Innovations

Evaluating the Sustainability Development of Private Tertiary Education Institutes

[1] Wilfred Sarath Eranga Perera; [1, 2] Asanka D. Dharmawansa; [3] R. A. M. Madhuwanthi

[1] Lincoln University College, No. 12–18, Jalan SS 6/12 47301 Petaling Jaya, Selangor Darul Ehsan, Malaysia

[2] Faculty of Applied Science, Wayamba University of Sri Lanka, Kuliyapitiya, Sri Lanka, and Lincoln University College, Petaling Jaya, Selangor Darul Ehsan, Malaysia

[3] School of Business, ESoft Metro Campus, Kurungala, Sri Lanka

Corresponding Author: **Wilfred Sarath Eranga Perera**

Abstract: *This study aims to evaluate the Sustainable Development of Private Tertiary Education Institutes in Sri Lanka. This study seeks to explore and understand how these institutions contribute to sustainability through their practice with environment & climate, teaching & research, people & society and administration & governance using the UNEP's Sustainable University Framework. With the quantitative analysis, the study provides a sound understanding of identifying and evaluating the current Sustainable Development of Private Tertiary Education Institutes in Sri Lanka. The results of this study guide the Private Tertiary Education Institutes in Sri Lanka in driving and incorporating Sustainable Development into action. It also highlights the importance of a sustainability leader in driving sustainability into everyday practice, and with an adapted Sustainable University Framework for the Private Tertiary Education Institutes in Sri Lanka.*

Keywords: *Sri Lanka, Sustainability, Sustainability leader, Sustainable development, Sustainable universities, Tertiary education, UNEP's Sustainable University Framework*

Introduction

Many universities globally have pledged to sustainability by adhering to international agreements and conventions, including the Bologna Charter, Halifax Declaration, Talloires Declaration, and the Copernicus Charter for Sustainable Development (Emerald Publishing, 2023). According to Aleixo et al. (2018), higher education institutions undoubtedly have significant role to play in the development of sustainable practices and a sustainability ethos.

Drawing from Tien et al. (2020), sustainability is still relatively new to developing countries, specifically in many industries such as higher education. Meanwhile, Moss (2023), emphasises the demand for private higher education institutions to adopt sustainability initiatives as students are increasingly showing interest in enrolling in institutions that share their vision for a sustainable future, making corporate sustainability planning a critical factor in attracting and retaining students.

According to Gunaratne (2022), Sri Lanka's youth literacy rate from ages 15-24 is at 98% and is one of the highest literacy rates in Asia. Sri Lanka, an island nation with many renowned state and non-state higher education institutions, is expanding rapidly (Jayakody, 2020).Based on British Council (2024), in 2022, out of the 166,938 qualifying students from Advanced Level, only 23% of the students got state university admissions, which is free, and the competition is tough for relatively few university places. Therefore, private Tertiary Education Institutes play an important role. Not just the opportunity with the Sri Lanka students, there are opportunities to develop Sri Lanka as an education hub serving the Indian Ocean region, where there is a huge market of potential international students (Jabir, 2023). According to Webometrics (n.d.) and the Ministry of Higher Education, Sri Lanka (n.d.), there are 42 private institutions, and this number continues to grow. However, there is a significant gap in knowledge regarding sustainability within these institutes.

To understand the sustainability landscape of private tertiary education institutes in Sri Lanka, I conducted a Google search using the keyword "sustainability" and reviewed the websites of all 42 institutions. I searched for terms like "sustainability", "green", and "conservation" to assess how these institutes present themselves as sustainable institutes online.

Rather than to establish sustainability within these institutes, the aim was to evaluate its visibility and promotion on official websites. The analysis revealed that 25 institutions (59.5%) referenced sustainability in some form through vision statements, research, curricula, or activities, while 17 (40.4%) showed no mention of it.

To further better understand the sustainability landscape, I developed a Sustainability Web Assessment Tool (SWAT), inspired by Armstrong (2021). Despite 59.5% referencing sustainability, the SWAT grading showed that 37 institutions (88%) received an 'F', indicating a lack of substantial sustainability practices. This highlights a significant gap between stated commitments and actual implementation.

According to the Times Higher Education (2023), only five Sri Lankan universities were listed on the Impact Ranking 2023, and out of the 42 private higher education institutions, only one was featured, which is the Sri Lanka Institute of

Information Technology. This raises the question: Why are other private higher education institutions not featured? Do they have sustainability plans? How are they implemented? According to Shrestha (2024), students can leverage the Times Higher Education Impact Rankings as a valuable tool to evaluate universities based on their alignment with personal values and commitments to effecting real change.

The objective of this study is to evaluate the sustainability development of private tertiary education institutes in Sri Lanka. Therefore, the study is vital in addressing the implementation gap, filling knowledge gaps, Theoretical and practical implications, and as a reference for future research.

