

Sustainability Reporting by State Universities in Indonesia: An Examination of Influential Characteristics

Dwi Sudaryati

Universitas Diponegoro, Semarang, Indonesia.

Surya Raharja

Universitas Diponegoro, Semarang, Indonesia.

Received October 06, 2021; Accepted December 23, 2021

ISSN: 1735-188X

DOI: 10.14704/WEB/V19I1/WEB19367

Abstract

The aim of this study was to analyze the characteristics of sustainability information of higher education institutions in Indonesia. The population and research sample were all state universities in Indonesia, as many as 125. The method used was logistic regression analysis. The results showed that 29.6% of state universities in Indonesia had disclosed sustainability information and the remaining 70.4% had not disclosed sustainability information. The logistic regression results show that college size has a significant effect on sustainability information disclosure. The bigger the university, the more likely it is that the university will disclose its sustainability information. On the other hand, age and reputation did not significantly influence the disclosure of sustainability information.

Keywords

Sustainability Reporting, State University, Disclosure, Institutional Characteristics.

Introduction

Higher education has vital missions in social development. Its participation in sustainability has also been developing. The information about the movement and measures on sustainable progress needs to be socialized to all stakeholders. Sustainability reporting is a managerial and accountability tool, and links it to the strategic objectives of the organization (Brusca et al., 2018). Higher education is expected to become sustainability figure and change countershafts. It is also to ensure environmentally friendly development for future generations. University stakeholders are more experienced to establish a system that is able to encourage students to learn scheme of sustainable social development (Lozano et al., 2013; Wijastuti & Nurhayati, 2021).

In 2010, the Universitas Indonesia published sustainable reporting guidelines by combining several sustainability reporting standards, specifically for universities. UI Green Metric World University Ranking on Sustainability, is the University of Indonesia's initiative to promote sustainability in higher education institutions around the world. This allows universities to share their experiences and best practices on sustainability issues, as well as to measure sustainability policies, and facilitate comparisons between colleges. UI Green Metric is ranked first and only one that has set Voluntary Standards to improve university infrastructure and act towards sustainable campuses around the world. Based on data in 2019, there were 50 (12.69%) from 394 state universities and 22 (0.52%) from 4,242 private universities who participated in UIGM. This shows that the awareness of tertiary institutions in preparing and publishing sustainable reports is still low.

The absence of regulations that require universities to prepare sustainable reporting, and the absence of standard guidelines/standards for sustainable reporting provides options for universities. Continuous reporting that has been carried out by several universities in Indonesia is voluntary. Although there is no standard of sustainability reporting for higher education in Indonesia, many universities that report their sustainability use UIGM's reporting standards. The interesting thing is that universities that follow UIGM, are ranked with certain criteria, and the results of the ranking are a matter of pride for the university. This is indicated by the inclusion of the UIGM ranking order on the university's website. The data shows that the tertiary institutions that participate in IUGM are increasing from year to year.

Higher education as a public organization has social and environmental responsibilities, so it is very important to disclose this responsibility in information that can be accessed by all interested parties, both internal and external. Conceptual framework of the research on higher education sustainability reporting can make interesting contributions to the practice of sustainability reporting as an accountability tool in nonbusiness organizations. Therefore, this study aims to examine the factors that influence universities in disclosing sustainability information. This research is expected to contribute in theory to sustainable reporting in universities and contribute to sustainable reporting practices for policy considerations on the importance of sustainable information disclosure in Indonesian universities.

Literature Review

Relationship Between University Size and Sustainability Reporting

University stakeholders identify their affiliation in value creation. They also usually involve in innovation, such as intellectual capital management and reporting, continuous

or integrated reporting, are part of the institutional agenda. Contemporary accountability trends encourage higher education to integrate activities, resources, and intellectual capital in their reporting to the public, including the social and sustainable dimensions (Brusca et al., 2018).

