

Sustainability Performance and Sustainability Reporting: Two-Way Relationship

Maylia Pramono Sari¹ ✉, Noor Ismawati Jaafar², Ani Fitriani¹

¹Accounting Department, Faculty of Business and Economics, Universitas Negeri Semarang, Indonesia

²Accounting Department, Faculty of Business and Economics, Malaya University, Malaysia

DOI: <https://doi.org/10.15294/jda.v18i1.47828>

Submitted: April 18th, 2026 Revised: August 14th, 2026 Accepted: August 21st, 2026 Published: August 25th, 2026

Abstract

Purposes: The purpose of this study is to investigate the mutual interaction between Sustainability Reporting (SR) and Sustainability Performance (SP) in Higher Education Institutions (HEIs) in Indonesia. Using the theory of legitimacy as the theoretical foundation, this study tested the hypothesis that SR has a positive impact on SP and vice versa with two control variables, namely campus population and Top 50 Under 50.

Methods: The research sample consisted of 138 universities listed in the UI Green Metric in 2023. A quantitative approach is applied through simple linear regression analysis using EViews software.

Findings: The results revealed a strong positive relationship between SP and SR, suggesting that HEIs with good SP tended to be more transparent in SR. In contrast, HEIs sustainability reporting (SR) can also improve public reputation and trust in institutions, which further strengthens SP.

Novelty: The contribution (novelty) of this study is to substantiate the reciprocal relationship between two variables, namely sustainability performance and sustainability reporting. This research provides insights to improve the transparency and accountability of higher education institutions in Indonesia through sustainability reporting, as well as applying legitimacy theory to explain reporting models that have not been widely researched. These findings enrich the academic literature and provide guidance for policy in higher education institutions.

Keywords: Higher Education Institutions (HEIs), Legitimacy Theory, Sustainable Development Goals (SDGs), Sustainability Performance (SP), Sustainability Reporting (SR).

How to cite (APA 7th Style)

Pramono Sari, M., Ismawati Jaafar, N., & Fitriani, A. (2026). *Sustainability Performance and Sustainability Reporting: Two-Way Relationship*. *Jurnal Dinamika Akuntansi*, 18(1), 114-132. <https://doi.org/10.15294/jda.v18i1.47828>.

INTRODUCTION

Within Higher Education Institutions (HEIs), sustainability has become an increasingly important focus in global development agendas, with universities serving a crucial role in promoting sustainable transformation. The role of HEIs has undergone fundamental changes in line with the deepening dynamics and complexity of global challenges. Universities are no longer viewed solely as centres of education and research; they are increasingly acknowledged as vital drivers of sustainable development, responsible for producing knowledge, fostering innovation, and shaping the values and behaviours of future generations (SDSN, 2017). This commitment involves integrating sustainability values into every aspect of operations, governance, curriculum,

and community service, which, in light of important challenges like social injustice, climate change, and the demands of accountability and transparency is now regarded as a strategic necessity rather than a matter of choice (Sari & Faisal, 2022; Alonso-Almeida et al., 2015; Larrán Jorge et al., 2019; Shaik et al., 2025).

As recognition of universities' crucial contribution to sustainable development continues to increase, the demand for a sustainability performance (SP) evaluation and ranking system has become increasingly pressing, with the UI GreenMetric (UIGM) emerging as one of the foremost global initiatives. UIGM offers an international ranking framework that assesses higher education institutions based on six key indicators: environment and infrastructure, energy and climate change, waste management, water resources, transportation, and teaching and research. These indicators reflect the extent of a university's commitment to sustainability and the efforts it undertakes to advance sustainable practices. The surge in UIGM participants from 95 HEIs in 2010 to more than 1,000 HEIs in 2021 reflects a global positive trend in sustainability adoption and reporting in the academic sector. Participation in the UIGM also serves as a legitimacy strategy for HEIs to demonstrate their dedication to international stakeholders, although the tool has been criticized for lacking comprehensiveness in representing the social and economic dimensions of the SDGs. Early research suggests that UIGM is effective in evaluating university environmental policies, but there are still gaps in reporting its overall contribution to sustainability. Models such as UIGM and GRI are considered not fully holistic because they do not emphasize social, educational, and community involvement aspects. Consequently, to integrate environmental, social, and governance (ESG) dimensions into the assessment of university sustainability performance (SP), a more methodical evaluation strategy is required (UI Green Metric, 2024) (Atici et al., 2021; De La Poza et al., 2021^a; Suwartha & Sari, 2013; Sari et al., 2023; Tutko, 2023; Moggi, 2023; Velazquez et al., 2006a).

Even so, the relationship between SP and SR in higher education has not yet been widely explored, especially in Indonesia, where the application of SR has not been evenly distributed due to cultural and regulatory factors. This gap is crucial for developing countries such as Indonesia, which faces rapid urbanization and dependence on natural resources. This study offers empirical support for the two-way relationship between SR and SP in 138 UIGM universities 2023, based on legitimacy theory to assume SR strengthens SP via reputation, while SP encourages transparent SR. Tested through simple linear regression with control variables, this study answers the inconsistencies of the literature and makes a practical contribution to HEIs in the SDGs. Focus on Indonesia, this study provides insight into the dynamics of sustainable education and policy motivation, including the incorporation of SR into BAN-PT accreditation (Atici et al., 2021; SDSN, 2017; Suwartha & Sari, 2013; Velazquez et al., 2006a; Işin et al., 2025; SDSN, 2017).

Sustainability performance serves as an important indicator of a university's contribution to this agenda, covering environmental dimensions such as energy efficiency and waste management, social aspects including community well-being and inclusiveness, and governance elements related to accountability and transparency. HEIs with high sustainability performance create a healthy academic ecosystem, attract superior talent, and strengthen reputations in the eyes of stakeholders, while low performance has the potential to damage its image, reduce competitiveness, and influence external support from governments and communities. Thus, ensuring the improvement of Sustainability Performance (SP) is a common focus for institutional leaders, regulators, and the global community (Atici et al., 2021; Cuesta-Claros et al., 2023; Larrán Jorge et al., 2019).

Sustainability Reporting (SR) has the potential to improve Sustainability Performance (SP) in the two-way connection that is the subject of this study through accountability mechanisms and social recognition. A sustainability report represents a non-financial report that provides information on an organization's achievements in meeting sustainability targets (Mietule et al., 2025). The presentation of sustainability data via SR that is honest and comprehensive is able to increase the prestige of the institution, foster trust among stakeholders, and stimulate overall

sustainable operational improvement. For example, when HEIs document their initiatives in reducing carbon emissions or advancing social justice through SR, it not only aligns with guidelines such as the GRI, but also triggers an internal push for SP improvements. Empirical evidence suggests that solid SR encourages efficient allocation of funds to environmentally friendly programs, such as solar energy or the SDGs curriculum, which enrich the SP pillar. SR also serves as a symbolic means of attracting external support, contributing to the long-term progress of SP. Especially for HEIs, SR optimally triggers academic innovation, instilling the value of sustainability in teaching and research (Shad et al., 2019; Orazalin & Mahmood, 2018; Al-Shaer & Hussainey, 2022a; Lhutfi et al., 2024; Orazalin & Mahmood, 2018; Larrán Jorge et al., 2019; Muchlish et al., 2025).

Conversely, the achievement of superior SP facilitates the improvement of SR quality and openness, forming a cycle of reciprocal reinforcement. Institutions with outstanding sustainability achievements such as in environmental, social, and economic metrics tend to be more vocal in publicizing their achievements to achieve social legitimacy. This case reflects the principles of legitimacy theory, whereby organizations are expected to adjust their operations to conform to societal expectations and preserve their legitimacy. HEIs with high SP use SR to accentuate success, guarantee transparency and reduce legitimacy gaps. The study confirms that SP is firmly the foundation of a credible SR, strengthening the perception as a pioneer of transformation. However, these interactions vary; Some research found a positive correlation, while others detected negative impacts such as greenwashing or the absence of linkages. This variation highlights the necessity of investigating the reciprocal relationship between SR and SP in Indonesian HEIs (Al-Tuwaijri et al., 2004; Wen et al., 2024; Lee & Raschke, 2023; Sun et al., 2024; Larrán Jorge et al., 2019; Zorio-Grima et al., 2018; Cho & Patten, 2007; Ingram & Frazier, 1980; Gantchev et al., 2024).

