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Leadership for Sustainability: Integrating Sustainable, Sustainability, and Environmental Leadership Paradigms

Abstract

Leadership plays a key role in helping organizations tackle complex environmental, social, and economic challenges, improve their resilience and competitiveness, and achieve sustainability goals. While promoting sustainable development is the goal of sustainable leadership, sustainability leadership and environmental leadership have been mainly studied separately, with a significant overlap in the concepts and lack of theoretical integration. This is a narrative review that is intended to synthesize these three leadership paradigms, explore the similarities and differences between them, and to find an integrated view towards organizational sustainability. The review incorporates current literature to understand the theoretical basis, defining features, leadership skills, and organization applications of each paradigm. The results reveal that sustainable leadership is mainly about long-term resilience and strategic direction of the organisation, sustainability leadership is about engaging stakeholders, ethical governance and systems thinking, and environmental leadership is about stewarding the environment and green innovation. However, there are common principles in all three paradigms, such as ethical decision making, collaboration, innovation and responsible resource management. They are integrated to offer an all-encompassing framework that can assist sustainable organizational transformation in the various sectors. The review also covers implications for organizational leaders, human resource development, governance and decision-making oriented towards sustainability, and future research directions such as digital transformation, circular economy practices, and sustainable innovation. In sum, this review adds to the existing literature on sustainability leadership by offering an integrated conceptual view that can inform the future sustainability leadership research and practice.

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INTRODUCTION

Climate change, resource scarcity, biodiversity and higher expectations of stakeholders have made sustainability from a peripheral corporate issue to a strategic issue for organisations. In the contemporary world, businesses are not only evaluated based on economic indicators but also should have positive impact on environment and society, be responsible, create value in the long term perspective and provide proper governance. Such changes made the leadership an important component of sustainability performance as it influences organization culture, strategy, innovation and stakeholder relationships. Consequently, the role of a leader nowadays is not limited by managerial aspects and includes issues such as ethics, environment and creation of sustainable value. As effective leadership is an important factor of making the business sustainability a reality [1], recent research has turned its attention to understanding the role of different leadership approaches in organization sustainability. However, the connection between leadership and sustainability has undergone drastic changes in the past 10 years and the result is that there are several conceptual overlaps when it comes to understanding leadership. Out of these, the ideas of sustainable leadership, sustainability leadership and environmental leadership are dominant ideas which help organizations attain a balance between economic growth and environmental protection and social responsibility. While all these leadership types might have the similar goal of sustainable development, yet these approaches differ from each other with respect to the theoretical basis, approach to leadership, strategy focus and use within organizations. Sustainable leadership is mostly concerned with the issue of organizational resilience and ethics in decision making; while sustainability leadership is a broader concept that includes economic, environmental and social dimensions and environmental leadership is more concerned with ecological responsibilities. However, the definition of each of these approaches is not clearly defined and at many instances the usage and interpretation of these approaches overlap in academic literature [2]. Today's sustainability challenges have created a need for leaders who can lead under conditions of uncertainty, innovation, and resilience to meet the requirements of an ever-changing environment and society. The modern-day leaders are thus required not only to deliver results but also inspire collaboration, systems thinking, stakeholder engagement, and good governance. In the current world, sustainability is not just an issue of compliance; it is also a way for organizations to leverage their competitive advantage and sustainability. This has led to a rethinking of the capabilities which can enable leaders to achieve sustainable change within organizations. Conversations in recent times show that leadership for sustainability is not the task of any one leader, but is an organizational competency which can shape the strategic direction of organizations and have an impact on sustainable organizational culture [3]. An important development in Sustainability research is the greater connection between responsible leadership and corporate sustainability. Organizations should demonstrate accountability with the triple bottom line –

