PERCEPTIONS AND PATHWAYS TO SUSTAINABLE LEADERSHIP IN HIGHER EDUCATION INSTITUTIONS: INSIGHTS, CHALLENGES, AND STRATEGIC DIRECTIONS

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Abstract

This study investigates the leaders' essential qualities and perceived effectiveness in promoting sustainability within higher education institutions (HEIs), focusing on the Philippine context. HEIs play a crucial role in embedding sustainable values and practices, yet leadership challenges often hinder institutional progress (Filho et al., 2020). The study explores leadership styles, traits, decision-making approaches, and gender perspectives through a survey of 69 Filipino professionals across various academic roles in the National Capital Region. Findings indicate a strong preference for inclusive, visionary, and creative leadership, with widespread support for women in sustainability leadership roles. However, barriers such as limited funding, administrative support, and expertise persist. The study highlights the need for integrating sustainability into curricula, establishing green offices, and enhancing institutional support. While the findings offer valuable insights, they are based on subjective perceptions without empirical validation, limiting causal inference. This research contributes to the discourse on sustainable leadership by identifying key enablers and obstacles within HEIs and encourages future studies to adopt mixed-methods approaches. The paper is relevant to education policymakers, university administrators, and sustainability advocates aiming to strengthen leadership capacity for sustainable transformation.

Keywords: Sustainable Leadership, Sustainability Education, Higher Education Institutions, Management Style, Leadership Style

1. INTRODUCTION

The Principles for Responsible Management Education (PRME) exemplify the growing recognition of higher education institutions (HEIs) as crucial actors in advancing sustainable development (PRME, n.d.). Universities are increasingly embedding sustainability into their mission statements, curricula, research, and governance structures to prepare future leaders for socially and environmentally responsible decision-making (Iqbal & Piwowar-Sulej, 2022; Filho et al., 2020). These individuals are expected to influence a wide array of sectors, public, private, and non-profit, by promoting sustainability through education and policy.

In addition, academic adaptations in professional programs are evolving to equip future professionals with digital competencies and sustainability-focused skills. For instance, recent research has emphasized the importance of reconfiguring accounting education to prepare graduates for an AI-driven future, thereby integrating ethical, technological, and sustainable dimensions into career pathways (Cudia & Legaspi, 2024).

Despite these aspirations, a key gap persists: many HEIs still struggle to translate sustainability principles into institutional practice, often due to leadership limitations, lack of systemic approaches, and insufficient administrative support (Filho et al., 2020; Puig et al., 2019). Research has shown that leadership style, gender inclusivity, and vision significantly impact institutional sustainability efforts, yet these areas remain underexplored in the context of developing countries such as the Philippines.

Recent studies further emphasize how leadership, particularly ethical and entrepreneurial leadership styles, can shape institutional culture and performance across various sectors (Al Qattan & Abdelwahed, 2025; Al-Janabi et al., 2024; Nemr & Liu, 2021). Additionally, organizational culture and shared leadership have been shown to significantly influence digital transformation and sustainability outcomes (Ho Dai & Huynh Tan, 2023), while gender diversity in top leadership positions remains an important area of inquiry (Hogan & Vesneski, 2021).

This study addresses this gap by investigating how professionals in HEIs perceive sustainable leadership, particularly the traits, styles, and perceived effectiveness of leaders in promoting sustainability. The study also examines the institutional and systemic barriers that hinder sustainability leadership within academic settings.

Grounded in the sustainable leadership model of Visser and Courtice (2011), the research adopts a perception-based approach using surveys to assess leadership attributes, gender inclusivity, and organizational commitment across universities and colleges in the National Capital Region, Philippines. This conceptual framework considers leadership context, personal characteristics, and actions as key dimensions in shaping sustainable leadership outcomes.

The aims of the study are:
• To identify the leadership traits, skills, and knowledge areas that are considered most vital for advancing sustainability within HEIs.
• To explore the perceived challenges and institutional barriers to implementing sustainability leadership.

The key research questions are:
RQ1: What are the most important qualities leaders should have to promote sustainability in HEIs?
RQ2: What are the most significant obstacles to achieving sustainable leadership in these institutions?

This research is significant for scholars, practitioners, and policymakers seeking to understand how leadership can drive sustainability transformation in academic institutions. It contributes to the growing discourse on gender, inclusion, and leadership effectiveness in the pursuit of the Sustainable Development Goals (SDGs), particularly SDG 4 (Quality Education) and SDG 5 (Gender Equality).

Methodologically, the study employed a descriptive survey of 69 professionals from HEIs across the National Capital Region using structured questionnaires. Frequency analysis and graphical representation were used to draw insights about perceptions on leadership styles, gender composition, institutional support, and common sustainability challenges.

The findings highlight a strong inclination toward inclusive, visionary, and creative leadership styles and a general perception of women's effectiveness in sustainability leadership. However, the data also reveal systemic constraints such as a lack of funding, limited expertise, and insufficient administrative support.

The rest of this paper is structured as follows. Section 2 presents a review of relevant literature on sustainable development, sustainability education, and sustainability leadership in HEIs. Section 3 outlines the research methodology used in this study, including the survey design, sampling approach, and analytical techniques. Section 4 discusses the results and key findings from the survey, supported by graphical illustrations and interpretation. Section 5 offers the conclusion and recommendations based on the study's insights, identifying future directions for research and institutional practice.

2. LITERATURE REVIEW

2.1. Sustainable development

Sustainable development is defined by the World Commission on Environment and Development (WCED) as the capacity to meet current demands without compromising future generations' ability to meet their own (WCED, 1987). The United Nations Educational, Scientific, and Cultural Organization (UNESCO, n.d.) defines sustainable development as a solution that serves the requirements of the present without compromising the needs of the future. It calls on humanity and the entire planet to work together to create a sustainable and equitable future.

2.2. Sustainability education

2.2.1. The Principles for Responsible Management Education

The United Nations (UN) introduced PRME in 2007. PRME empowers today's business students to improve the world by promoting sustainability in schools worldwide. PRME uses the six principles to engage business and management schools and promote the SDGs and the UN Global Compact. With over 800 members, PRME is the largest volunteer

UN-management-related higher education effort (PRME, n.d.). Such institutional efforts also highlight the role of shared leadership and ethical governance in advancing digital transformation and sustainability practices (Ho Dai & Huynh Tan, 2023).

2.2.2. United Nations Educational, Scientific, and Cultural Organization

UNESCO seeks excellent education for everybody. Learning, creating mechanisms to help youth develop new skills and contribute to society, and getting a certification are what education is about. To meet the UN SDGs, education must change. International Youth Day urges more inclusive and accessible education for all youth globally. Young people participate in UNESCO's activities. According to Director-General Azoulay, the Youth Space Initiative, Youth Climate Action Network, and Preventing Violent Extremism Project engage young people in reducing inequality and promoting a peaceful society (Jung, 2019).

2.2.3. Commission on Higher Education

The job of the Commission on Higher Education (CHED) is to devise plans and initiatives that would guarantee the ongoing development of Philippine higher education. It is also accountable for the accreditation of schools and academic courses. The necessity for a higher education system in line with worldwide standards prompted its establishment in 1994 (CHED, n.d.).