From the perspective of legitimacy theory, sustainability reporting plays a crucial role in securing community endorsement and upholding organizational legitimacy (Laskar, 2024). According to the concept of social contract legitimacy theory, it emphasizes that the sustainability of an institution is greatly influenced by the extent to which the institution is enforced and the extent to which the organization complies with social norms and boundaries. Failure to align the institution's operations with societal expectations and norms can lead to rejection by some communities, such as employees, students, and investors, as the institution is perceived to have a bad reputation. When there is a difference, both real and potential, between an institution's value system and society's value system, it poses a risk to the legitimacy of the institution, this is known as the legitimacy gap. Institutions need to handle societal expectations and reduce legitimacy gaps through a legitimization process in order to remain viable (Brown & Deegan, 1998; Dowling & Pfeffer, 1975).

The idea of legitimacy's central tenet is the social compact, which states that institutions will continue to strive to guarantee that they function within the limits and standards set by the society or environment to which they are affiliated. In this process, institutions employ various legitimization techniques and communication strategies to reduce legitimacy gaps. One of the most important approaches is sustainability reporting (SR), which is regarded as a mechanism for creating the perception that institutions operate in line with societal expectations (Deegan, 2002; O'Donovan, 2002). Sustainability reports are periodic reports that corporations produce, usually once a year, to share their CSR initiatives and outcomes. Sustainability reports serve as a substantive and symbolic legitimacy strategy. Institutions with poor social responsibility may utilize sustainability reports to mitigate negative reactions from stakeholders or provide biased information to mask their true performance in contrast, institutions with good SP are more likely to report their performance transparently through SR (Velazquez et al., 2006b; Jorge et al., 2019).

With regard to higher education institutions (HEIs), sustainability reporting (SR) on various social, economic, and environmental matters can create a positive public image, enhance institutional reputation, and reinforce organizational legitimacy. Furthermore, participation

in sustainability performance (SP) assessments conducted by external bodies, such as the UI Green Metric (UIGM), also represents an institutional effort to obtain and strengthen legitimacy. In Indonesia, the performance of HEIs is measured through the accreditation of BAN-PT, an organization designated to raise the caliber of HEIs by the Ministry of Education, Research, and Technology. This accreditation puts external pressure on institutions to meet minimum standards, which also includes sustainability aspects. HEIs with good SP, which are proxied through high UIGM ratings, tend to be more transparent in their SR. In contrast, institutions with poor SP, proxied through low UIGM ratings, can increase SR to mitigate the negative impact of inadequate performance (Larrán Jorge & Andrades Peña, 2017).

By publishing sustainability reports, higher education institutions (HEIs) can strengthen their legitimacy in the eyes of stakeholders. These reports serve as a means of demonstrating that institutions are concerned not only with academic achievement but also with social and environmental issues. When academic institutions can gain this credibility, they can improve their reputation and appeal, which in turn can contribute to the overall SP HEIs (Ibáñez-Forés et al., 2023; Al-Shaer & Hussainey, 2022b). The disclosure of sustainability reports in aggregate not only serves as a communication tool, but also as a strategy to build legitimacy and strong relationships with stakeholders, which can ultimately improve the university's sustainability performance in various aspects, including reputation, accreditation, and competitiveness. Pressure from investors has encouraged entities to enhance both the adoption and disclosure of sustainability reporting practices (Medeiros et al., 2025). By disclosing sustainability reports in aggregate, HEIs can meet stakeholder expectations. This evidence reinforces the hypothesis by confirming earlier research on the beneficial impact of sustainability reporting disclosure on sustainability performance. (Orazalin & Mahmood, 2018).

According to Alonso et al. (2015), HEIs are essential for the growth of communities and their participation in sustainable development. Therefore, HEIs are trusted to fulfil and expand their role in democratizing knowledge and education by expanding access to encourage social mobility (Helfaya et al., 2023). Superior SP is seen by many institutions as a way to improve their position in SR, cultural characteristics play an important role in shaping sustainability performance, and organizational leaders need to reassess their organizational vision to ensure stakeholder satisfaction. (Sassen et al., 2022; Kantabutra, 2024). The question is to what extent have HEIs effectively managed their sustainability performance? Currently, research on sustainability in Indonesian HEIs is still very limited. There are several sustainability disclosure formats, including GRI (Tuo et al., 2024). Most universities have not yet adopted the Global Reporting Initiative (GRI) or other sustainability reporting standards. This study examines sustainability reporting (SR) practices in higher education institutions (HEIs) through the lens of legitimacy theory (Sun et al., 2024). Alonso-Almeida et al. (2015) emphasize the use of the GRI framework to communicate the social impacts associated with sustainability reporting. Furthermore, the framework enhances the relevance and transparency of both financial and non-financial information for stakeholders. Accordingly, this research focuses on Indonesian universities that are listed in the UI GreenMetric ranking (Sun, 2024; Tuo et al., 2024; Atici et al., 2021). In this study, sustainability reporting (SR) is considered one of the indicators used to evaluate the sustainability performance (SP) of universities in Indonesia. The research analyzes SR outputs based on the GRI framework to determine whether higher education institutions (HEIs) apply continuous reporting standards as a means of maintaining legitimacy, as well as to assess the transparency and implementation of both financial and non-financial information for stakeholders (Alonso-Almeida et al., 2015; Tuo et al., 2024).

Legitimacy theory describes the perception that an action is carried out in accordance contains definitions, standards, attitudes, and ideas that are socially constructed (Rao et al., 2025). HEIs act responsibly to society and satisfy stakeholders by presuming that a social contract exists. HEIs must demonstrate their legitimacy by making a positive contribution to society and stakeholders. HEIs use SR will update all interested parties on their environmental and

social performance (Ortiz-Martínez et al., 2023; Sun et al., 2024; Tuo et al., 2024). To maintain the stability of their legitimacy, HEIs must develop ways to shape their own legitimacy while continuing to make adjustments to the social context (Ding et al., 2024; Sun et al., 2024; Sassen et al., 2022).

Based on previous research, sustainability reports and environmental aspects on university sustainability performance are positively correlated. Others research was also conducted by (Atici et al., 2021). Sustainability reports do affect an organization's financial performance, but the impact is not always positive or negative directly. Due to the lack of university research on sustainability reporting. Previous studies have not established a clear relationship between sustainability reporting (SR) and sustainability performance (SP), especially in developing countries such as Indonesia. Moreover, a specific GRI standard for the disclosure of university sustainability reports is still unavailable (Remo-Diez et al., 2023; Sari et al., 2023). Therefore, this study applies the GRI framework to examine the influence of SR on the SP of Indonesian universities listed in the UI GreenMetric ranking. The analysis incorporates four dimensions—general, economic, social, and environmental—which serve as guidelines for evaluating university sustainability reporting practices.

The disclosure of common dimensions serves to build legitimacy for stakeholders that includes organizational profiles and sustainability strategies (Tortosa-Edo & López-Navarro, 2024). By providing clear and transparent information about the vision, mission, and steps taken to achieve sustainability goals as well as providing relevant and comprehensive information, universities can attract interest and support from stakeholders (Lee & Raschke, 2023). This is important for the sustainability and sustainability performance of HEIs. High-quality disclosure can enhance stakeholder participation in sustainability initiatives, thereby strengthening relationships and collaboration between universities and the wider community (Sassen et al., 2022). Comparable findings were reported by Al-Shaer and Hussainey (2022b), who identified a positive association between sustainability reporting (SR) disclosure and sustainability-related outcomes, particularly within the broader disclosure dimension. Higher education institutions (HEIs) that provide comprehensive economic disclosures are more capable of meeting stakeholder expectations, which may contribute to improved academic performance, stronger financial performance, and a better institutional reputation. Strong economic disclosure also helps universities develop and maintain positive relationships with stakeholders (Perchinunno & Cazzolle, 2020; Atici et al., 2021). Furthermore, this argument is reinforced by evidence showing that economic disclosure contributes positively to organizational performance (Lin, 2024).