economic, environmental and social well-being. Leadership thus becomes a key factor in ensuring the vision of the organization, ethical governance, stakeholder interests, and sustainability strategies are all aligned. Prominent elements of good leadership are transparency, trust and long-term relations with stakeholders, which enable sustainability to be considered as part of business and not as a separate effort. Such a comprehensive approach can contribute to the organization's survival and to the environmental and social impact in different organization contexts [4]. Sustainability-focused leadership is also becoming more relevant in interdisciplinary professional and educational environments as well as public organizations. Building up the sustainability skills in the future generation will be crucial to address the world's environmental and social issues. HEIs have emerged as an important infrastructure for integrating concepts of sustainability in leadership education to prepare students for contributing to sustainable change in different sectors. All these demonstrate that sustainability leadership can be a multi-disciplinary and collaborative effort of management and environmental science, education, governance and organizational behaviour [5]. Although there has been a growing body of research, much of the research on sustainable leadership, sustainability leadership and environmental leadership considers these as separate concepts and has not integrated or developed theories. Such fragmentation makes it hard to fully appreciate how these paradigms support each other in the effort towards organizational sustainability. This gap needs to be bridged to develop a common vision of what they have in common and differ in, and how they are conceptually linked and what are practical steps that organisations can take to strengthen their sustainability contribution. Moreover, this blend of leadership perspectives can provide a comprehensive framework to facilitate entrepreneurial innovation, responsible decision making and sustainable development of business models in a variety of organizational contexts [6].

Objectives of the Review

To examine the theoretical foundations and key characteristics of sustainable leadership, sustainability leadership, and environmental leadership.

To compare the similarities, differences, and complementary dimensions among these three leadership paradigms in advancing organizational sustainability.

To develop an integrated conceptual perspective that highlights leadership practices and competencies for achieving long-term sustainability outcomes.

2. Theoretical Foundations of Leadership for Sustainability

2.1 Understanding Sustainability and Sustainable Development

Sustainability has progressed from environmental protection to a holistic approach considering all three aspects: economics, environment and social value. Today, sustainability has become a key business issue and not just

a regulatory compliance or corporate philanthropy – it is about doing more right for society and organizations in the long run. It is based on the principle of balancing the needs of the present generation in the organisation with the preservation of resources and opportunities for the future ones. Therefore, sustainable development demands the organisations to use integrated approaches to take care of the environment, social justice and economic competitiveness. This comprehensive view has prompted businesses to rethink their models, processes and governance to sustain and grow resiliently. At the same time, sustainability is not one dimensional, but is linked to responsible innovation, stakeholder engagement and constant improvement in the organization, as seen in various industrial sectors [7].

2.2 Evolution of Leadership Theories

Leadership theories have changed significantly over the past 100 years, moving from trait-based, behaviouristic and traditional models to more adaptive (situational), transformational and more sustainable models. While traditional conceptions of leadership focused on control, decision making, and effectiveness, modern views of

leadership highlight that it is a collective and collaborative phenomenon that fosters innovation, ethical behaviour, and organizational sustainability. In today's increasingly complex world of sustainability challenges, leadership is no longer confined to financial goals, but also incorporates environmental stewardship, social responsibility, and systems thinking. New leadership models focus on the ability to influence a wide range of stakeholders, manage uncertainty, promote innovation and build/value common ground in a increasingly complex organisational landscape. To answer environmental challenges in volatile, uncertain, complex and ambiguous environments, different theoretical concepts of leadership are included: transformational, responsible and systems-based leadership. All of these emerging theories demonstrate that sustainability leadership is flexible, interdisciplinary, and able to incorporate ecological, social and economic considerations into the decision making of the organization [8]. The evolution of leadership toward sustainability-oriented paradigms is illustrated in Figure 1.



Figure 1. Evolution of Leadership for Sustainability

2.3 Leadership for Sustainability: Concept and Scope

Leadership for sustainability is a concept of multidimensionality that encompasses the classic leadership tasks but also adds the dimension of sustainability in the organization's strategy, culture, relations with stakeholders and its long-term decision-making. Sustainability Leaders are not just interested in the performance of the organization, but they have a desire to improve the environment and society with economic viability in mind. This view sees sustainable transformation as being dependent on leaders who have the capacity to embody ethical values, systems thinking, collaborative skills, and the ability to catalyse transformation within the organization. Leadership for sustainability from this perspective implies a process of shared visioning, inclusion of stakeholders, adaptive governance and continuous learning in order to deal with the complex issue of sustainability. Since inclusive

leadership models also imply that cooperation between employees, communities, policymakers and other actors is essential in order to co-create sustainable solutions, it means that they pay special attention to the fact that sustainability leadership is not a characteristic of a particular person, but rather a process of collective leadership within the organization. Such leadership becomes more comprehensive by involving different stakeholders into sustainability development [9].

