

## **SYSTEMATIC LITERATURE REVIEW: INTEGRATION OF SUSTAINABILITY REPORTING IN HIGHER EDUCATION INSTITUTIONS**

**Hendy Rizki Junyes<sup>1</sup>**

<sup>1</sup>Faculty of Economics and Business Education, Indonesia University of Education, Jalan Dr. Setiabudi No.229  
E-mail: hendyrizkijunyes@upi.edu

### **ABSTRACT**

Sustainability reporting is important nowadays. Sustainability reporting can provide and improve information transparency to stakeholders, but sustainability reporting is currently only voluntary. In higher education institutions, standards regarding sustainability reporting do not yet exist, so there is a lack of motivation for higher education institutions to prepare sustainability reports. This study aims to determine the extent of the integration of sustainability reporting in higher education institutions in the world using the systematic literature review (SLR) approach. The results of this SLR found the reasons for preparing sustainability reports in higher education institutions, the focus areas of sustainability reports, challenges, impacts and benefits arising from the sustainability report.

**Key words:** sustainability reporting; higher education institutions; university; systematic literature review

### **INTRODUCTION**

The concept of sustainability has evolved significantly in the corporate sector; however, higher education institutions still demonstrate limited commitment to preparing sustainability reports (Zahid et al., 2020). This may be due to the absence of national policies that serve as a foundation for higher education institutions to begin paying attention to and preparing sustainability reports (Bautista-Puig & Sanz-Casado, 2021). The integration of sustainability reporting in higher education institutions is an essential aspect of promoting transparency and accountability to stakeholders while encouraging the implementation of sustainable development principles within the academic environment. However, sustainability reporting in higher education institutions remains voluntary (Moggi, 2023).

As centers of education responsible for shaping future leaders and promoting ethical values, higher education institutions must contribute to global sustainable development as a commitment to supporting the implementation of sustainability. Various research and community service activities are among the efforts that can be undertaken to integrate sustainability concepts into higher education institutions (Handayani & Yuhertiana, 2024).

In 2024, higher education institutions have shown growing commitment to sustainability. It was recorded that approximately 1,477 universities worldwide participated in the UI GreenMetric Rankings, demonstrating a strong commitment to sustainability. This initiative serves as a way to encourage universities to foster sustainable behavior within campus communities and to strive toward creating a sustainable future (UI GreenMetric, 2024).

Legitimacy theory explains that sustainability reporting in higher education institutions helps them gain legitimacy in the eyes of society. Therefore, higher education institutions can prepare sustainability reports to enhance their image and reputation. In the context of sustainability reporting, universities view these reports as strategic tools to evaluate the extent to which sustainability principles have been implemented within the university system (Lozano et al., 2013), thereby demonstrating their institutional commitment to sustainability principles.

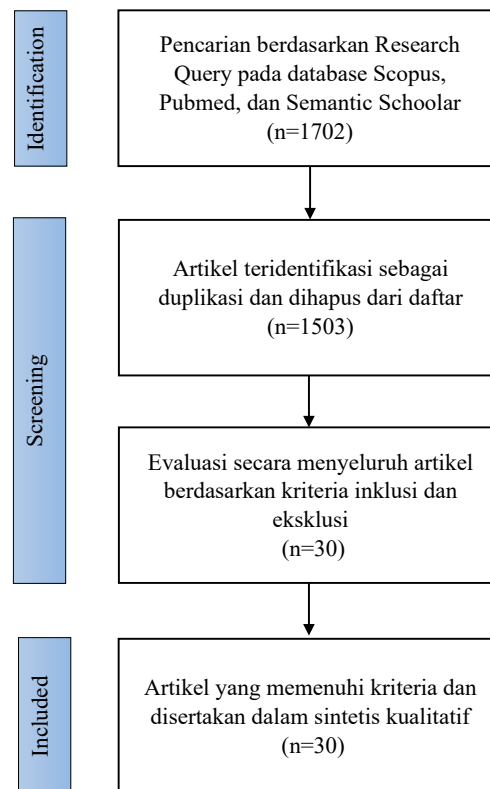
With the increasing attention toward sustainable development, a number of studies have begun to examine how higher education institutions implement sustainability reporting, both at the international and national levels. However, existing studies remain limited and scattered across various sources.

