

DOI: <https://doi.org/10.63332/joph.v5i1.624>

Maximizing Social Responsibility Disclosure and Leverage for Firm Performance: A Humanist Approach to Public SOEs

Lili Wardani Harahap¹, Rahmawati², Nurmadi H. Sumarta³, Ari Kuncara Widagdo⁴, Agus Dwianto⁵

Abstract

With a humanist approach, this study aims to analyze the effects social responsibility disclosure and leverage on the firm performance in public State-Owned Enterprises (SOEs). Its goal is to investigate the role of ethical business practices, corporate governance, and financial strategies for sustainable performance. A quantitative research design using secondary data of publicly listed Indonesian SOEs. Empirical results reveal that corporation ethics and corporate governance have strongly contributed to improving firm performance while, CSR disclosure fails to have direct financial contributions in public SOEs. According to this research, public SOEs are more likely to be closely monitored by regulatory environments and aligned with social objectives than with profitability, and CSR initiatives are translated into business efficiency that depends on institutional context. Those studies have never integrated the humanist thought in the corporate governance cookie, particularly concerning public SOEs where financial sustainability and social responsibility serve as two pillars of corporate governance. It offers fresh perspectives on the intricate relationship among CSR disclosure, leverage, and corporate performance in enterprises with government ownership. This academic paper suggests that CSR should be strategically integrated into the business, aligning social and environmental objectives with financial performance. This presentation provides insights that will be useful for area policymakers, investors, and corporate leaders; particularly in achieving a governance structure that will optimize public SOE economic and social returns.

Keywords: Corporate Governance, Social Responsibility, Leverage, Firm Performance, Public SOEs

Introduction

This has led to the realization of corporate sustainability and environmental responsibilities becoming prominent drivers in impacting financial performance in rapidly changing global economic environments. These factors have become increasingly popular over the past few years and are now perceived as core determinants of both a firm's valuation and an investor's confidence in the company (Armitage and Marston 2008; Shahid and Abbas 2019). The high regulatory pressures and market demands encouraged companies to adopt ESG principles in their business strategies, especially in emerging economies such as Indonesia. Research shows that companies with strong ESG practices tend to have greater financial resilience and better

¹ Departement Of Accounting, Faculty Economic, Medan State University, Indonesia, Email: liliwardani7808@gmail.com

² Departement of Accounting, Faculty Economic and Business, Universitas Sebelas Maret, Surakarta, Indonesia, Email: rahmaw2005@yahoo.com

³ Departement of Accounting, Faculty Economic and Business, Universitas Sebelas Maret, Surakarta, Indonesia, Email: nurmadi@staff.uns.ac.id

⁴ Departement of Accounting, Faculty Economic and Business, Universitas Sebelas Maret, Surakarta, Indonesia, Email: widagdo1998@staff.uns.ac.id

⁵ Departement of Accounting, Faculty Economic and Business, Universitas Sebelas Maret, Surakarta, Indonesia, Email: Agusdwianto90@gmail.com



stock market performance (Khalil, Khalil, and Sinliamthong 2024; Wang, Jiao, and Ma 2024). Nonetheless, still remains an open question on whether ESG drives stock prices, thus warranting further empirical investigation in Indonesia given that it's limitations on sustainability disclosures and governance structures (Dumitrescu and Zakriya 2021; Lioui and Tarelli 2022).

Figure 1 shows that the performance of SOEs Go Public can be seen through ROCE. Namely, in 2016, it was worth 0.31958, and in 2017, it was worth 0.31971. In 2018, it was worth 0.31178, which decreased; in 2019, it decreased to 0.2563. In 2020, it increased to 0.32921. The poor performance of SOEs Go Public is influenced by BUMN Social Responsibility, which has not been implemented properly in the community, and the program comes from using funds from the SOEs profit portion (Disyon, Widianingsih, and Rio 2022).

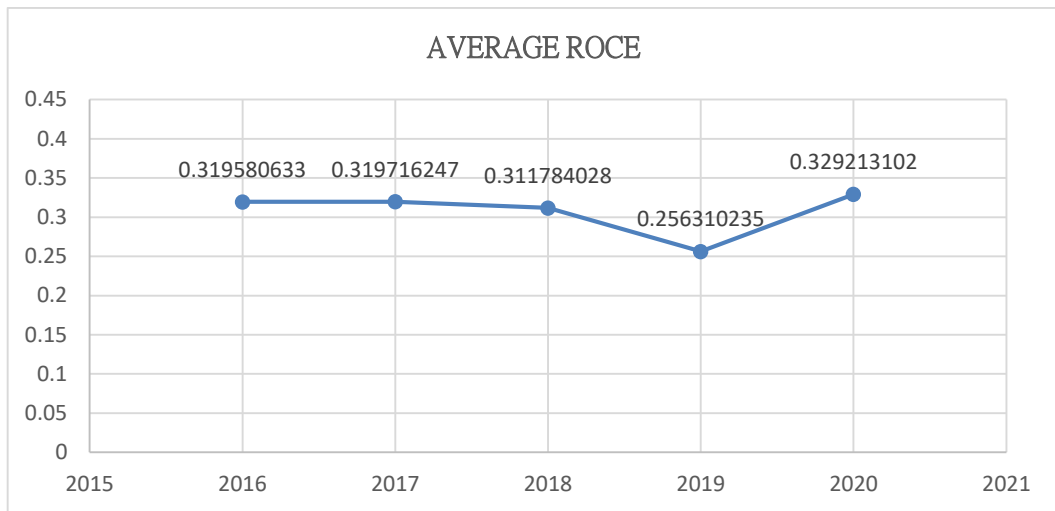


Figure 1: ROCE data graph

While the significance of Environmental social governance (ESG) factors is recognized, empirical results regarding their financial impact have been inconsistent, sparking an ongoing debate both in academia and practice. While some studies attest to the positive sculpted effect of well-execution of ESG on stock valuations and trust of the investor (Fu, Lu, and Pirabi 2023; Gopal and Pitts 2024), other studies suggest that ESG investments may reduce short term profitability reflecting a trade-off with respect to ESG between the company (Aydoğmuş, Gülay, and Ergun 2022; Cupertino, Vitale, and Riccaboni 2021). The problem is compounded in Indonesia as firms are at different levels of ESG adoption and regulatory enforcement, resulting in a focus on compliance rather than meaningful sustainability engagement (Deberdt, DiCarlo, and Park 2024; Zhang, Wang, and Song 2024). This adds an interesting aspect given the divergence of these findings, especially given that Indonesia forms much of its economy from such an environmentally sensitive industry as mining and the need for a broader reflection of ESG performance alongside classical financial indicators of which here we use the theoretical metric of 'Earnings Per Share' or EPS alongside stock price movements.