2.2.4. SDG 4: Quality education

Methods for providing everyone with access to a good, well-funded education were advocated in the UN SDGs for 2015. Encourage governments to prioritize education in whatever they do for the public good. Organizations striving to make preschool education accessible to all children without cost should get government funding (UN, 2015).

2.2.5. SDG 5: Gender equality

SDG 5, which focuses on gender equality, emphasizes the imperative of ensuring equal access to health services for all genders. This goal also highlights the need for women to overcome subtle biases and barriers that hinder their progress towards gender parity, while encouraging men to actively engage in promoting equality through collaborative efforts. Allocating budgets towards educational initiatives that foster inclusive approaches and advocating for legislative reforms to dismantle discriminatory laws are essential steps in realizing women's rights and enabling them to reach their full potential.

The problems of the twenty-first century cannot be overcome without a focus on sustainability. Educators now have a crucial role to play in fostering a culture of sustainability in their classrooms. We must educate the future generation to be environmentally responsible, self-reliant global citizens. Sustainability education extends well beyond the traditional confines of schooling. It equips students with practical knowledge they may use to improve the planet. It equips today's youth with the foundation for future independence. Young people develop a mature understanding of the need to protect the environment.

2.3. Sustainability leadership at higher educational institutions

According to the research, human beings are capable of accomplishing tasks that were previously regarded as unachievable in terms of social and environmental systems (Griggs et al., 2013; Bierman et al., 2012). This is a fact that has been extensively studied in the academic community. This has resulted in widespread recognition of the critical importance of working for sustainable development. To do so, as recommended by the Brundtland Commission (Sanders & Wood, 2015), requires developing an understanding of human needs to meet the expectations of both present and future generations. There is an urgent need to pursue sustainable development because this is a necessary condition for making progress in that direction. Balance and stewardship, as foundational principles, should form the basis of any sustainable development effort (Filho et al., 2020).

There are several obstacles to overcome to achieve sustainable management (Hahn et al., 2015), and one of these obstacles is the possibility that other goals, such as increasing profits and satisfying the concerns of investors, may have to be abandoned to accomplish the objective of establishing sustainability in a particular business. One of these conflicts is brought about by the fact that businesses frequently have unanticipated implications (Sanders & Wood, 2015) and that organizations are required to find solutions to these difficulties to develop and preserve value for their various stakeholders (Sanders & Wood, 2015; Hart & Milstein, 2003).

If it has been acknowledged that positive externalities should be pursued and that negative ones should be reduced, then the debate over sustainability leadership becomes critical at the organizational level (Filho et al., 2020; Sanders & Wood, 2015; Eccles et al., 2012). As a result, the UN has launched a number of initiatives aimed at getting businesses and other organizations to adopt sustainable development principles. The SDG Compass is a relatively new instrument that the UN Global Compact (The Global Compact, 2004) uses to help businesses incorporate their strategy and operations within the SDGs (UN, 2015). Furthermore, PRME seek to educate the next generation of business leaders to ensure that sustainable organizations have executives who can be positive change agents in their communities.

The sustainability of the organization and the impact of HEIs are two areas that are affected by these initiatives (Filho et al., 2020; Blanco-Portela et al., 2017; Radinger-Peer & Pflitsch, 2017). These efforts provide a great chance for HEIs to involve a wide range of stakeholders, address pressing societal issues, and provide vital outcomes on the path to sustainability (Leal et al., 2019; Shiel et al., 2016).

Along with the endeavors of the UN and the writers' ideas on the significance of organizational leadership, the topic of individual leadership in the area of sustainability is also covered. Visser and Courtice (2011) developed a sustainability leadership model that addresses this problem from three angles: the leadership context (the internal and external environments of organizations), the individual as a leader (with their traits, styles, skills, and knowledge), and the internal

and external actions of the leader. This model was built on the foundation of situational leadership theory (Filho et al., 2020).

It is well known that leaders of companies that place a priority on environmental responsibility are more likely to produce positive externalities for the industries in which they work. Students of today who embrace the culture of sustainability may one day lead the drive for the globe to become more sustainable. They may guide enterprises to a more sustainable state by way of an adaptive learning process (Gill & Singh, 2020), which is better equipped to handle complexity and goal conflicts across social, economic, and environmental aspects (Filho et al., 2020; Ferdig, 2007). They may also drive companies to a state that is more environmentally friendly. Leaders need to be able to think creatively (Benton-Short & Merrigan, 2016; Visser & Courtice, 2011) and have the abilities necessary for systems thinking (Ploum et al., 2018) to be able to tackle difficult problems related to sustainability.

It is preferable to use a systemic and contextual approach to the development of student leadership and empowerment rather than relying just on the actions of educational institutions. This is because of the complexity of the issues involved. The viewpoint of the leader, the actions of the leader, and the context of the situation are the three additional dimensions of sustainable leadership growth that are investigated in regard to this setting (Filho et al., 2020; Visser & Courtice, 2011; Lynch et al., 2011; Papworth, 2009).

Besides the relevance of the perspective of the management team and the role of academics as leaders in HEI (Dyer & Dyer, 2017; Missimer & Connell, 2012), the development of students as sustainability leaders should also be taken into account. There is a tendency in the literature to explore not just how sustainable leadership develops in university management teams but also the perspective of the students. In other words, through the bottom-up empowerment of students as change agents (Filho et al., 2020; Borges, Cezarino, et al., 2017).

It is possible that leadership styles that are inclusive, visionary, creative, and altruistic could all play a part in the process of developing habits that lead to a more sustainable future (Visser & Courtice, 2011). Leadership commitment and its ethical dimension significantly affect institutional behaviors and the realization of sustainability values (Nemr & Liu, 2021; Al Qattan & Abdelwahed, 2025). There is also a substantial amount of research looking at the attributes that leaders and followers need to have to practice leadership that emphasizes the protection of environmental systems (Filho et al., 2020; Ploum et al., 2018).

The effectiveness of a leader can be improved through training and education. To put it another way, a leader needs to cultivate the traits and skills that will be necessary for the successful completion of the mission that they have been given. The research that has been done on the subject of leadership development has identified a number of possible methods for fostering leadership, including multilateral feedback, executive coaching, mentoring, and networking. On the other hand, not enough clinical trials of these treatments have been carried out to definitively establish the benefits that they offer (Filho et al., 2020; Gipson et al., 2017).

There has been an increase in academic interest in analyzing gender roles and the presence of women in positions of authority (Segovia-Pérez et al., 2019). This is because women make up about half of the working population around the globe (Ko et al., 2015), but they are chronically underrepresented in positions of leadership. There has been a lot of discussion on the effectiveness of different types of leadership composition (Gipson et al., 2017), and the percentage of women who hold top positions in different organizations and different functions within those organizations varies.

According to Ko et al. (2015), the characteristics of the leader and the dynamics of the relationship between the leader and their followers are not the only factors that contribute to the effectiveness of leadership over the long run. They suggest that there are additional factors that play a role. Within this section, Visser and Courtice (2011) argue that sustainability leaders must also take into consideration internal contexts such as the sector, the industry, the organizational reach, the organizational culture, the governance structure, and the leadership role in addition to external contexts such as environmental, economic, political, cultural, and community factors. These considerations are necessary to achieve sustainable outcomes. Those who are in positions of authority in the field of sustainability are obligated to investigate the external context, which includes a wide range of topics, including the community, the environment, the economy, politics, and culture (Filho et al., 2020).