Sustainability reporting offers an opportunity for an organization to coordinate performance and values with the aim of succeeding in sustainable development, and establish social relations with all stakeholders in the long term (Garde Sánchez et al., 2013; Mansyur, 2021). Integrated reporting has emerged recently by establishing relationships and identifying factors that encourage increased performance and institutional capabilities and create value. Organizations need to integrate strategic information such as performance, governance, and planning that contextualizes the social, environmental and commercial values of higher education (Andriansyah et al., 2021). The university integrates information on intellectual capital for sustainability purposes (Adams, 2015). Higher education with greater resources can play more roles, and report more sustainability information as a social and environmental responsibility (Larrán Jorge et al., 2019; Handani, 2021). Large universities also usually have a wider network with diverse stakeholders. Here, the purpose of internal sustainability reporting is to minimize the environmental impact of university activities and to make efficient use of the resources they have (Siboni et al., 2013). Thus, this study proposes the following hypothesis:

H1: Larger universities have a higher probability of disclosing a sustainability report

Relationship Between University Size and Sustainability Reporting

Continuous reporting can provide as a tool for higher education to evaluate where university location, planning, change mitigation and systems development. Institutionalization of sustainability reporting needs to be adopted by university institutions and introduced as an obligation in the education system. Several strategic issues that need to be contained in it are related to the issue of material resources and social relations with stakeholders. Active participation from universities is needed as a basis for planning, assessment materials and reporting materials that involve social and environmental elements in an institutional framework. This makes education, research, community service programs must involve elements of social and environmental responsibility (Ceulemans et al., 2015).

Universities can configure sustainability reporting into their communication practices with stakeholder networks (Lozano, 2011; del Mar Alonso-Almeida et al., 2015). Previous studies reveal various factors that influence the university's sustainability disclosure practices. (Sassen et al., 2018; Larrán Jorge et al., 2019; Fakhimuddin et al., 2021). The existence of an organization including tertiary institutions is greatly influenced by the support of stakeholders consisting of students, society, government, employees, lecturers and funders (Sassen et al., 2018). In term of university age, some research argued that there is a relationship between the university age to sustainability report disclosure (Adams, 2013; Bice & Coates, 2016; Richardson & Kachler, 2017; An et al., 2017).

H2: The universities age has an influence on probability of disclosing a sustainability report

Relationship Between University Reputation and Sustainability Reporting

Legitimacy theory focuses on the interaction between the organization and the community and its operation is possible with social supports on their goals (Furqan & Din, 2018; Ullah, 2018). This means that legitimacy is a common insight that the measures of institutions including universities must pay attention to the rights of the public at large. Failure to meet community expectations can lead to sanctions imposed by the community (Sassen et al., 2018). The focal point of legitimacy theory is accepted voluntary disclosure to strengthen organizational legitimacy (Saleh et al., 2021; Furqan et al., 2021). Voluntary disclosure for organizations is very important to show that they are well organized, know what they are doing and they are doing in an ethical and appropriate way for society (Ntim et al., 2017; Abdurrahman, 2019).

Organizationally, there are similarities in management and complexity of governance between universities and other organizations, both private and public (Siboni et al., 2013). In term of reputation, some research argued that there is a relationship between the university reputation to sustainability report disclosure (Adams, 2013; Bice & Coates, 2016; Richardson & Kachler, 2017; An et al., 2017).

H3: Reputable universities have a higher probability of disclosing a sustainability report

Research Methods

This study uses logistic regression analysis and aims to determine the determinants of sustainability information disclosure contained in H1 and H2. The sample of this research

is all state universities in Indonesia according to the data in the college database. Based on data in the 2018-2019 academic year, there are 125 public universities in Indonesia consisting of 63 universities, 43 polytechnics, 12 institutes and 7 community colleges. Sustainability reporting is based on reporting on UI Green Metrics in 2019. The dependent variable is continuous disclosure, which is measured by a value of 1 if it follows UIGM and 0 otherwise. The independent variables consist of size, age and reputation. College size is measured by the natural log of the number of students. The age of a university is measured from the year it was founded until 2019. Reputation is measured by a score of 1 if the college is included in the QS World Ranking and 0 if not. Table 1 showed the descriptive statistics of samples with the classification of Reporting State Universities and Non-Reporting State Universities.

Results

Descriptive statistics of the research variables was shown in Table 1. Furthermore, Table 2 showed the correlation matrix by using Pearson correlation. The results show that the Age variable correlates 0.415 (significant at 0.01) with sustainability reporting.