A number of theories help understand the ESG-financial performance relationship. According to the Stakeholder Theory (R. Edward Freeman 1990), businesses that devise processes that abate the needs of stakeholders (environmental and social) gain long-term sustainability and profitability (Jones et al., 2020; Nguyen & Li, 2021) On the other hand, according to the

Signaling Theory, ESG disclosures represent credible signals for investors, hence affecting the stock evaluation (O'Brien et al. 2018). Moreover, according to the Resource-Based View (RBV), companies investing in sustainable strategies are able to create competitive advantages through better brand reputation and operational efficiencies (Barney et al. 2010; Park et al. 2015; Porter and Kramer 2006). However, contradicting empirical evidence toward these theories in emerging markets suggests further validation is warranted in the Indonesian context.

The correlation between ESG and stock price is still disputed, especially within emerging markets. In developed economies, a strong positive association prevails due to both the degree of standardized disclosures and confidence of potential investors Garanina (2023), Saeed (2021), Sun (2024), although the outcomes remain mixed in developing nations. At the same time, some researchers have focused on how regulatory pressures can create positive financial influences Baah et al. (2021), Feng (2022), Rodríguez et al. (2022), as opposed to others who have claimed these same ESG initiatives can limit profitability (Kaul and Luo 2018; Luo and Tang 2023; Sheehan et al. 2023). For instance the Financial Services Authority (OJK) in Indonesia requires all emerging markets companies to report sustainability, although compliance varies by sector (Gunawan, Permatasari, and Fauzi 2022; Gunawan, Permatasari, and Tilt 2020; Permatasari and Gunawan 2023). The mining sector, currently facing increased scrutiny, make an ideal context for exploring the financial impacts of ESG (Fikru et al. 2024; Garcia-Zavala et al. 2023; Litvinenko et al. 2022). Previous studies display both advantageous financial results Isabel (2017), Katz (2018), Kyere (2021) as well as dubiety led by the hazard of greenwashing (Frederiksen 2018; Mancini and Sala 2018). This study seeks to fill this gap by exploring the relationship between ESG and stock price in the mining sector across emerging markets, and integrating Earnings Per Share (EPS) as a moderating variable to gain further details of ESG financial relevance across similar context.

This research aims to uncover the impact of ESG performance on stock price, along with the mediation effect of EPS. Specifically, the overarching goal of this research is to demonstrate the financial materiality of sustainability practices by scrutinizing the effects of ESG factors on profitability and market value. This study aims to investigate the association between corporate sustainability efforts and financial performance so as to provide guidance on how firms may strategically harness ESG actions to improve profitability. These findings will help decision-makers across the investment, policy and corporate sectors as they work to better align environmental, social and financial outcomes in the pursuit of long-term value creation and social impact.

Literature Review, ESG Performance, Earnings Per Share, and Stock Price Dynamics

The role of Environmental, Social, and Governance (ESG) performance as a key driver of corporate financial performance has gained considerable attention over the last decade, impacting both corporates profitability and stock performance. Previous studies show that companies with a strong ESG profile present better financial performance as a result of greater investor confidence, lower risk exposure, and higher operational efficiency (Friede, Busch, and Bassen 2015; Patrick Velte 2020). According to the stake-holder theory, firms that embrace sustainability practices generate long-term value by catering the needs of diverse stakeholders, hence providing competitive advantage and trust in the market (R. Edward Freeman 1990). Moreover, legitimacy theory argues that firms that are proactively addressing ESG are therefore gaining legitimacy from their investors and regulators, which benefits them in the market and

boosts their stock prices (Alonso 2024; H Amir Junaidi et al. 2025; Suchman 1995). Earnings per share (EPS) serves as the direct link between ESG investments and subsequent financial performance, as the results show that companies with stronger sustainability profiles tend to show stable earnings growth.

Impact of business ethics on ROCE

Although there are other financial ratios that can demonstrate this, among this input/output ratio (ROCE it is one of the most widely used to determine operational efficiency), so I will be limited to listing the factors of good practice to enhance the performance of ROCE; however and if you have noted this concept is already facing the aspects behind a financial indicator, which is the integration of strong business ethics within what is seen on an entity (external) in favor of Investors and shareholders, in which could positively influence its ROCE by fostering trust with stakeholders and avoid exposure of company to risk that unethical practices can grant. Ethical businesses are likely to be financially stable because they will attract long term investors (Schneider, 2017). Additionally, following ethical practices enhances the reputation of brands that typically results in customer loyalty and improved sales (Jones et al., 2018). Moreover, ethical companies are less likely to get into legal troubles and fines which can contribute positively to profits (Fassin, 2020). Hence ethical business helps to facilitate all the capital to enhance the overall financial strength of the organization. Martínez-Conesa et al. In conjunction with what Hess (2021) explains about how companies who maintain a high ethical standard achieve better ROCE than their peers as well as avoiding litigation costs.

H₁: There is a positive relationship between Business ethics and ROCE.

Impact of CSRS score on ROCE

Corporate Social Responsibility and Sustainability (CSRS) initiatives lead to long-term financial profits including improving the company image, appealing to investors with a social mindset, and compliance with environmental and social regulations (Elkington, 1997). A higher CSRS score suggests a company's commitment to sustainable work practices that could enhance operational efficiencies and preserve waste, thus leading to improved capital utilization (Bansal & Roth, 2000). Higher CSRS scores help companies attract and retain a loyal customer base, which leads to an increase in sales and profit margins (Luo & Bhattacharya, 2006). In addition, the reduced risk profile of CSRS-encouraging firms translates into a lower cost of capital as compared to the general market (Fombrun, 2005), resulting in more efficient capital allocation. Therefore, a higher CSRS score will result in a better ROCE due to reputation improvement, operating performance and financial cost efficiency.

H₂: Higher CSRS score has a positive impact on Return on Capital Employed (ROCE)

Impact of GCG on ROCE

GCG itself serves as a key instrument that has a significant effect on improving organizational performance and financial outcomes. July 20, 2022 GCG practices transparency, accountability, and ethical leadership foster a stable business environment, thereby increasing investor confidence and promoting efficient capital allocation (Shleifer & Vishny, 1997). Blaikie and Fancy (2024), Çevirme (2023) revealed that companies with strong GCG system would have better management, which in turn improves capital usage and subsequently increase ROCE. Furthermore, GCG minimizes management misbehavior and fraudulent activities, which can also contribute to higher profitability (Bebchuk et al., 2009). Research by Dahya et al. (2008) provides

evidence of this claim, as firms with higher GCG practices will outperform in their financial performance, such as ROCE, because of better decision making and proper resources management.

H3: Corporate Good Governance (GCG) has effect On Return On Capital Employed (ROCE).

