



A Systematic Literature Review on Sustainable Leadership in Higher Education Institutions

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Abstract

Sustainable leadership has emerged as a pivotal concept in higher education institutions (HEIs) as they increasingly align with global sustainability goals. This systematic literature review (SLR) investigates how sustainable leadership is conceptualized, practiced, and measured across HEIs worldwide. Drawing on 11 peer-reviewed studies published between 2018 and 2025, the review adopts the PRISMA 2020 framework to guide study selection, analysis, and synthesis. Key themes identified include the influence of transformational and strategic leadership styles, the role of organizational culture and stakeholder engagement, and the impact of institutional policy and governance on sustainability outcomes. The review further highlights theoretical underpinnings such as Sustainable Leadership Theory, Transformational Leadership, Stakeholder Theory, and Upper Echelon Theory. Findings reveal that effective sustainable leadership requires a dynamic balance of vision, cultural sensitivity, participatory governance, and policy alignment. Despite increasing academic attention, gaps remain in longitudinal assessments, regional diversity, and the integration of digital tools in sustainability leadership. The study concludes by proposing future research directions to advance the theoretical, methodological, and contextual understanding of sustainable leadership in HEIs.

Keywords: Sustainable Leadership, Higher Education, PRISMA, Transformational Leadership, Stakeholder Theory, Systematic Review

Introduction

The growing concern about sustainability internationally has prompted Higher Education Institutions (HEIs) to examine their leadership approaches and try to line them up with sustainable development. Because of their key role in society, HEIs can lead the way in promoting sustainability through education, novel ideas and collaborations. One of the main aspects of this role is practicing sustainable leadership which ensures a company considers economic, social and environmental topics when creating strategies and making decisions.

When leadership in HEIs is described as sustainable, it makes sure sustainability is centered at the core of the organization's vision and policies. According to Aung and Hallinger (2023), the framework outlines the crucial point of steering institution objectives toward caring for the environment and society. The authors point out that sustainability leaders should guide universities as they go through the steps necessary to become more sustainable.

Empirical studies further elucidate the multifaceted nature of sustainable leadership. In their study, Zhang, Chen and Xu (2024) examine if leadership focused on sustainability affects the sustainability of today's Chinese and Thai universities. They have found that leaders who practice sustainability play a major role in making their institutions sustainable, influenced by teacher behavior rationality. It points out that leaders help build attitudes and habits that benefit sustainability in the academic environment.

Another key area of sustainable leadership is to operate in a sustainable way on the campus level. Oliveira and Proença (2025) review different studies on campus operations and highlight the main role of leadership and how governance structures play in ensuring sustainability is put into action. By reviewing 130 articles, they find that effective leadership helps HEIs reduce energy use and properly manage waste.

The setting in which HEIs work also affects how sustainable leadership is put into practice. Vesudevan, Abdullah and Adrianoni (2024) discuss how leadership styles and school culture relate to each other in Asian universities. They underline that successful leadership models must match cultural norms, respect local values and work towards sustainability. Several frameworks are used as the basis for sustainable leadership such as the Upper Echelon Theory.

Iqbal and Piwowar-Sulej (2022) use this theory to investigate how sustaining leadership plays a role in the performance of higher education in Pakistan and China. The experts concluded from their empirical study that sustainable leadership helps spur social accept innovations which in turn help organizations achieve sustainable results by means that are not direct.

Policy perspectives also play a crucial role in shaping sustainable leadership. Leal Filho et al. (2022) survey sustainability practices in Asian HEIs, identifying leadership and policy as key drivers of sustainability outcomes. Their findings suggest that institutional policies, when aligned with sustainability goals and supported by committed leadership, can significantly advance sustainability agendas within HEIs.

Among Pakistani universities, Farooq (2018) studied the ways in which leadership affects sustainability by including organizational culture as a mediating factor. He shows that for sustainability to successfully be implemented, leadership methods need to be culturally and organizationally appropriate. The adoption of sustainable development by HEIs calls for focusing on green management. Al-Zawahreh, Khasawneh and Al-Jaradat (2019) study sustainable leadership in Jordanian higher education institutions and stress how important it is for organizations to have a good culture for promoting green practices. They found that having an effective leader helps shape an organizational culture that promotes sustainability.