2.4 Sustainability in Organizational Contexts

In today's world of growing technology, changing stakeholders' needs, and increased environmental consciousness, sustainability is an important component of the competitive strategy of an organization. The organization in the modern world must integrate the sustainability issue into the strategies and processes of doing business, supply chains, innovation system, and

corporate governance. The integration of the sustainability issue will require managers to build the culture of responsible usage, innovations, resilience, and continuous improvements related to the environment in their organizations. Leadership is not only about the sustainable performance of the organization but also about the application of new technology, circular economy, digital transformation, and socially responsible business. So far, technologies of Industry 4.0, organizational purpose, and circular economy have shown good potential in terms of the sustainability of organizations. Similarly, the concepts of lean, agile, resilient, green, and sustainable are becoming popular in sustainable supply chain management that focuses on the improvement of performance of resources and the organization through the supply chain [10,11].

3. Sustainable Leadership

3.1 Concept and Defining Characteristics

Sustainable leadership is a form of leadership that takes into consideration the balance of economic achievement, environmental protection, social responsibility, and resilience of the organization. Sustainable leadership is not only concerned with the immediate results but more with vision, making the right decision, adding value, and leaving behind a successful organization that will be inherited by the future generation. Sustainable leadership enables leaders to integrate sustainability in their corporate culture, governance, and strategy, thereby making it possible for organizations to be proactive when dealing with environmental and social problems. Sustainability has become a part of the companies' agenda, and sustainable leadership has become an important instrument of linking the organizations' goals with SDGs [12].

3.2 Core Principles and Leadership Competencies

The skills needed for a leader to be sustainable are multidimensional in nature. The skills help the leaders in leading the organisations to adopt sustainable solutions despite the complexity of the sustainability landscape. Skills required include strategic thinking, innovation, stakeholder engagement, good governance, adaptability and development of an organisational culture of sustainability. Leaders who are sustainable are in a routine of developing green entrepreneurial orientation and innovation which sustain the performance of the organisation in the long run and satisfy the needs of institutions and the market. Support from institutions can boost the effect of these skills [13].

3.3 Organizational Benefits and Challenges

The implementation of sustainable leadership will result in improved environmental performance, health and well-being of employees, innovations and resilience. Firstly, sustainable leaders create a corporate culture where the good decision-making process, continuous improvements and problem-solving take place. This increases the competitiveness of the firm while reducing negative environmental consequences. Leadership is one of the strategic roles in corporate governance because the sustainable development of the company and its relationships with different stakeholders should be

promoted. Nevertheless, there are some obstacles on the way to sustainable leadership as a result of limited resources, changes in requirements of the stakeholders, and resistance to changes inside the firm. In addition, the three aspects of sustainable leadership – economic, environmental and social should be taken into consideration [14].

3.4 Current Research Trends

In recent research, the notion of sustainable leadership has gone beyond the environment and includes also digital transformation, knowledge management, supply chain sustainability, and organizational resilience. Recent research has increasingly focused on the interface of sustainable leadership and innovation potential, institutional support, and new technology to boost organizational performance. The Sustainable Leadership has also been linked to Knowledge Management, Traceability systems and Responsible Supply Chain in small & medium enterprises, displaying its impact on sustainability related business performance. Similarly, the digital leadership is an interdisciplinary and evolving research that has emerged as an important factor to create sustainable competitive advantages and as well as the eco-innovation and green absorptive capability [15,16].

4. Sustainability Leadership

4.1 Conceptual Perspective

Sustainability leadership is not only about the management of the environment; it means making sure that decisions made in organizations are made through economic viability, social responsibility and environmental sustainability. It stresses the need to become long-term organization builders through ethical governance, stakeholder engagement and responsible innovation. The difference between sustainability leadership and the kind of leadership thought to be traditional in nature where the main responsibility is to become more efficient through making the organization effective lies in the fact that sustainability leadership creates a collaborative partnership, knowledge sharing and aligning the organization's objectives with the larger sustainability objectives [17].