Impact of FS size on ROCE

Big firms have more resources, greater economies of scale and more diversified values than small companies, which makes capital more efficient, thus improving ROCE (Wooldridge, 2013). Bigger companies have generally better access to capital markets and more stable cash flows, allowing them to make more accurate investment decisions and, consequently, higher returns on the invested capital (Klapper & Love, 2004). In addition, larger companies can generally withstand market changes and lower operating costs more effectively, offering a better bottom line (Hannan & Freeman, 1984). Furthermore, according to Akhtar & Sadiq (2014), the size of a business firm is positively correlated with its ROCE; large firms have greater capacity than smaller firms to allocate resources in an optimal manner and to minimize costs.

H4: Firm size (FS) has a positive effect on the return on capital employed (ROCE).

Impact of LEV on ROCE

Debt amount or leverage, defined as the use of borrowed capital, can increase the potential for returns on capital used, as it enables companies to invest in growth opportunities without compromising their own equity (Modigliani and Miller, 1958). In the positive case, leverage allows to finance profitable projects, thus augmenting profitability and improve the research project ROCE in the case by having a lower cost of capital (Kraus and Litzenberger, 1973). Over-leverage, though, creates more financial risk and potential for bankruptcy, resulting in a lower ROCE (Jensen & Meckling, 1976). Rajan & Zingales(1995) show that it is possible that firms with the optimal leverage ratios have higher ROCE, as they successfully use the debt to finance profitable investments while maintaining the balance between risk and return. Thus moderate leverage contributes to the positive side of ROCE by enhancing capital efficiency and financial returns.

H5: Leverage (LEV) effects Return on Capital Employed (ROCE).

Methods Quantitative Approach to Assessing Corporate Sustainability and Financial Performance

This study adopts a quantitative research design in order to analyze the effect(s) of diverse of corporate governance & sustainability factors on financial performance by means of Return on Capital Employed (ROCE) measures. This study was based on positivist paradigm, where hypothesis testing has been performed by using quantitative methods. Using secondary data, the study offers an objective and thorough investigation into the impact of Environmental, Social, and Governance (ESG) practices, Corporate Social Responsibility (CSRS), Good Corporate Governance (GCG), company size, and leverage on the Return on Capital Employed (ROCE). This is based on previous work (Cheng et al., 2014; Raineri et al., 2020), where it was found that quantitative methods were useful in understanding the financial consequences of business ethics, and sustainability related practices.

Sample and instrument

As for the samples in this study include the IDX (Indonesia Stock Exchange) listing firms in the
posthumanism.co.uk

2016-s 2020 period with a particular focus on mining companies. The period was chosen to reflect the evolution of corporate sustainability and governance practices amidst growing attention to ESG-related factors over time. We employ a purposive sampling method, whereas companies that have ESG, financial, and governance data consistently during the period mentioned (2016 to 2020) are selected. This is consistent with similar studies, (e.g. Chen et al. (2018) and Zhang et al. (2021), that also employed purposive sampling to explore ESG effects on firm performance. The analysis is to include a total of 100 companies if the data for each providing ESG scores, financial performance and governance metrics is all available. The data-source (IDX listing, sustainability report, and financial statement) is ensured to be robust and reliable (Bauer et al., 2013).

Instrument variable

In this study, the impact of various factors on ROCE is measured using the following instruments. Return on Capital Employed (ROCE) – The Return on Capital Employed is a financial metric used to measure a company's efficiency in utilizing capital. The ratio is computed by dividing EBIT (Earnings Before Interest and Taxes) with total assets, where data was obtained from IDX Annual Reports and Bloomberg (Bauer et al., 2013). Business Ethics Corporate conduct following ethical principles as survey data and included in (CSR report) Corporate reports as a report of filing as per Crane et al. (2019). CSRS Score Degree of commitment to sustainability practices, weighted average of: Sustainability indices and reports scores (Scholtens 2008) GCG (Good Corporate Governance) measures the quality of corporate governance, using the GCG index and transparency scores sourced from Indonesian Governance Reports with support from Wijaya and Rachmawati (2020) studies. Firm Size, which is commonly used in financial performance studies (Chen et al., 2018), is measured with firm total assets, readily available in the company's financial statements. The final variable is Leverage (LEV), which represents the financial leverage used by the firm (the debt-to-equity ratio), and derives from financial statements (which is a method utilized in Liu et al. research). (2021). Given the missing analytical tools available to probing the financial and governance frameworks behind a firm's performance on ESG matters, these instruments are integral to our understanding of the performance gap.

| Variable | Definition | Measurement Method | Source |
|-----------------------------------|--|---|---------------------------------|
| ROCE (Return on Capital Employed) | Financial metric indicating efficiency in using capital. | $ROCE = \frac{EBIT}{\text{Total Assets}}$ | IDX Annual Reports, Bloomberg |
| Business Ethics | Corporate conduct aligned with ethical principles. | Survey and CSR reports | CSR Reports, Company Filings |
| CSRS Score | A measure of corporate sustainability practices. | Aggregate score based on sustainability indices | Sustainability Indices, Reports |
| GCG (Good Corporate Governance) | A measure of governance quality. | GCG index, Transparency Scores | Indonesian Governance Reports |
| Firm Size | Total assets of the | Total assets | Financial Statements |

| Variable | Definition | Measurement Method | Source |
|----------------|--------------------------|----------------------|----------------------|
| | firm. | reported | |
| Leverage (LEV) | Ratio of debt to equity. | Debt-to-Equity Ratio | Financial Statements |

Table 1: Instrument variable

Analysis data

Data will be analyzed through a multiple linear regression test, which is relevant to the relationship between a number of independent variables (business ethics, CSRS score, GCG, firm size, and leverage) and the dependent variable (ROCE). The individual and combined impact of these variables on ROCE can be analyzed through multiple regression analysis, while controlling for other factors (Hair et al. 2010). It is a widely-used approach in finance studies to model complex relationships, and is suggested by prior studies including Liao et al. (2015), employed regression models to investigate the impact of governance and sustainability factors on financial performance. Statistical analysis will be carried out using SPSS, testing the hypotheses and the validity of the model.