In addition, the way leaders behave and its effects on performing sustainably has drawn interest from researchers. Piwowar-Sulej and Iqbal (2023) do a comprehensive examination of research articles about leadership styles and their influence on sustainability. According to them, studies have found that operating with sustainable leadership styles is linked to better sustainability results, even though the results in empirical research are not always the same. Even with more research focused on sustainability in HEIs, there are still unclear points between leadership styles, HEI culture and the results seen in sustainable growth. The goal of this systematic literature review is to combine existing research, pick out the main theories and list topics that still require further study. Exploring different perspectives and situations, this research aims to give a complete look at sustainable leadership in higher education, supporting both theory and practice.

Research Questions

This systematic literature review aims to explore the evolving concept of sustainable leadership within the context of higher education institutions (HEIs). By synthesizing theoretical and empirical literature published between 2018 and 2025, the study is guided by the following core research questions:

1. How do different leadership styles contribute to the implementation of sustainable practices in higher education institutions (HEIs)?
2. What individual, cultural, and institutional factors influence the effectiveness of sustainable leadership in HEIs?
3. In what ways can stakeholder engagement and institutional governance support sustainable leadership outcomes?
4. Which theoretical frameworks have been most frequently applied to understand sustainable leadership in higher education, and how have they shaped the discourse?
5. What are the major gaps in the current literature, and what directions are suggested for future research on sustainable leadership in HEIs?

Theoretical Framework

Many linked theories form the basis of sustainable leadership in higher education, allowing for a clear look at how leadership can sustainably benefit academic institutions. In this section, some significant theories are reviewed that mainly address how we examine sustainable leadership in HEIs, including Sustainable Leadership Theory, Transformational Leadership Theory, Upper Echelon Theory and Stakeholder Theory.

Sustainable Leadership Theory

The basis of the study is Sustainable Leadership Theory, stressing change that benefits the system and its stakeholders, now and in the future. According to Hargreaves and Fink (2006), who introduced this theory, sustainable leadership focuses on present success as well as on creating leaders who can last through time. These ideas are very significant in HEIs since

they should consider the future environmental, social and economic effects of their actions. Being a sustainable leader involves delegating work, looking after people and competencies and establishing places where education and learning happen (Hargreaves & Fink, 2006). Based on this theory, HEI leaders are urged to implement sustainability into main strategies, policies and work culture.

Transformational Leadership Theory

Burns (1978) and later Bass and Avolio (1994), created Transformational Leadership Theory which can be well used in HEIs. A transformational leader encourages employees by creating a motivating vision, supporting new ideas and making sure the culture is ethical and supportive. What makes a good leader closely matches the sustainability goals which are achieved through people who set clear visions and follow strong values. In colleges and universities, leaders can promote sustainability by questioning old routines, involving all members of staff and fostering a strong sense of purpose towards achieving the sustainable development goals (SDGs). According to Vesudevan et al. (2024) and Zhang et al. (2024), transformational leadership helps organizations adopt the culture needed to adopt sustainable practices.

Upper Echelon Theory

According to Upper Echelon Theory by Hambrick and Mason (1984), some of what an organization achieves depends on the values and other characteristics of its top executives. It can help us understand how what leaders are like and how they work shapes issues related to sustainability. Piwowar-Sulej and Iqbal (2022) showed in the HEI context that sustainable leadership is connected to more social innovation which results in better sustainability performance for the institution. Applying the theory, the commitment of leaders to sustainability is strongly influenced by their unique backgrounds and beliefs which then determine what the organization focuses on.

Stakeholder Theory

Stakeholder Theory, introduced by Freeman (1984), highlights that all stakeholders should be thought about when making decisions in organizations. While in higher education, students,

faculty, staff, alumni, the local community, government bodies and environmental entities act as its stakeholders. This theory states that being inclusive, participatory and responsive to the different needs of teams and partners is required in sustainable leadership. According to Leal Filho et al. (2022), for HEIs to be successful with sustainability initiatives, various stakeholder groups must engage and leadership practices should support collaboration, openness and responsibility.

Cultural and Institutional Theory

The way HEIs are led can be affected by culture and the local context as well. According to Institutional Theory (Scott, 2001), what happens in organizations is influenced by the standards and customs set by society. It also suggests that how leadership is done and how we integrate sustainable practices depends largely on values, beliefs and social norms. In the Asian environment, Vesudevan et al. (2024) find that culturally responsive leadership models play a significant role. In the studies by Farooq (2018) and Al-Zawahreh et al. (2019), it is shown that how effectively leaders can adapt to the organization's culture and values determines much of their success.