Literature review

Sustainability

Sustainability is defined differently by different sources, governing bodies and academics, but the most widely accepted definition is from the Brundtland Report of 1987, which states that sustainable development is a way of meeting current needs without compromising the ability of future generations to meet their own needs (Dudzevičiūtė, 2012). The practice of corporate giving, or corporations making charitable donations, can be traced back to the 1920s when corporations began to engage in publicity campaigns to position themselves as responsible members of the community (Mbogoh, 2014). The term "sustainable development" and the concept of sustainable development were officially discussed and initiated at the conference hosted by the World Commission for Environment and Development in Brundtland in 1987 (Tien et al., 2020).

In the last two decades, the concept of sustainability has attained prominence across the globe (Siew, 2015). Tien et al. (2020), regardless of industry, the most important mission of all organisations is to serve the wider community and environment.

There have been other notable dimensions of sustainability discussed, as stated by Correia (2019). There are various dimensions of sustainability, but the triple bottom line presents the dimensions of sustainability as Environmental, Social, and Economic. According to Miller (2020), the triple bottom line (TBL) framework dimensions are vital for organisations to push beyond traditional financial and economic business measures and consider new measures of wealth, such as natural and social capital. Accordingly, sustainable development is achieved by integrating, balancing, reconciling and compromising the three interrelated systems: the ecological, the economic and the socio-cultural system (Ngoc et al., 2021).

According to the United Nations (n.d.), the 2030 Agenda for Sustainable Development, unanimously adopted by all United Nations Member States in 2015,

serves as a collective road map for fostering global peace and prosperity. Central to this agenda are the 17 Sustainable Development Goals (SDGs), representing a pressing call to action for nations worldwide, both developed and developing.

Sustainable Development in Educational Institutions

According to Times Higher Education (2024), universities play a vital role in advancing and driving efforts to overcome global challenges and contribute to the UN Sustainable Development Goals (SDGs). Universities carry a significant role in transforming communities, by enlightening academics, decision-makers, entrepreneurs and leaders; therefore, integrating concepts of sustainability into university curricula plays a vital role in creating sustainability-driven local and global citizens (Gunawardana et al., 2020).

Tien et al. (2020) pointed out that private universities, like public universities, are under pressure to respond to societal needs and address this community challenge. Accordingly, Emerald Publishing (2023), noted that the United Nations General Assembly's adoption of "Agenda 2030" in 2015 and the Sustainable Development Goals it includes highlight the significance of higher education institutions to integrate sustainable development concepts across all fields of study. Impact Rankings offer a unique and comprehensive assessment of universities worldwide, focusing on their contributions to achieving the United Nations' SDGs (Times Higher Education, 2023).

In 2021, The United Nations Environment Programme, the leading global authority on the environment, launched the UNEP's Sustainable University Framework (United Nations Environment Programme, 2021). As illustrated in Figure 1, the UNEP's Sustainable University Framework seeks to define what it means to be a sustainable university and lays out a pathway to becoming one. The framework also outlines how sustainability can be advanced in each of the four core areas of a university, including: environment & climate, teaching & research, people & society and administration & governance.