4.2 Values, Ethics, and Stakeholder Engagement

Inclusiveness of all the stakeholders and ethical values is another critical component of sustainability leadership. As a leader of sustainability, it is recognized that in order for the organization to thrive and be successful in its activities, it needs to provide care for its employees, consumers, community, nature and investors. A leader promotes a culture of transparency and responsibility and facilitates collaboration, which makes employees behave responsibly and keeps motivating them to improve. One of the mechanisms that may help to embed these sustainability values is green HRM because of its environmentally friendly activities, involvement of employees in these activities and environmentally friendly innovations. Employee engagement and leadership style are critical components from the human perspective [18,19].

4.3 Organizational Transformation and Innovation

The promotion of sustainability leadership can prove to be a great catalyst for organizational change that leads to innovation, adaptability, and transformation. The leaders who are able to incorporate the concepts of circular economy, organizational ambidexterity, and sustainable innovation into the strategies of the organization play an important role in organizations aiming towards sustainability. Such leaders foster organizational cultures that encourage innovation, learning, and cooperation for operational excellence and sustainability performance. The sustainability leadership allows organizations to navigate themselves between exploration and exploitation to become more resilient in response to changing market and environmental conditions [20].

4.4 Emerging Perspectives

More recent studies have looked at the concept of sustainability leadership in terms of the contribution of sustainability towards organizational systems, including sustainable supply chain management and operational management. There is now a lot of evidence to support the idea that the leadership approach involving a combination of transformative and transactional leadership approaches can be used in promoting GSCM and environmental performance. It can be seen from these new understandings that the concept of sustainability leadership goes beyond vision towards developing the capabilities of the organization in order to achieve sustainability [21].

5. Environmental Leadership

5.1 Concept and Scope

Environmental leadership is a type of leadership which is unique in the sense that it is directly associated with the environmental challenges as well as the care of the environment and sustainable business. This type of leadership stresses the need for an organization to lessen its impact on the environment as well as incorporate sustainability in its strategy. Environmental leadership is different from sustainability leadership in the sense that it deals exclusively with issues to do with the environment. Such thinking among leaders is essential to the formation of values, awareness of the environment and the development of strategies that can help to establish ecological sustainability over the long term. Environmental leaders enable a vision that puts the environment at the forefront and helps organisations grow sustainably, with future regulatory and social expectations [22].

5.2 Environmental Stewardship and Green Leadership

Environmental stewardship is the responsibility of environmental leaders to protect and preserve the environment and to encourage environmental responsibility throughout the organization which is a key component of environmental leadership. The good environmental leaders establish a culture in their organisations where sustainability is an important part of decision-making, employee engagement, and development of green initiatives. Supportive organisations climates and practices that support sustainability has an impact on employees' willingness to

engage in pro-environmental behaviours as well, because of leadership. Environmental leadership has shown to have a positive impact on green behaviour among employees, especially in the tourism and hospitality industry, where sustainability needs to be integrated into daily business operations [23].

5.3 Transformational Approaches to Environmental Leadership

Transformational leadership has emerged as a major theoretical base of environmental leadership. Good leaders that share a vision of the environment that is inspirational, that foster creativity, and that inspire people to go beyond traditional thinking set the stage for environmental improvement. Environmentally specific transformational leadership empowers employees to act in ways that promote their buy-in into sustainability, collaboration, creativity, and shared accountability for environmental goals. These results are further improved by the introduction of green HRM, which gives organizational support to reinforce environmentally responsible actions and aid in implementing sustainability initiatives. Likewise, the transformational leadership can help build a green identity in the organisation and help to solve problems creatively, thus allows the organisation to effectively respond to new environmental challenges [24,25].