Synthesis and Application

Together, these theories describe sustainable leadership in higher education institutions in a number of ways. The actions of a leader and how strategies are made up are the important elements in these theories. Though Upper Echelon Theory highlights a leader's character, Stakeholder Theory and Institutional Theory focus on what organizations do and external pressures they face. It directs how the systematic review is done by specifying the essential questions to investigate.

- How do different leadership styles contribute to sustainable practices in HEIs?
- What individual and institutional factors influence the effectiveness of sustainable leadership?
- How can HEIs align stakeholder interests to achieve sustainable development outcomes?

Methodology

Systematic Literature Review (SLR) was employed in this study to examine sustainable leadership in higher education institutions worldwide. In doing systematic reviews, scientists gather data in a straightforward way to help with guidance in theory, practice and policy (Snyder, 2019). So that results could be checked later on, the review was planned following the PRISMA 2020 format (Page et al., 2021). The review had four organized phases: (1) Searching for the right data sources and keywords, (2) Reviewing study titles matching the inclusion and exclusion criteria, (3) Checking the full texts of studies to find relevant ones and (4) Choosing the studies to include in the synthesis.

Sources Selection and Search Scope

A range of search methods was used to guarantee that all important and relevant studies were found. Important databases used are:

- Scopus
- The Web of Science
- Google Scholar (to look for additional information and sources that are not formally published)

Studies that were published between January 2018 and April 2025 were searched, as this time period reflects the new and developing ideas on sustainable leadership in higher education.

Search Strategy and Boolean Keywords

Intelligent search queries were built using Boolean operators and they included variations of database syntax for better results. Here is the search request written down for you:

("sustainable leadership" OR "sustainability leadership") AND ("higher education institutions" OR "HEIs" OR "universities") AND ("strategic leadership" OR "transformational leadership" OR "green leadership")

This query enabled a comprehensive search of both theoretical and empirical studies that explicitly focused on leadership and sustainability in HEI contexts.

Scope and Parameters

- **Discipline Area:** Higher Education, Educational Leadership, Environmental Sustainability, Organizational Studies
- **Language:** English
- **Publication Type:** Peer-reviewed journal articles
- **Document Types:** Empirical studies (qualitative/quantitative), literature reviews, conceptual papers

Study Selection and Analysis Procedure

Inclusion Criteria

- Studies focused explicitly on sustainable or sustainability-oriented leadership in HEIs
- Published in peer-reviewed journals between 2018 and 2025
- Written in English
- Included empirical data or conceptual/theoretical discussion with analytical rigor
- Addressed leadership constructs and sustainability outcomes, practices, or strategies

Exclusion Criteria

- Studies unrelated to higher education or sustainability
- Non-peer-reviewed sources, theses, book chapters, or editorials
- Studies lacking leadership or institutional focus
- Publications prior to 2018 or in languages other than English

Screening and Selection Process

The study screening followed the four-phase PRISMA approach:

1. Identification: An initial total of 707 studies were retrieved from the databases.
2. Screening: After removing duplicates ($n = 43$), a total of 664 records were screened by title and abstract.
3. Eligibility: 90 full-text articles were thoroughly reviewed based on the inclusion criteria.
4. Inclusion: Finally, 11 articles met the eligibility requirements and were included in the final synthesis.

Each article was subjected to a two-stage blind review process by independent reviewers to minimize bias. Any disagreements were resolved through discussion and consensus.