The disclosure of the environmental dimension is used to obtain and maintain legitimacy from its stakeholders, the theory of legitimacy being the foundation. In terms of sustainability and resource management, HEIs that actively record and manage environmental impacts typically do better. This finding is consistent with previous studies indicating that university sustainability performance improves when environmental dimensions are effectively disclosed (Saini et al., 2022; Viera Trevisan et al., 2024; Yadegaridehkordi et al., 2023).

To improve the sustainability performance of higher education institutions (HEIs), the disclosure of social factors in sustainability reporting (SR) is essential. The social dimension of SR can strengthen the legitimacy of HEIs among stakeholders by providing transparent and reliable information regarding the organization's social impacts. Previous studies have shown that incorporating the social dimension contributes positively to sustainability performance (Symaco & Tee, 2019; Ortiz-Martínez et al., 2023). Additional evidence also indicates that social sustainability disclosure has a significant effect on an organization's financial performance. Consequently, social disclosure should be viewed not only as a communication mechanism but also as a strategic approach for enhancing the organization's overall performance.

By publishing sustainability reports, higher education institutions (HEIs) can strengthen their legitimacy in the eyes of stakeholders. These reports serve as a means of demonstrating that institutions are concerned not only with academic achievement but also with social and

environmental issues. When universities are able to establish such credibility, they can enhance their reputation and attractiveness, which may ultimately contribute to improved overall sustainability performance (SP) (Ibáñez-Forés et al., 2023; Al-Shaer & Hussainey, 2022b). The disclosure of sustainability reports in aggregate not only serves as a communication tool, but also as a strategy to build legitimacy and strong relationships with stakeholders, which can ultimately improve the sustainability performance of HEIs in various aspects, including reputation, accreditation, and competitiveness. By disclosing sustainability reports in aggregate, universities can meet the expectations of stakeholders. This supports the hypothesis because it is consistent with research on the positive impact of SR disclosure on organizational SP (Orazalin & Mahmood, 2018).

The objective of this study is to examine how external pressures, including those exerted by hierarchical institutions such as the Ministry of Education, influence the relationship between sustainability performance (SP) and sustainability reporting (SR). Drawing on legitimacy theory, the study seeks to explain how SR functions as a strategic mechanism for obtaining and maintaining organizational legitimacy in response to external demands and societal expectations. Based on this perspective, the following hypotheses are formulated:

H1: Sustainability performance has a significant positive effect on sustainability reporting.

H2: Sustainability reporting has a significant positive effect on sustainability performance.

The reciprocal (two-way or mutually reinforcing) relationship between sustainability performance and sustainability reporting is important because it affects organizational sustainability, stakeholder trust, and real environmental outcomes. When the relationship operates in only one direction, an imbalance may occur. Reporting in the absence of actual performance can lead to symbolic disclosure or greenwashing, while strong performance without transparent reporting may prevent an organization's good practices from being recognized, evaluated, and continuously improved.

The following are the key reasons why this reciprocal relationship is crucial, viewed from various perspectives:

1. Preventing Greenwashing and Ensuring Accountability

When reporting and performance influence each other, reports cease to be merely marketing documents or formalities (tick-the-box exercises). Related to quality control, public commitments documented in reports create social and legal pressure. Companies are compelled to substantiate the figures and targets stated in their reports with concrete actions on the ground (performance). In terms of auditability, this two-way relationship enables reported information to be validated, which enhances the organization's credibility in the eyes of both regulators and society.

2. Building a Virtuous Cycle

This two-way dynamic creates a cycle of continuous improvement. Sustainability performance drives transparent and measurable reporting, which in turn elicits stakeholder feedback that leads to further improvements. Tangible performance generates data for the report. The report attracts the attention of investors, customers, and regulators. External input and high expectations prompt management to strengthen performance in the subsequent period.

3. Linking Financial Decisions with Non-Financial Impacts

For capital and financial markets, this reciprocal relationship provides informational certainty. Accurate ESG Risk Assessment: Investors require reports that reflect actual performance to assess long-term risks (such as climate risk or social conflict). Efficient Capital Allocation: Companies with strong performance backed by transparent reporting find it easier to access low-cost capital (e.g., Green Bonds, ESG Funds). These funds are subsequently reinvested to finance new eco-friendly projects.

4. Helping Management Measure What Is Managed (“What Gets Measured Gets Managed”)

Within organizations, the process of producing sustainability reports encourages the implementation of reliable systems for tracking data related to carbon footprints, water use, and occupational safety. Without reporting requirements, many companies remain unaware of the extent of their operations’ negative impacts. With reporting in place, assessment tools become clear, enabling performance targets to be established, monitored, and improved over time.

Existing studies have not reached a consistent conclusion about the relationship between sustainability reporting (SR) and sustainability performance (SP) in either direction. To overcome the limitations of previous studies, which investigated these two variables separately and produced inconsistent findings, this study offers a new contribution by presenting empirical evidence on the reciprocal relationship between sustainability performance and sustainability reporting.

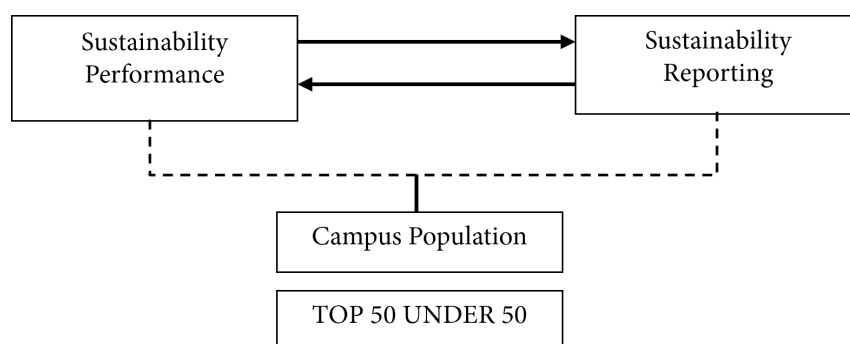


Figure 1. Conceptual framework

METHODS

This study uses purposive sampling by selecting 138 Indonesian universities listed in the 2023 UI GreenMetric ranking. The research adopts a quantitative approach and is designed as explanatory research. The analysis is based on secondary data, consisting of the 2023 UI GreenMetric ranking data to assess sustainability performance and a content analysis of university websites for the year 2023, using GRI indicators to evaluate sustainability reporting.

Table 1. Population and Sample

No	Criterion	Year 2023
1	Universities listed in UI GREEN METRIC 2023	1.182
2	Universities in Indonesia that are included in the UI GREEN METRIC 2023	145
3	Deleted Outlier Data	-7
Total Research Sample		138

Source: Author, 2024

The hypothesis concerning the reciprocal relationship between sustainability reporting (SR) and sustainability performance (SP) was examined using a quantitative approach. The dependent variable in this study is SR, measured using indicators adapted from the Global Reporting Initiative (GRI), while the independent variable is university SP, assessed using the UI GreenMetric framework. The study seeks to determine the extent to which SR and SP influence one another.