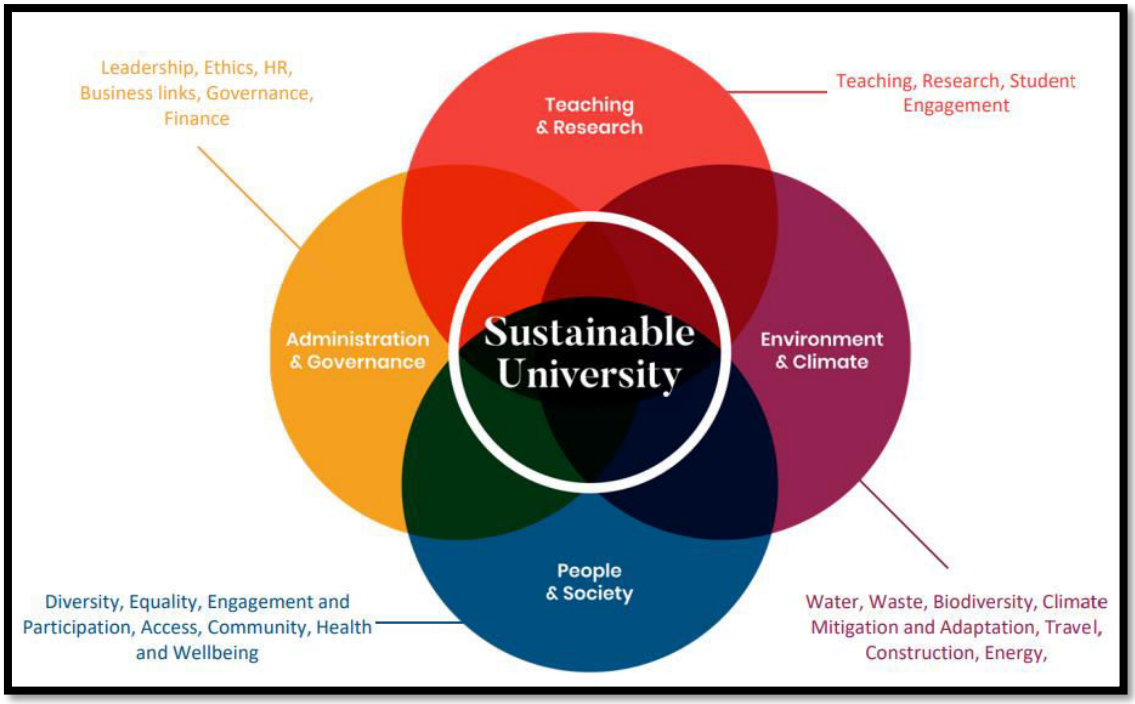

Figure 1. UNEP's Sustainable University Framework
Source: United Nations Environment Programme (2021)

Teaching and Research.

According to United Nations Environment Programme (2021), Teaching and Research under UNEP's Sustainable University Framework look not only at curriculum development and scholarly research but also at active student engagement in sustainability efforts in the university. The teaching & research pillar is because it equips and prepares students and academics with the knowledge, skills, perspective, and mindset to contribute meaningfully to sustainable development in the university and beyond, while ingraining sustainability as a core mission of the university. European Council of Leading Business Schools shared a few top Universities Leading the Way in SDGs. Drawing from ECLBS (2025), the University of Copenhagen in Denmark has incorporated SDGs into its research, delivering over 700 courses associated with climate science and sustainability, and Monash University in Australia has incorporated the SDGs into its curriculum and research agenda.

Environment & Climate

Environment & Climate under UNEP's Sustainable University Framework encompasses a variety of efforts on waste, biodiversity, climate mitigation and adaptation, travel, construction and energy (United Nations Environment Programme, 2021). The Environment & Climate pillar is critical because it directly tackles the university's carbon footprint while also shaping the sustainable habits of students, parents, staff and communities. According to ECLBS (2025), the University of Cape Town in South Africa and the United States, Arizona State University (ASU), are actively committed to promoting the SDGs, notably in areas

like clean water access. The University of British Columbia (UBC) in Canada has a sustainability strategy that includes carbon neutrality and biodiversity preservation (ECLBS, 2025).

People & Society

According to United Nations Environment Programme (2021), People & Society under UNEP's Sustainable University Framework looks at a variety of efforts on diversity, equality, engagement and participation, access, community and health and wellbeing. The People & Society pillar is crucial as it connects universities to the wider world, ensuring they foster inclusive communities, promote wellbeing, and serve as active partners in building resilient, sustainable societies. Universiti Sains Malaysia promotes women empowerment, inclusive growth and sustainable resource use across the region, making it at the forefront of SDG implementation in Southeast Asia, and Monash University in Australia has integrated host interdisciplinary centres tackling issues like gender equality (ECLBS, 2025).

Administration & Governance

Administration & Governance under UNEP's Sustainable University Framework encompasses a variety of efforts on leadership, ethics, HR, business links, governance and finance (United Nations Environment Programme, 2021). The Administration & Governance pillar is essential because it provides the essential leadership, structures, accountability, and public commitments needed to ingrain sustainability into the core of the operations in the universities and institutions, ensuring sustainability-driven administration & governance. According to ECLBS (2025), Monash University offers scholarships and programs focused on sustainability leadership and innovation, and the University of Tokyo in Japan works closely with government and industry partners on climate policy and clean energy innovation.

According to EAUC (2020), which is the leading body for sustainability in the post-16 education sector in the UK and the Republic of Ireland, there are differences in the application of the Impact Rankings based on the region from which they are applied, as SDGs vary slightly between Europe and East Asia. Therefore, it is vital to have a personalised sustainability framework for regions for success.

Meanwhile, studies from Adams et al. (2018), Ng et al. (2020) and Ngoc et al.(2021), indicate that the higher education industry in developing countries is yet to incorporate sustainability in its culture, curriculum, operations, and planning. Compared to developed countries, universities in developing countries have not yet fully embraced sustainable development practices (Tien and Anh, 2019). Filho et al. (2015), argue that the implementation of sustainability in higher education in developing countries is facing various challenges, including a lack of sufficient institutional support. Subsequently, according to Sandali et al. (2020), sustainability is not a mandatory requirement in Sri Lanka,

and compared to developed countries, Sri Lanka's focus stands very little consideration.

Method

This research is descriptive research; the questionnaire I drew inspiration from research conducted by Armstrong (2021), and incorporated elements from the UNEP's Sustainable University Framework (2021), to ensure comprehensive coverage of sustainability-related aspects.