It is essential to keep in mind that schools have the potential to be viewed as institutional leaders in the endeavor to promote sustainability. Universities are widely acknowledged as essential institutions that have the capacity to address problems, provide long-term, sustainable solutions, and train future leaders (Filho et al., 2020; Lorenzo et al., 2013). All of these things have the potential to contribute to the sustainable development of the regions in which the universities are located. The incorporation of PRME and SDGs into the operations of the university highlights the necessity to focus not only on teaching and research but also on the construction of new paradigms in sustainability (Filho et al., 2020; Morley, 2013). In the context of financial institutions, Legaspi (2023) demonstrated how enhanced sustainability reporting promotes greater transparency and accountability, principles equally critical in HEIs as they align leadership actions with sustainability outcomes.

Although the purpose of the institution may be to permit a new organizational form and action emphasis (Shawe, 2019), which may be the impetus behind this difficulty, the top management of the university has a tough time engaging in sustainable practices (Di Carlo, 2019). One of the many goals that institutions have set for themselves is to develop environmentally friendly policies and processes. This is only one of the many goals that institutions have set. They develop policies, sign declarations like the Global Compact and the PRME, and incorporate sustainability into the ways in which they teach faculty and students together (Biasutti, 2018).

On the other hand, there are a lot of things standing in the way of a smooth deployment across the board in the academic world, from research to teaching to administration on campus. There are a number of barriers that prevent the implementation of sustainability education, including overcrowded curricula, lecturers who do not provide relevant content, employees who do not understand

sustainability, and a lack of institutional direction and commitment (Dawe et al., 2005; Filho et al., 2020; Filho et al., 2018). Also, the lack of recognition of teachers who work with and for sustainable development, a lack of desire for change, and a lack of pressure from society are all significant barriers to the implementation of a sustainable university (Filho et al., 2020; Ferrer-Balas et al., 2008).

3. RESEARCH METHODOLOGY

To achieve the study's objectives, a perception-based descriptive survey was employed to collect quantitative data from Filipino professionals working in HEIs across the National Capital Region. This approach was deemed appropriate for exploring individuals' views and interpretations of sustainability leadership traits, practices, and institutional barriers in their professional contexts. The purposive sampling method was used to identify 69 professionals with knowledge or experience in leadership, administration, research, or sustainability-related roles.

The survey instrument, developed based on Visser and Courtice's (2011) sustainable leadership framework, consisted of five sections: 1) background information, 2) leadership responsibilities, 3) leadership traits and skills, 4) gender equality in leadership, and 5) institutional challenges and strategies for sustainability. Questions were both closed-ended and scaled, using a five-point Likert format for attitudinal and perceptual measures (Pallant, 2000).

Data collection was conducted via Google Forms from June 21 to August 31, 2024. Descriptive statistics, such as frequencies and percentages, were used to analyze categorical data. Graphical representations were generated to provide visual insights into trends and participant distribution.

While the survey method is effective for capturing broad perceptions, it does not provide in-depth explanations or causal inferences. As an alternative, future research may consider mixed-methods approaches by integrating qualitative interviews or focus group discussions with key stakeholders to gain deeper contextual understanding. Additionally, case study designs involving document analysis (e.g., sustainability reports, budget allocations, program audits) could help validate perceptual data and assess institutional performance objectively.

Overall, the methodology provides a useful baseline for understanding sustainability leadership as perceived by professionals in HEIs, while also acknowledging its reliance on subjective interpretation and the need for triangulated validation in future studies.

This study utilized a perception-based survey approach, capturing respondents' subjective insights on sustainable leadership practices in HEIs. While these perceptions offer valuable reflections on institutional culture and leadership effectiveness, they do not constitute empirical validation of sustainability outcomes. No triangulation with official performance metrics, such as budget allocations, program outputs, or institutional audits, was conducted. As a result, the study does not establish causal relationships between leadership traits and sustainability results; findings must therefore be interpreted within the context of perceived associations.

Furthermore, no institutional documents (e.g., sustainability budgets, reports, or program data) were reviewed to corroborate participant claims. Due to time and access limitations, the researchers relied solely on professionals' perceptions. Future research is encouraged to supplement this type of data with empirical indicators, mixed-method approaches, or document analysis to provide a more comprehensive and validated assessment of sustainability leadership outcomes.

4. RESULTS AND DISCUSSION

Figure 1 illustrates the outcomes of a survey encompassing 69 responses regarding educational roles and responsibilities.

Figure 1. Educational roles and responsibilities
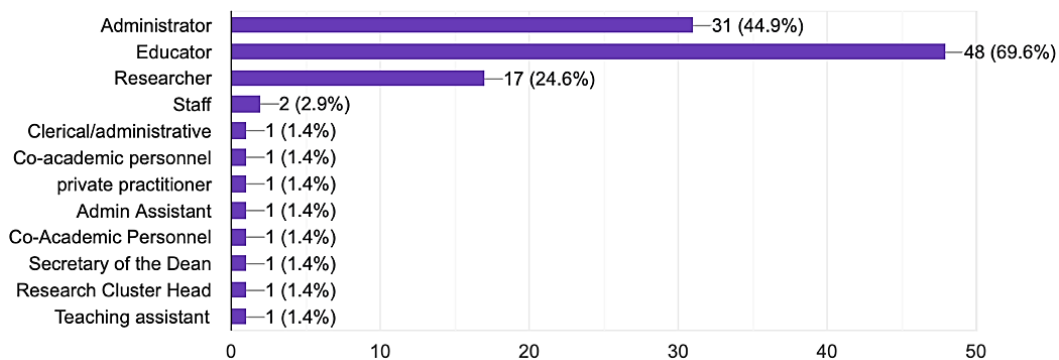
Participants were tasked with choosing up to three options from a provided list of roles, unveiling a varied distribution of roles within the respondent group. Administrator and Educator were each favored by 44.9% of participants, whereas Researcher and Staff roles garnered a selection from 69.6%. Clerical/administrative and Co-academic Personnel roles were acknowledged by 24.6% of participants. Private Practitioner and Admin Assistant roles secured 2.9% each. Co-Academic Personnel, Secretary of the Dean, Research Cluster Head, and Teaching Assistant were each opted for by 1.4% of participants.

The findings emphasize a diverse array of educational responsibilities among those surveyed, with a noticeable emphasis on administrative, teaching, and research roles.

Figure 2. Institutional affiliations
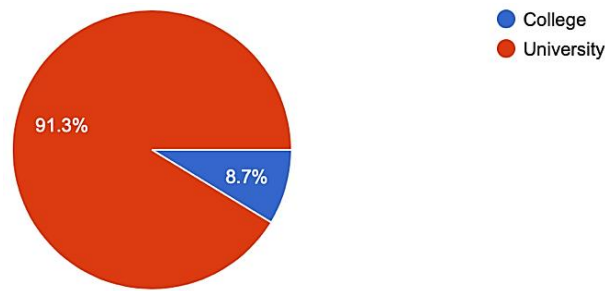
Within a survey comprising 69 responses about institutional affiliations, participants were tasked with choosing one option from the provided selections, as depicted in Figure 2. The overwhelming majority of respondents, accounting for 91.3%, aligned themselves with the "University" category, whereas 8.7% indicated affiliation with the "College" category.