Table 2. Variable Operation

No	Variable	Measurement
1	Sustainability Report	A combination of 4 aspects of reporting, which are general disclosure, economics, environment and social. Content Analysis Method: The disclosed indicators are given a value of "1" and the indicators that are not disclosed are given a value of "0" (Sari et al., 2023) $SRDI = K/N$
2	Sustainability Performance	Total Scores listed on UI Green Matric 2023 (Sari et al., 2023)
3	Campus population	Judging from the UI Green Metric ranking category, the number "1" is categorized as a university that has a population of <5000, the number "2" is categorized as a university that has a population of $\geq 5,000$ and $\leq 15,000$ and the number "3" is categorized as a university that has a population of >15,000 (UIGM, 2023)
4	Top 50 Under 50	Judging from the order of the UI Green Metric 2023 ranking, universities that enter below 50 are given a score of "3", while those who enter below 50 are given a score of "1", and those who do not enter both are given a score of "2" (UIGM, 2023)

Source: Data Analytics 2024

In Table 3, we can assess the HEIs with the Report Card which is an assessment criterion originally used by US universities and colleges to provide an objective assessment of the percentage of sustainability performance in the HEIs.

Table 3. Report Card

Level	Compliance Percentage	Meaning
A	66 - 100%	Superior
A-	60 - 65%	
B+	54 - 59%	
B	46 - 53%	
B-	40 - 45%	
C+	34 - 39%	Good/Above Expectations
C	26 - 33%	
C-	20-25%	
D+	14-19%	Average/ Satisfactory
D	6 - 13%	
D-	1 - 5%	
F	0%	Unsatisfactory
		Fail

Source: (Mcintosh, 2001)

The Report Card criteria consist of five levels: Excellent with A and A- (60%-100%); Good/ Above expectations with B+, B, B- (40%-64%); Average/Satisfactory with C+, C, C- (20%-44%);

Unsatisfactory D+, D, D- (less than 20%); Fail with F (0%) (McIntosh, 2001). One example of the meaning of a superior rating with an A grade is that at least 66 percent of HEIs are involved in HEIs Sustainability activities. The weighting mechanism is calculated as an equally weighted (unweighted) dichotomy index on a scale of 1-100 percent. If the indicator is disclosed, it is given a score of 1 and if it is not disclosed, it is given a score of 0.

This research method was carried out quantitatively and used E-VIEWS software to test hypotheses that have been made using simple linear regression techniques. The data analysis will begin with descriptive statistics to examine the characteristics of the sample. Additionally, normality assessment, multicollinearity evaluation, and heteroscedasticity examination are all part of the traditional assumption test. A hypothesis test will be conducted following this test. The regression equations presented in this report are as follows:

Model 1:

$$SR = \beta_0 + \beta_1 SP + \beta_2 CP + \beta_3 TU + e \dots\dots\dots (1)$$

Model 2:

$$SP = \beta_0 + \beta_1 SR + \beta_2 CP + \beta_3 TU + e \dots\dots\dots (2)$$

Information:

SR : Sustainability Report
 SP : Sustainability Performance
 CP : Campus Population
 TU : Top 50 Under 50

RESULTS AND DISCUSSION

Table 4 illustrates the categorization of SR disclosure levels for Indonesian HEIs according to their percentage of adherence to the prescribed standards. Colleges are categorized into several levels based on a range of compliance percentages, with quality interpretations ranging from “Excellent” to “Failed”.

Table 4. Classification Based on SR Report Card

Level	Compliance Percentage	Meaning	HEI
A	66 - 100%	Superior	62
A-	60 - 65%		
B+	54 - 59%		
B	46 - 53%		
B-	40 - 45%	Good/Above Expectations	74
C+	34 – 39%		
C	26 – 33%		
C-	20-25%		
D+	14-19%	Average/ Satisfactory	2
D	6 – 13%		
D-	1 – 5%		
F	0%		
Total			138

Source: (Mcintosh, 2001)

According to the classification’s findings, most HEIs are rated at the B+ level (54-59%) with 74 universities, followed by the A level (66-100%) with 62 universities. Meanwhile, there are only 2 universities in the C+ category (34-39%), and none of the universities are in the D+ to F category.

Overall, the total number of universities in this study sample is 138, with most universities having a fairly good Sustainability Report disclosure rate, being in the middle to upper category. These findings suggest that Indonesian educational institutions have begun incorporating sustainability considerations into their reports, even though a number of universities continue to show lower compliance with the established standards.

The descriptive analysis provides an overview of the data for each research variable, including the mean, standard deviation, maximum value, minimum value, and the number of observations used in this study can be seen in Table 5.

Table 5. Descriptive Test

Variable	SR	SP	CP	TU
Mean	0,585526	5190.145	2.028986	1.905797
Average	0,585526	5280.000	2.000000	2.000000
Maximum	0.815789	8925.000	3.000000	3.000000
Minimum	0.361842	560.0000	1.000000	1.000000
Standard	0.100321	2297.785	0.836590	0.433753
Development				
Tilt	-0,087706	-0,093265	-0/054315	-0,502740
Kurtosis	2.220938	1.912903	1.441277	4.882664
Jarque-Bera	3.666813	6.995301	14.03816	26.19362
Likelihood	0.159868	0,030268	0,000895	0,000002
Sum	80.80263	716240.0	280.0000	263.0000
Number of Sq. Dev	1.378809	7.23E+08	95.88406	25.77536
Observation	138	138	138	138

Source: Output Eviews 13, 2024

We can determine whether the value is normally distributed by examining the JB (Jarque-Bera) probability with an alpha of 5% (0.05). The data are considered normally distributed when the Jarque-Bera probability value exceeds 5% (0.05); otherwise, if the value is below 5%, the data are regarded as not normally distributed. In Model I, the Jarque-Bera test produced a p-value of 0.2659, which is greater than 0.05, indicating that the data are normally distributed. Likewise, Model II generated a p-value of 0.2528, also exceeding 0.05, which suggests that the data follow a normal distribution. Therefore, it can be concluded that both Model I and Model II satisfy the normality assumption required in classical regression analysis (Figure 2).

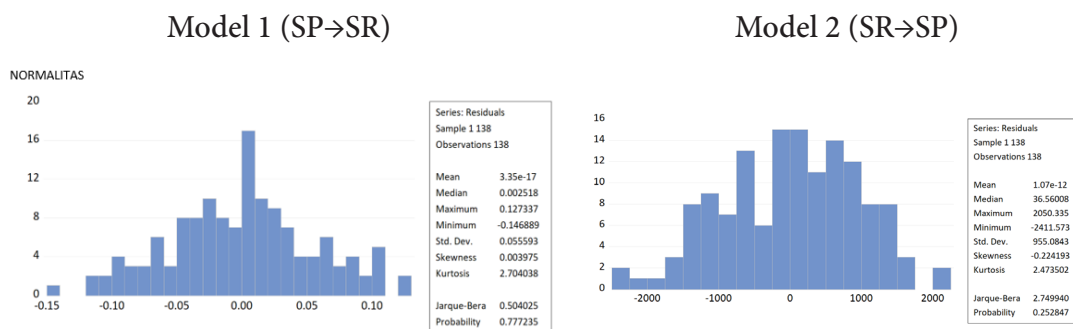


Figure 2. Normality Test (Jarque-Bera)

The objective of the heteroscedasticity test is to verify whether the residuals in a linear regression model display unequal or varying variances among the observations. One of the traditional assumptions that need to be checked in linear regression is this. Both the squared

Obs*R value of 0.8011 in model II and the squared Obs*R value of 0.0556 in model I are greater than 0.05. Therefore, it can be said that neither model I nor model II show symptoms of heteroscedasticity (Table 6).

Table 6. Heteroscedasticity Test

Model 1 (SP→SR)			
Statistics F	1.429504	Question F (9.128)	0.1821
Obs*R-squared	12.60382	Chi-Square Possibilities (9)	0.1814
Scale explains SS	10.12519	Chi-Square Possibilities (9)	0.3404
Model 2 (SR→SP)			
Statistics F	0,575666	Question F (9.128)	0.8151
Obs*R-squared	5.368460	Chi-Square Possibilities (9)	0.8011
Scale explains SS	3.729252	Chi-Square Possibilities (9)	0,9283

Source: Output Eviews 13, 2024

The multicollinearity test is conducted to ensure that the independent variables are not highly correlated with one another. Based on the results of Models I and II presented in Table 7, each independent variable has a tolerance value above 0.1 and a Variance Inflation Factor (VIF) below 10. These findings indicate that multicollinearity among the independent variables is not substantial. Consequently, the inclusion of these variables in the regression models does not significantly affect the stability of the estimated coefficients, and the models are therefore considered to satisfy the multicollinearity assumption.