I designed the Sustainability Questionnaire to be distributed among faculty members, department heads, managers, CEOs, and board members of private tertiary education institutes. The aim was to gather insights into the sustainability leadership within the institutes, the current state of sustainable development and the focus on sustainable development initiatives within each respective institute.

Sample

According to Webometrics (n.d.) and the Ministry of Higher Education, Sri Lanka (n.d.), there are 42 private institutions. The study will focus on the 42 private higher education institutions in Sri Lanka. It will examine 10 members from each institution, accounting for a sample of 420 from the 42 private higher education institutions in Sri Lanka.

According to Krejcie & Morgan (1970), for a population of 420, the sample size needed is 201. The study uses non-probability sampling (Purposive sampling), since there are 42 institutions to cover, this sampling method will be efficient and simple to implement.

Conceptual Framework

The conceptual framework was developed to indicate factors driving Leading for Sustainability in Private Tertiary Higher Education Institutions in Sri Lanka. The conceptual framework is taken from the UNEP's Sustainable University Framework, which seeks to define what it means to be a sustainable university and lays out a pathway to becoming one. The proposed conceptual framework developed for this study is illustrated in Figure 2 and research hypothesis in Table 1.

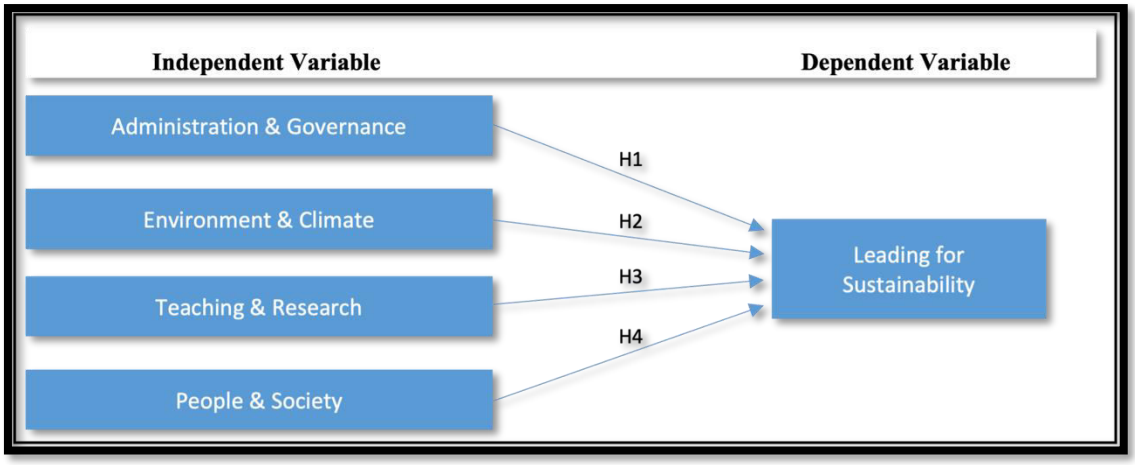

Figure 2. Conceptual Framework
Source: Author (2025)

Table 1. Research Hypothesis

H10	There is no relation between Administration & Governance and Leading for Sustainability
H1a	There is a relation between Administration & Governance and Leading for Sustainability
H20	There is no relation between Environment & Climate and Leading for Sustainability
H2a	There is a relation between Environment & Climate and Leading for Sustainability
H30	There is no relation between Teaching & Research and Leading for Sustainability
H3a	There is a relation between Teaching & Research and Leading for Sustainability
H40	There is no relation between People & Society and Leading for Sustainability
H4a	There is a relation between People & Society and Leading for Sustainability

Source: Author (2025)

Results and Discussion

Demographic analysis

The majority of respondents (81.1%) were from Colombo, followed by Kandy (10.0%) and Malabe (5.5%), reflecting the urban concentration of private tertiary institutions. Gender distribution showed a moderate imbalance, with 58.7% male and 41.3% female respondents. Most participants (56.2%) held management roles, while 43.8% were in academic roles, indicating a near-balanced representation. A significant portion (73.6%) had been employed for 1 to 5 years, suggesting a stable and experienced workforce. Additionally, 61.1% held a master's degree, highlighting a high level of academic qualification among respondents.

The questionnaire provided insights into respondents' awareness and knowledge of their institution's Sustainability Leader. The data revealed that 83.6% of

respondents either do not know or are unsure of who their institution's Sustainability Leader is. In contrast, merely 16.4% of respondents reported being aware of this role with one identifying the CEO as the Sustainability Leader. This lack of awareness suggests a likely disconnect between sustainability leadership and institutional stakeholders, raising concerns about the visibility, accountability, and overall effectiveness of sustainability initiatives.

Descriptive Statistics of Variables

Overall, the descriptive statistics provide a summary of the central tendency, dispersion, and shape of the distribution of the variables used in the study. The data indicates that the most common score for Leading for Sustainability is 12.00, with 29.9% of respondents selecting this score. This suggests that a significant portion of institutions are moderately leading sustainability efforts.