The data indicates a prevalent connection with university-level institutions among the surveyed individuals, with a minority expressing affiliation with colleges.
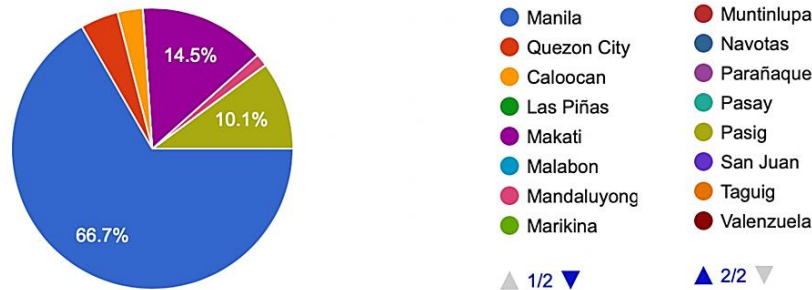
Figure 3. Geographical location of institutions

Figure 3 depicts the 69 responses concerning the geographical location of institutions, where participants were instructed to choose one option from various cities. The majority of respondents, constituting 66.7%, specified Manila as the location of their institution. Other selected locations included Quezon City at 4.3%, Makati at 14.5%, and Pasig at 10.1%.

The data highlights a concentration of educational institutions in Manila, suggesting that a significant portion of the surveyed individuals' affiliations is based in this city. The responses also reveal a dispersed presence in other cities, with limited representation in certain locations such as Caloocan, Mandaluyong, and Marikina, among others.
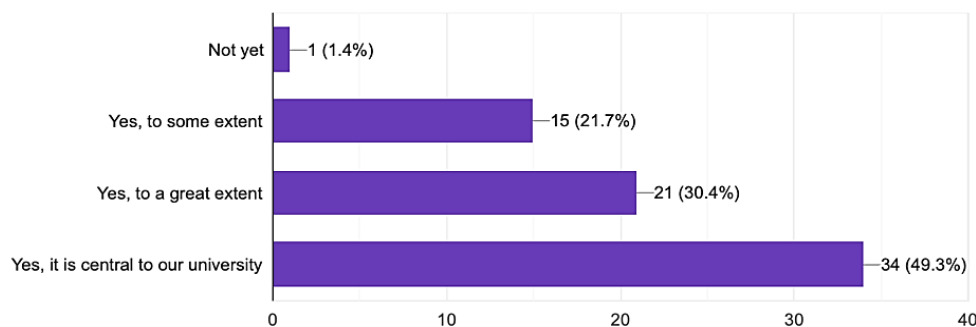
Figure 4. Institutional commitment to sustainability

Figure 4 portrays the outcomes of a survey involving 69 responses regarding institutional dedication to sustainability. Participants were presented with four options: "Not yet", "Yes, to some extent", "Yes, to a great extent", and "Yes, it is central to our university".

The data reveals that the majority of respondents, amounting to 49.3%, asserted a high commitment to sustainability, stating that it is central to their university. Furthermore, 30.4% expressed a significant commitment by choosing "Yes, to a great extent". A smaller segment, 21.7%, acknowledged some level of commitment, while only 1.4% responded with "Not yet". The results imply a noteworthy emphasis on sustainability within the surveyed institutions, with a substantial portion considering it a central aspect of their mission.

However, it is important to note that this finding is based on self-reported perceptions and not validated against actual institutional initiatives, resource allocations, or performance metrics. As such, it may reflect aspirational commitment rather than confirmed institutional practices.
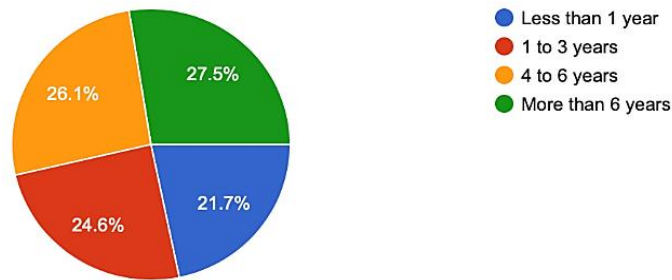
Figure 5. Duration of leadership roles

Figure 5 presents findings from a survey encompassing 69 responses that investigated the duration of leadership roles held by participants. Respondents, including chief officers, deans, heads of departments, staff, coordinators in cluster areas, and professors or researchers providing information for sustainability education, were prompted to choose from four duration options: "Less than 1 year", "1 to 3 years", "4 to 6 years", and "More than 6 years".

The results indicate a relatively even distribution of leadership experience, with 21.7% having served for less than 1 year, 27.5% for 1 to 3 years, 26.1% for 4 to 6 years, and 24.6% for more than 6 years. This diversity in experience levels among leaders within the surveyed institutions contributes to a comprehensive understanding of the leadership landscape.
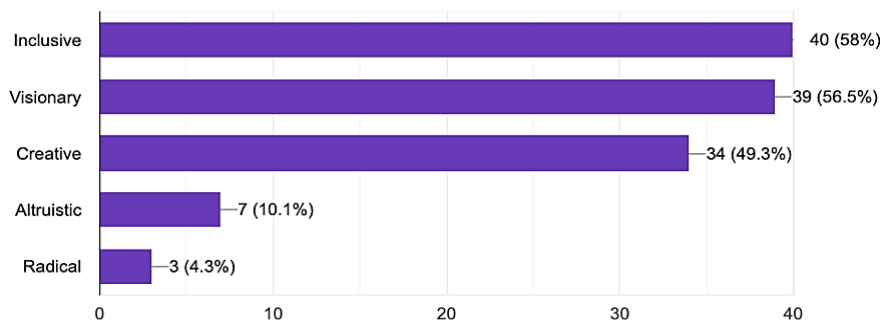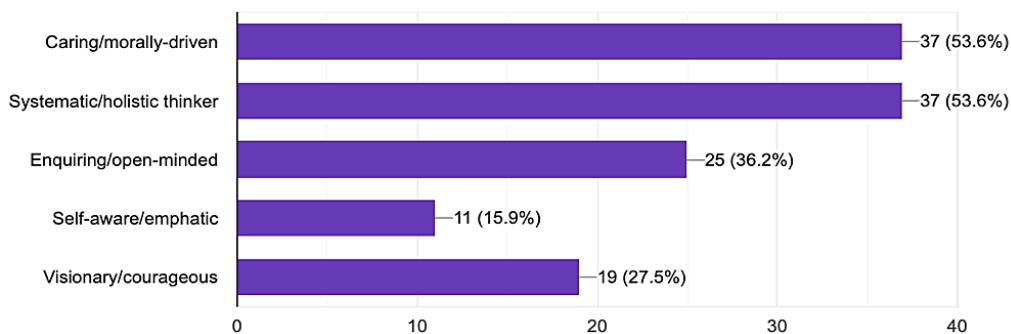
Figure 6. Leadership styles in sustainability

Figure 6 illustrates the outcomes of a survey comprising 69 responses that investigated leadership styles within the context of sustainability. Participants were asked to choose up to two styles from the options: "Inclusive", "Visionary", "Creative", "Altruistic", and "Radical". The data indicates that the majority of respondents, accounting for 58%, aligned with both "Inclusive" and "Visionary" leadership styles. "Creative" was selected by 49.3%

of participants, while "Altruistic" and "Radical" were chosen by 10.1% and 4.3%, respectively.