Findings on Corporate Sustainability and Financial Performance

Statistics descriptive

The descriptive statistics analysis offers a summary of the variables utilized within this investigation see Table 1. The dependent variable ROCE ranges from -0.3022 (minimum) to 1.0000 maximum and has an average and standard deviation of 0.3575 and 0.3935 respectively, implying that, on average, the pre-tax profit represents only 35.75% of the total capital employed. For business ethics, the score decreases from 47.3684 to 67.1053, average of 60.5580 and standard deviation of 5.2990. CSR score ranges from 0.1466 to 0.9764; with an average of 0.6171 and a standard deviation of 0.1797 capturing CSR disclosure that is on average 61.71% of total disclosures. The governance index ranged from a minimum of 80.0120 to a maximum of 98.3400 and had a mean of 91.6466 and a standard deviation of 4.1829, which shows a relatively high level of governance. A Firm between 27.9560 and 34.9521, mean=32.1369, sd=1.4961 Finally, the leverage ratio has a range from 0.2941 to 1.1801, with a mean of 0.6768 and a standard deviation of 0.1935, which means that on average the firms have 67.68% of debt to the equity.

| | N | Minimum | Maximum | Sum | Mean | Std. Deviation |
|-----------------|----|---------|---------|-----------|---------|----------------|
| ROCE | 83 | -.3022 | 1.0000 | 29.6722 | .3575 | .3935 |
| Business Ethics | 83 | 47.3684 | 67.1053 | 5026.3158 | 60.5580 | 5.2990 |
| CSRScore | 83 | .1466 | .9764 | 51.2214 | .6171 | .1797 |
| GCG | 83 | 80.0120 | 98.3400 | 7606.6640 | 91.6466 | 4.1829 |
| FSIZE | 83 | 27.9560 | 34.9521 | 2667.3593 | 32.1369 | 1.4961 |
| LEV | 83 | .2941 | 1.1801 | 56.1784 | .6768 | .1935 |
| Valid N | 83 | | | | | |

Table 1: Descriptive statistics

Classical assumption test

Normality of the data is performed by two methods, graphical tests through normal probability plots and statistical tests using Kolmogorov-Smirnov tests. Residual data distribution is close to the diagonal line in Figure 1, which is the normal distribution. Moreover, the results of Kolmogorov-Smirnov test with p value is 0.200 (>0.05) in table 2 also indicate that the data distribution in the regression model meets the normality assumption. These results are consistent with previous studies indicating that data normality is a key prerequisite of regression analysis to draw valid inferences (Hair et al., 2010; Field, 2013). So, the two testing methods are confirmed that we can analyse the research data correctly with multiple linear regression techniques.

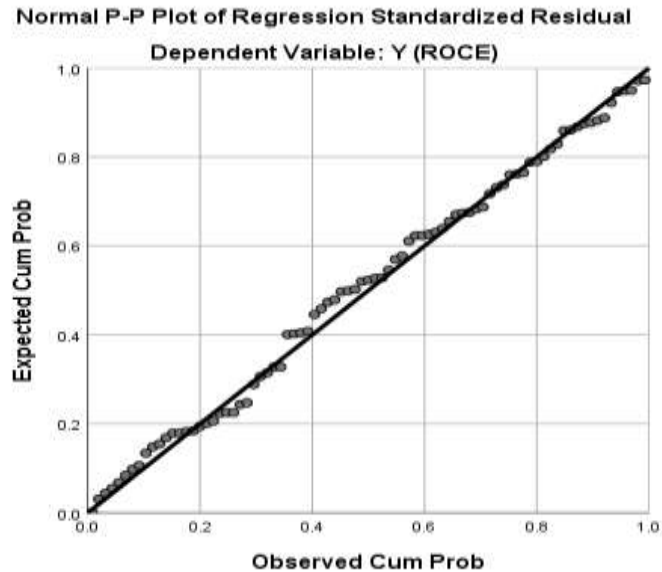


Figure 1: Normal probability plot

| Poin Data | | Unstandardized Residual |
|----------------------------------|----------------|-------------------------|
| N | | 83 |
| Normal Parameters ^{a,b} | Mean | .0000000 |
| | Std. Deviation | .20694887 |
| Most Extreme Differences | Absolute | .051 |
| | Positive | .049 |
| | Negative | -.051 |
| Test Statistic | | .051 |
| Asymp. Sig. (2-tailed) | | .200 ^{c,d} |

Table 2: Kolmogorov-Smirnov (KS)

Multicollinearity testing

Testing multicollinearity can be done by checking the tolerance and Variance Inflation Factor (VIF) values for each independent variable in the regression model. Results of the tests

conducted are shown in Table 3, and it was confirmed the tolerance values were all greater than 0.10 and VIF values were all lower than 10. It suggests that this regression model has no symptoms of multicollinearity, which means that, each independent variable do not have too strong linear relationship one with another. Thus, the regression model applied in this study can be deemed appropriate for the further investigation (Field, 2013; Hair et al., 2010).

| Model | | Collinearity Statistics | |
|-------|-------------------------------------|-------------------------|-------|
| | | Tolerance | VIF |
| 1 | X ₁ (Business Ethics) | .950 | 1.052 |
| | X ₂ (CSRScore) | .828 | 1.208 |
| | X ₃ (GCG) | .655 | 1.526 |
| | X ₄ (F _{SIZE}) | .648 | 1.543 |
| | X ₅ (LEV) | .489 | 2.047 |

Table 3: Multicollinearity testing results

Autocorrelation testing

The autocorrelation test was conducted using the Durbin-Watson statistic and the Runs Test to assess serial correlation in the residuals. The Durbin-Watson statistic was found to be 1.696, which lies between the critical values ($dL = 1.5183$) and ($dU = 1.7728$), indicating the absence of positive autocorrelation in the regression model. This suggests that the residuals do not exhibit serial correlation, which is consistent with the assumption of independent residuals. Additionally, the Runs Test yielded a Z-value of -0.993 with a p-value of 0.321. Since the p-value is greater than the 0.05 threshold, the null hypothesis of no autocorrelation is not rejected, further confirming that there is no significant autocorrelation in the residuals. Therefore, both tests support the conclusion that the regression model does not suffer from autocorrelation.

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1 | .851 ^a | .723 | .705 | .21356 | 1.696 |

Table 4: Autocorrelation test results with Durbin Watson

| | Unstandardized Residual |
|-------------------------|-------------------------|
| Test Value ^a | .01248 |
| Cases < Test Value | 41 |
| Cases >= Test Value | 42 |
| Total Cases | 83 |
| Number of Runs | 38 |
| Z | -.993 |
| Asymp. Sig. (2-tailed) | .321 |

Table 5: Autocorrelation with runs test

Heteroscedasticity with Glejser test

The results of the median test are given in table 6. Unstandardized coefficients, standardized

posthumanism.co.uk

coefficients, t-values and significance levels for each independent variable were assessed. The t values and p values of all independent variables (Etika Bisnis, CSRScore, GCG, FSIZE, LEV, and their squared terms) estimate higher than 0.05, which means there are no significant relationships between dependent and independent variables on the squared residuals (Resid2). Namely p-value of each variable like Etika Bisnis ($p = 0.523$) and CSRScore ($p = 0.451$) showed that these variables do not have heteroscedasticity. Therefore, we can say that the regression model is not a victim of heteroscedasticity since no varying residuals were detected.