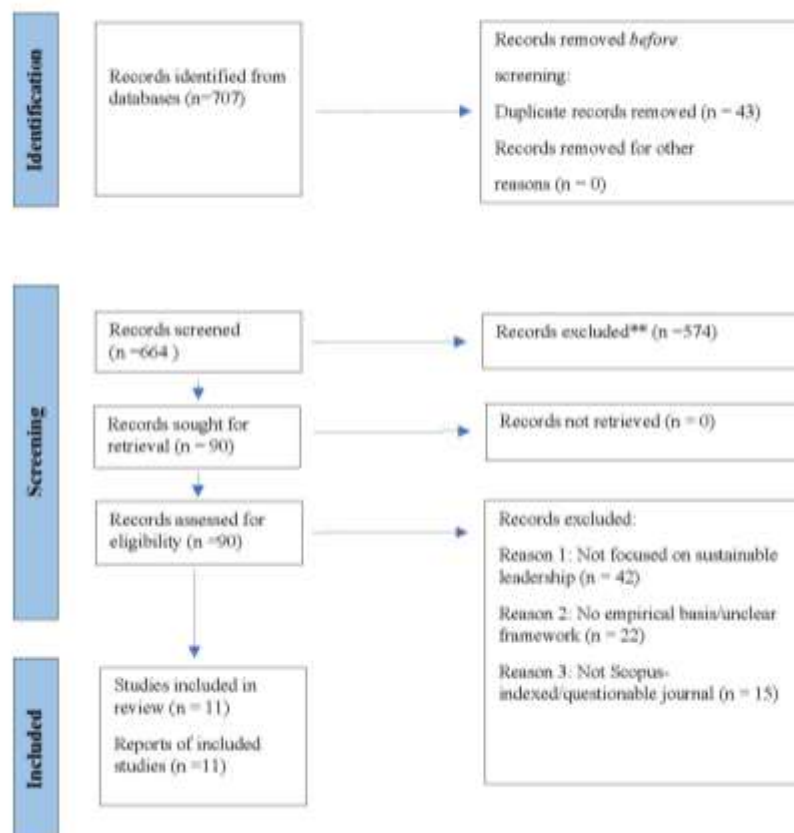
PRISMA

Identification of studies via data bases

Stage	Description	Number of Records
Identification	Records identified through Scopus-indexed journals	652
	Additional records from Google Scholar, Web of Science, ERIC	55
	Total records retrieved	707
	Duplicate records removed	43
	Records removed by automation/initial criteria (non-empirical, off-topic, etc.)	0
	Records removed for other reasons (e.g., non-English language)	0
	Records after deduplication	664
Screening	Records screened based on title and abstract	664
	Records excluded (not related to HEI leadership, K–12, etc.)	574
	Records selected for full-text review	90
Eligibility	Full-text articles assessed for eligibility	90
	Reports not retrieved (due to access issues)	0

	Full-text articles excluded	79
	Not focused on sustainable leadership	42
	No empirical basis / unclear framework	22
	Not Scopus-indexed / questionable journal credibility	15
	Articles included after eligibility assessment	11
Included	Studies included in final SLR synthesis	11
	Literature review-based papers	4
	Empirical quantitative studies	4
	Case study / mixed-methods papers	3
	Final high-quality studies used	11

Identification of studies via databases



Data Extraction and Coding Procedure

A comprehensive data extraction matrix was developed to collect relevant information from each selected study. The extracted data included:

- Author(s) and Year
- Study Title and Country
- Theoretical Framework
- Research Design and Methodology
- Sample Characteristics
- Independent, Mediating, and Dependent Variables
- Data Collection Methods and Tools
- Measurement of Constructs
- Key Findings
- Implications for Theory and Practice
- Identified Gaps and Future Research Directions

The data were systematically sorted through using thematic analysis to pick out recurring themes. To categorize the themes, both inductive and deductive methods were applied using grounded theory and the various theories found in the old studies (Thomas & Harden, 2008).

Quality Assessment of Studies

Critical analysis of the studies was done using the Mixed Methods Appraisal Tool (MMAT) to ensure they are of good quality and relevant. Clarity of research topics, matching research methods to research aims, suitability of tools and soundness of results were used to score each paper (Hong et al., 2018).

Synthesis Strategy

Given the heterogeneity of study designs (qualitative, quantitative, mixed-methods), a narrative synthesis was used rather than a meta-analysis. Themes were synthesized under broader categories:

- Leadership Models and Theoretical Foundations
- Institutional Sustainability Outcomes
- Role of Context and Stakeholders
- Methodological Trends and Gaps
- Cross-national and Cultural Comparisons

This structured synthesis allowed triangulation of findings across conceptual, empirical, and methodological domains.

Findings and Thematic Analysis

The corpus in evaluation covers several continents with a specific prominence occurring in Asia. Some of the papers reviewed use quantitative design (4), one uses mixed methods orientation, one uses a qualitative approach and four use literature reviews. Sustainable Leadership Theory and Transformation Leadership Theory are the major theoretical lens.

Thematic Insights

Leadership Styles: Transformative and strategic leadership styles have always been associated with high performance of sustainability. Such leaders promote innovativeness, moral righteousness, and compliance with sustainability goals (Zhang et al., 2024; Vesudevan et al., 2024).

Cultural and Organizational Context: Successful practice of sustainable leadership is predetermined by its reflection in the institutional culture and common values of society (Farooq, 2018; Al-Zawahreh et al., 2019).

Stakeholder Engagement: Furthermore, the stakeholder spectrum engagement can boost the legitimacy and level of success of sustainability efforts through inclusive leadership style (Leal Filho et al., 2022; Oliveira & Proença, 2025).

