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Insiders, Recipients, and Outsiders: Triangulating Lecturer, Student, and Alumni Perceptions of University Sustainability Performance

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Abstract
Higher education institutions are increasingly expected to demonstrate sustainability performance across environmental, social, economic, and organizational dimensions. However, most studies rely on a single stakeholder group, and research incorporating multiple stakeholder groups rarely examines whether perceptions of overall sustainability performance systematically converge or diverge. This study addresses this gap by introducing a three-position stakeholder framework at Universidade Nacional Timor Lorosa'e (UNTL), Timor-Leste, distinguishing lecturers and administrative staff as institutional insiders, students as current recipients of educational services, and alumni as retrospective outsiders. A sequential explanatory mixed-methods design was employed. Quantitative data were collected from 150 lecturers and administrative staff, 250 students (of whom 156 provided complete responses), and 100 alumni. The staff dataset was analyzed using partial least squares structural equation modeling (PLS-SEM), while qualitative responses from 12 alumni were analyzed thematically to contextualize the quantitative findings. The results revealed a systematic gradient in perceived sustainability performance scores, with institutional insiders reporting the highest mean score (4.12), followed by alumni (3.93) and students (3.66). Across the quantitative and qualitative findings, the three stakeholder groups demonstrated convergence in their perceptions of highly visible sustainability outcomes, including campus cleanliness, institutional reputation, social contributions, and alignment with the Sustainable Development Goals (SDGs). In contrast, organizationally embedded constructs, such as leadership integrity and employee commitment, exhibited greater divergence in interpretation. These findings suggest that perceptual convergence may depend on construct observability and stakeholder proximity rather than merely reflecting measurement inconsistencies. The study concludes that multistakeholder sustainability research should explicitly account for stakeholders' observational positions and that higher education institutions should complement internal sustainability assessments with periodic student and alumni surveys.

INTRODUCTION

Higher education institutions (HEIs) are increasingly expected to contribute to sustainable development not only through teaching and research but also through institutional governance, campus operations, community engagement, social responsibility, and human capital development. Consequently, sustainability in higher education has evolved from a

predominantly environmental concern into a multidimensional institutional responsibility encompassing environmental, social, economic, and organizational dimensions. The traditional Triple Bottom Line (TBL) framework conceptualizes sustainability through the interaction of economic, social, and environmental dimensions (Elkington, 1997). Within HEIs, however, these dimensions are reflected in educational quality, responsible resource utilization, social contributions, environmental management, human resource development, institutional governance, and engagement with the Sustainable Development Goals (SDGs). This broader conceptualization requires sustainability performance to be assessed not solely through formal policies or operational indicators but also through the perceptions and experiences of stakeholders who interact with institutions in different capacities (Pedro et al., 2020).

Despite the growing recognition of stakeholder perspectives, a significant methodological challenge remains (Olaniyi et al., 2024; Trogrlić et al., 2024; Woudstra et al., 2022). Numerous empirical studies examine sustainability from the perspective of a single stakeholder group, whereas studies incorporating multiple groups frequently concentrate on specific sustainability dimensions rather than systematically investigating whether perceptions of overall institutional sustainability performance converge or diverge. Aleixo et al. (2021) identified substantial differences in sustainability-related perceptions, behaviors, and attitudes among students at Portuguese higher education institutions, suggesting that students should not necessarily be regarded as a homogeneous stakeholder group. Ribeiro et al. (2021) investigated students' perceptions of green campus initiatives across four Brazilian universities, highlighting the importance of students' direct experiences in understanding how sustainability is integrated into university operations. Pedro et al. (2020) compared 738 students and 587 lecturers and researchers across seven Portuguese public HEIs, identifying differences in perceptions regarding the influence of intellectual capital components on sustainable development practices. Similarly, Dabija et al. (2017) compared the perspectives of students, lifelong learning participants, and university staff at a Romanian university, while Nzeyimana and Mariaselvam (2026) examined differences between teaching staff and students in Indian higher education regarding perceived institutional support, barriers, and opportunities for implementing sustainable practices. Collectively, these findings demonstrate that stakeholder perceptions are not necessarily interchangeable.