| Mdel | B | Std. Error | Beta | t | Sigt |
|-------------------|--------|------------|--------|--------|------|
| (Constant) | -5.647 | 4.299 | | -1.314 | .193 |
| X1 (Etika Bisnis) | .020 | .032 | 1.540 | .641 | .523 |
| X2 (CSRScore) | .161 | .212 | .412 | .758 | .451 |
| X3 (GCG) | .062 | .073 | 3.721 | .855 | .396 |
| X4 (FSIZE) | .170 | .173 | 3.614 | .979 | .331 |
| X5 (LEV) | -.395 | .255 | -1.089 | -1.549 | .126 |
| X12 | .000 | .000 | -1.558 | -.650 | .518 |
| X22 | -.100 | .180 | -.301 | -.557 | .579 |
| X32 | .000 | .000 | -3.990 | -.921 | .360 |
| X42 | -.003 | .003 | -3.886 | -1.055 | .295 |
| X52 | .338 | .201 | 1.218 | 1.676 | .098 |

Table 6: Heteroscedasticity with Glejser test
Source; Author 2025

Regression analysis

Table 7 shows regression analysis for ROCE against independent variables from this analysis, we have a regression equation as follows:

$$ROCE = -4.520 + 0.014X1 + 0.169X2 - 0.028X3 + 0.204X4 - 0.077X5$$

The value of the constant constant -4.520 is to be interpreted at all independent variables equal (0), ROCE will decrease (by 4.520 units). A positive and significant coefficient (0.014) indicates that as business ethics increase then ROCE also increases. In the same vein, the 0.169 coefficient indicates that with an increase in CSRScore, ROCE increases but this effect is not statistically significant ($p = 0.246$). In contrast, governance exerted a negative and statistically significant relationship (coeff. = -0.028), suggesting that good governance practices reduce ROCE. The same is true for firm size, resulting in the most significant positive effect ($B = 0.204$, $p < 0.001$), meaning that larger firms are better equipped to obtain financial performance. On the other hand, leverage does not show significant relationship with ROCE as coefficient value is -0.077 with high p value of 0.660.

The overall results imply that firm size and governance have substantial effects on ROCE, whereas business ethics and CSRScore have less pronounced impacts. The insignificance of leverage suggests that decisions regarding capital structure might not be of heavy influence on ROCE in the given sample. These findings provide an understanding of the determinants of financial performance in this context.

| | B | Std. Error | Beta | t | Sig. |
|-----------------|----------|-------------------|-------------|----------|-------------|
| Constant | -4.520 | .744 | | -6.078 | .000 |
| Business Ethics | .014 | .005 | .185 | 3.003 | .004 |
| CSRScore | .169 | .144 | .077 | 1.169 | .246 |
| GCG | -.028 | .007 | -.296 | -3.993 | .000 |
| FSIZE | .204 | .020 | .774 | 10.399 | .000 |
| LEV | -.077 | .174 | -.038 | -.442 | .660 |

Table 7: Regression analysis

Hypothesis testing

Regression output of independent variables and ROCE obtained after t test significance evaluation, is given in Table 8. The analysis showed that Business Ethics was found to have a positive and significant effect on ROCE with a regression coefficient of 0.014, a t of 3.003, and the level of significance (p) 0.05, which means that the level of corporate social responsibility does not have a direct influence on financial performance in this result. In addition, the Good Corporate Governance (GCG) variable has a negative and significant influence on ROCE with a regression coefficient of -0.028 with a value of $t = -3.993$; signif 0.05) which means proportion of debt to equity have no relation towards financial performance in the study sample. Therefore, from these regression outputs it is concluded that the significant variables affecting ROCE are Business Ethics, GCG, and Firm Size, while CSRScore and Leverage are not significant. Based in the result of this research, good business ethics, large business scale, practices in accordance with the theory tend to have better financial performance while strict corporate governance would be negative impact that should be studied further.

| Variable | B | Std. Error | Beta | t | Sig. |
|-----------------|----------|-------------------|-------------|----------|-------------|
| (Constant) | -4.520 | .744 | | -6.078 | .000 |
| Business Ethics | .014 | .005 | .185 | 3.003 | .004 |
| CSRScore | .169 | .144 | .077 | 1.169 | .246 |
| GCG | -.028 | .007 | -.296 | -3.993 | .000 |
| FSIZE | .204 | .020 | .774 | 10.399 | .000 |
| LEV | -.077 | .174 | -.038 | -.442 | .660 |

Table 8: T-test data

Strengthening Business Performance through Business Ethics

This is where the intersection of ethics and business becomes relevant as state-owned enterprises (SOEs) rely on transparency and accountability to generate adequate financial returns. Ethics in business improves stakeholder trust which results in better investor confidence, employee

morale and better public image (Jamali&Karam 2016). Ethical compliance in public SOEs is a matter not only of strategy but also of obligation, as these institutions have responsibilities to both their government regulators and society as a whole (Suryani & Ibrahim, 2019). Evidence demonstrates that companies with strong commitments to ethical behavior show more favorable financial results because of decreased operational risk and improved stakeholder relationships (García-Sánchez et al., 2019). Incorporating ethical principles into corporate decision-making ensures that business strategies align with societal expectations, minimizing reputational risks and enhancing financial resilience.

Theoretically, stakeholder theory highlights that firms that are grounded in ethical values are directed toward sustainable, long-term profitability through developing relationships with their salient stakeholders (Freeman et al., 2010). The legitimacy theory also argues that ethical compliance provides businesses with social acceptance and institutional legitimacy, resulting in financial gains (Suchman, 1995). In developing countries including Indonesia, where the mechanisms of corporate governance are still in the process of establishment, business ethics act as a deterrent to political and economic risk (Setiawan et al, 2021). The result is that SOEs with business ethics as an integral part of their business strategies are in a better position to balance short-term financial health with public confidence, strengthening the idea that ethical performance is a determinant of firm performance (H. Amir Junaidi et al. 2025).

Social Responsibility Disclosure and its Interrelationship with Corporate Performance

The relationship between social responsibility disclosure and firm performance has been widely debated in corporate governance literature. While some studies indicate that social responsibility disclosure improves corporate reputation and investor confidence, others reveal its direct financial benefits less clear (Martínez-Ferrero et al., 2016). The scenario is more complex in public SOEs, where government-mandated policies further interact with the principle of business objective in operating social responsibility initiatives. SOEs do not treat CSR merely as a market instrument, like a private company would (Prasetyo et al., 2021); SOEs tend to perform their social and environmental obligations mandated by state policies.

According to institutional theory, there is no immediate link between social responsibility disclosure and the firm's financial performance; distant 'strategies' (DiMaggio & Powell, 1983). In public SOEs this is particularly true: CSR efforts are implemented as a response to regulatory requirements rather than optimising their CSR initiatives in terms of financial outputs. Consequently, the short-term viability of CSR efforts in SOEs will not directly impact conventional profitability indicators (e.g., return on capital employed [ROCE]). b. Long-term benefits: The long-term advantages of CSR unfold through enhanced public approval, stricter rule adherence, and minimized societal conflicts (Kim et al., 2020).