Table 7. Multicollinearity Test

Model 1 (SP→SR)			
Variable	Coefficient Variance	Uncentralized VIF	Centralized VIF
SP	1.50E-11	21.14303	3.443917
CP	6.87E-05	14.43656	2.084693
TU	0,000249	41.55215	2.032299
C	0,000591	25.81246	NA
Model 2 (SR→SP)			
Variable	Coefficient Variance	Uncentralized VIF	Centralized VIF
SR	1310571	68.42408	1.937606
CP	17891.72	12.73858	1.839498
TU	45870.76	25.92074	1.267773
C	302069.7	44.69789	NA

Source: Output Eviews 13, 2024

To verify the reciprocal relationship between sustainability performance (SP) and sustainability reporting (SR) in line with the proposed hypotheses, this study employs hypothesis testing to evaluate both the significance of the individual regression coefficients using the t-test and the overall significance of the regression model using the F-test. The hypotheses are considered significant at the 5% significance level, indicated by a p-value of less than 0.05 with t-statistics exceeding the specified critical value. In addition, the overall F test was significant

(p-value < 0.01), indicating that the overall regression model explains the variation of dependent variables well).

Table 8. Hypothesis Test

Model 1 (SP→SR)			
Variable	Coefficient	Statistics t	Maybe.
SP	3.70E-05	9.550387	0,0000
CP	0,017835	2.151805	0,0332
TU	-0,048201	-3.053796	0,0027
C	0.448943	18.46677	0,0000
F Test			117.1410
Model 2 (SR→SP)			
Variable	Coefficient	Statistics t	Maybe.
SP	10933.30	9.550387	0,0000
CP	643.0071	4.807172	0,0000
TU	2095.824	9.785585	0,0000
C	-6510.456	-11.84562	0,0000
F Test			213.8681

Source: Output Eviews 13, 2024

The purpose of this study is to examine the influence of the independent variables on the dependent variables. The results of the analysis show that the calculated F-statistic of 117.1410 exceeds the critical F-table value of 2.1674. Furthermore, the significance value obtained is 0.000000, which is lower than the 0.05 alpha level. These findings suggest that independent variables significantly affect sustainability performance-dependent variables at the same time, with H0 rejected and Ha approved. The results indicate a significant interaction between the independent variables and sustainability performance as the dependent variable, thereby confirming the importance of these factors in shaping sustainability performance.

The calculated F-statistic of 213.8681 exceeds the critical F-table value of 2.6721. In addition, the obtained significance value of 0.0000 is lower than the 0.05 significance threshold. These results indicate that the alternative hypothesis (Ha) is accepted, while the null hypothesis (H0) is rejected. Therefore, the independent variables included in this research model are presented to have a significant effect on the dependent variable, i.e. sustainability performance.

The findings demonstrate that the general dimension of sustainability reporting (SR) disclosure has a significant positive effect on the sustainability performance (SP) of Indonesian higher education institutions (HEIs). The results indicate that the information presented in sustainability reports reflects an organization's commitment to sustainable practices, which in turn enhances its sustainability performance. These findings are consistent with previous studies reported by Al-Shaer et al. (2022) and Hussain et al. (2023), where there is a positive relationship of SR disclosure especially in the general dimension. Furthermore, research by Speziale et al. (2014) also supports these results by showing that dimensions of sustainability reporting, including the general dimension, have a significant relationship with organizational performance. The study highlights that comprehensive and transparent reporting not only fulfills regulatory requirements but also supports more informed decision-making by stakeholders, including students, academic staff, and the wider community. Consequently, the public disclosure of sustainability performance (SP) should be viewed not merely as an administrative obligation, but also as a strategic approach for enhancing university sustainability performance. These findings reflect the growing social and environmental responsibility of higher education institutions (HEIs) in Indonesia and their important contribution to achieving the Sustainable Development Goals (SDGs). Furthermore,

the results indicate that HEIs that consistently disclose sustainability-related information tend to demonstrate stronger sustainability performance, thereby creating additional value for all stakeholders involved.

These findings show that the sustainability performance of universities in Indonesia is negatively affected through the release of sustainability reports that address the economic aspect. These findings suggest that although universities disclose information related to the economic dimension, it does not contribute positively to their sustainability performance. This disclosure can actually lead to increased operational costs that are not balanced by improved performance, thus negatively impacting sustainability performance. These findings are supported by the study conducted by Suwandi (2019), which suggests that the economic dimension of sustainability reporting has a limited influence on organizational performance. The study further explains that stakeholders generally perceive the disclosure of economic information as supplementary information to be considered when making investment decisions. This implies that there is no real impact of data in the economic dimension of sustainability reports on company performance.

Furthermore, this study's research shows that revealing SR in the economic dimension can lead to an increase in institutional spending, which in turn can reduce profits and disrupt financial performance. This suggests that while there are efforts to increase transparency through SR, the negative impact of increased spending may offset the expected benefits of such disclosures. Therefore, the findings of this study support the need for HEIs to be more careful in collecting and presenting data in sustainability reports, especially in the economic aspect. Information sharing is only one aspect of sustainable performance improvement efforts, but it also requires a more holistic and integrated strategy to ensure that all aspects of sustainability can support each other and contribute positively to the overall performance of the institution (Mulpiani, 2019).

These findings show that the sustainability performance of universities in Indonesia has improved significantly by making sustainability reports on the environmental aspect public. These findings highlight the importance of transparency in sustainability reporting, particularly with respect to the environmental impacts of university operations. Providing clear and comprehensive environmental disclosures not only satisfies regulatory requirements but also enhances the confidence of stakeholders, including students, parents, and the broader community. The study by Yadegaridehkordi et al. (2023) supports these findings, indicating that the disclosure of environmental dimensions in sustainability reports contributes positively to organizational reputation and overall performance. Evidences from the study suggest that organizations that actively report on their environmental performance typically receive more support from stakeholders, which ultimately improves their sustainability performance. In addition, research by Saini et.al. (2022) Additionally, it discovered that sustainability reports' environmental component significantly affects financial performance, indicating that focusing on the environmental component might enhance an organization's operational outcomes.

Additionally, the HEIs reputation is improved by disclosing information about environmental impact management initiatives such waste management, renewable energy use, and emission reduction. This finding is in line with legitimacy theory, which argues that organizations need to demonstrate their commitment to social and environmental responsibility in order to gain support from the public and other stakeholders (Sun, 2024). Accordingly, the results of this study support the view that publishing sustainability reports that include environmental aspects is not only an important communication mechanism but also a strategic approach for improving the sustainability performance of Indonesian universities. These findings also offer practical implications for university management, encouraging institutions to adopt a more proactive approach in preparing comprehensive and transparent sustainability reports in order to strengthen their standing in terms of social and environmental responsibility.

The study's findings indicate that Indonesian HEIs' SP suffers when SR on the social dimension are made public. These findings suggest that while universities strive to be transparent in reporting their social performance, the impact of such disclosures can actually reduce overall SP.

One possible reason underlying these findings is that an organization's social responsibility (CSR) program-related expenditure could increase significantly, without being offset by an equivalent improvement in institutional performance or reputation. This conclusion is supported by research conducted by which shows that the social dimension of sustainability report disclosure can result in higher operational costs for organizations. This is because institutions must expend additional resources to meet the demands of social information disclosure, which do not always result in direct benefits to their financial performance or sustainability. The study concludes that higher expenditure on social initiatives may lead to reduced profitability, which can subsequently have a negative effect on sustainability performance. It also suggests that social disclosures are frequently viewed by stakeholders as supplementary information that receives limited consideration in investment-related decisions. When stakeholders fail to perceive the added value of such disclosures, their level of trust and support toward the university may decline. Therefore, the findings indicate that social disclosures in sustainability reports need to be managed carefully and communicated effectively. Universities must consider how social information is presented and its impact on their sustainability performance. Efforts to increase transparency in sustainability reporting must be balanced with effective strategies to ensure that spending on social programs provides real added value for institutions and stakeholders (Mulpiani, 2019).