The existence of perceptual differences raises a more fundamental theoretical question that remains insufficiently explored: Why do stakeholder perceptions converge for certain sustainability dimensions but diverge for others? Stakeholders possess varying levels of access to institutional information, decision-making processes, organizational practices, and everyday institutional experiences. Lecturers and administrative staff participate directly in institutional processes and may consequently have greater access to institutional policies, leadership decisions, human resource management practices, and implementation mechanisms. Students primarily experience the institution as recipients of educational services and are therefore more directly exposed to teaching quality, campus facilities, student support services, and observable institutional practices. Alumni assess the institution retrospectively after completing their formal educational participation, meaning that their evaluations may reflect accumulated educational experiences, institutional reputation, and perceived long-term outcomes. Certain aspects of sustainability performance, including campus cleanliness, visible environmental initiatives, institutional reputation, community contributions, and publicly demonstrated

commitments to the SDGs, are relatively observable across all three stakeholder groups. In contrast, leadership integrity, employee commitment, internal human resource management practices, and Green Strategic Human Resource Management (GSHRM) are more deeply embedded within organizational processes and are therefore less directly observable to stakeholders outside the institution's internal operations.

In this study, stakeholder proximity is conceptualized not merely in terms of physical closeness but as a multidimensional construct encompassing organizational involvement, access to institutional information, experiential exposure, and temporal connections to the institution. This conceptualization distinguishes institutional insiders, who participate directly in organizational processes; current recipients, who experience institutional services firsthand but possess limited access to internal decision-making; and retrospective outsiders, who evaluate the institution after completing their formal educational relationship with it. Consequently, perceptual divergence among these groups should not automatically be interpreted as disagreement regarding the existence or extent of institutional sustainability. Instead, such differences may reflect distinct observational positions through which the same institutional reality is experienced and interpreted. Conversely, when stakeholders converge in their assessments of particular sustainability dimensions despite occupying different institutional positions, this convergence may suggest that those dimensions are widely observable, commonly experienced, and institutionally recognizable.

The present study extends the existing literature by introducing a three-position stakeholder framework at Universidade Nacional Timor Lorosa'e (UNTL), Timor-Leste, examining lecturers and administrative staff as institutional insiders, students as current recipients of educational services, and alumni as retrospective outsiders. The study addresses the following research question: To what extent do perceptions of sustainability performance converge or diverge among lecturers and administrative staff, students, and alumni at UNTL, and what implications do these patterns have for the design and interpretation of sustainability performance research in higher education? The study makes three primary contributions. Empirically, it extends multistakeholder sustainability research beyond conventional staff–student comparisons by incorporating alumni as retrospective evaluators within a three-position stakeholder framework. Methodologically, it integrates quantitative cross-group comparisons with qualitative triangulation to distinguish variations in perceived sustainability performance ratings from differences in the interpretation of sustainability-related constructs. Theoretically, it proposes stakeholder proximity as an interpretive boundary condition, suggesting that perceptual convergence is more likely for sustainability dimensions that are highly observable and commonly experienced, whereas divergence is more likely for constructs deeply embedded within organizational processes. These contributions are particularly relevant to higher education institutions in developing countries, where formal sustainability reporting systems may be less established and stakeholder perceptions can provide valuable complementary evidence for assessing institutional sustainability performance.

Accordingly, this study shifts the analytical focus from determining whether stakeholders agree about sustainability to addressing a more theoretically significant question: Under what conditions do stakeholders converge or diverge in their perceptions of institutional sustainability, and what do these patterns reveal about the observability and organizational

embeddedness of sustainability performance? This reframing establishes a conceptual foundation for interpreting stakeholder differences not merely as measurement discrepancies but as potentially meaningful evidence of how sustainability is observed, experienced, and evaluated across organizational boundaries. The central proposition is that multistakeholder sustainability research should move beyond simply expanding the number of respondent categories and instead develop a theoretically grounded understanding of why stakeholders occupying different institutional positions observe, experience, interpret, and evaluate sustainability performance differently.

METHOD

Research Design

This study employed a sequential explanatory mixed-methods design, in which quantitative data were collected and analyzed first, followed by qualitative data to contextualize and interpret the findings (Creswell & Creswell, 2018; Creswell & Poth, 2018). Quantitative analysis examined the magnitude and distribution of sustainability performance perceptions across stakeholder groups, while qualitative analysis explored how stakeholders understood and experienced sustainability at UNTL. The findings from both phases were integrated to identify differences in perceived performance ratings and similarities in stakeholders' interpretations of institutional sustainability.