Furthermore, the impact of social responsibility disclosure is industry-specific and market-condition specific. In developed economies, where both investors and consumers care deeply about sustainability, this investment in responsibility can create competitive advantages in financial performance (Orlitzky et al., 2003). In contrast, social responsibility disclosure in developing markets, such as Indonesia, where SOEs are under considerable government oversight, is likely to be seen as a primarily legal obligation (Wijethilake & Ekanayake, 2020). This distinction highlights a significant gap in our understanding as it relates to why Social Responsibility initiatives in SOEs are undertaken and may be integrated with financial objectives to yield real performance outcomes.

The Impact of Leverage on the Performance of Firms in Public Sector Enterprises

Leverage plays a significant role in determining firm performance, and the financial decisions of public SOEs are driven by not only commercial but also governmental concerns. Although leverage may be a financial tool for driving growth and capital inflow, an over-indebted position can push firms into fear of financial distress with restricted ability to manoeuvre (Myers, 2001). Leverage, then, serves a dual purpose with respect to public SOEs: while it enhances expansion potential, it simultaneously raises a firm's financial vulnerability through government policy (Megginson et al., 2014).

Also, moderate leverage could lend SOEs the capital needed to help them expand operations and conduct long-term strategic programs such as corporate social responsibility and governance upgrades (Bae et al., 2018). On the other hand, when levels of leverage ascend to precarious heights, companies may divert resources away from long-horizon investments in sustainability in a search for short-term cashflows to relieve acute pressure from creditors, offsetting the potential gains to be had through corporate social responsibility initiatives. SOEs are likely to have government guarantees, which might lead to a moral hazard problem as firms might take on higher debt levels because they have implicit assumptions that the state will bail them out when they are in financial distress (Megginson & Netter, 2001). By balancing the use of leverage for making strategic investments with ensuring financial stability, public SOEs can optimize their performance. In this regard, strengthening financial governance mechanisms, transparency in debt management, and accountability in fund allocation will help reduce the risk of excessive leverage while ensuring that financial resources are creating value, both economically and socially.

Corporate Governance as a Driver of Sustainable Business Performance

It is widely acknowledged that effective corporate governance is an essential driver of optimal firm performance, and an even more important consideration in the case of public SOEs due to their complicated ownership structures (Claessens & Yurtoglu, 2013). Sound governance frameworks that include transparency, board independence, and accountability can reduce agency conflicts and maximize managerial efficiency leading to better financial performance (Boubaker et al., 2018). Studies show that firms with sound governance structures are attracted to more investment as well as financial stability and long-term growth (Agyemang & Castellini, 2015).

According to agency theory, adequate corporate governance will be in place in firms, which will align management decisions with shareholder and stakeholder interests,⁶ thus minimising losses due to inefficiencies and conflicts of interest (Ciobanu and Juhlin 2022; Jensen and Meckling 2019). While strong governance structures are believed to contribute to the financial performance of publicly owned state enterprises (SOEs) whose directors are appointed by the government, creating stronger governance structures is especially relevant where such directors tend to prioritize policy objectives over profit maximization (Filatotchev et al., 2013). Research into state-owned enterprises (SOEs) in emerging economies has found that governance reforms including greater transparency, board independence, and better financial disclosure practices can enhance firm performance (Nguyen et al., 2021). In Indonesia, regulations have achieved great emphasis on SOE governance's reform, seeking to align state enterprises with international best practices to improve financial sustainability and market competitiveness (Sari et al., 2020). Yet, for these governance enhancements to translate into financial performance, there needs to be solid regulatory enforcement, and an openness to real governance changes from SOE

Avenues for Future Research and Management Implications

The current study adds to the literature on social responsibility disclosure, leverage, and corporate governance in State-Owned Enterprises (SOEs). However, we identified several areas for further research. Research over the future can study transitional financial implications of Corporate Social Responsibility and Governance reforms in SOEs under dynamic regulatory frameworks. Moreover, empirical studies on the relationship between leverage and financial stability in government-controlled enterprises could yield more profound insights into sustainable financing strategies. So from a managerial perspective, policymakers and SOE executives should consider how to better integrate CSR initiatives with financial performance metrics to maximize the resulting economic and social impact (Johnson 2022). Let alone, governance frameworks with improved transparency, independence of board members, and regulatory oversight strengthen investor confidence and financial results. Finally, the judicious use of debt striking a balance between financing for growth and managing risk is critical to ensuring that SOEs are financially viable and socially responsible over the long run.

Conclusion

In the Indonesian context, the current research highlights the importance of social responsibility disclosure and leverage in the financial performance of public SOEs. A humanist-oriented perspective on corporate governance underlines the need for public SOEs to balance their pursuit of profit maximization with alignment of their operational strategies within the paradigm of ethical business practices, transparency, and accountability to stakeholders. It also highlights that CSR disclosure effects vary based on ownership structures with regard to firm performance because the public SOEs tend to value social and environmental considerations before profits which make business ethics, and corporate governance mechanisms to say the least, important levers driving performance intensity. It is significant to show the need of developing governance approaches which link to the financial objectives and the public good. Future research should therefore examine the way by which public SOEs can have even greater financial performance while achieving social missions, particularly through cost-effective and measurable strategic CSR initiatives.

References

- Alonso, J. M. 2024. "Digital Milieus: A Posthumanist Media Ecology for a Planetary Computation Era." *Journal of Posthumanism* 4(3):257–69. doi: 10.33182/joph.v4i3.3288.
- Amir Junaidi, H, E. D. Amperawati, A. Dwianto, S. N. Putri, and M. M. Sartono. 2025. "Towards a New Paradigm in Quranic Exegesis: Exploring the Evolution and Practice of Munasabah in the Context of Posthumanism." *Journal of Posthumanism* 5(1):24–40. doi: 10.33182/joph.v5i1.3502.
- Amir Junaidi, H., Endang Dwi Amperawati, Agus Dwianto, Salma Nadia Putri, Rahmawati, and M. M. Sartono. 2025. "Towards a New Paradigm in Quranic Exegesis: Exploring the Evolution and Practice of Munasabah in the Context of Posthumanism." *Journal of Posthumanism* 5(1):24–40. doi: 10.33182/joph.v5i1.3502.
- Armitage, Seth, and Claire Marston. 2008. "Corporate Disclosure, Cost of Capital and Reputation: Evidence from Finance Directors." *The British Accounting Review* 40(4):314–36. doi: <https://doi.org/10.1016/j.bar.2008.06.003>.
- Aydoğmuş, Mahmut, Güzhan Gülay, and Korkmaz Ergun. 2022. "Impact of ESG Performance