These findings show that the sustainability performance of universities in Indonesia has improved significantly through the sharing of aggregate sustainability reports. These findings support the importance of transparency in sustainability reports that address social, environmental, and economic factors in order to enhance academic institutions' sustainability performance. These findings are consistent with Orazalin and Mahmood (2018), who demonstrated that sustainability reporting disclosure can significantly influence an organization's financial performance and reputation. Their study found that organizations that consistently disclose sustainability-related information tend to receive greater stakeholder support, which can subsequently contribute to improved sustainability performance. This finding is also consistent with legitimacy theory, which emphasizes that institutions need to demonstrate their commitment to social and environmental responsibility to gain and maintain the support of stakeholders and society.

Similarly, Al-Shaer et al. (2022) found that sustainability reporting disclosure has a positive effect on an organization's market value. Their findings suggest that sustainability reports provide stakeholders with a clearer understanding of an organization's commitment to sustainable practices, thereby strengthening stakeholder trust and ultimately contributing to better sustainability performance. In addition, Shad et al. (2019) reported that comprehensive and transparent sustainability reporting can enhance organizational performance. Such reporting not only helps organizations meet regulatory requirements but also provides useful information for stakeholders, including parents, students, and the wider community, thereby supporting more informed decision-making.

Further evidence from Atici et al. (2021) indicates that sustainability-related disclosure can contribute positively to organizational performance. Taken together, these findings suggest that comprehensive and transparent sustainability reporting can serve as an important strategic mechanism for improving institutional performance and strengthening stakeholder relationships. Therefore, university management should adopt a more proactive approach to preparing and disclosing comprehensive sustainability reports. Such efforts can enhance transparency, strengthen stakeholder confidence, and reinforce the university's position in fulfilling its social and environmental responsibilities (Shad et al., 2019).

Table 2 presents the descriptive statistics for the variables examined in this study. The results indicate that the data are normally distributed, as shown in Table 3, while the heteroscedasticity and multicollinearity tests reveal no significant issues, as reported in Tables 4 and 5. Therefore, the data satisfy the relevant assumptions and can proceed to the subsequent hypothesis-testing stage presented in Table 6. The first hypothesis proposes that sustainability performance (SP) has a positive effect on sustainability reporting (SR). The results show that the p-value for SP is 0.0000,

which is below the 5% significance threshold. Accordingly, H1 is accepted, providing evidence that SP has a significant positive effect on SR. This finding suggests that universities with stronger sustainability performance are more likely to disclose sustainability-related information, whereas institutions with lower levels of SP tend to provide less information regarding their sustainability achievements. Universities with weaker sustainability performance may also be more inclined to emphasize favorable information while limiting the disclosure of less positive aspects, particularly when independent performance information is unavailable. When stakeholders do not perceive the absence of disclosure as evidence of poor performance, such reporting practices may continue over an extended period. The lack of specific government regulations governing sustainability reporting may further reinforce this condition.

Overall, these findings support the perspective of legitimacy theory and are consistent with previous research demonstrating a significant relationship between sustainability performance and sustainability reporting (Al-Tuwaijri et al., 2005; De La Poza et al., 2021b; Grima et al., 2018; Jorge et al., 2019; Richardson & Kachler, 2017; van de Burgwal & Vieira, 2014). The results pertaining to SR support the second hypothesis, which holds that SR positively affects SP. This variable has a p-value of 0.0000, or less than 5%. Consequently, H2 was approved. We may conclude that SR significantly and favourably affects SP. HEIs are encouraged to publish sustainability reports. These findings support the legitimacy theory, which underscores that institutions need to meet societal expectations through SR and good performance to gain social legitimacy. In addition, these findings suggest that SR not only reflects sustainability performance, but can also influence its improvement simultaneously. This is consistent with studies that demonstrate SR and SP have a positive relationship, confirming that organizations with higher SP typically generate thorough and pertinent SRs that have a favourable impact on stakeholder decision-making (Shad et al., 2019).

Legitimacy Theory is based on the notion of a “social contract” between organizations and the society in which they operate. To maintain their ability to operate and sustain their activities, organizations require recognition, acceptance, and support from society. From this perspective, the relationship between sustainability performance (SP) and sustainability reporting (SR) can be explained through the organization’s need to preserve its social legitimacy. Regarding the influence of SP on SR, organizations with weak sustainability performance may face a greater risk of losing legitimacy in the eyes of stakeholders and society. To maintain the social contract, organizations use sustainability reporting as a communication mechanism to demonstrate their environmental and social commitments, disclose their sustainability achievements, and respond to societal expectations. Conversely, the relationship between SR and SP can also be explained by legitimacy theory. Once an organization publicly communicates its sustainability commitments through sustainability reports, stakeholders can use these disclosures as a basis for evaluating and holding the organization accountable for its stated commitments. Consequently, organizations may be encouraged to translate their reported commitments into genuine sustainability practices and improve their actual sustainability performance. This process can help maintain organizational legitimacy while reducing the risk of criticism or accusations of greenwashing.

CONCLUSION

This study identifies a positive and significant relationship between sustainability performance (SP) and sustainability reporting (SR) among Indonesian higher education institutions (HEIs), based on data from universities included in the 2023 UI Green Metric ranking. The findings demonstrate that stronger sustainability performance contributes to higher-quality sustainability reporting. Conversely, transparent and comprehensive sustainability reporting can also enhance overall sustainability performance, particularly through the disclosure of general and environmental aspects that significantly contribute to university sustainability outcomes. Although the economic and social dimensions do not show a strong influence, aggregate SR nonetheless supports this reciprocal dynamic, in line with legitimacy theory that emphasizes SR

as an accountability tool to enrich the understanding of legitimacy in HEIs.

From a theoretical perspective, this study offers two key contributions. First, it provides deeper insights into the influence of sustainability reporting (SR) on sustainability performance (SP) by examining the relationship from two complementary theoretical perspectives. Second, it expands the existing body of knowledge on sustainability reporting practices in developing countries, particularly Indonesia. By integrating SR mapping with legitimacy theory, this study addresses an important gap in the literature and provides a stronger theoretical basis for understanding how sustainability reporting can contribute to the achievement of the Sustainable Development Goals (SDGs). On the practical side, implications include an encouragement for HEIs to prioritize disclosure of SR as a key dimension to improve SP, and the integration of SR into evaluations such as UIGM or BAN-PT accreditation, which opens up collaborative policy opportunities for governments-HEIs by utilizing technology for SR more efficiently and assessing the impact of the SDGs on national-global SP.

