			
FP5	Overall, with operational excellence, we are	0.976			
FP6	Compared to our competitors, our cash flow reporting is	0.985			
FP7	Compared to our competitors, our profitability is	0.980			
FP8	Compared to our competitors, our Return on Investment is	0.974			
FP9	Compared to our competitors, our sales growth is	0.974			

FP10	Overall, with financial performance, we are	0.981
FP11	Compared to our competitors, our customer complaints are	0.975
FP12	Compared to our competitors, our customer satisfaction is	0.970
FP13	Compared to our competitors, our customer loyalty is	0.987
FP14	Compared to our competitors, our increase in the number of customers is	0.979
FP15	Compared to our competitors, our employee training is	0.970
FP16	Compared to our competitors, career opportunities in our company are	0.974
FP17	Compared to our competitors, our employee motivation is	0.978
FP18	Compared to our competitors, our employee turnover process is	0.946