5.4 Challenges and Future Opportunities

Environmental leadership has proven to be highly promising in creating environmental performance, but there are still difficulties to implement the leadership commitment to a consistent organisational behaviour. Environmental programs can face obstacles in successful implementation, such as resource constraints, resistance to change, and employee engagement. However, the focus on green innovation and organizational citizenship behaviour and sustainability-oriented organizational cultures offers ample opportunities to promote the environmental leadership. Environmental leaders can boost organizational sustainability and bolster long-term environmental performance by promoting employees to take extra-ordinary measures that are environmentally responsible, but beyond the scope of their formal jobs. Future studies should further investigate the interdependencies of leadership with organizational culture, technological innovation and employee behaviour for improving environmental sustainability in various organizational contexts [26].

6. Comparative Analysis of Sustainable, Sustainability, and Environmental Leadership

6.1 Conceptual Similarities

Sustainable leadership, sustainability leadership, and environmental leadership are developing as separate constructs, yet they share certain core principles that help organizations thrive in the long term. Each of these three methods focuses on ethical decision making, stakeholders, innovation and incorporating environmental issues into management strategies. They believe that leadership is a key factor in the development of responsible organisational cultures that support sustainable performance, about economic, environmental

and social aspects. Moreover, these paradigms enable leaders to motivate employees, promote learning in the organization, and build resilience to handle fast-changing business contexts. Together, they provide a sense of sustainability as a process of leadership that, through its impact on organizational values and behaviours over time, manifests itself in sustainability outcomes [27].

6.2 Distinctive Characteristics

Both leadership paradigms have distinct conceptual features, although they share common goals. Sustainable leadership is first about long-term continuity of the organisation in terms of strategic management, governance and organisational resilience in relation to

sustainability. Sustainability leadership takes a more comprehensive systems approach by examining, and often integrating, the environmental, social and economic aspects of sustainability and working collaboratively with stakeholders and in a leadership role. Environmental leadership, on the other hand, focuses more on the stewardship of the environment and environmental responsibility and the use of green practices that directly impact environmental performance. These differences show that the three paradigms have the same sustainability goals, but with different scope and different priorities and ways of creating organizational transformation [28]. A comparative summary of the three leadership paradigms is presented in Table 1

Table 1. Comparison of Sustainable, Sustainability, and Environmental Leadership Paradigms

Aspect	Sustainable Leadership	Sustainability Leadership	Environmental Leadership	References
Primary focus	Long-term organizational resilience	Balanced economic, social, and environmental sustainability	Environmental protection and ecological stewardship	[2]
Strategic orientation	Long-term organizational success	Stakeholder-centered sustainability	Green organizational transformation	[9]
Core leadership emphasis	Ethical governance and resilience	Collaboration and systems thinking	Green innovation and environmental responsibility	[22]
Key organizational outcome	Sustainable organizational growth	Integrated sustainability performance	Improved environmental performance	[12]

6.3 Areas of Overlap and Complementarity

In the pursuit of integrated sustainability approach, the three leadership paradigms are becoming increasingly interwoven with one another. Sustainable leadership, as a basis of strategic approach to the long-term development of organizations, enables collaboration and effective governance between stakeholders, while the environmental leadership creates tangible solutions for improving their environmental efficiency through innovation and ecological organization. According to recent research, the mentioned leadership approaches,

which are characterized by transformative ideas and environmental awareness, demonstrate synergies that facilitate organizational innovations, employee engagement and sustainability efforts. It should be noted that the three leadership paradigms are interconnected and serve as enablers to deal with sustainability challenges through vision, ethics and environment [29]. The conceptual relationship among sustainable leadership, sustainability leadership, and environmental leadership is illustrated in Figure 2.



Figure 2. Conceptual Relationship among the Three Leadership Paradigms

6.4 Comparative Summary of Leadership Paradigms

An analysis indicates that successful sustainable leadership needs a fusion of all the three paradigms because of their complementary qualities, instead of using one single approach to leadership. There is an increasing need for leaders who can create good governance, environmental innovation, stakeholder agreement, and structures and systems that are resilient and flexible enough to cope with future sustainability issues. Another observation made recently has been about the necessity of transformational leadership along with moral norms and green human resource management for encouraging environmentally responsible actions within an organization. Such an understanding will help to formulate a holistic leadership approach, which might be useful for improving sustainable performance in different settings [30].