Table 1 Descriptive Statistics

Variable	Reporting State Universities			Non-Reporting State Universities		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation
Age	37	45.92	20.182	88	26.65	19.092
Size	37	9.92	1.920	88	7.71	2.721
Reputation	37	.19	.397	88	0.00	0.000

Furthermore, the Size variable has a correlation of 0.375 (significant at 0.01) with sustainability reporting. Finally, the results show a correlation coefficient of 0.508 (significant at 0.01) between the reputation variable and sustainability reporting (Table 2).

Table 2 Correlation Matrix

		(1)	(2)	(3)	(4)
(1)	SR	1			
(2)	AGE	0.415**	1		
(3)	SIZE	0.375**	0.508**	1	
(4)	REPUTATION	0.376**	0.369**	0.149*	1

(** denotes significant at the 0.01 level and * denotes significant at the 0.05 level)

Table 3 shows the results of logistic regression analysis for the dependent variable SR on the independent variable. The results show that SIZE has an effect on sustainability information disclosure (SR), supporting H1. The adoption of sustainability reporting by higher education institutions aims for resource efficiency in line with the global goals on

environmental friendliness which have been widely adopted in various institutional platforms. More specifically, universities with larger sizes have efficiency goals, while smaller ones practice sustainability reporting that is useful for fundraising and quality improvement (Siboni et al., 2013; Wahyuni & Praninta, 2021).

Table 3 Regression Result

		(1) SR	(2) SR	(3) SR	(4)
(1)	AGE	0.070	0.001*		0.464
(2)	SIZE	0.007*		0.000*	0.004*
(3)	REPUTATION		0.999	0.999	0.999
Constant		Yes	Yes	Yes	Yes
Pseudo R2		0.337	0.308	0.414	0.454
Observations		125	125	125	125

Research data shows that there are 37 state universities (29.6%) that disclose sustainability information and 88 state universities (70.4%) do not disclose sustainability information. Higher education institutions that have more students may disclose more sustainability information as well. Meanwhile, the age and reputation of the tertiary institutions did not affect the universities in disclosing sustainability information.

The results highlight the important findings of this study that in its management, tertiary institutions are like business ventures, with the main source of income coming from the number of students, so that universities focus on imaging efforts to boost the popularity of higher education, in order to attract as many students as possible. However, universities are also public sector organizations that have a moral responsibility to society and the government. The results are in line with previous research demonstrating the sustainability reporting in public sector (Sajuyigbe & Fadeyibi, 2017; Nevena, 2016). Moreover, in several countries such as Europe, Australia and Singapore, universities have reported annual reports regularly every year and can be accessed on the official website of the respective universities. The information presented in the annual report can be more accurate and traceable than the information posted on the website (Rofelawaty & Ridhawati, 2016).

The results are in accordance with previous research on sustainable reporting in higher education in Indonesia. Rofelawaty & Ridhawati (2016) shows that there are still few universities in Indonesia that publish annual reports on a regular basis like companies, and most of the annual reports that are presented are still in the form of annual financial reports, not in the form of sustainable annual reports (Sustainability Reporting). This is in line with the results of research Yasbie & Barokah (2018) which found So far, the

information disclosed is limited to institutional profiles, governance and strategies, while information on social and environmental responsibilities has not been widely disclosed.

The continuous annual report will reflect the university profile, university management practices, university strategic management plans, the results of university operational performance, as well as show indicators of successful university management performance, both from the aspect of financial economics and from the aspect of academic administration. The concept of higher education sustainability reporting in an international context or in certain countries, such as Canada, United Kingdom or Italy, Spain, Australia (Lozano, 2006; Lozano, 2011; Ceulemans et al., 2015; Leal Filho et al., 2019; Fonseca et al., 2011; Sassen & Azizi, 2018; Lozano et al., 2013; Adams et al., 2018; Siboni et al., 2013; Corazza, 2018; Moggi, 2019; Brusca et al., 2018; Gamage & Sciulli, 2017).

