

Review

# Leadership towards Sustainability: A review of Sustainable, Sustainability and Environmental Leadership

Jane Boeske \*

School of Business, University of Southern Queensland, West Street, Toowoomba Qld 4350, Australia

\* Correspondence: Jane.Boeske@usq.edu.au

**Abstract:** Leadership and sustainability have been researched and examined concurrently. We know much about sustainable, sustainability and environmental leadership as separate areas of research and the leadership behaviours and practices that facilitate achievement of sustainability outcomes. Whilst these research streams have developed alongside each other, we know little about the similarities and differences of each of these three leadership approaches. The purpose of this paper is to review and compare which sustainable, sustainability and environmental leadership approaches are predictive of improved organizational performance with a view to understanding leadership towards sustainability. Through a comprehensive review of the extant literature, we integrate the three leadership approaches and highlight areas of similarity and difference. From a theoretical perspective, this paper seeks to make a significant contribution to the scholarly literature by building on current knowledge and developing a unified framework that combines our findings on leadership practices and behaviours in terms of the types of leadership required for achieving sustainability outcomes. By unifying existing frameworks and clarifying points of integration and differentiation under the umbrella of 'leadership towards sustainability', this paper seeks to advance research on leadership approaches. From a practical perspective, a cohesive set of leadership behaviours and practices will be emphasized so that leaders can adapt these to suit the context of their organization, thus helping leaders make sense of the literature to inform their practice and reach sustainability goals. Thus, the main goal of this paper is to identify a range of leadership behaviours and practices that are required to improve the performance of sustainability in organizations thus informing the broader leadership field.

**Keywords:** sustainable leadership; sustainability leadership; environmental leadership; sustainability; leadership.

## 1. Introduction

The concepts of leadership and sustainability have been studied extensively over the last 30 years. In general, the literature is wide-ranging with discussions on sustainable, sustainability and environmental leadership linking a variety of interconnected leader behaviours, practices and skills that achieve sustainability outcomes. However, an examination of the leadership literature reveals a lack of agreement and understanding of the types of leadership necessary for positive sustainability [Crews, 2010; Ferdig, 2007; Hargreaves & Fink, 2006, Metcalf & Benn, 2013]. In more recent years, scholars have attempted to resolve this problem. Hallinger and Suriyankietkaew [2018] conducted a large-scale systematic review of *sustainable leadership* thus providing frameworks for scholars to facilitate research direction. Knight and Paterson [2018] empirically investigated *sustainability leadership* and identified ten critical and ten prominent behaviours of sustainability leaders in five competency groupings. Their research refined a behavioural competency model that sustainability leaders require to respond effectively to sustainability challenges. Boeske and Murray [2022] take a step towards integrating and identifying the types of leadership required to achieve positive sustainability by reviewing a range of intertwined conceptualizations and developing an integrated framework of intellectual capital and sustainability leadership practices. This review synthesized existing *sustainability*

*leadership* literature and identified and clarified leadership constructs by offering several leadership classifications [Boeske & Murray, 2022]. Althnayan, Alarifi, Bajaba and Alsabban [2022] researched social learning theory and stakeholder theory to study the relationship between *environmental transformational leadership* and sustainable performance. They found that environmental transformational leadership positively predicts environmental organizational citizenship behaviour leading to improved organizational sustainability performance [Althnayan et al., 2022]. By taking an altogether different approach, this paper aims to identify and compare the similarities and differences of sustainable, sustainability and environmental leadership specifically to address areas of overlap in the current literature. As such, this paper will seek to understand leadership that contributes to the implementation of sustainability initiatives and influence sustainability practices.