The most common score for Teaching & Research is 20.00, selected by 19.4% of respondents. For Environment & Climate, the most common score is 23.00, chosen by 29.9%. People & Society also has a most common score of 20.00, with 17.9% of respondents selecting it. Lastly, Administration & Governance has a most common score of 30.00, selected by 24.9% of respondents. Overall, the descriptive statistics suggest that practice across the four areas tend to fall within the moderate to below moderate range.

Reliability Test

As illustrated in Table 2, the reliability of the scales was measured using Cronbach's Alpha.

Table 2. Reliability

Reliability	Statistic	Value
Leading for Sustainability	Cronbach's Alpha	0.872
	Number of Items	4
Teaching & Research	Cronbach's Alpha	0.965
	Number of Items	10
Environment & Climate	Cronbach's Alpha	0.955
	Number of Items	10
People & Society	Cronbach's Alpha	0.963
	Number of	10

	Items	
Administration & Governance	Cronbach's Alpha	0.988
	Number of Items	10

Source: Author (2025)

The high reliability of the scales used in this study suggests that the items are well-designed and effectively measure the dimensions of sustainability in private tertiary education institutes in Sri Lanka.

Validity Test

As illustrated in Table 3, the Validity of data was measured with the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity.

Table 3. KMO and Bartlett's Test

Statistic		**Value**
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.648
Bartlett's Test of Sphericity	Approx. Chi-Square	25423.913
	df	946
	Sig.	.000

Source: Author (2025)

The KMO value of 0.648 indicates that the data is suitable for factor analysis, although it is on the lower end of the acceptable range. Bartlett's Test of Sphericity shows a highly significant result ($p < 0.000$), indicating that the correlation matrix is not an identity matrix and that the variables are sufficiently interrelated for factor analysis.

Regression Analysis

The regression analysis on Table 4 evaluated the strength and direction of the relationship between variables for the study.

Table 4. Model Summary

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.818[a]	.669	.662	1.69553	.669	98.465	4	195	.000	2.132
a. Predictors: (Constant), Administration & Governance, Environment & Climate, Teaching & Research, People & Society										
b. Dependent Variable: Leading for sustainability										

Source: Author (2025)

The R value (0.818) indicates a strong positive correlation between the combined predictors and the dependent variable. This means that as the values of the independent variables increase, the leadership for sustainability also tends to increase. The R Square (0.669) shows that approximately 66.9% of the variance in sustainability leadership is explained by the model.

The Adjusted R Square (0.662) slightly adjusts for the number of predictors and sample size, confirming the model's robustness and generalizability. The F Change (98.465) and Sig. F Change ($p < 0.001$) indicate that the model is statistically significant. Lastly, the Durbin-Watson statistic (2.132) is close to 2, suggesting that there is no autocorrelation in the residuals, which supports the model's validity.

The Coefficients Table in the regression analysis provides detailed insights into how each independent variable contributes to predicting the dependent variable, which in this study is "Leading for Sustainability".

Table 5. ANOVA

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1132.283	4	283.071	98.465	.000[b]
	Residual	560.592	195	2.875		
	Total	1692.875	199			
a. Dependent Variable: Leading for sustainability						
b. Predictors: (Constant), Administration & Governance, Environment & Climate, Teaching & Research, People & Society						

Source: Author (2025)

As illustrated Table 5, the Regression Sum of Squares (1132.283) represents the portion of the total variance in sustainability leadership that is explained by the four predictors: Teaching & Research, Environment & Climate, People & Society, and Administration & Governance. The Residual Sum of Squares (560.592) captures the variance that remains unexplained by the model. The Total Sum of Squares (1692.875) is the sum of both regression and residual components, representing the total variability in the data.

The F-statistic (98.465) is a ratio of the model mean square (283.071) to the residual mean square (2.875). A high F-value, coupled with a significance level (p-value) of .000, indicates that the regression model is statistically significant.

Table 6. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	3.950	.504		7.838	.000	2.956	4.944		
	Teaching & Research	.199	.028	.544	7.003	.000	.143	.255	.282	3.551
	Environment & Climate	-.029	.054	-.068	-.538	.591	-.136	.078	.106	9.428
	People & Society	.238	.049	.631	4.884	.000	.142	.334	.102	9.837
	Administration & Governance	-.117	.024	-.328	-4.761	.000	-.165	-.068	.359	2.787

Source: Author (2025)

As illustrated Table 6, the hypothesis analysis is a method for testing assumptions, where a p-value < 0.05 exhibits statistically significant results and leads to rejecting the null hypothesis (H_0) in favor of the alternative (H_1).