7. Integrating Leadership Paradigms for Organizational Sustainability

7.1 Need for an Integrated Leadership Perspective

Organizations need to overcome the silo mentality in leadership by taking up the whole organization approach to deal with the increasingly complex nature of sustainability challenges. Whereas sustainable leadership, sustainability leadership and environmental leadership all have distinct qualities about them, the challenges that exist in the contemporary environment and organizations need to be addressed through all three. Leadership has the

ability to act in a cohesive manner in relation to leadership and in ensuring strategic alignment of goals as well as the environment and stakeholders' satisfaction and innovation. For sustainability to be achieved, a combination of ethics, environment and thinking long term provides an opportunity for organizations to adopt sustainability plans that make them competitive and resilient [31].

7.2 Proposed Integrated Leadership Framework

The integrated leadership framework should integrate the complementary aspects of the three leadership paradigms within the framework of flexibility across organizational contexts. Sustainable leadership brings long-term strategic thinking and resilience to the organization, sustainability leadership enhances stakeholder engagement and responsible governance, and environmental leadership reinforces ecological responsibility and green innovation. These dimensions combine to form a holistic structure that empowers leaders to drive organizations towards a more balanced economic, environmental and social performance. These can include a framework for continuous learning, adaptive decision-making, and collaborative problem-solving, which can help organizations integrate sustainability into their strategic plans and operations. The proposed integrated leadership framework for organizational sustainability is presented in Figure 3.



Figure 3. Integrated Leadership for Sustainability Framework

7.3 Leadership Competencies for Sustainable Organizations

The implementation of an integrated leadership framework requires leaders with a wide variety of skills that go beyond standard management skills. A combination of strategic thinking, ethical decision-making, systems thinking, innovation, collaboration, adaptability, and environmental awareness empower leaders to tackle complex sustainability issues. These skills help organizations learn and engage employees in sustainability activities. In addition, the leaders who foster behaviours with positive sustainability effects can help shape organisational culture to promote responsible resource management, innovation and continuous improvement and thus enhance the long-term performance of their organisations.

The core competencies required for sustainability-oriented leadership are summarized in Table 2. The pathways through which leadership competencies contribute to sustainable organizational outcomes are illustrated in Figure 4.

Table 2. Core Leadership Competencies Supporting Organizational Sustainability

Leadership Competency	Contribution to Sustainability	Organizational Benefit	References
Strategic vision	Aligns sustainability with long-term objectives	Organizational resilience	[13]
Ethical decision-making	Promotes responsible governance	Stakeholder trust	[4]
Systems thinking	Integrates environmental, social, and economic priorities	Better strategic decisions	[8]
Innovation capability	Encourages sustainable products and services	Competitive advantage	[15]
Stakeholder collaboration	Facilitates collective sustainability initiatives	Improved organizational performance	[9]
Environmental stewardship	Promotes green organizational culture	Reduced environmental impact	[28]



Figure 4. Leadership Competencies Driving Organizational Sustainability

7.4 Applications Across Organizational Contexts

Sustainability-focused leadership is relevant in a range of different organisation and institutional contexts. Increasingly, education institutions are implementing integrated approaches to sustainability, integrating environmental awareness, behavioural change and renewable energy efforts, and thereby contributing to sustainable development and equipping future generations of leaders with sustainability skills. Likewise, industries are introducing sustainable innovations in product development and operations, such as environmentally responsible packaging solutions that will enhance health, safety, environmental and resource performance. These are examples that show that the combination of different leadership paradigms offers organisations a flexible and comprehensive strategy to respond to sustainability issues and generate long-term value for society and the environment [32,33].

8. Practical Implications and Future Directions

8.1 Implications for Organizational Leaders

The inclusion of sustainable leadership, sustainability leadership and environmental leadership offer a holistic

framework for tackling modern sustainability issues, for organizational leaders. Leaders should transcend the point of just individual environmental efforts and integrate sustainability into strategic planning, organizational culture, innovation and performance management. A holistic approach to leadership helps organizations increase their resilience, environmental performance and long-term competitiveness. Leaders need to promote inter-functional cooperation and establish a learning culture within organizations that promotes responsible decision-making and sustainable innovation [34,35].