Respondent Groups and Analytical Roles

Three respondent datasets represented distinct stakeholder positions in relation to UNTL and were treated as analytically distinct rather than interchangeable sources of evidence. Higher education institutions operate within complex stakeholder systems in which students, academic staff, administrative personnel, alumni, and external actors experience sustainability from different positions and with different interests. Srivastava et al. (2019) emphasize the role of different stakeholder groups in advancing the sustainability of HEIs, while Yassim et al. (2025) discuss the administrative and integration challenges that arise when universities embed multiple stakeholders' roles into sustainability governance, and sustainability assessment benefits from considering these differentiated perspectives rather than treating the university community as homogeneous (Basheer et al., 2025). The purpose of including multiple groups was therefore not to determine which group provided the correct assessment, but to examine whether perceived Sustainability Performance (SP) varied systematically according to stakeholder position.

Lecturers and administrative staff constituted the primary analytical group (n = 150), and their data formed the basis of the principal PLS-SEM model. SP was measured using 10 reflective items on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). As institutional insiders, they have relatively direct exposure to leadership, human-resource practices, internal policies, and day-to-day operations; however, their position was not interpreted as an objective institutional benchmark, because greater proximity may also shape which aspects of sustainability are most visible to employees. Students represented the current recipient perspective. The initial student dataset consisted of 250 respondents, but the supplementary Student Learning/Satisfaction (STU-LS) item was completed by only 156 respondents (approximately 62%), and these complete cases, covering eight of UNTL's ten faculties, were used for analyses involving STU-LS. Recent comparative evidence from Indian

higher education, involving 944 students and 159 teaching staff, indicates that students and staff may evaluate sustainability implementation, awareness, support, barriers, and opportunities differently (Nzeyimana & Mariaselvam, 2026).

Students occupy a different observational position from institutional employees. Their sustainability perceptions are shaped primarily by their direct experience of teaching and learning, campus facilities, academic services, institutional communication, and the broader educational environment, and their assessments are strongly connected to their educational experiences and perceptions of institutional sustainability initiatives. The student evidence was consequently interpreted as supplementary rather than equivalent to the staff structural-model evidence. The inclusion of alumni is equally relevant because sustainability in higher education extends beyond campus operations to educational, social, and community impacts, and alumni can therefore provide retrospective insight into the perceived relevance and longer-term social contribution of the institution beyond the immediate campus experience. The alumni dataset was accordingly used primarily for external triangulation rather than for the primary structural model.

Alumni constituted the retrospective external perspective, with 100 respondents in the quantitative dataset. Their interpretation of sustainability is informed by previous educational experience and subsequent exposure to professional, social, and community contexts after graduation. The alumni questionnaire included AL-A and AL-B sustainability-perception items, which were used as supplementary indicators rather than replacements for the principal structural-model measures. In addition, qualitative responses were obtained from alumni and screened to produce 12 unique responses for thematic analysis, which were used to contextualize and compare perceptions rather than to establish statistical representativeness. The resulting analytical structure is summarized in Table 1. The datasets were not pooled indiscriminately, which avoids the methodological problem of combining heterogeneous stakeholder groups despite differences in their institutional roles and observational access.

The three datasets were therefore assigned different analytical functions. Lecturers and administrative staff provided the principal evidence for the structural relationships among the study constructs; students provided a current recipient perspective on selected dimensions of institutional experience; and alumni provided retrospective external evidence for triangulation. This differentiated structure is important because numerical differences between stakeholder groups do not necessarily indicate contradictory assessments: a stakeholder may assign a lower numerical rating while identifying the same underlying institutional outcome as another group. Rather than treating differences between groups as measurement inconsistency, the study interprets them as potentially informative evidence of how sustainability is experienced from different organizational and experiential positions, which strengthens the rationale for multi-stakeholder triangulation and for examining stakeholder proximity as an interpretive condition.

Table 1. Analytical Structure of the Respondent Groups

Stakeholder Group	Sample	Structural Role	Analytical Role
Lecturers/administrative staff	150	Primary model	Internal/insider assessment
Students	250 initially; 156 complete STU-LS	Supplementary	Current recipient assessment
Alumni	100	External triangulation	Retrospective outsider assessment
Alumni qualitative subset	12 unique responses	Qualitative	Retrospective thematic evidence

Source: primary data processing, 2026.