These findings imply that a substantial portion of leaders in the surveyed institutions identify their leadership approach as inclusive and visionary, highlighting a collective commitment to fostering collaboration and innovation in the domain of sustainability leadership.

Figure 7. Traits associated with sustainability leadership

In Figure 7, the results of a survey involving 69 responses, which assessed traits linked to sustainability leadership, are presented. Participants were tasked with choosing up to two options from a list of traits. The data reveals that a significant

proportion of respondents, totaling 53.6%, identified with both "Caring/morally-driven" and "Systematic/holistic thinker" traits. Moreover, an equal percentage, 53.6%, expressed alignment with the trait of being "Enquiring/open-minded",

while 36.2% associated themselves with "Self-aware/empathic". The traits categorized as "Visionary/courageous" were selected by 27.5% of participants.

These findings indicate that many leaders within the surveyed institutions perceive their approach to sustainability leadership as a blend of ethical considerations, strategic thinking, and an open and inquisitive mindset, emphasizing a comprehensive and values-driven approach to sustainability leadership.

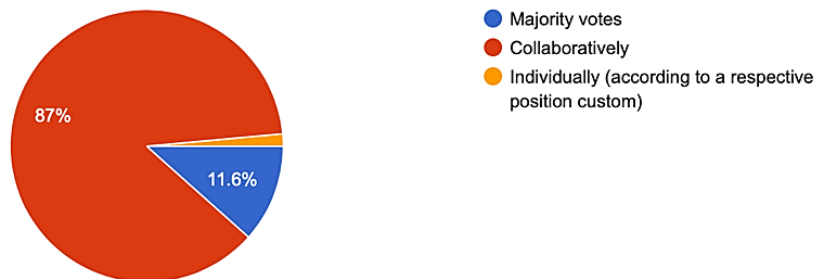**Figure 8.** Decision-making process for sustainability

Figure 8 depicts the results of a survey with 69 responses focused on decision-making processes aimed at advancing sustainability within organizations led by participants. The survey offered individuals the choices of "Majority votes", "Collaboratively", and "Individually (according to a respective position custom)" to select from. The data illustrate that a majority of respondents, amounting to 87%, specified that decisions related to sustainability are primarily achieved through collaborative efforts. A smaller segment, 11.6%, noted that decisions are reached via majority votes. Only one respondent, representing 1.4%, reported making sustainability decisions individually, based on their respective position custom.

These findings highlight a predominant preference for collaborative and inclusive decision-making processes in the pursuit of sustainability initiatives within the surveyed organizations.
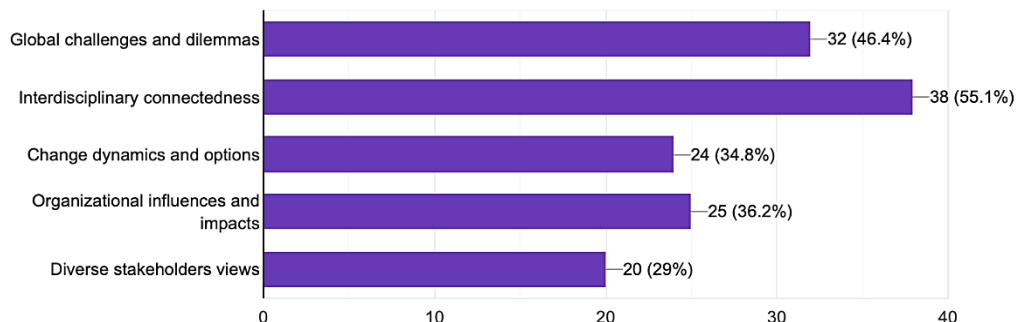
Figure 9. Key skills for sustainability leaders
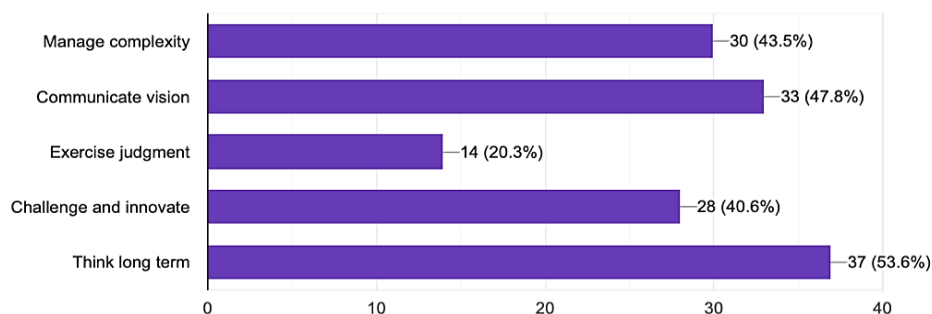
In Figure 9, findings from a survey involving 69 responses that sought opinions on key skills necessary for a sustainability leader are presented. Participants were instructed to choose up to two skills from a provided list. The results indicate a clear preference among respondents for "Thinking long term" and "Communicating vision" as crucial abilities for sustainability leaders, with 53.6% and 47.8% selecting these options, respectively.

Moreover, skills like "Managing complexity" garnered support from 43.5% of participants, while "Exercising judgment" and "Challenging and innovating" received endorsements from 40.6% and 20.3% of respondents, respectively. These findings emphasize the perceived significance of strategic thinking, effective communication, and adept navigation of complexity in the role of a sustainability leader.

Figure 10. Critical knowledge areas for sustainability leaders

In Figure 10, insights from a survey featuring 69 respondents sharing their perspectives on critical knowledge areas for sustainability leaders are presented. Participants were prompted to choose up to two options from a list of topics. The results reveal that survey participants consider it essential for a sustainability leader to possess knowledge in "Interdisciplinary connectedness" and "Global challenges and dilemmas", both chosen by 46.4% of respondents. Additionally, subjects such as "Change dynamics and options" and "Organizational influences and impacts" received support from 34.8% and 36.2% of participants, respectively. The importance of understanding "Diverse stakeholders views" was acknowledged by 29% of respondents.

These findings highlight the perceived significance of a holistic grasp of interdisciplinary connections, global challenges, organizational dynamics, and diverse stakeholder perspectives for effective sustainability leadership.