Accordingly, the objectives of this study are:

- (1) to identify the focus areas of sustainability reporting in higher education institutions;
- (2) to examine the challenges in integrating sustainability reporting within higher education institutions; and
- (3) to analyze the impacts and benefits of integrating sustainability reporting for higher education institutions.

### **METHOD**

This study employs a Systematic Literature Review (SLR) approach aimed at analyzing articles related to the integration of sustainability reporting within higher education institutions. The procedures in this approach such as the development of a clear protocol, the use of inclusion and exclusion criteria, systematic and comprehensive literature searches, and article selection help minimize selection bias, publication bias, and data extraction bias. In the article selection process, the study adopts the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines, which consist of four stages: identification, screening, eligibility, and inclusion. The flow of this research is illustrated in Figure 1 below.



**Figure 1. Systematic Literature Review (SLR)**

## RESULTS AND DISCUSSION

Sustainability reporting is an essential aspect that must be considered by higher education institutions. Several higher education institutions around the world have already prepared sustainability reports. For instance, the University of California, which has 10 campuses and 5 medical centers, has implemented sustainability policies since 2003. This commitment involves university stakeholders, including students and staff, in setting sustainability goals (Sepasi, Rahdari, et al., 2018). Most studies related to the integration of sustainability reporting in higher education institutions have been conducted in universities across Europe (Spain, Italy, the United Kingdom, Portugal, Germany, Austria, Belgium, Finland, Switzerland, Turkey, Latvia, France, Serbia, Scotland, Wales, and Northern Ireland). This is followed by America (Brazil, the United States, Canada, and Chile), Asia (Saudi Arabia, Pakistan, Hong Kong, China, the Philippines, Malaysia, and Thailand), Australia (Australia and New Zealand), and lastly Africa (South Africa, Nigeria, and Ghana).

The main reasons for adopting sustainability reporting in Europe include public and stakeholder demands for transparency regarding the use of resources in higher education institutions (Brusca et al., 2018). In addition, awareness of sustainability and its numerous benefits for higher education institutions have motivated universities to begin preparing sustainability reports (Adhikariparajuli et al., 2021). In the Americas, sustainability reporting is prepared to identify and monitor the progress of universities' sustainability performance (Urbanski & Filho, 2014). Specifically, Instituto Federal de Santa Catarina (IFSC) in Brazil has implemented sustainability principles in response to Brazilian Federal Decree No. 7.746/2012, demonstrating compliance with government regulations (Berchim et al., 2017). In Asia, sustainability reporting is driven by reasons such as enhancing reputation and competitiveness, fostering collaboration for funding access, and meeting stakeholder needs (Zahid et al., 2020). Similarly, universities in Australia share common motivations for preparing sustainability reports as those in other regions. The least number of higher education institutions reporting sustainability can be found in Africa. The Abuja Declaration in Nigeria (2009) emphasized the need for higher education to play a role in developing leaders and educators who prioritize sustainability issues through education (Lozano et al., 2013).

The focus of sustainability reporting in higher education institutions varies according to national priorities. Institutions in developing countries tend to focus more on local issues, such as agricultural practices and maintaining water and air quality. Meanwhile, universities in developed countries place greater emphasis on environmental issues (Leal Filho et al., 2019). The study by Sepasi, Rahdari, et al. (2018) describes a framework used to measure the effectiveness of sustainability reporting at the University of California, known as the Environmental, Social, Educational, and Governance (ESEG) framework the key sustainability focus areas. The Environmental dimension focuses on environmental management systems, energy and water efficiency, climate change mitigation, biodiversity conservation, waste and emissions management, and environmental performance transparency. The Social dimension emphasizes stakeholder management, social investment and philanthropy,

community engagement, human rights and working conditions, social inclusion and equity, and social transparency. The Educational dimension focuses on integrating sustainability into the curriculum, conducting sustainability research, providing educational services and inter-university collaboration, and promoting awareness and community engagement. Finally, the Governance dimension focuses on organizational structure and committees, compliance with laws and ethical policies, financial transparency, as well as integrity and external networking.