Table 7. Hypothesis Analysis

H10 **H1a**	Administration & Governance → Leading for Sustainability	P<0.05	Accepted	H1a
H20 **H2a**	Environment & Climate → Leading for Sustainability	P>0.05	Rejected	H20
H30 **H3a**	Teaching & Research → Leading for Sustainability	P<0.05	Accepted	H3a

H40 **H4a**	People & Society → Leading for Sustainability	P<0.05	Accepted	H4a

Source: Author (2025)

As illustrated in Table 7, while Administration & Governance, Teaching & Research and People & Society have a relationship with the Leading for Sustainability, Environment & Climate does not show a relationship.

Teaching & Research has a positive and statistically significant effect ($\beta = 0.544$, $p < 0.001$). This means that institutions that actively integrate sustainability into their teaching and research are more likely to demonstrate strong sustainability leadership. This aligns with findings by Filho et al. (2015) and Lozano et al. (2015), who emphasized the transformative role of education in sustainability.

People & Society also shows a strong positive and significant relationship ($\beta = 0.631$, $p < 0.001$). This suggests that institutions prioritizing social engagement, diversity, and well-being are more likely to lead in sustainability.

Administration & Governance, surprisingly, has a negative and significant coefficient ($\beta = -0.328$, $p < 0.001$). This may indicate that rigid or bureaucratic governance structures could hinder proactive sustainability leadership.

Environment & Climate is not statistically significant ($p = 0.591$), suggesting that environmental initiatives alone, without integration into broader institutional strategies, may not directly influence sustainability leadership.

The VIF values indicate potential multicollinearity, especially for People & Society (9.837) and Environment & Climate (9.428), suggesting overlapping constructs. Future models may benefit from factor analysis to refine these predictors.

Adapting a suitable sustainability framework

The justification for the adaptation of the framework from UNEP's Sustainable University Framework

Regression Analysis

The study's regression analysis revealed through the VIF values a potential multicollinearity, especially for People & Society (9.837) and Environment & Climate (9.428), suggesting overlapping constructs. The high multicollinearity between the People & Society and Environment & Climate dimensions suggests conceptual overlap.

Additionally, the analysis highlighted that Environment & Climate was not statistically significant (p = 0.591), indicating that environmental initiatives on their own, without integration into broader institutional strategies, may not directly influence leading for sustainability in private tertiary education institutes in Sri Lanka.

Lack of leadership

Additionally, as, the study also emphasises a clear lack of leadership which impacts the sustainability efforts, The data reveals that 83.6% of respondents either do not know or are unsure of who their institution's Sustainability Leader is.

Taking these insights into account, while the UNEP's Sustainable University Framework offers a valuable global foundation, the findings of this study highlight the need for a contextually adapted version that better aligns with the priorities, capacities, and institutional realities of Sri Lanka's private tertiary education sector.

Proposed Adapted Framework

This adapted framework from United Nations Environment Programme (2021), illustrated in Table 8 and Figure 3, offers greater conceptual clarity, addresses the issue of construct overlap, statistically significance, and aligns with practical institutional strategies relevant to the Sri Lankan private sector, enabling more actionable and measurable sustainability outcomes.

Table 8. Adapted Sustainable University Framework

Core Areas	Refined Components
Sustainability Leadership	Identify Sustainability Leader Sustainability team Sustainability plan
Teaching & Research	Curriculum integration of sustainability Applied student projects Industry focused research Digital integrated learning for sustainability
Social Responsibility & Wellbeing	Student and staff wellbeing Diversity & inclusion Community outreach Graduate employability Cultural sensitivity
Environmental Management	Waste and water efficiency Energy use and carbon reduction Green buildings Climate adaptation strategies

	Sustainable transport
Administration & Governance	Ethical leadership Stakeholder engagement Transparency and accountability Financial resilience Private-sector partnerships

Source: Author (2025)