Measurement and Data Structure

The principal quantitative construct, Sustainability Performance, was measured using 10 reflective items on a five-point Likert scale. The reflective specification assumes that the observed indicators represent manifestations of an underlying perception of institutional sustainability performance, and the use of multiple indicators enables the construct to be evaluated at the measurement-model level before its structural relationships are interpreted. The three stakeholder datasets were kept separate because they served different analytical purposes: the lecturer/administrative staff data constituted the primary structural-model dataset, while student and alumni data provided supplementary comparative and triangulation evidence. This structure allows the study to compare stakeholder perceptions without making the stronger and potentially unjustified assumption that all groups constitute equivalent measurement populations.

Quantitative Data Analysis

Quantitative analysis proceeded in two stages. First, descriptive statistics, including means and ranges, were used to examine the distribution of SP perceptions within and across stakeholder groups. Second, cross-group comparisons were undertaken to determine whether observed differences represented a consistent pattern rather than isolated variation, focusing on the relative positioning of the three groups and, where relevant, differences across faculties. For the principal structural model, the lecturer/administrative staff dataset was analyzed using Partial Least Squares Structural Equation Modelling (PLS-SEM) in SmartPLS 4, because the model involves multiple latent constructs and is oriented toward explaining variance in endogenous constructs (Hair et al., 2022; Sarstedt et al., 2021). The measurement model was assessed using indicator loadings of approximately 0.70 or above, Cronbach's alpha and composite reliability of 0.70 or above, average variance extracted (AVE) of 0.50 or above, and the heterotrait–monotrait ratio (HTMT) for discriminant validity (Henseler et al., 2015). The structural model was assessed through path coefficients, R^2, f^2, Q^2, and collinearity diagnostics, with bootstrapping of 5,000 resamples and significance evaluated at $\alpha = .05$. Statistical significance was not interpreted in isolation; effect magnitude, explanatory power, and consistency of relationships were considered alongside p-values.

Qualitative Analysis, Integration, and Interpretive Boundaries

Qualitative evidence was analyzed thematically following the data-reduction, data-display, and conclusion-drawing principles of Miles et al. (2014). Responses were reviewed to identify recurring concepts and descriptive codes, which were grouped into broader categories and themes representing stakeholder interpretations of institutional sustainability, with

attention to campus cleanliness, institutional reputation, social contribution, educational experience, alignment with the SDGs, and references illuminating internal organizational constructs. The analysis was designed to identify three possible patterns: convergence, in which stakeholders provide similar substantive interpretations; divergence, in which groups emphasize substantially different dimensions or meanings; and complementarity, in which groups emphasize different dimensions that collectively provide a broader understanding of sustainability. Integration occurred at the interpretation stage by comparing the magnitude of perceived SP across groups with the content and meaning of stakeholder interpretations, so as to determine whether quantitative divergence reflected conceptual disagreement or merely different evaluative intensities.

The three stakeholder groups were interpreted according to their structural relationship with UNTL. Lecturers and administrative staff provide evidence from an insider position characterized by direct organizational involvement; students provide evidence from a recipient position characterized by direct experience of educational services but comparatively limited access to internal processes; and alumni provide evidence from a retrospective outsider position characterized by greater temporal distance from current operations. The triangulation framework therefore rests on the proposition that stakeholder proximity may influence the observability of sustainability-related constructs: highly visible outcomes may be accessible to all three groups and generate thematic convergence, whereas organizationally embedded constructs may be more directly observable to insiders and produce greater perceptual divergence. This interpretation does not assume that proximity determines the accuracy of a stakeholder's perception; proximity is treated as a potential explanation for differences in observational access and evaluative perspective.

Several interpretive boundaries apply. The three groups were not designed as equivalent samples for a single pooled model, so comparisons are interpreted as stakeholder-perspective triangulation. The student analysis relies on 156 of 250 respondents covering eight of ten faculties, and no assumption of missing-data randomness is made. The alumni qualitative evidence is based on 12 unique responses and is contextual rather than representative. All datasets rely on self-reported perceptions, so the study measures perceived rather than objective sustainability performance, and the cross-sectional design means that stakeholder proximity is treated as an analytical explanatory condition rather than a demonstrated causal mechanism.