In Saudi Arabia, sustainability reporting has not yet been widely implemented. However, about 72.7% of universities in Saudi Arabia already have visions and missions related to sustainability reporting (Abubakar et al., 2020). Moreover, the commitment of Saudi universities to sustainability can be seen through the establishment of offices or units dedicated to sustainability issues, such as the Deanship for Community Services and Sustainable Development at Imam Abdulrahman bin Faisal University. This commitment is also reflected in collaborations between universities, external stakeholders, and community outreach efforts addressing sustainability challenges.

Integrating sustainability reporting is not an easy task. Various challenges inevitably arise. These challenges stem from the lack of interest and time devoted by universities to integrating sustainability reporting (Leal Filho et al., 2019). Leadership is another influential factor, as leaders play a crucial role in setting the university's priorities. In three universities in Pakistan, commitment to sustainability remained merely verbal, without being incorporated into university visions, missions, or policies (Zahid et al., 2020). Additionally, the absence of specific guidelines and standards for higher education institutions has led to limited sustainability reporting practices (Brusca et al., 2018). This issue is also faced by institutions in Portugal and Brazil, which struggle with the same challenge. The lack of a widely adopted uniform standard (Bizerril et al., 2017). Similarly, most universities in China rely solely on the Sustainable Development Goals (SDGs) framework (Mo & Wang, 2023).

Sustainability reporting in higher education institutions is highly valuable for improving transparency and information accessibility for stakeholders. Various impacts and benefits arise when universities report their sustainability-related activities. For example, the University of Cádiz (UCA) in Spain benefited from sustainability reporting as it enhanced strategic management effectiveness by using sustainability reports to monitor and adjust strategic goals. If shortcomings are identified, the university can improve its organizational performance (Brusca et al., 2018). Furthermore, implementing sustainability principles in higher education provides opportunities to increase efficiency and save resources such as energy, water, and paper (Berchim et al., 2017). Similar benefits have been observed in several universities in China and Hong Kong (An et al., 2019; Mo & Wang, 2023). Through sustainability reporting, universities can also enhance their reputation and legitimacy in the eyes of the public, government, and partners. Moreover, integrating sustainability reporting encourages internal improvement and innovation within universities. Ultimately, the integration of sustainability reporting in universities is not merely an administrative obligation, but a tangible manifestation of higher education institutions' commitment to creating positive change.

## **CONCLUSION**

Sustainability reporting is not merely a matter of administrative compliance; rather, it serves as a report prepared to demonstrate a higher education institution's commitment to contributing positively to social, environmental, and economic dimensions. Although sustainability reporting in universities remains voluntary, several higher education institutions around the world have begun to prepare such reports. Significant growth has been observed in Europe, followed by the Americas, Australia, Asia, and lastly, Africa. The preparation of sustainability reports provides substantial impacts and benefits for higher education institutions, such as enhancing reputation, creating competitive advantages, and driving strategic improvements within the university. The main focus areas of sustainability reports in higher education institutions often include environmental, social, governance, and educational aspects. These focuses are implemented through university policies, educational processes, and curricula. Such integration forms a solid foundation for cultivating individuals who are aware of the importance of sustainability for future generations. Despite the numerous benefits and positive impacts, challenges inevitably arise. Globally, higher education institutions face several challenges in integrating sustainability reporting, including the absence of specific sustainability reporting standards for universities, a lack of leadership commitment to sustainability issues, insufficient resources and time to support the integration process, and the absence of government policies encouraging universities to develop their own sustainability reports.

## **REFERENCES**

- Abubakar, I. R., Aina, Y. A., & Alshuwaikhat, H. M. (2020). Sustainable Development at Saudi Arabian Universities: An Overview of Institutional Frameworks. *Sustainability*, *12*(8008), 1–15. <https://doi.org/10.3390/su12198008>
- Adhikari-parajuli, M., Hassan, A., & Fletcher, M. (2021). Integrated reporting implementation and core activities disclosure in uk higher education institutions. *Administrative Sciences*, *11*(86), 1–26. <https://doi.org/10.3390/ADMSC111030086>