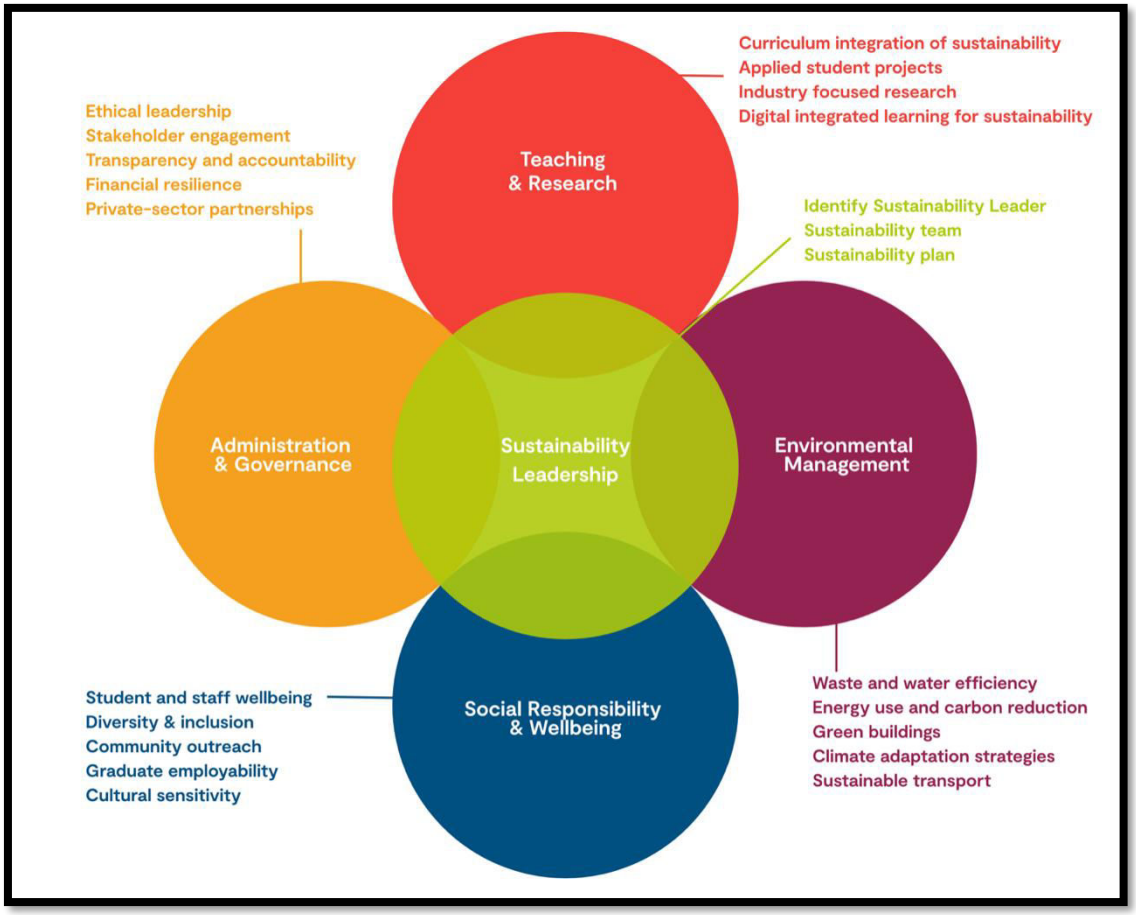

Figure 3. Adopted Sustainable University Framework
Source: Author (2025)

The adopted framework effectively addresses multicollinearity in empirical data, emphasises leadership, ensures local relevance, and enhances strategic application.

Conclusion

This study aimed to evaluate the Sustainable Development of Private Tertiary Education Institutes in Sri Lanka. The research was driven by the need to understand how these institutions contribute to sustainability through their teaching, research, environmental practices, social engagement, and governance.

The findings of this study indicate that private tertiary education institutes in Sri Lanka play a significant role in promoting sustainable development; however, there is a gap in the implementation and action. Administration & Governance, Teaching & Research and People & Society showed a relationship with the Leading for Sustainability.

The study highlights the importance of a sustainability leader in integrating sustainability into institutes, driving, enhancing engagement, commitment and implementing effective governance structures. The study also highlighted the need for an adapted framework which could further support the drive towards enabling private tertiary education institutes in Sri Lanka to drive sustainable development.

Limitations and Recommendations for Future Research

Limitations

Sample Size and Generalizability: While this sample provides valuable insights, future research should consider larger and more diverse samples including public and private to enhance the generalizability of the findings.

Cross-Sectional Design: The study employed a cross-sectional design, which provides a snapshot of the current state of sustainability within the institutions. Future research shouldconsider longitudinal designs to examine changes in sustainability practices over time and identify factors that contribute to sustained improvements in sustainability.

Future Research

Future research can compare sustainability practices between public and private universities to identify sector-specific strengths and challenges, while also examining how sustainability education influences student attitudes, behaviours, and employability outcomes. Future research could also study the application of the adapted framework, where it is tested and studied with implementation for practical applications.

Additionally, future studies can evaluate the effectiveness of national and institutional sustainability policies in achieving long-term impact, while also undertaking comparative and longitudinal studies to track developments across different regions and over time. Finally, global perspectives that view how diverse cultural, political, and economic contexts shape sustainability in higher education.