Research on organizations implementing sustainability into their organizations have highlighted multiple benefits [Burke & Logsdon, 1996; Jones, Hillier, & Comfort, 2015; Smith & Sharicz, 2011]. Not only are cost savings recognized [Albertini, 2013; Runhaar, Tigchelaar, & Vermeulen, 2006; Lourenco, Callen, Branco & Curto, 2014], other benefits such as increased productivity [Boiral, Cayer, & Baron, 2009], improved financial performance [DiSegni, Huly, & Akron, 2015; Endrikat, Guenther, & Hoppe, 2014; Epstein, Buhovac, & Yuthas, 2015; Savitz & Weber, 2006], increased employee morale [Robertson & Carleton, 2018; Robinson & Clegg, 1998]; improved organizational commitment [Cantele & Zardini, 2018]; increased efficiencies and reduced environmental impact [DiSegni et al., 2015; Jones et al., 2015; Sheppard, Sarros, & Santora, 2013]; and improved public image [Cantele & Zardini, 2018; Solomon, 2013] among others, have been accomplished. The foundation for implementing sustainability practices depends on leadership [Robertson & Carleton, 2018]. Organizational change, improved performance, and growth depends on how leaders implement innovative strategies and processes [Vardiman, Houghton & Jinkerson, 2006; Yukl, Gordon and Taber, 2002]. As such, leadership is a critical factor that contributes to organizational success by setting direction and achieving organizational goals, creating a vision and mobilizing resources. Thus, leaders require a variety of behaviours, competencies and skills to achieve organizational success [Battilana, Gilmartin, Sengul, Pache & Alexander, 2010] particularly when implementing sustainability strategies.

Leaders enable and inspire change, encourage novelty and innovation and assist organizational members to make sense of their environment [Kotter, 1996; Yukl et al., 2002]. Leaders use symbolic narratives/stories [Daily & Browning, 2014] to emphasize key values and to build support for new strategies and policies with stakeholders [Malhortra & Hining, 2015; Hitt, Haynes & Serpa, 2010; Jansen, Vera & Crossan, 2009; Strand, 2014]. Leaders directly influence employees and organizational systems such as formal policies and procedures that determine the structure and culture of an organization [Yukl, 1989; Portugal & Yukl, 1994; Schein, 2010; Sarros, Cooper & Santora, 2008]. Collectively, leaders help to realize organizational goals and pursue growth opportunities [Portugal & Yukl, 1994; Savitz & Weber, 2006]. Moreover, innovation and change are driven by top management/leaders [Flannery & May 1994] that help to facilitate an organizational climate where firms can be a positive force for social change [Du, Swaen, Lindgreen & Sen, 2013]. Consequently, understanding the types of leadership necessary for positive sustainability presents significant value for economies.

This review is necessary because sustainability issues impact all organizations and leaders have a responsibility to become more aware of how to address these problems [Runhaar et al., 2008; Parker, Redmond & Simpson, 2009]. Whilst these different and separate studies of sustainable, sustainability and environmental leadership have added to our growing understanding of how leaders contribute to and facilitate achievement towards sustainability goals – these terms are often used interchangeably. This review provides a new way of thinking about these leadership approaches by offering a comprehensive framework and a more focused interpretation of the leadership required to influence sustainability outcomes. To our knowledge, this is the first comprehensive review that combines sustainable, sustainability and environmental leadership as well as offering insights into how all three approaches of leadership contribute towards sustainability in organizations.

This paper is structured as follows. First, we describe and provide a definition of both leadership and sustainability. Second, our review is organized around the three leadership approaches of -: (i) sustainable, (ii) sustainability, and (iii) environmental leadership which allows us to identify similar and different findings from each leadership construct. Third, a discussion of the main relationships between each leadership approach is made along with the main contributions of the paper. Finally, the limitations and conclusion of this review are discussed.

## 2. Determining the concepts of Leadership and Sustainability

### 2.1 Leadership

Researchers have developed many different definitions of leadership and despite these differences, they share common elements. These elements are described as -: (i) leadership is a group phenomenon as leadership involves both leaders and followers; (ii) leadership involves interpersonal influence to achieve organizational goals [Bass, 1990]; and (iii) leadership is goal directed and action-oriented [Stogdill, 1950, Bass, 1990; Yukl, 2012]. Various studies have defined the personality/attributes, style and nature of leadership, developing various models from different perspectives, each with their own insights as well as limitations [DeRue, Nahrgang, Wellman, Humphrey, 2011; Judge, Bono, Ilies & Gerhardt, 2002; Yukl, 1989; Bass, 1999]. Collectively, these leadership theories provide a rich understanding of what is a complex concept.