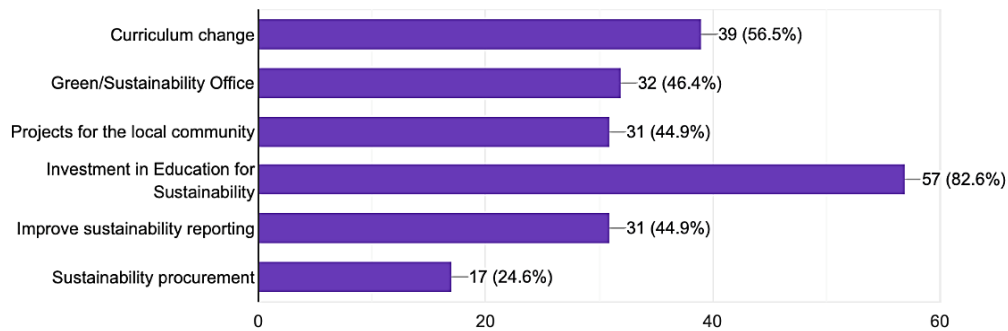**Figure 11.** Actions universities should undertake

Figure 11 shows the insights from a survey with 69 responses regarding actions universities should undertake as a result of effective sustainability leadership. Participants had the option to select multiple choices, and the data indicates a consensus on key initiatives that universities should prioritize. The majority, at 56.5%, advocated for implementing curriculum changes to integrate sustainability, acknowledging the pivotal role of education in fostering sustainability. Another 56.5% stressed the establishment of a dedicated Green/Sustainability Office, highlighting the significance of having a centralized hub for sustainability initiatives.

Additionally, 46.4% supported university-led projects benefiting the local community, underscoring the importance of community engagement. A substantial 82.6% emphasized the need for universities to invest in education for sustainability, recognizing the pivotal role of educational resources and programs. Furthermore, 44.9% highlighted the importance of improving sustainability reporting, and 24.6% supported the adoption of sustainability procurement practices. These findings emphasize the multifaceted and comprehensive approach that effective sustainability leadership should encompass within university settings, spanning education, institutional structure, community engagement, and procurement practices.

Figure 12. Representation of women in leadership
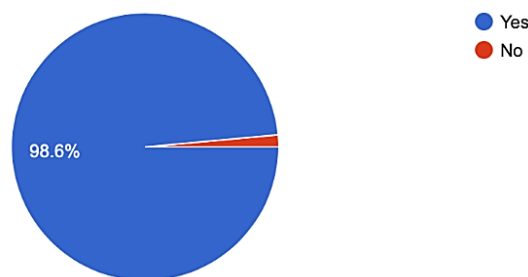
Figure 12 presents the findings from a survey involving 69 responses on the representation of women in leadership roles in universities, revealing a substantial majority of 98.6% expressing affirmation. This indicates the presence of women in various leadership capacities. Merely one respondent, constituting 1.4%, reported the absence of women in leadership positions.

These results point towards a favorable trajectory in achieving gender diversity in leadership roles within the surveyed universities. Women are prominently represented in positions such as president, rector, vice-president, chief officers, vice-chancellors, deans, and heads of departments.

Figure 13. Proportion of women in leadership roles
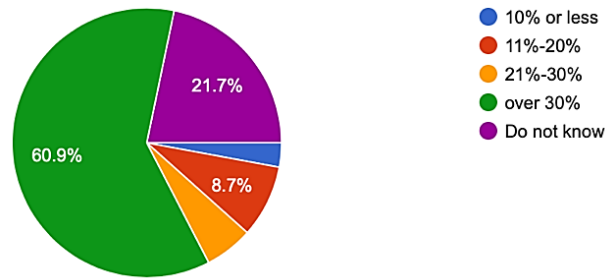
In Figure 13, the outcomes of a survey involving 69 responses, which focused on the proportion of women in leadership roles within universities, reveal diverse perspectives among participants. Participants were provided with options to specify the distribution. The findings show that 8.7% of respondents reported 10% or fewer women in leadership roles.

Conversely, 21.7% indicated a representation of 11% to 20% women, while a substantial 60.9% reported a more significant presence of women, ranging from 21% to over 30%. Additionally, 21.7% of respondents mentioned a lack of knowledge regarding the exact percentage. These results suggest that a considerable number of surveyed institutions have achieved noteworthy gender diversity in leadership positions, with a majority reporting a representation of over 30% women in such roles.
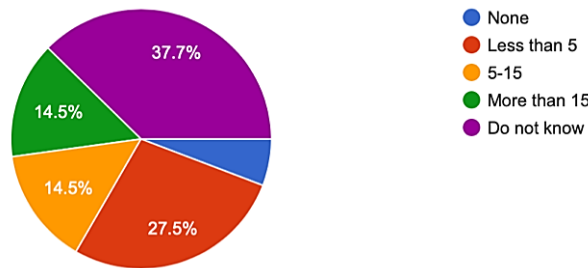
Figure 14. Programs supporting women as sustainability leaders

Figure 14 illustrates the survey responses from 69 participants regarding activities or programs supporting the promotion of women as sustainability leaders within organizations. Each academic year, respondents were provided with options to specify the frequency. The results reveal that 37.7% of participants reported the absence of such programs or activities. Among those with initiatives, 14.5% mentioned having fewer than five programs, while another 14.5% reported having between 5 and 15 programs. A comparable proportion, 27.5%, indicated having more than 15 activities or programs promoting women as sustainability leaders.

Additionally, 37.7% of participants admitted to being unsure about the exact number of initiatives in place. These findings suggest a diverse range of efforts in promoting women as sustainability leaders, with a significant portion expressing uncertainty regarding the specific number of programs.

Figure 15. Perceived effectiveness of women as sustainability leaders
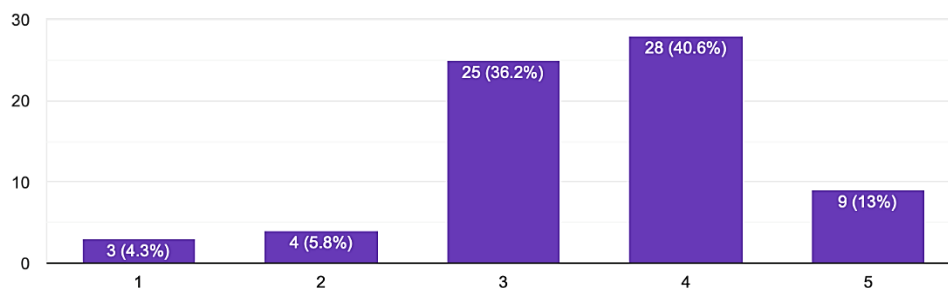
Figure 15 discusses the survey involving 69 responses regarding the perceived effectiveness of women as sustainability leaders compared to their male counterparts. Participants were asked to rate their opinion on a scale from 1 to 5. The results show a diverse range of opinions. About 4.3% of respondents gave a rating of 1, signifying a low belief in the greater effectiveness of women in sustainability leadership. A slightly higher percentage, 5.8%, gave a rating of 2.

However, the majority of respondents, 76.8% (combining ratings 3, 4, and 5), expressed varying degrees of belief in the greater effectiveness of women as sustainability leaders. Specifically, 36.2%

gave a rating of 3, 40.6% gave a rating of 4, and 13% gave the highest rating of 5, indicating a strong belief in the effectiveness of women in addressing sustainability-related issues. These results suggest that a substantial proportion of the surveyed individuals perceive women as effective leaders in the realm of sustainability, emphasizing their heightened concern for sustainability issues.