RESULTS AND DISCUSSION

Cross-Group Gradient in Sustainability Performance Scores

Table 2 presents the comparison of mean Sustainability Performance scores across the three respondent groups.

Table 2. Comparison of Sustainability Performance Scores Across Respondent Groups

Respondent Group	n	Role Relative to Institution	Mean SP Score	Function in Triangulation
Lecturers/administrative staff	150	Insider — policy implementer	4.12 (range 3.91–4.28)	Primary source for structural model
Alumni	100	Retrospective outsider	3.93 (AL-A score)	External triangulation
Students	156*	Recipient — service recipient	3.66	Direct-recipient triangulation

**Student data are restricted to 156 of 250 respondents with complete SP and STU-LS data. Source: primary data processing, 2026.*

A systematic score gradient was found. Lecturers and administrative staff, who serve as insiders and policy implementers, gave the highest ratings (mean 4.12, with a cross-faculty range of 3.91–4.28), followed by alumni as retrospective outsiders (AL-A score of 3.93), while students, as direct recipients of educational services, gave the lowest ratings (mean 3.66). This gradient is consistent with the literature on perceptual distance in organizations, in which parties directly involved in policy formulation and implementation tend to rate organizational achievements more positively than parties positioned to receive the effects of those policies. The divergence is analytically important because it indicates that an aggregated sustainability score may conceal stakeholder-specific perceptions of institutional performance: averaging the three groups would mask the fact that those who implement policies and those who receive their effects evaluate the same institution at noticeably different levels.

The position of alumni between staff and students is also informative. Alumni are temporally more distant from current institutional operations, yet their ratings were closer to those of staff than to those of current students. One interpretation consistent with the stakeholder-proximity framework is that alumni evaluate the institution through institutional reputation, social contribution, and the perceived longer-term relevance of their education, whereas current students evaluate it through the immediate delivery of teaching, facilities, and services. The gradient therefore does not reflect physical distance alone but the type of evidence each group draws upon when assessing sustainability. Because the alumni value is based on the AL-A item rather than the identical 10-item SP instrument, this comparison remains descriptive.

These results also challenge a common assumption underlying survey-based sustainability research, namely that mean scores obtained from different stakeholder groups can be aggregated into a single institutional assessment without considering who produced the assessment. If groups possess systematically different access to institutional information and different opportunities to observe sustainability practices, aggregation may obscure meaningful differences. The analytical issue is therefore not simply whether stakeholder perceptions differ but where, how, and why they differ. Quantitative comparison alone may overstate disagreement, whereas qualitative evidence alone may conceal meaningful differences in perceived performance; the mixed-methods design of this study allows both dimensions to be examined simultaneously.

Variation in Student Perceptions Across Faculties

Table 3 shows the variation in student SP and STU-LS scores across faculties.

Table 3. Mean Student SP and STU-LS Scores by Faculty

Faculty	n	Sustainability Performance (SP)	Student Learning/Satisfaction (STU-LS)
Economics and Management	14	4.05	3.89
Philosophy and Humanities	23	3.98	4.18
Exact and Natural Sciences	20	3.35	3.53
Social and Political Sciences	20	3.72	3.73
Medicine and Health Sciences	22	3.68	3.69
Tourism, Arts, and Creative Industries & Culture	24	3.42	3.57
Agriculture	25	3.25	3.85
Engineering, Science, and Technology	22	3.52	3.53
Overall mean	**156**	**3.66**	**3.74**

Source: primary data processing, 2026.

The highest student SP scores were found in the Faculty of Economics and Management (4.05) and the Faculty of Philosophy and Humanities (3.98), while the lowest scores were found in Agriculture (3.25) and Exact and Natural Sciences (3.35). This pattern shows that student perceptions of sustainability performance also vary across faculties, consistent with the cross-faculty heterogeneity found in the lecturer/staff data, even though the two data groups were collected and analyzed independently. The STU-LS scores do not mirror SP scores uniformly: Philosophy and Humanities reported the highest STU-LS (4.18), and Agriculture combined the lowest SP score with a comparatively high STU-LS score (3.85). This indicates that students' satisfaction with their learning experience and their evaluation of institutional sustainability are related but not identical judgements. Faculty-level comparisons should nevertheless be interpreted cautiously, particularly for faculties with smaller cell sizes such as Economics and Management (n = 14).