Policy and Governance: The third theme includes policy and governance, as the effective leadership is reinforced by the policies of the institution explicitly promoting sustainability, and the effective governance processes are transparent and democratic (Aung & Hallinger, 2023).

Gaps and Inconsistencies

- There is very little non-Western empirical work.
- There is a limited application of quantitative assessment procedures.
- Student leadership and the digital tools are not given much attention.

Discussion

The empirical evidence indicates that sustainable leadership is a multidimensional concept which is informed by individual, organizational as well as environmental factors.

Transformational leaders with internalized cultural norms and whose stakeholders are embedded in substantive roles become quite successful in promoting sustainability in the organization. The Upper Echelon Theory and the Institutional Theory made contributions in explaining why effectiveness of the leadership differs based on the situational context.

What is more, the interaction between the vision of a leader and the institutional policy still constitutes the key to the sustainable development. Reviewed studies are consistent with the finding that leaders, when they incorporate sustainability in the overall institutional strategy, not only enhance internal operations but also expand society-related impact. The companies that embrace long-term strategy, develop green innovation and show the ability to connect their human resource management strategies to the achievement of their sustainability goals are the most successful.

Culture particularly matters when dealing with some cultures, including Asia where lack of respect to the values, culture or historical form of governance can be met with either opposition or mismatch of ideas. The discovery reinforces the need to have leadership development programs with contextual problems.

The involvement of stakeholders- the students, teachers and members of the community forms the other front where sustainable leadership can deliver positive results. Institutional legitimacy and practical adversity to a society are boosted when executives create participatory systems, as well as the mutual ownership of sustainability goals.

Effect of digital technology on sustainable leadership deserves additional academic research. Digital dashboards, sustainability monitoring systems, and AI-driven decision-support systems allow making data-driven decisions with a focus on sustainability; however, current literature on the subject is still insufficient; consequently, it is a valuable area where research may be carried out.

In addition, the dynamic and fluid nature of global sustainability issues, viz; climate issues, scarcity of resources, and social equality necessitate creative, receptive, and flexible leadership. Future research in the institution of higher learning should thus be of a farsighted quest that embraces the combination of systems thinking and the realization of complexity

Future Research Avenues

Despite growing attention to sustainable leadership in higher education institutions, several theoretical, empirical, and contextual gaps remain. The following avenues for future research are proposed to extend current understanding and address the limitations identified in the reviewed studies:

- There is a noticeable scarcity of longitudinal studies examining the long-term impact of sustainable leadership.
- Most studies are conducted in Asian contexts, with limited representation from Africa, Latin America, and under-represented regions.
- Digital tools and technology-enabled leadership practices are understudied, despite their growing relevance in sustainability governance.
- The role of student leadership and grassroots sustainability efforts within HEIs remains unexplored.

- Few studies employ mixed-methods or experimental designs that could validate causal relationships.
- There is a need to develop indigenous theoretical models of sustainable leadership sensitive to local cultural values.

Table 6. Future Research Directions

Future Research Theme	Description	Supporting Citations
Longitudinal Studies	Examine sustainable leadership impacts over time in HEIs.	Leal Filho et al. (2022); Zhang et al. (2024)
Geographical Expansion	Explore under-researched regions (e.g., Africa, Latin America).	Aung & Hallinger (2023); Al-Zawahreh et al. (2019)
Digital Technology and Leadership	Investigate the role of AI, dashboards, and ICT in promoting sustainability.	Piowar-Sulej & Iqbal (2023)
Student Leadership & Youth Engagement	Analyze contributions of student-led sustainability initiatives.	Farooq (2018); Vesudevan et al. (2024)
Methodological Innovation	Employ mixed methods, action research, or experimental designs.	Iqbal & Piowar-Sulej (2022); Snyder (2019)
Culturally Grounded Theoretical Frameworks	Develop context-sensitive models based on local leadership and cultural norms.	Scott (2001); Vesudevan et al. (2024)
Stakeholder Collaboration and Social Impact	Explore collaborative governance models and community impacts.	Freeman (1984); Leal Filho et al. (2022)

Conclusion

This systematic research demonstrates that effective sustainable leadership in higher education institutions is based on a combination of visionary leadership, cultural sensitivity, stakeholder inclusion, and supportive policy frameworks. This study provides a comprehensive understanding of how leadership can be used to drive long-term change in higher education by

integrating diverse theoretical views. Future study should seek to fill highlighted gaps by longitudinal, cross-cultural, and technological investigations.

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