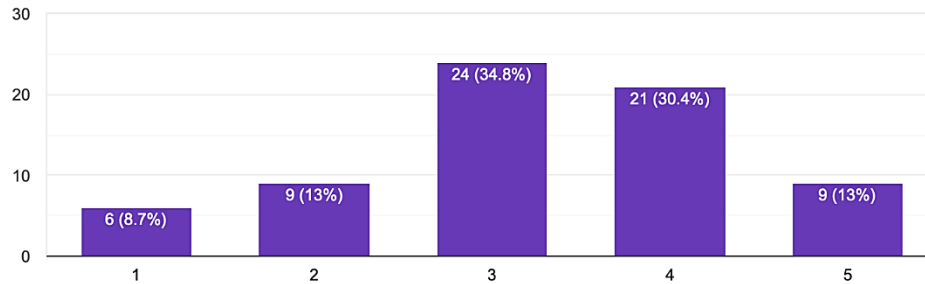**Figure 16.** Relationship between gender composition and organizational sustainability

Figure 16 depicts a survey with 69 responses assessing perceptions of the relationship between the gender composition of executive leadership roles and the level of sustainability within an organization. Participants were instructed to rate their opinion on a scale ranging from 1 to 5, revealing a diversity of perspectives. Roughly 8.7% of respondents assigned a rating of 1, indicating a belief that the gender composition of executive leadership minimally impacts organizational sustainability. A slightly higher percentage, 13%, assigned a rating of 2.

However, the majority of respondents, constituting 65.2% (combining ratings 3, 4, and 5), conveyed varying levels of belief in the connection between gender composition in executive leadership and organizational sustainability. Specifically, 34.8% assigned a rating of 3, 30.4% assigned a rating of 4, and 13% assigned the highest rating of 5, suggesting a significant belief in the importance of gender diversity in executive roles for enhancing sustainability within an organization.

While most respondents believe women are effective sustainability leaders, these results are perception-based. The observed link between gender diversity and sustainability may reflect institutional values or commitments rather than leadership performance itself. Moreover, institutions with strong sustainability commitments may also prioritize gender diversity, suggesting possible endogeneity in the data.

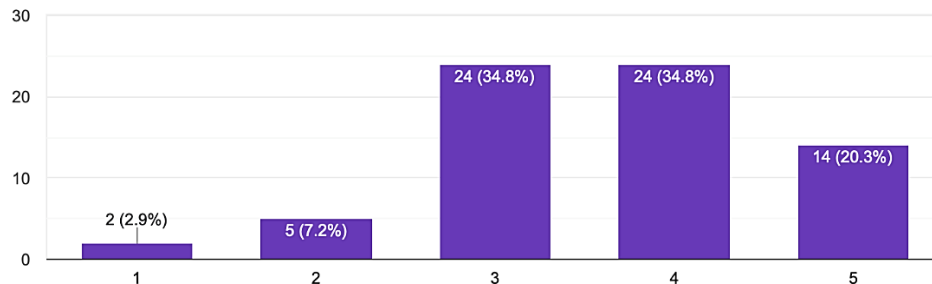**Figure 17.** Addressing the needs and preferences of women in sustainability

Figure 17 displays the results of a survey encompassing 69 responses that investigated the significance of deliberately addressing the needs and preferences of women in the planning and execution of sustainability-related activities, projects, or initiatives. Participants were requested to rate their opinions on a scale ranging from 1 to 5. The data reveals that a minor percentage, 2.9%, assigned a rating of 1 or 2, implying a reduced perceived urgency to concentrate explicitly on women's needs and preferences.

Conversely, the majority of respondents, constituting 69.6% (by combining ratings 3, 4, and 5), conveyed diverse levels of conviction regarding the importance of this consideration. Specifically, 34.8% provided a rating of 3, another 34.8% provided a rating of 4, and 20.3% assigned the highest rating of 5. These figures indicate a substantial belief in the necessity of explicitly addressing women's needs and preferences in the design and execution of sustainability-related activities.

In Figure 18, a survey involving 69 responses on the impediments to sustainability leadership efforts, participants were asked to select multiple challenges from a provided list. The outcomes reveal that respondents identified several key obstacles. The most frequently cited issues include a "Lack of funding" and a "Lack of interest from the academic community", both noted by 60.9% of participants. Additionally, 58% of respondents emphasized the challenge posed by a "Lack of expertise", while 55.1% identified a "Lack of support from administration" as a significant hindrance.

Figure 18. Obstacles to sustainability leadership efforts
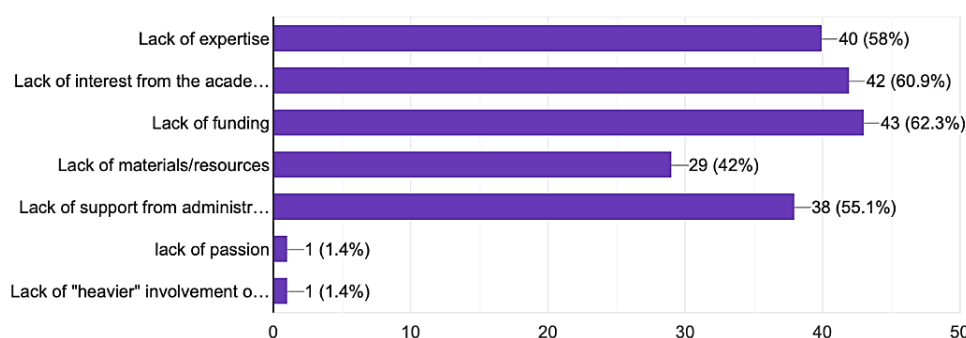
A proportion of 42% expressed concerns about the "Lack of materials/resources". Interestingly, fewer responses were recorded for challenges such as "Lack of passion" and a "Lack of "heavier" involvement of individuals", each chosen by 1.4% of participants. These findings emphasize the multifaceted nature of obstacles faced by sustainability leaders, ranging from financial constraints and academic engagement to expertise and administrative support. Addressing these challenges is crucial for advancing sustainability initiatives within organizations.

Lastly, the respondents provided diverse insights on actions needed to address challenges and promote effective sustainability leadership within organizations. A recurring theme highlights the significance of securing top management buy-in, emphasizing that commitment from leadership is vital for successfully navigating sustainability initiatives. Participants stressed the need to integrate sustainability into educational curricula, providing additional training in academia to ensure a holistic understanding of sustainability issues. Collaboration and coordination emerged as essential elements, emphasizing the importance of aligning efforts with various stakeholders and fostering inclusivity throughout the organization. Several respondents highlighted the necessity of adapting to technological advancements and continuous learning to stay abreast of sustainability practices. The role of administration support and the establishment of sustainability-related programs were emphasized, reflecting a holistic approach that combines educational, structural, and community-based strategies to drive sustainability leadership. Overall, the responses collectively emphasize the intricate web of actions required, including education, community engagement, leadership commitment, and adaptability, to effectively overcome challenges and advance sustainability leadership within organizations.

The similarities between previous studies and the current findings lie in their shared emphasis on inclusive leadership, which is seen as vital for fostering collaboration and innovation in sustainability initiatives within organizations. Additionally, both sets of research highlight the importance of specific skills for sustainability leaders, such as the ability to challenge and innovate, manage complexity, think long term, and communicate vision effectively.

They also highlight the significance of interdisciplinary connectedness as a crucial trait for sustainability leaders and advocate for collaborative decision-making processes in advancing sustainability initiatives within organizations. Furthermore, both the previous studies and current findings stress the importance of investing in education for sustainability, including curriculum changes and institutional support for sustainability education.