Qualitative Convergence on Sustainability Performance

Qualitatively, themes concerning campus cleanliness, institutional reputation, social contribution, and linkage to the SDGs emerged consistently across all three respondent groups. This thematic convergence provides additional support that positive perceptions of sustainability performance do not originate solely from a single respondent group but are replicated across different structural positions relative to the institution. The coexistence of quantitative divergence and qualitative convergence suggests that stakeholders share broad understandings of what constitutes institutional sustainability while differing in how they evaluate its actual implementation. In terms of the analytical framework, the disagreement concerns the degree of perceived performance rather than the underlying meaning of sustainability; stakeholders may all recognize campus cleanliness and social contribution as components of institutional sustainability while assigning different overall ratings.

This pattern is consistent with prior evidence that students provide a distinct experiential perspective. Aleixo et al. (2021) observed that students perceived sustainability as increasingly integrated into education even though the behavioural impact remained moderate, and Ribeiro et al. (2021) emphasized that students actively interpret and participate in Green Campus Initiatives rather than acting as passive recipients of sustainability policies. The present

findings extend this evidence by showing that, at UNTL, the most visible outcomes of sustainability, those encountered in everyday campus life and in public perceptions of the university, constitute a common ground on which insiders, recipients, and outsiders converge.

Divergence of Meaning for Internal Organizational Constructs

A contrasting pattern was found for constructs closer to internal organizational experience, namely Leadership Integrity, Employee Commitment, and GSHRM. The channels through which each stakeholder group experiences these constructs are summarized in Table 4.

Table 4. Channels Through Which Internal Constructs Are Experienced by Stakeholder Position

Stakeholder Position	Primary Channels of Experience
Lecturers/administrative staff (insiders)	Leadership practice, HR policy, working conditions, and everyday organizational processes
Students (current recipients)	Quality of academic services, the learning environment, and the behaviour and responsiveness of the academic community
Alumni (retrospective outsiders)	Relevance of educational experience, workforce readiness, social contribution, and networks gained after completing their education

Source: qualitative analysis of primary data, 2026.

As shown in Table 4, the meaning of the same construct shifts across groups. This shift is a substantive finding rather than a data inconsistency: it shows that the consequences of leadership and GSHRM transformation are felt through different channels depending on stakeholders' proximity, role, and type of interaction with the institution. A staff member may observe leadership integrity through decision-making, HR procedures, communication, and resource allocation; a student may observe it indirectly through service delivery, fairness, responsiveness, or employee behaviour; and an alumnus may evaluate it retrospectively through remembered experiences and subsequent perceptions of institutional reputation.

This finding connects with the GHRM literature. Green recruitment, training, performance appraisal, employee participation, and green rewards are predominantly internal processes, and research shows that their sustainability implications operate through organizational and psychological mechanisms. Putri and Purwanto (2024) demonstrated the mediating importance of the green psychological climate between GHRM practices and sustainable university performance among academic and non-academic staff; Noor Faezah et al. (2024) found that GHRM influenced green culture and green satisfaction, which contributed to employee ecological behaviour among academics in Malaysian public research universities; and Zahrani (2024) linked GHRM to university sustainability through environmental performance and green commitment. Renwick et al. (2013) situate such findings within the broader development of GHRM, Al-Shammari et al. (2022) show that green innovation can mediate the relationship between GHRM and sustainable performance, and structural modelling has been used to map relationships among GHRM practices in educational institutions (Goel et al., 2022). Because these mechanisms are enacted through organizational actors, they are most directly observable to insiders, which explains why their meaning diverges for students and alumni.

Construct Observability and Stakeholder Proximity

Comparing the convergence pattern for Sustainability Performance with the divergence-of-meaning pattern for internal constructs yields an important methodological insight: the

degree of cross-stakeholder perceptual convergence appears to depend on how directly a construct can be observed by different stakeholder groups. Sustainability performance, observable through physical manifestations such as campus cleanliness or institutional reputation that are accessible to anyone interacting with the campus, shows stronger convergence. By contrast, more internal and procedural constructs such as leadership and employee commitment, directly observable only by those involved in internal organizational processes, show greater shifts in meaning across groups.