List of Table

List of Figure

References

1. *Adams, R., Martin, S., & Boom, K. (2018). University culture and sustainability: Designing and implementing an enabling framework. Journal of Cleaner Production, 171, 1234–1246.*
2. *Aleixo, A. M., Leal, S., & Azeiteiro, U. M. (2018). Conceptualization of sustainable higher education institutions, roles, barriers, and challenges for sustainability: An exploratory study in Portugal. Journal of Cleaner Production, 172, 1664–1673.*
3. *Armstrong, K. (2022). Sustainable development among four-year higher education institutions in the United States: A geographic and anthropological perspective (Doctoral dissertation). University of Southern Mississippi. aquila.usm.edu.*
4. *British Council. (2024). Growth of Sri Lanka's private higher education sector. Opportunities Insight. opportunities-insight.britishcouncil.org.*
5. *Correia, M. (2019). Sustainability: An overview of the triple bottom line and sustainability implementation. International Journal of Strategic Engineering, 2, 29–38.*
6. *Dudzevičiūtė, G. (2012). Conceptual approaches towards sustainability. Journal of Security and Sustainability Issues, 1(4), 261–272.*
7. *EAUC. (2020), the ranking methodology webinar [Video]. YouTube. www.youtube.com.*
8. *ECLBS. (2025, August 20). Top 10 universities leading the way in Sustainable Development Goals (SDGs). QRNW.www.qrnw.com.*
9. *Emerald Publishing. (2023). Sustainability in higher education. Emerald Publishing. www.emeraldgrouppublishing.com.*
10. *Filho, W. L., Shiel, C., & Paço, A. do. (2015). Integrative approaches to environmental sustainability at universities: An overview of challenges and priorities. Journal of Integrative Environmental Sciences, 12(1), 1–14.*
11. *Gunaratne, N. (2022). WILPF study report – Gender equality, resistance, responsibilities and reaching out. www.researchgate.net.*

12. *Gunawardana, A., Arooz, F. R., & Halwatura, R. U. (2020). Critical analysis of lecturer's perception on integrating concepts of sustainability in university curricular. Journal of Cleaner Production, 1, 1–10.*
13. *Jabir, F. (2023, August 17). Opportunities to develop Sri Lanka as education hub: High Commissioner of Australia. Daily News. www.dailynews.lk.*
14. *Jayakody, N. (2020, May 15). How Sri Lanka could thrive as an ideal higher education destination. Daily News. www.dailynews.lk.*
15. *Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. Educational and Psychological Measurement, 30(3), 607–610.*
16. *Mbogoh, E. (2014). Challenges of implementing corporate social responsibility strategies by commercial banks in Kenya (Master's thesis, University of Nairobi). University of Nairobi Digital Repository. erepository.uonbi.ac.ke*
17. *Miller, K. (2020, March 10). The triple bottom line: What it is & why it's important. Business Insights Blog. online.hbs.edu.*
18. *Ministry of Higher Education Sri Lanka. (n.d.). Recognized degrees. Ministry of Higher Education. Retrieved June 26, 2025, from: mohe.gov.lk.*
19. *Moss, P. (2023, March 3). The importance of sustainability in students' university choice. PIE News Blog. blog.thepienews.com.*
20. *Ng, H.-T., Dana, L.-P., Jiminez, R., Jose, S., Vu, N., & Nguyễn, H. (2020). Human resource development strategy of Ton Duc Thang University to improve its position on the international rankings. International Journal of Management Studies, 5, 105–110.*
21. *Ngoc, N. M., Tien, N. H., Giao, N. Q., Trang, T. T. T., & Mai, N. P. (2021). Sustainability issues in the development of higher education industry. Hong Kong Journal of Social Science, 57, 65–77. hkjoss.com.*
22. *Sandali, W.A.P.L., S., Gunathilake, W. K. N. C., Deshapriya, M. G. C. D., Nirman, M. A. C., Lokeshwara, A., & Weerarathna, R. (2021). Challenges faced in the implementation of sustainability reporting: Empirical evidence from listed companies in Sri Lanka. Proceedings of International Conference on Business Management, 17.*
23. *Shrestha, S. (2024, June 10). A student's take on the Impact Rankings: How and why to use them. Times Higher Education. www.timeshighereducation.com.*
24. *Siew, R. Y. J. (2015). A review of corporate sustainability reporting tools (SRTs). Journal of Environmental Management, 164, 180–195.*
25. *Tien, N. H., & Anh, D. B. H. (2019). Development of high-quality human resources to receive opportunities from CP-TPP approach of Vietnamese universities. International Journal of Multidisciplinary Research and Development, 4(3), 149–154. www.managementpaper.net.*
26. *Tien, N. H., Anh, D. T., Luong, M. V., Ngoc, N. M., Duc, L. D. M., & Dat, N. (2020). Sustainable development of higher education: A case of business universities in Vietnam. Journal of Hunan University (Natural Sciences), 47(11), 152–164.*

27. *Times Higher Education. (2023). Impact Rankings 2023. Times Higher Education. www.timeshighereducation.com.*
28. *Times Higher Education. (2024). University Impact Rankings 2024. Times Higher Education. www.timeshighereducation.com.*
29. *United Nations Environment Programme. (2021, July 8). UNEP's sustainable university framework. United Nations Environment Programme. www.unep.org.*
30. *United Nations. (n.d.). The 17 goals/Sustainable development. United Nations. Retrieved June 21, 2025, from: sdgs.un.org.*
31. *Webometrics (n.d.). Sri Lanka. Webometrics Ranking of World Universities. Retrieved March 2024, from: www.webometrics.info.*