- on Firm Value and Profitability.” *Borsa Istanbul Review* 22:S119–27. doi: <https://doi.org/10.1016/j.bir.2022.11.006>.
- Baah, Charles, Douglas Opoku-Agyeman, Innocent Senyo Kwasi Acquah, Yaw Agyabeng-Mensah, Ebenezer Afum, Daniel Faibil, and Farid Abdel Moro Abdoulaye. 2021. “Examining the Correlations between Stakeholder Pressures, Green Production Practices, Firm Reputation, Environmental and Financial Performance: Evidence from Manufacturing SMEs.” *Sustainable Production and Consumption* 27:100–114. doi: <https://doi.org/10.1016/j.spc.2020.10.015>.
- Barney, Jay B., David J. Ketchen, Mike Wright, Abigail McWilliams, and Donald S. Siegel. 2010. “Creating and Capturing Value: Strategic Corporate Social Responsibility, Resource-Based Theory, and Sustainable Competitive Advantage.” *Journal of Management* 37(5):1480–95. doi: 10.1177/0149206310385696.
- Blaikie, F., and D. Fancy. 2024. “Worlding Intensity/ies and Energy/ies in a Portrait of ‘Ann.’” *Journal of Posthumanism* 4(1):1–18. doi: 10.33182/joph.v4i1.3027.
- Çevirme, E. T., E. E. Satici, and U. Özesmi. 2023. “Can the Prosumer Economy Be a Posthumanist Economy?” *Journal of Posthumanism* 3(3):287–94. doi: 10.33182/joph.v3i3.3005.
- Ciobanu, P., and O. Juhlin. 2022. “Forms of Care in Human–Nature–Technology Environments.” *Journal of Posthumanism* 2(3):249–66. doi: 10.33182/joph.v2i3.1728.
- Cupertino, Sebastiano, Gianluca Vitale, and Angelo Riccaboni. 2021. “Sustainability and Short-Term Profitability in the Agri-Food Sector, a Cross-Sectional Time-Series Investigation on Global Corporations.” *British Food Journal* 123(13):317–36. doi: 10.1108/BFJ-02-2021-0154.
- Deberdt, Raphael, Jessica DiCarlo, and Hyeyoon Park. 2024. “Standardizing ‘Green’ Extractivism: Chinese & Western Environmental, Social, and Governance Instruments in the Critical Mineral Sector.” *The Extractive Industries and Society* 19:101516. doi: <https://doi.org/10.1016/j.exis.2024.101516>.
- Disyon, Huta, Widianingsih Widianingsih, and Fildzah Rio. 2022. “Corporate Social and Environmental Responsibility in SOE Mining Sector in Indonesia: Commitment of Social-Legal Awareness.” *JSW (Jurnal Sosiologi Walisongo)* 6(2):159–72.
- Dumitrescu, Ariadna, and Mohammed Zakriya. 2021. “Stakeholders and the Stock Price Crash Risk: What Matters in Corporate Social Performance?” *Journal of Corporate Finance* 67:101871. doi: <https://doi.org/10.1016/j.jcorpfin.2020.101871>.
- Feng, Suling, Rong Zhang, and Guoxiang Li. 2022. “Environmental Decentralization, Digital Finance and Green Technology Innovation.” *Structural Change and Economic Dynamics* 61:70–83. doi: <https://doi.org/10.1016/j.strueco.2022.02.008>.
- Fikru, Mahelet G., Jennifer Brodmann, Li Li Eng, and J. Andrew Grant. 2024. “ESG Ratings in the Mining Industry: Factors and Implications.” *The Extractive Industries and Society* 20:101521. doi: <https://doi.org/10.1016/j.exis.2024.101521>.
- Frederiksen, Tomas. 2018. “Corporate Social Responsibility, Risk and Development in the Mining Industry.” *Resources Policy* 59(October):495–505. doi: 10.1016/j.resourpol.2018.09.004.
- Friede, Gunnar, Timo Busch, and Alexander Bassen. 2015. “ESG and Financial Performance: Aggregated Evidence from More than 2000 Empirical Studies.” *Journal of Sustainable Finance and Investment* 5(4):210–33. doi: 10.1080/20430795.2015.1118917.
- Fu, Chengbo, Lei Lu, and Mansoor Pirabi. 2023. “Advancing Green Finance: A Review of

- Sustainable Development.” *Digital Economy and Sustainable Development* 1(1):20. doi: 10.1007/s44265-023-00020-3.
- Garanina, Tatiana, and Oksana Kim. 2023. “The Relationship between CSR Disclosure and Accounting Conservatism: The Role of State Ownership.” *Journal of International Accounting, Auditing and Taxation* 50:100522. doi: <https://doi.org/10.1016/j.intaccaudtax.2023.100522>.
- Garcia-Zavala, Consuelo, Carlos M. Ordens, Liliana Pagliero, Éléonore Lèbre, Douglas Aitken, and Martin Stringer. 2023. “An Approach for Prioritising Environmental, Social and Governance (ESG) Water-Related Risks for the Mining Industry: The Case of Chile.” *The Extractive Industries and Society* 14:101259. doi: <https://doi.org/10.1016/j.exis.2023.101259>.
- Gopal, Sucharita, and Josh Pitts. 2024. “ESG Integration: Unveiling Risk and Driving Innovation in Sustainable Finance BT - The FinTech Revolution: Bridging Geospatial Data Science, AI, and Sustainability.” Pp. 35–81 in, edited by S. Gopal and J. Pitts. Cham: Springer Nature Switzerland.
- Gunawan, Juniati, Paulina Permatasari, and Hasan Fauzi. 2022. “The Evolution of Sustainability Reporting Practices in Indonesia.” *Journal of Cleaner Production* 358:131798. doi: <https://doi.org/10.1016/j.jclepro.2022.131798>.
- Gunawan, Juniati, Paulina Permatasari, and Carol Tilt. 2020. “Sustainable Development Goal Disclosures: Do They Support Responsible Consumption and Production?” *Journal of Cleaner Production* 246:118989. doi: 10.1016/j.jclepro.2019.118989.
- Isabel-Maria García-Sánchez, Jennifer Martínez-Ferrero, Emma García-Meca. 2017. “Gender Diversity, Financial Expertise and Its Effects on Accounting Quality.” *Management Decision*. doi: <https://doi.org/10.1108/MD-02-2016-0090>.
- Jensen, Michael C., and William H. Meckling. 2019. “Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure.” *Corporate Governance: Values, Ethics and Leadership* 77–132. doi: 10.4159/9780674274051-006.
- Johnson, J. 2022. “Staying with the Trouble with Wilderness: Reworking Nature and Culture in the Plantationocene.” *Journal of Posthumanism* 2(3):229–47. doi: 10.33182/joph.v2i3.1704.
- Katz, Jorge, and Carlo Pietrobelli. 2018. “Natural Resource Based Growth, Global Value Chains and Domestic Capabilities in the Mining Industry.” *Resources Policy* 58:11–20. doi: <https://doi.org/10.1016/j.resourpol.2018.02.001>.
- Kaul, Aseem, and Jiao Luo. 2018. “An Economic Case for CSR: The Comparative Efficiency of for-Profit Firms in Meeting Consumer Demand for Social Goods.” *Strategic Management Journal* 39(6):1650–77. doi: <https://doi.org/10.1002/smj.2705>.
- Khalil, Muhammad Azhar, Shahid Khalil, and Pathathai Sinliamthong. 2024. “From Ratings to Resilience: The Role and Implications of Environmental, Social, and Governance (ESG) Performance in Corporate Solvency.” *Sustainable Futures* 8:100304. doi: <https://doi.org/10.1016/j.sftr.2024.100304>.
- Kyere, Martin, and Marcel Ausloos. 2021. “Corporate Governance and Firms Financial Performance in the United Kingdom.” *International Journal of Finance & Economics* 26(2):1871–85. doi: <https://doi.org/10.1002/ijfe.1883>.
- Lioui, Abraham, and Andrea Tarelli. 2022. “Chasing the ESG Factor.” *Journal of Banking & Finance* 139:106498. doi: <https://doi.org/10.1016/j.jbankfin.2022.106498>.
- Litvinenko, Vladimir, Ian Bowbrick, Igor Naumov, and Zoya Zaitseva. 2022. “Global Guidelines and Requirements for Professional Competencies of Natural Resource Extraction Engineers:

- Implications for ESG Principles and Sustainable Development Goals.” *Journal of Cleaner Production* 338. doi: 10.1016/j.jclepro.2022.130530.
- Luo, Le, and Qingliang Tang. 2023. “The Real Effects of ESG Reporting and GRI Standards on Carbon Mitigation: International Evidence.” *Business Strategy and the Environment* 32(6):2985–3000. doi: <https://doi.org/10.1002/bse.3281>.
- Mancini, Lucia, and Serenella Sala. 2018. “Social Impact Assessment in the Mining Sector: Review and Comparison of Indicators Frameworks.” *Resources Policy* 57:98–111. doi: <https://doi.org/10.1016/j.resourpol.2018.02.002>.
- O’Brien, Ingrid M., Wade Jarvis, Geoffrey Soutar, and Robyn Ouschan. 2018. “Co-Creating a CSR Strategy with Customers to Deliver Greater Value BT - Disciplining the Undisciplined? Perspectives from Business, Society and Politics on Responsible Citizenship, Corporate Social Responsibility and Sustainability.” Pp. 89–107 in, edited by M. Brueckner, R. Spencer, and M. Paull. Cham: Springer International Publishing.
- Park, Young-Ryeol, Sangcheol Song, Soonkyoo Choe, and Youjin Baik. 2015. “Corporate Social Responsibility in International Business: Illustrations from Korean and Japanese Electronics MNEs in Indonesia.” *Journal of Business Ethics* 129(3):747–61. doi: 10.1007/s10551-014-2212-x.
- Patrick Velte. 2020. “Does CEO Power Moderate the Link between ESG Performance and Financial Performance? A Focus on the German Two-Tier System.” *Management Research Review*. doi: <https://doi.org/10.1108/MRR-04-2019-0182>.
- Permatasari, Paulina, and Juniati Gunawan. 2023. “Sustainability Policies for Small Medium Enterprises: WHO Are the Actors?” *Cleaner and Responsible Consumption* 9:100122. doi: <https://doi.org/10.1016/j.clrc.2023.100122>.
- Porter, E, Michael, and R, Mark Kramer. 2006. “Porter Business Case for CSR.” *Harvard Business Review. Strategy&Society, The Link Between Competitive Advantage and Corporate Social Responsibility* 84(12):78–91.
- R. Edward Freeman, William M. Evan. 1990. “Corporate Governance: A Stakeholder Interpretation.” *Journal of Behavioral Economics*.
- Rodríguez-Espíndola, Oscar, Ana Cuevas-Romo, Soumyadeb Chowdhury, Natalie Díaz-Acevedo, Pavel Albores, Stella Despoudi, Chrisovalantis Malesios, and Prasanta Dey. 2022. “The Role of Circular Economy Principles and Sustainable-Oriented Innovation to Enhance Social, Economic and Environmental Performance: Evidence from Mexican SMEs.” *International Journal of Production Economics* 248:108495. doi: <https://doi.org/10.1016/j.ijpe.2022.108495>.
- Saeed, Abubakr, and Farah Zamir. 2021. “How Does CSR Disclosure Affect Dividend Payments in Emerging Markets?” *Emerging Markets Review* 46:100747. doi: <https://doi.org/10.1016/j.ememar.2020.100747>.
- Shahid, Muhammad Sadiq, and Muhammad Abbas. 2019. “Does Corporate Governance Play Any Role in Investor Confidence, Corporate Investment Decisions Relationship? Evidence from Pakistan and India.” *Journal of Economics and Business* 105:105839. doi: <https://doi.org/10.1016/j.jeconbus.2019.03.003>.
- Sheehan, Norman T., Ganesh Vaidyanathan, Kenneth A. Fox, and Mark Klassen. 2023. “Making the Invisible, Visible: Overcoming Barriers to ESG Performance with an ESG Mindset.” *Business Horizons* 66(2):265–76. doi: <https://doi.org/10.1016/j.bushor.2022.07.003>.
- Suchman, Mark C. 1995. “Managing Legitimacy: Strategic and Institutional Approaches.” *Academy of Management Review* 20(3):571–610. doi: 10.5465/amr.1995.9508080331.

- Sun, Xiaowen, and Zhenhua Du. 2024. "Enhancing Capital Market Efficiency: The Role of Data Assets Disclosure in Reducing Stock Price Synchronicity." *International Review of Economics & Finance* 94:103351. doi: <https://doi.org/10.1016/j.iref.2024.05.030>.
- Wang, Haijun, Shuaipeng Jiao, and Chao Ma. 2024. "The Impact of ESG Responsibility Performance on Corporate Resilience." *International Review of Economics & Finance* 93:1115–29. doi: <https://doi.org/10.1016/j.iref.2024.05.033>.
- Zhang, Yijun, Jiale Wang, and Yi Song. 2024. "Trade Networks and Corporate ESG Performance: Evidence from Chinese Resource-Based Enterprises." *Journal of Environmental Management* 367:122079. doi: <https://doi.org/10.1016/j.jenvman.2024.122079>.