- Adhikariparajuli, M., Hassan, A., Fletcher, M., & Elamer, A. A. (2020). Integrated reporting in higher education: insights from Scotland, Northern Ireland and Wales. *Social Responsibility Journal*, 17(3), 321–342. <https://doi.org/10.1108/SRJ-01-2019-0031>
- An, Y., Davey, H., & Harun, H. (2017). Sustainability reporting at a New Zealand public university: A longitudinal analysis. *Sustainability (Switzerland)*, 9(9), 1–11. <https://doi.org/10.3390/su9091529>
- An, Y., Davey, H., Harun, H., Jin, Z., Qiao, X., & Yu, Q. (2019). Online sustainability reporting at universities: the case of Hong Kong. *Sustainability Accounting, Management and Policy Journal*, 11(5), 887–901. <https://doi.org/10.1108/SAMPJ-06-2018-0161>
- Bautista-Puig, N., & Sanz-Casado, E. (2021). Sustainability practices in Spanish higher education institutions: An overview of status and implementation. *Journal of Cleaner Production*, 295, 1–12. <https://doi.org/10.1016/j.jclepro.2021.126320>
- Berchim, I. I., Grando, V. dos S., Marcon, G. A., Corseuil, L., & Guerra, J. B. S. O. de A. (2017). Strategies to Promote Sustainability in Higher Education Institutions: Case Study of a Federal Institute of Higher Education in Brazil. *International Journal of Sustainability in Higher Education*, 15(4), 390–403.
- Berzosa, A., Bernaldo, M. O., & Fernández-Sánchez, G. (2017). Sustainability Assessment Tools for Higher Education: An Empirical Comparative Analysis. *Journal of Cleaner Production*, 161, 812–820. <https://doi.org/10.1016/j.jclepro.2017.05.194>
- Bice, S., & Coates, H. (2016). University sustainability reporting: taking stock of transparency. *Tertiary Education and Management*, 22(1), 1–18. <https://doi.org/10.1080/13583883.2015.1115545>
- Bizerril, M., Rosa, M. J., Carvalho, T., & Pedrosa, J. (2017). Sustainability in higher education: A review of contributions from Portuguese Speaking Countries. *Journal of Cleaner Production*, 171, 1–33. <https://doi.org/10.1016/j.jclepro.2017.10.048>
- Brusca, I., Labrador, M., & Larran, M. (2018). The Challenge of Sustainability and Integrated Reporting at Universities: A Case Study. *Journal of Cleaner Production*, 188, 1–26. <https://doi.org/10.1016/j.jclepro.2018.03.292>
- Calitz, A., Bosire, S., & Cullen, M. (2017). The role of business intelligence in sustainability reporting for South African higher education institutions. *International Journal of Sustainability in Higher Education*, 19(7), 1185–1203. <https://doi.org/10.1108/IJSHE-10-2016-0186>
- Ceulemans, K., Lozano, R., & Alonso-Almeida, M. del M. (2015). Sustainability Reporting in Higher Education: Interconnecting the Reporting Process and Organisational Change Management for Sustainability. *Sustainability (Switzerland)*, 7(7), 8881–8903. <https://doi.org/10.3390/su7078881>
- Christie, B. A., Miller, K. K., Cooke, R., & White, J. G. (2014). Environmental sustainability in higher education: What do academics think? *Environmental Education Research*, 21(5), 655–686. <https://doi.org/10.1080/13504622.2013.879697>
- Ferrero-Ferrero, I., Fernández-Izquierdo, M. Á., Muñoz-Torres, M. J., & Bellés-Colomer, L. (2018). Stakeholder Engagement in Sustainability Reporting in Higher Education: An Analysis of Key Internal Stakeholders' Expectations. *International Journal of Sustainability in Higher Education*, 19(2), 313–336. <https://doi.org/10.1108/IJSHE-06-2016-0116>
- 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. <https://doi.org/10.1108/14676371111098285>
- Handayani, D. L., & Yuhertiana, I. (2024). Pelaporan Keberlanjutan Pada Perguruan Tinggi : Sebuah Analisis. *Jurnal E-Bis : Ekonomi-Bisnis*, 8(2), 549–560.
- Hassan, A., Adhikariparajuli, M., Fletcher, M., & Elamer, A. A. (2019). Integrated reporting in UK higher education institutions. *Sustainability Accounting, Management and Policy Journal*, 10(5), 844–876. <https://doi.org/10.1108/SAMPJ-03-2018-0093>
- Leal Filho, W., Vargas, V. R., Salvia, A. L., Brandli, L. L., Pallant, E., Klavins, M., Ray, S., Moggi, S., Maruna, M., Conticelli, E., Ayanore, M. A., Radovic, V., Gupta, B., Sen, S., Paço, A., Michalopoulou, E., Saikim, F. H., Koh, H. L., Frankenberger, F., Kanchanamukda, W., Cunha, D. A. da, Akib, N. A. M., Clarke, A., Wall, T., & Vaccari, M. (2019). The role of higher education institutions in sustainability initiatives at the local level. *Journal of Cleaner Production*, 233, 1004–1015. <https://doi.org/10.1016/j.jclepro.2019.06.059>
- Lopatta, K., & Jaeschke, R. (2014). Sustainability reporting at German and Austrian universities. *International Journal of Education Economics and Development*, 5(1), 66–90. <https://doi.org/10.1504/IJEED.2014.059868>
- 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. <https://doi.org/10.1016/j.jclepro.2011.10.006>
- Mo, F., & Wang, D. D. (2023). Emerging ESG reporting of higher education institutions in China. *Heliyon*, 9(11), 1–15. <https://doi.org/10.1016/j.heliyon.2023.e22527>
- Moggi, S. (2019). Social and environmental reports at universities: a Habermasian view on their evolution. *Accounting Forum*, 43(3), 283–326. <https://doi.org/10.1080/01559982.2019.1579293>
- 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>