This insight refines the strategic perspective on sustainability in HEIs. Abbas et al. (2022) and Mohammed and Fisal (2023) showed that GHRM contributes to institutional sustainability through employee-related mechanisms and strategic excellence, and the systematic review by Dos Santos et al. (2026) positions Leadership Integrity and strategically integrated green HRM as mechanisms through which sustainability-oriented values are translated into institutional practices. The present study adds a stakeholder-observability dimension to these relationships: the organizational antecedents of sustainability are produced internally, whereas their outcomes become visible externally through campus conditions, service quality, and social contribution. Multi-stakeholder analytical approaches have also been applied to identify which stakeholder groups drive sustainability outcomes in distance education (Yilmaz et al., 2025); the UNTL evidence suggests that such analyses should consider not only who drives sustainability but also who is positioned to observe it. In this sense, multi-stakeholder triangulation is not merely a sampling strategy but a means of examining the boundary between internally generated organizational processes and externally observable institutional outcomes.

As an important caveat, perceptual convergence should not be equated with objective evidence of the institution's sustainability achievements. The data primarily represent stakeholder perceptions, so consistency across groups strengthens the credibility of the sustainability-perception interpretation but does not substitute for objective indicators such as energy-consumption data, waste management, resource efficiency, social outcomes, or governance indicators.

Theoretical and Practical Implications

Theoretically, this study shows that the degree of multi-stakeholder perceptual convergence on an organizational construct is related to that construct's observability to each stakeholder group, a proposition that can be tested on other organizational constructs beyond sustainability performance. The findings challenge the implicit assumption that stakeholder perceptions of higher education sustainability are directly substitutable and support a stakeholder-contingent interpretation in which convergence depends on the observability, experiential accessibility, and organizational embeddedness of the construct being assessed. Methodologically, the study demonstrates the value of combining cross-group quantitative comparison with qualitative triangulation to distinguish genuine perceptual differences from differences arising from stakeholder position.

Practically, UNTL leadership is encouraged not to rely solely on internal lecturer and staff assessments as an indicator of sustainability performance, given that students, as direct recipients of educational services, consistently give lower ratings. Periodic surveys of student and alumni perceptions are recommended as a routine part of the institution's sustainability monitoring and evaluation system, complementing internal data with an external perspective on the impact of educational services. Differences in instruments and sample sizes across the

three groups limit formal statistical testing of cross-group differences, for example through ANOVA, so the comparisons presented here remain descriptive.

CONCLUSION

This study demonstrated that perceptions of sustainability performance at Universidade Nacional Timor Lorosa'e (UNTL) varied systematically across stakeholder groups. Lecturers and administrative staff, as institutional insiders, reported the highest perceived sustainability performance, followed by alumni as retrospective outsiders, while students, as current recipients of educational services, reported the lowest ratings. These differences did not necessarily indicate that one group provided more accurate assessments; rather, they reflected variations in stakeholders' institutional involvement, experiences, and access to organizational processes. Although the groups differed in their performance ratings, the integrated findings indicated convergence around highly observable sustainability outcomes, including campus cleanliness, institutional reputation, social contributions, and alignment with the Sustainable Development Goals (SDGs). In contrast, organizationally embedded constructs, particularly leadership integrity and employee commitment, exhibited greater variation in interpretation. These findings suggested that stakeholder proximity and construct observability were important considerations in understanding perceptual convergence and divergence, rather than treating differences between stakeholder groups solely as measurement inconsistencies. However, the study was limited by its reliance on perceived rather than objectively verified sustainability performance, a complete-case student subsample representing eight of the ten faculties, qualitative evidence restricted to alumni, and a cross-sectional design that precluded causal inference. Future research should employ equivalent measurement instruments across stakeholder groups, use proportionate sampling strategies, adopt longitudinal designs, and incorporate objective sustainability indicators to strengthen cross-group comparisons. Further investigations should also examine whether stakeholder proximity and construct observability moderate perceptual convergence across different institutional and national contexts. From a practical perspective, higher education institutions should complement internal sustainability assessments with periodic student and alumni surveys, while researchers should explicitly consider stakeholders' observational positions when designing, comparing, and interpreting institutional sustainability performance assessments.

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