Higher education institutions in Indonesia are not required to provide sustainable reporting, so sustainability reporting is voluntary. Higher education institutions rarely compile regular reports on sustainability performance. This suggests that voluntary sustainability reporting has only just started in the higher education sector. Therefore, it is necessary to improve the practice of sustainability reporting (Fonseca et al., 2011). Unlike companies, voluntary sustainability reporting by universities is still in its early stages (Sassen & Azizi, 2018; Lozano, 2011; del Mar Alonso-Almeida et al., 2015). Currently, higher education in Indonesia and all has been slowly adopting sustainability reporting practices with consistent and periodic publications (Sepasi et al., 2019).

Conclusion

This study focuses on sustainability reporting published by Indonesian public universities and provides evidence on the determinants of reporting. This study is based on legitimacy theory and stakeholder theory. The results showed that the size of higher education significantly increases the likelihood of disclosing sustainability information. Larger institutions have great demands to meet the information needs of stakeholders by disclosing sustainability information. Disclosure of sustainability information is very important, as is the case in the business sector. In Indonesia, sustainable reporting is voluntary, so that relatively few state universities report it. Policy makers could consider requiring all state universities to disclose sustainability information in order to inform relevant aspects in a transparent manner to stakeholders and the general public. Future studies can dig deeper into higher education motivations to disclose sustainability

information in more detail. This can provide a broader perspective on the factors and indicators of sustainability that universities report in their sustainability reports.

References

- Abdurrahman, A. (2019). Impact of Green Accounting on Company Value: Evidence from the Nigerian Companies. *Arthatama*, 3(1), 16-26.
- Adams, C.A. (2013). Sustainability reporting and performance management in universities: Challenges and benefits. *Sustainability Accounting, Management and Policy Journal*, 4(3), 384-392
- Adams, C.A. (2015). The international integrated reporting council: a call to action. *Critical Perspectives on Accounting*, 27, 23-28.
- Adams, R., Martin, S., & Boom, K. (2018). University culture and sustainability: Designing and implementing an enabling framework. *Journal of Cleaner Production*, 171, 434-445.
- An, Y., Davey, H., & Harun, H. (2017). Sustainability reporting at a New Zealand public university: a longitudinal analysis. *Sustainability*, 9(9), 1529.
- Andriansyah, A., Sulastri, E., & Satispi, E. (2021). The role of government policies in environmental management. *Research Horizon*, 1(3), 86-93.
- Bice, S., & Coates, H. (2016). University sustainability reporting: taking stock of transparency. *Tertiary Education and Management*, 22(1), 1-18.
- Brusca, I., Labrador, M., & Larran, M. (2018). The challenge of sustainability and integrated reporting at universities: A case study. *Journal of Cleaner Production*, 188, 347-354.
- Ceulemans, K., Lozano, R., & Alonso-Almeida, M.D.M. (2015). Sustainability reporting in higher education: Interconnecting the reporting process and organisational change management for sustainability. *Sustainability*, 7(7), 8881-8903.
- Corazza, L. (2018). The process of social accounting and reporting at University of Torino: main challenges and managerial implications. *World Review of Entrepreneurship, Management and Sustainable Development*, 14(1-2), 171-186.
- del Mar Alonso-Almeida, 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.
- Fakhimuddin, M., Khasanah, U., & Trimiyati, R. (2021). Database management system in accounting: assessing the role of internet service communication of accounting system information. *Research Horizon*, 1(3), 100-105.
- Fonseca, A., Macdonald, A., Dandy, E., & Valenti, P. (2011). The state of sustainability reporting at Canadian universities. *International Journal of Sustainability in Higher Education*, 12(1), 22-40.
- Furqan, A.C., & Din, M. (2018). Social perception on corruption and its influence on public legitimacy and open government. *Revista Espacios*, 40(13).
- Furqan, A.C., Wardhani, R., Martani, D., Setyaningrum, D. (2021). Financial reporting, public services and local executives' re-electability in Indonesia. *Cogent Business & Management*, 8(1), 1939229