However, there are notable differences between previous studies and current findings. While previous studies focus on identifying specific leadership styles and traits preferred by sustainability leaders, the current findings provide more detailed insights into the prevalence of various styles and traits among surveyed participants. Additionally, while both sets of findings address the representation of women in leadership roles, the previous studies provide more detailed insights into the proportion of women in leadership positions and initiatives supporting the promotion of women as sustainability leaders.

Moreover, the previous studies delve into perceptions of the effectiveness of women as sustainability leaders and the importance of addressing women's needs and preferences in sustainability initiatives, which are not as extensively covered in the current findings. Furthermore, while both sets of findings identify common challenges faced by sustainability leaders, the previous studies provide a more comprehensive list of obstacles and specific actions recommended by respondents to address these challenges, such as securing top management buy-in and integrating sustainability into educational curricula.

5. CONCLUSION

This paper contributes to the evolving discourse on sustainable leadership in HEIs, emphasizing the importance of inclusive and visionary leadership styles, gender equity, and institutional support in advancing sustainability. Based on a survey of 69 professionals from HEIs in the Philippines, most of whom held administrative, teaching, or research roles and were affiliated with universities in Manila, the findings reinforce the value of participatory leadership while revealing persistent implementation barriers such as limited funding, expertise, and administrative support.

The study highlights the evolving landscape of sustainability leadership, emphasizing the multifaceted challenges and opportunities faced by organizations, particularly HEIs. The research emphasizes the critical importance of sustainable development in addressing contemporary societal and environmental issues, aligning with global initiatives like the SDGs and PRME. The study emphasizes the need for a systemic and contextual approach to leadership development, focusing not only on top management but also on students as change agents. The role of inclusive, visionary, creative, and

altruistic leadership styles is emphasized in fostering a sustainable future, with a recognition of the potential positive impact of environmentally responsible leaders. The findings also shed light on perceived gender diversity in leadership positions within universities, with a generally positive trend and an acknowledgment of the effectiveness of women as sustainability leaders.

However, it must be emphasized that these findings are not validated by outcome-based metrics or direct institutional evidence. As such, while the data suggest a strong belief in the role of inclusive leadership and gender diversity, these perceptions do not establish causal relationships between leadership traits and sustainability outcomes. The observed correlation between gender composition and sustainability may also reflect endogeneity, where institutions already inclined toward sustainability are more likely to promote gender-inclusive leadership.

The study identified persistent barriers to sustainability leadership, including a lack of funding, expertise, interest, and administrative support. These challenges require deliberate and coordinated strategies to overcome. Institutions must not only express commitment through declarations but also take concrete actions through programs, investments, and structural reforms.

Given the study's reliance on subjective perceptions, future research should pursue a more comprehensive and empirical approach. This includes the collection of data on actual sustainability policies, program implementation, budget allocations, and key performance indicators, to validate whether perceived drivers of sustainability leadership truly lead to positive institutional outcomes. To strengthen the reliability and utility of future research, it is recommended that scholars:

• Integrate institutional documentation such as budgets, sustainability reports, and program evaluations to validate perceived leadership impact.

• Conduct longitudinal or mixed-method studies to explore causal links between leadership traits and sustainability performance.

• Compare contributions of male and female leaders using actual sustainability-related outputs or KPIs to gain deeper insights.

• Encourage HEIs to invest in concrete sustainability programs beyond policy declarations.

• Include stakeholder interviews or focus group discussions to enrich understanding of how leadership practices shape organizational culture and sustainability outcomes.

Furthermore, to overcome the limitations of perception-based data, future studies should triangulate survey responses with concrete institutional metrics such as sustainability program budgets, annual reports, environmental audits, and implementation timelines. This would enable researchers to distinguish between aspirational commitments and actual institutional performance. In the same vein, evaluating whether institutions with strong gender diversity in leadership positions show measurable improvements in sustainability indicators would help disentangle correlation from causation, offering more robust and generalizable conclusions.

By addressing these areas, future research can develop a more evidence-based and actionable understanding of what drives effective and sustainable leadership in HEIs.

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APPENDIX. SURVEY QUESTIONNAIRE

The survey instrument used in this study was developed based on Visser and Courtice's (2011) sustainable leadership framework and comprised five main components:

Section 1: Background information
- Educational role and responsibility:
    - Administrator, educator, researcher, other
- Institution:
    - College, university
- Place of institution:
    - Manila, Quezon City, Caloocan, Las Pinas, Makati, Malabon, Mandaluyong, Marikina, Muntinlupa, Navotas, Paranaque, Pasay, Pasig, San Juan, Taguig, Valenzuela
- Is your institution committed to sustainability?
    - Not yet, Yes, to some extent, Yes, to a greater extent, Yes, it is central to our university

Section 2: Leadership responsibilities
- You have occupied a leadership position for (e.g., chief officers, deans, heads of departments at your university, staff, coordinator within your cluster areas, professor, researcher who provides relevant information, work with and for sustainability education):
    - Less than 1 year, 1 to 3 years, 4 to 6 years, more than 6 years
- Which style do you think best describes your approach as a leader, as far as sustainability is concerned?
    - Inclusive, visionary, creative, altruistic, radical
- Which type of usual trait describes your approach more properly, as far as sustainability leadership is concerned?
    - Caring/morally driven, systematic/holistic thinker, enquiring/open-minded, self-aware/empathic, visionary/courageous
- Decisions aimed at increasing sustainability at the organization you are leading are made primarily in the following way:
    - Majority votes, collaboratively, individually (according to a respective position custom)

Section 3: Leadership traits and skills
- In your opinion, what are the main skills a sustainability leader should possess?
    - Manage complexity, communicate vision, exercise judgment, challenge and innovate, think long-term
- In your opinion, which topics better represent the knowledge a sustainability leader should possess?
    - Global challenges and dilemmas, interdisciplinary connectedness, change dynamics and options, organizational influences and impacts, diverse stakeholders' views
- Which main actions should a university implement as a result of good sustainability leadership?
    - Curriculum change, Green/Sustainability Office, projects for the local community, investment in education for sustainability, improve sustainability reporting, sustainability procurement, other

Section 4: Gender equality in leadership
- Are there women in leadership positions (e.g., president, rector, vice-president, chief officers, vice-chancellors, deans, heads of departments at your university?
    - Yes, No
- If yes, what is the percentage of women in leadership positions?
    - 10% or less, 11–20%, 21–30%, over 30%, do not know
- How many activities/programs promoting women as sustainability leaders at the organization have been set up per academic year?
    - None, less than 5, 5–15, more than 15, do not know

Section 5: Institutional challenges and strategies for sustainability
- Women are more effective sustainability leaders due to their greater concern over sustainability-related issues when compared with their male counterparts, regardless of position held at the organization. (Likert 1–5; Strongly disagree–Strongly agree)
- Which elements mostly hinder the efforts of sustainability leadership?
    - Lack of expertise, lack of interest from the academic community, lack of funding, lack of materials/resources, lack of support from administration, other
- Which actions do you feel are needed to overcome these challenges and ensure proper sustainability leadership?