8.2 Human Resource Development and Leadership Education

Human resource development is critical in developing future sustainability leaders, as it is an integral part of leadership development, employee training and organizational learning programs. Incorporating competencies for sustainability, e.g. systems thinking, environmental awareness, ethical leadership and collaborative problem solving, should be considered a high-priority topic in the leadership curricula of educational institutions and organisations. Leadership

training should also foster behaviour change and hands-on involvement in sustainability programmes, equipping them to effectively respond to new environmental and organisational challenges.

8.3 Policy and Governance Implications

Government, regulation and organizational policy makers have a key role to play in developing institutionalized settings that support sustainability-driven leadership. Proper utilization of policies that encourage environmental innovation, responsible use of resources and sustainable business models can enhance

organizational commitment to sustainability. Organisations should ensure that governance frameworks are related to environmental, social and economic goals and facilitate transparency, accountability and stakeholders. Incorporating sustainability concepts into organizational policies can also help enable the use of innovative operational practices, such as environment-friendly product development and sustainable packaging solutions that lead to better environmental and health results. The major organizational applications of sustainability-oriented leadership are presented in Table 3.

Table 3. Organizational Applications of Sustainability-Oriented Leadership

Organizational Area	Leadership Application	Expected Outcome	References
Strategic management	Sustainability-oriented planning	Long-term competitiveness	[31]
Human resource management	Green HR practices and leadership development	Employee engagement	[18]
Corporate governance	Ethical governance and stakeholder participation	Organizational accountability	[14]
Supply chain management	Sustainable operations	Resource efficiency	[21]
Environmental management	Green innovation initiatives	Environmental performance	[22]

8.4 Emerging Trends and Future Research Directions

Future studies should further investigate how integrated leadership can facilitate the sustainability process in various contexts and industries. More focus is required to explore how sustainability-related leadership, digital transformation, green innovation, circular economy practices and organisational resilience are related. Further research would be necessary to gain deeper insights into integrated leadership's impact on sustainable organizational performance over time (longitudinal) and

across different sectors (cross-sectoral). Furthermore, the role of contextual variables like organizational size, institutional support and industry characteristics should be explored to see how leadership practices can be adapted to reach the desired long-term sustainability outcomes. These directions will help to strengthen leadership structures and evidence-based approaches for sustainable changes in organizations. Emerging trends influencing leadership for sustainability are summarized in Table 4.

Table 4. Emerging Trends in Leadership for Sustainability

Emerging Trend	Leadership Implication	Organizational Significance	References
Digital leadership	Supports sustainability-driven innovation	Competitive advantage	[15]
Circular economy	Encourages resource optimization	Sustainable production	[10]
Green innovation	Drives environmental performance	Organizational sustainability	[29]
Green human resource management	Promotes sustainable employee behavior	Green organizational culture	[19]
Sustainable education	Develops future sustainability leaders	Capacity building	[32]

9. Conclusion

Leadership is central to the implementation of sustainability in an organization, as it drives the organization to balance environmental, social and economic aspects and to improve its long-term resilience and competitiveness. The three major leadership paradigms around sustainability (sustainable leadership, sustainability leadership and environmental leadership) were examined in this review, and emphasis was placed on their definitions, their differences and their contribution to the organization. While each paradigm has

distinctive focus point, they all support sustainable development by encouraging ethical decision making, involvement of stakeholders, innovation, and responsible resource management. It was concluded from the comparative analysis that none of the approaches are competing perspectives, but complementary. Sustainable leadership adds to long-term strategic thinking and resilience, sustainability leadership fosters collaboration among stakeholders and responsible governance, and environmental leadership focuses on ecological

stewardship and green innovation. The strategy will be the combination of these models to achieve a holistic framework for addressing sustainability challenges and improving organisational performance. It is important to look at it from the practical perspective: integrated sustainability leadership should become an integral part of strategic planning, corporate governance, leadership development, and organisation's culture to support sustainable development and agility. The role of integrated leadership in other industries and organisations in terms of emerging trends in digital transformation, circular economy, and sustainable innovation should be further discussed. An integrated leadership for sustainability will improve theory and practice to help organisations make their contribution to sustainable development.

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