- Gamage, P., & Sciulli, N. (2017). Sustainability reporting by Australian universities. *Australian Journal of Public Administration*, 76(2), 187-203.
- Garde Sánchez, R., Rodríguez Bolívar, M.P., & López-Hernández, A.M. (2013). Online disclosure of university social responsibility: A comparative study of public and private US universities. *Environmental Education Research*, 19(6), 709-746 5
- Handani, N.D. (2021). Product Awareness of International Muslim Students in South Korea about the Importance of Halal Food. *Research Horizon*, 1(1), 1-6.
- 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.
- Lozano, R. (2006). A tool for a Graphical Assessment of Sustainability in Universities (GASU). *Journal of Cleaner Production*, 14(9-11), 963-972.
- Lozano, R. (2011). The state of sustainability reporting in universities. *International Journal of Sustainability in Higher Education*, 12(1), 67-78.
- Lozano, R., Lukman, R., Lozano, F.J., Huisingh, D., & Lambrechts, W. (2013). Declarations for sustainability in higher education: becoming better leaders, through addressing the university system. *Journal of Cleaner Production*, 48, 10-19.
- Mansyur, M. (2021). Marketing Opportunities for Bank Syariah Mandiri e-Banking Services as a Payment Method. *Research Horizon*, 1(2), 71-80.
- Moggi, S. (2019). Social and environmental reports at universities: A Habermasian view on their evolution. *Accounting Forum*, 43(3), 283-326,
- Nevena, P. (2016). Women in the Green Economy. *Journal of Women's Entrepreneurship and Education*, (1-2), 97-110.
- Ntim, C.G., Soobaroyen, T., & Broad, M.J. (2017). Governance structures, voluntary disclosures and public accountability: The case of UK higher education institutions. *Accounting, auditing & Accountability Journal*. 30(1), 65-118.
- Redda, E.H. (2020). Sustainability of public debt and budget deficit in south africa. *Journal of Management Information and Decision Sciences*, 23(3), 164-174.
- Richardson, A.J., & Kachler, M.D. (2017). University sustainability reporting: a review of the literature and development of a model. In Arevalo, J.A., & Mitchell, S.F. (eds.), *Handbook of Sustainability in Management Education: In Search of a Multidisciplinary, Innovative and Integrated Approach* (pp. 385–405). Edward Elgar Publishing.
- Rofelawaty, B., & Ridhawati, R. (2016). Analysis of the Possibility of Applying the Sustainability Report as an Annual Report in Higher Education. *Dinamika Ekonomi-Jurnal Ekonomi dan Bisnis*, 9(2), 231-251.
- Sajuyigbe, A.S., & Fadeyibi, I.O. (2017). Women entrepreneurship and sustainable economic development: Evidence from Nigeria. *Journal of Entrepreneurship, Business and Economics*, 5(2), 19-46.
- Saleh, F.M., Furqan, A.C., Fontanella, A., & Prasetyo, E. (2021). Effects of privatization and corporate governance on accounting conservatism in state-owned enterprises. *Journal of Public Affairs*, 21(3), e2671.
- Sassen, R., & Azizi, L. (2018). Voluntary disclosure of sustainability reports by Canadian universities. *Journal of Business Economics*, 88(1), 97-137.

- Sassen, R., Dienes, D., & Wedemeier, J. (2018). Characteristics of UK higher education institutions that disclose sustainability reports. *International Journal of Sustainability in Higher Education, 19*(7), 1279-1298.
- Sepasi, S., Braendle, U., & Rahdari, A. H. (2019). Comprehensive sustainability reporting in higher education institutions. *Social Responsibility Journal, 15*(2), 155-170.
- Siboni, B., del Sordo, C., & Pazzi, S. (2013). Sustainability reporting in state universities: An investigation of Italian pioneering practices. *International Journal of Social Ecology and Sustainable Development (IJSESD), 4*(2), 1-15.
- Ullah, S. (2018). Corporate Environmental Disclosure and Earnings Quality: Evidence from Malaysian Firms. *Arthatama, 2*(2), 64-84.
- Wahyuni, S., & Praninta, A. (2021). The Influence of Brand Equity and Service Quality on Purchase Decisions on Garuda Indonesia Airline Services. *Research Horizon, 1*(1), 28-38.
- Wijiastuti, T.N., & Nurhayati, S. (2021). The Effectiveness of Discovery Blended Learning on Concept Understanding and Student Motivation. *Research Horizon, 1*(4), 150-156.
- Yasbie, B., & Barokah, Z. (2018). Sustainability Reporting by Universities in Indonesia Abstract. *The Indonesian Journal of Accounting Research, 21*(3).