- Puspitaningrum, H. Y., & Indriani, A. (2021). Pengaruh Tanggung Jawab Sosial Perusahaan dan Good Corporate Governance terhadap Profitabilitas Perusahaan dengan Ukuran Perusahaan dan Leverage sebagai Variabel (Pada Sektor Perusahaan Consumer Goods Industry yang Terdaftar di Bursa Efek Indonesia Period. *Diponegoro Journal of Management*, 10(3), 1–15.
- Romolini, A., Fissi, S., & Gori, E. (2015). Quality Disclosure in Sustainability Reporting: Evidence From Universities. *Transylvanian Review of Administrative Sciences*, 44, 196–218.
- Sassen, R. (2018). Characteristics of UK higher education institutions that disclose sustainability reports. *International Journal of Sustainability in Higher Education*, 19(7), 1279–1298. <https://doi.org/10.1108/IJSHE-03-2018-0042>
- Sepasi, S., Braendle, U., & Rahdari, A. H. (2018). Comprehensive sustainability reporting in higher education institutions. *Social Responsibility Journal*, 15(2), 155–170. <https://doi.org/10.1108/SRJ-01-2018-0009>
- Sepasi, S., Rahdari, A., & Rexhepi, G. (2018). Developing a sustainability reporting assessment tool for higher education institutions: The University of California. *Sustainable Development*, 1–11. <https://doi.org/10.1002/sd.1736>
- 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*, 4(2), 1–15. <https://doi.org/10.4018/jsesd.2013040101>
- UI GreenMetrik. (2024). *UI GreenMetric Awards 2024 : Amplifying Sustainability in Higher Education with Growing Participation and Best Practices*. UI GreenMetric World University Rankings. <https://greenmetric.ui.ac.id/wp-content/uploads/2024/12/PRESS-RELEASE-12-DESEMBER-UI-GREENMETRIC-AWARD-2024.pdf>
- Urbanski, M., & Filho, W. L. (2014). Measuring sustainability at universities by means of the Sustainability Tracking, Assessment and Rating System (STARS): early findings from STARS data. *Environment, Development and Sustainability*, 17(2), 209–220. <https://doi.org/10.1007/s10668-014-9564-3>
- Yáñez, S., Uruburu, Á., Moreno, A., & Lumbreras, J. (2018). The sustainability report as an essential tool for the holistic and strategic vision of higher education institutions. *Journal of Cleaner Production*, 207, 1–22. <https://doi.org/10.1016/j.jclepro.2018.09.171>
- Zahid, M., Ur Rahman, H., Ali, W., Habib, M. N., & Shad, F. (2020). Integration, implementation and reporting outlooks of sustainability in higher education institutions (HEIs): index and case base validation. *International Journal of Sustainability in Higher Education*, 22(1), 120–137. <https://doi.org/10.1108/IJSHE-10-2019-0308>