A limitation of this study is that it was conducted over a one-year period and focused solely on higher education institutions in Indonesia, whereas the data available at UIGM covers institutions worldwide. In order to compare cross-country situations, it is advised that future study broaden the sample to include foreign universities, such as those in ASEAN or worldwide, extend the duration of observations for long-term causality tests, and explore moderation or mediation such as government policies, regulatory pressures, institutional competence, organizational culture, and sustainable education innovation, including external factors such as the influence of technology in SR or greenwashing in the broader framework comprehensive, so that the results become more robust and applicable

REFERENCES

- Alonso-Almeida, M. D. M., Marimon, F., Casani, F., & Rodriguez-Pomeda, J. (2015). Diffusion of sustainability reporting in universities: Current situation and future perspectives. *Journal of Cleaner Production*, 106, 144–154. <https://doi.org/10.1016/j.jclepro.2014.02.008>.
- Al-Shaer, H., & Hussainey, K. (2022a). Sustainability reporting beyond the business case and its impact on sustainability performance: UK evidence. *Journal of Environmental Management*, 311. <https://doi.org/10.1016/j.jenvman.2022.114883>.
- Al-Tuwaijri, S. A., Christensen, T. E., & Hughes, K. E. (2004). The relations among environmental disclosure, environmental performance, and economic performance: A simultaneous equations approach. *Accounting, Organizations and Society*, 29(5–6), 447–471. [https://doi.org/10.1016/S0361-3682\(03\)00032-1](https://doi.org/10.1016/S0361-3682(03)00032-1).
- Atici, K. B., Yasayacak, G., Yildiz, Y., & Ulucan, A. (2021). Green University and academic performance: An empirical study on UI GreenMetric and World University Rankings. *Journal of Cleaner Production*, 291. <https://doi.org/10.1016/j.jclepro.2020.125289>.
- Brown, N., & Deegan, C. (1998). The public disclosure of environmental performance information—a dual test of media agenda setting theory and legitimacy theory. *Accounting and Business Research*, 29(1), 21–41. <https://doi.org/10.1080/00014788.1998.9729564>.
- Cho, C. H., & Patten, D. M. (2007). The role of environmental disclosures as tools of legitimacy: A research note. *Accounting, Organizations and Society*, 32(7–8), 639–647. <https://doi.org/10.1016/j.aos.2006.09.009>.
- Cuesta-Claros, A., Malekpour, S., Raven, R., & Kestin, T. (2023). Are the sustainable development goals transforming universities? – An analysis of steering effects and depth of change. *Earth System Governance*, 17. <https://doi.org/10.1016/j.esg.2023.100186>.
- De La Poza, E., Merello, P., Barberá, A., & Celani, A. (2021a). Universities' reporting on SDGs: Using the impact rankings to model and measure their contribution to sustainability. *Sustainability (Switzerland)*, 13(4), 1–30. <https://doi.org/10.3390/su13042038>.
- Deegan, C. (2002). Introduction: The legitimising effect of social and environmental disclosures – a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15(3), 282–311. <https://doi.org/10.1108/09513570210435852>.

- Ding, C. J., Zhao, M., Wang, J., Shao, D. X., Miah, S. J., & Yue, L. (2024). Social robots in the context of corporate participation in rural revitalization: A binary legitimacy perspective. *Technological Forecasting and Social Change*, 205. <https://doi.org/10.1016/j.techfore.2023.123033>.
- Dowling, J., & Pfeffer, J. (1975). Pacific Sociological Association Organizational Legitimacy: Social Values and Organizational Behavior. Source: *The Pacific Sociological Review*, 18(1), 122–136. <https://doi.org/10.2307/1388226>
- Gantchev, N., Giannetti, M., & Li, R. (2024). Sustainability or performance? Ratings and fund managers' incentives. *Journal of Financial Economics*, 155. <https://doi.org/10.1016/j.jfineco.2024.103831>.
- Grima, A., Sierra-García, L., & Garcia-Benau, M. A. (2018). Sustainability reporting experience by universities: a causal configuration approach. *International Journal of Sustainability in Higher Education*, 19(2), 337–352. <https://doi.org/10.1108/IJSHE-07-2016-0142>.
- Helfaya, A., Aboud, A., & Amin, E. (2023). An examination of corporate environmental goals disclosure, sustainability performance and firm value – An Egyptian evidence. *Journal of International Accounting, Auditing and Taxation*, 52. <https://doi.org/10.1016/j.intaccudtax.2023.100561>.
- Ibáñez-Forés, V., Martínez-Sánchez, V., Valls-Val, K., & Bovea, M. D. (2023). How do organisations communicate aspects related to their social performance? A proposed set of indicators and metrics for sustainability reporting. *Sustainable Production and Consumption*, 35, 157–172. <https://doi.org/10.1016/j.spc.2022.10.024>.
- Ingram, R. W., & Frazier, K. B. (1980). Environmental Performance and Corporate Disclosure. *Journal of Accounting Research*, 18(2), 614–622. <https://doi.org/10.2307/2490597>.
- Işin, A., Esen, O., & Tören, E. (2025). Tourism and the Environment: Trends and Patterns in the Academic Literature. *International Journal of Sustainable Development and Planning*, 20(8), 3229–3237. <https://doi.org/10.18280/ijstdp.200807>.
- Jorge, M., Peña, F. J., & Madueño, J. (2019). An analysis of university sustainability reports from the GRI database: an examination of influential variables. *Journal of Environmental Planning and Management*, 62(6), 1019–1044. <https://doi.org/10.1080/09640568.2018.1457952>.
- Kantabutra, S. (2024). Toward a sustainability performance management framework. In *Heliyon* (Vol. 10, Number 13). Elsevier Ltd. <https://doi.org/10.1016/j.heliyon.2024.e33729>.
- Larrán Jorge, M., & Andrades Peña, F. J. (2017). Analysing the literature on university social responsibility: A review of selected higher education journals. *Higher Education Quarterly*, 71(4), 302–319. <https://doi.org/10.1111/hequ.12122>.
- Larrán Jorge, M., Andrades Peña, F. J., & Herrera Madueño, J. (2019). An analysis of university sustainability reports from the GRI database: an examination of influential variables. *Journal of Environmental Planning and Management*, 62(6), 1019–1044. <https://doi.org/10.1080/09640568.2018.1457952>.
- Laskar, N. (2024). Assessing the Drivers of Corporate Sustainability Performance Disclosures Using the Global Reporting Initiative (GRI) G4 Framework. *Journal of Risk and Financial Management*, 17(11). <https://doi.org/10.3390/jrfm17110513>.
- Lee, M. T., & Raschke, R. L. (2023). Stakeholder legitimacy in firm greening and financial performance: What about greenwashing temptations?. *Journal of Business Research*, 155. <https://doi.org/10.1016/j.jbusres.2022.113393>
- Lhutfi, I., Ludigdo, U., Rusydi, M. K., & Baridwan, Z. (2024). Investment and sustainability: CSR, SDGs and the ESG Score in Indonesia. *Cogent Business and Management*, 11(1). <https://doi.org/10.1080/23311975.2024.2328311>.
- Lin, Z. (2024). Does ESG performance indicate corporate economic sustainability? Evidence based on the sustainable growth rate. *Borsa Istanbul Review*, 24(3), 485–493. <https://doi.org/10.1016/j.bir.2024.02.010>.
- Medeiros, L. M., Macagnan, C. B., & Seibert, R. M. (2025). Decoding Pension Funds: Sustainability Indicators for Annual Report Analysis. *Journal of Risk and Financial Management*, 18(4). <https://doi.org/10.3390/jrfm18040174>.
- Mietule, I., Subaciene, R., Liksnina, J., & Viskers, E. (2025). Sustainability and Profitability of Large Manufacturing Companies. *Journal of Risk and Financial Management*, 18(8). <https://doi.org/10.3390/jrfm18080439>.
- Moggi, S. (2023). Sustainability reporting, universities and global reporting initiative applicability: a still open issue. *Sustainability Accounting, Management and Policy Journal*, 14(4), 699–742. <https://doi.org/10.1108/SAMPJ-05-2022-0257>.

- Muchlish, M., Retnowati, W., & Abbas, D. S. (2025). Total Quality Management and Corporate Green Performance: The Mediating Role of Environmental Sustainability and Corporate Social Responsibility. *International Journal of Sustainable Development and Planning*, 20(8), 3601–3609. <https://doi.org/10.18280/ijstdp.200839>.
- Mulpiani, W. (2019). Pengaruh Pengungkapan Sustainability Report Terhadap Kinerja Perusahaan Publik Di Indonesia. In *Jurnal Studi Akuntansi dan Keuangan*, 2(2), 77-90. <https://doi.org/10.29303/akurasi.v2i2.16>.
- O'Donovan, G. (2002). Environmental disclosures in the annual report: Extending the applicability and predictive power of legitimacy theory. *Accounting, Auditing & Accountability Journal*, 15(3), 344–371. <https://doi.org/10.1108/09513570210435870>
- Orazalin, N., & Mahmood, M. (2018). Economic, environmental, and social performance indicators of sustainability reporting: Evidence from the Russian oil and gas industry. *Energy Policy*, 121, 70–79. <https://doi.org/10.1016/j.enpol.2018.06.015>.
- Ortiz-Martínez, E., Marín-Hernández, S., & Santos-Jaén, J. M. (2023). Sustainability, corporate social responsibility, non-financial reporting and company performance: Relationships and mediating effects in Spanish small and medium sized enterprises. In *Sustainable Production and Consumption* (Vol. 35, pp. 349–364). Elsevier B.V. <https://doi.org/10.1016/j.spc.2022.11.015>.
- Perchinunno, P., & Cazzolle, M. (2020). A clustering approach for classifying universities in a world sustainability ranking. *Environmental Impact Assessment Review*, 85. <https://doi.org/10.1016/j.eiar.2020.106471>.
- Rao, S., Juma, N., & Srinivasan, K. (2025). Textual Analysis of Sustainability Reports: Topics, Firm Value, and the Moderating Role of Assurance. *Journal of Risk and Financial Management*, 18(8). <https://doi.org/10.3390/jrfm18080463>.
- Remo-Diez, N., Mendaña-Cuervo, C., & Arenas-Parra, M. (2023). Exploring the asymmetric impact of sustainability reporting on financial performance in the utilities sector: A longitudinal comparative analysis. *Utilities Policy*, 84. <https://doi.org/10.1016/j.jup.2023.101650>.
- Richardson, A. J., & Kachler, M. D. (2017). University sustainability reporting: A review of the literature and development of a model. *Handbook of Sustainability in Management Education: In Search of a Multidisciplinary, Innovative and Integrated Approach*, 385–405. <https://scispace.com/pdf/university-sustainability-reporting-a-review-of-the-ls7l6qrp68.pdf>.
- Saini, N., Antil, A., Gunasekaran, A., Malik, K., & Balakumar, S. (2022). Environment-Social-Governance Disclosures nexus between Financial Performance: A Sustainable Value Chain Approach. *Resources, Conservation and Recycling*, 186. <https://doi.org/10.1016/j.resconrec.2022.106571>.
- Sari, M. P., & Faisal, F. (2022). The Diffusion of Sustainability Reporting for Higher Education Institution Worldwide. *IOP Conference Series: Earth and Environmental Science*, 1048(1). <https://doi.org/10.1088/1755-1315/1048/1/012010>.
- Sari, M., Faisal, F., & Harto, P. (2023). The determinants of higher education institutions' (HEIs) sustainability reporting. *Cogent Business and Management*, 10(3). <https://doi.org/10.1080/23311975.2023.2286668>.
- Sassen, R., Azizi, L., & Mertins, L. (2022). What are the motivations for and obstacles to disclosing voluntary sustainability information by U.S. universities in STARS reports? *Journal of Cleaner Production*, 359. <https://doi.org/10.1016/j.jclepro.2022.131912>.
- SDSN, 2017. (2017). SDSN, 2017. <https://www.unsdsn.org/resources/sdg-index-and-dashboards-report-2017/>.
- Shad, M. K., Lai, F. W., Fatt, C. L., Klemeš, J. J., & Bokhari, A. (2019). Integrating sustainability reporting into enterprise risk management and its relationship with business performance: A conceptual framework. *Journal of Cleaner Production*, 208, 415–425. <https://doi.org/10.1016/j.jclepro.2018.10.120>.
- Shaik, A. R., Saheb, S. S., Abdulmajeed, I. A. I., & Bafaqeer, S. M. (2025). Embedding Sustainability in Accounting Education: Exploring the Role of SDGs in Saudi Arabian Higher Education Institutions. *International Journal of Sustainable Development and Planning*, 20(8), 3211–3220. <https://doi.org/10.18280/ijstdp.200805>.
- Sun, Y. (2024). The real effect of innovation in environmental, social, and governance (ESG) disclosures on ESG performance: An integrated reporting perspective. *Journal of Cleaner Production*, 460. <https://doi.org/10.1016/j.jclepro.2024.142592>.

- Sun, Y., Zhao, D., Cao, Y., & Xu, C. (2024). New trends in sustainability reporting: Exploring the online sustainability reporting practices by Irish universities. *Journal of Innovation and Knowledge*, 9(3). <https://doi.org/10.1016/j.jik.2024.100529>.
- Suwandi, M. (2019). Pengaruh Pengungkapan Sustainability Report Terhadap Kinerja Pasar. In *Jurnal Akuntansi Bisnis*, 17(1), 22-29. <https://journal.unika.ac.id/index.php/jab/article/view/2284>.
- Suwartha, N., & Sari, R. F. (2013). Evaluating UI GreenMetric as a tool to support green universities development: assessment of the year 2011 ranking. *Journal of Cleaner Production*, 61, 46-53. <https://doi.org/https://doi.org/10.1016/j.jclepro.2013.02.034>.
- Symaco, L. P., & Tee, M. Y. (2019). Social responsibility and engagement in higher education: Case of the ASEAN. *International Journal of Educational Development*, 66, 184-192. <https://doi.org/10.1016/j.ijedudev.2018.10.001>.
- Tortosa-Edo, V., & López-Navarro, M. (2024). Citizens' legitimacy judgements on multi-stakeholder governance models: The spillover effects of corporate political activity and social trust. *European Management Journal*. <https://doi.org/10.1016/j.emj.2024.04.004>.
- Tuo, L., Rezaee, Z., & Gao, L. (2024). Is there a trade off between management earnings forecasts and sustainability reporting? *Global Finance Journal*, 59. <https://doi.org/10.1016/j.gfj.2023.100908>.
- Tutko. (2023). Sustainable development activities in chemical companies in Poland: links between SDGS and ESG. *Scientific Papers of Silesian University of Technology Organization and Management Series*, 2023(172). <https://doi.org/10.29119/1641-3466.2023.172.37>.
- UI Green Metric. (2024). UI Green Metric 2024. <https://Greenmetric.Ui.Ac.Id/Publications/Guidelines>.
- van de Burgwal, D., & Vieira, R. J. O. (2014). Environmental disclosure determinants in Dutch listed companies. *Revista Contabilidade & Finanças - USP*, 25(64), 60-78. <https://www.scielo.br/j/rcf/a/sYqkPMpzyP3g8DDTCC4BCtz/?format=pdf&lang=en>.
- Velazquez, L., Munguia, N., Platt, A., & Taddei, J. (2006). Sustainable university: what can be the matter? *Journal of Cleaner Production*, 14(9-11), 810-819. <https://doi.org/10.1016/j.jclepro.2005.12.008>.
- Viera Trevisan, L., Leal Filho, W., & Ávila Pedrozo, E. (2024). Transformative organisational learning for sustainability in higher education: A literature review and an international multi-case study. *Journal of Cleaner Production*, 447. <https://doi.org/10.1016/j.jclepro.2024.141634>.
- Wen, X., Zhao, D., Lv, Z., Zhang, K., & Zhang, Y. (2024). A sustainability-oriented approach for performance assessment of existing buildings and a case study. *Heliyon*, 10(12). <https://doi.org/10.1016/j.heliyon.2024.e32151>.
- Yadegaridehkordi, E., Foroughi, B., Iranmanesh, M., Nilashi, M., & Ghobakhloo, M. (2023). Determinants of environmental, financial, and social sustainable performance of manufacturing SMEs in Malaysia. *Sustainable Production and Consumption*, 35, 129-140. <https://doi.org/10.1016/j.spc.2022.10.026>.
- Zorio-Grima, A., Sierra-García, L., & Garcia-Benau, M. A. (2018). Sustainability reporting experience by universities: a causal configuration approach. *International Journal of Sustainability in Higher Education*, 19(2), 337-352. <https://doi.org/10.1108/IJSHE-07-2016-0142>.