Leadership is a dynamic 'process of influence' towards achievement of goals and objectives [Bass, 1985; Yukl, 2012]. Leaders provide inspiration, create opportunities, possess strong personal values, coach and motivate. Leaders play a central role in guiding employees or group members towards goal achievement [Yukl, 2008, 2012; Strand, 2014; Sun & Anderson, 2012]. Leaders use appropriate interpersonal behaviours and styles facilitating and guiding individuals and groups toward task accomplishment, as well as encouraging trust and commitment to promote adaptive short and long term change [Bass, 1985; Bryman, 1992; Kets De Vries, 1996]. There are many definitions of leadership and this paper will concentrate on leadership behavioural processes and practices, and as such, the focus will be on what leaders *do*, rather than what the leader *is*! Hence, within the context of this review, 'leadership' will be defined as a process of influencing the activities of internal and external stakeholders, who challenge the status-quo, develop a clear vision, forward plan (develop organizational goals), make decisions, engage staff (collaboratively) and consider both short-term and long-term objectives [Wiesner, Chadee & Best, 2017; Ferdig, 2007; Timmer, Creech & Buckler, 2007; Stogdill, 1950; Yukl, 2012].

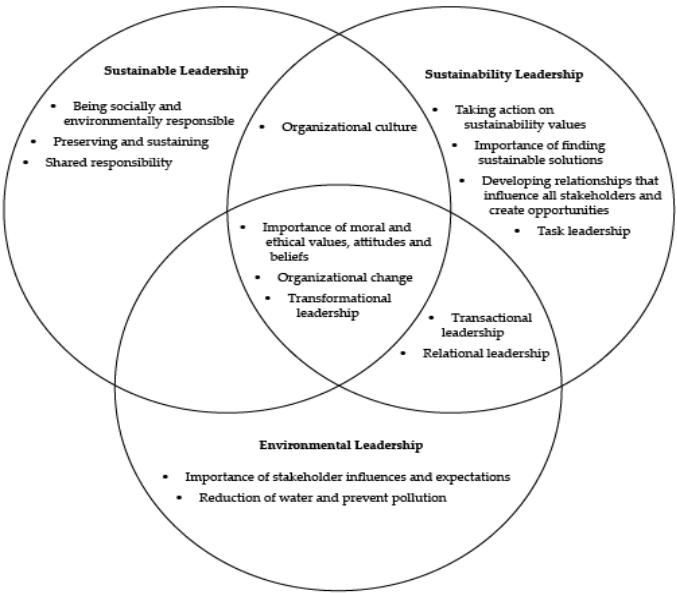
### 2.2 Sustainability

Whilst we recognize that the terms corporate social responsibility, corporate sustainability, sustainable development, sustainable productivity and sustainability have been used interchangeably throughout the past seventy years, we also acknowledge that each of these terms have different meanings [Sheehy & Farneti, 2021; Althnayan et al., 2022; Kuhlman & Farrington, 2010]. In considering these different terms and definitions, we acknowledge that 'sustainability' is the best term for the purpose of this paper. Quinn and Dalton [2009, p. 21] describe 'sustainability' as an organization's commitment to activities that demonstrate the inclusion of social and environmental concerns in daily business operations. Bos-Brouwers [2009, p. 417] suggests that sustainability is about 'doing something' with the environment that ranges from improving production to reducing an organization's negative environmental impact. Sustainability has also been described as each of us becoming aware of choices that influence the intricate balance of the earth's social, ecological and economic systems [Ferdig, 2007, p. 28; Bos-Brouwers, 2009]. Sustainability research examines how organizations are encouraged to be more mindful of their long-term roles in the world's ecology and communities with an emphasis on conserving and protecting natural resources [Ferdig, 2007; Quinn & Dalton, 2009; Avery & Bergsteiner, 2011]. As mentioned above, the term 'sustainability' will be used in this paper

and will be defined as an organization’s ability to meet existing business and stakeholder needs while maintaining and enhancing the natural and human resources needed for the future [Althnayan et al., 2022, Brundtland, Kahlid, Agelli, Al-Athel, Chidzero, Fadika, Hauf, Shijun, Morino de Botero, Singh, Okita, et al., 1987; Elkington, 1998]. This includes the triple bottom line concepts of social, environmental and financial dimensions (balanced accordingly) which aims to improve resource efficiency and conserve energy consumption as well as the adoption of organizational processes to meet sustainability goals [Hart, 1995; Farrell & Hart, 1998; Elkington, 1998; McCann & Sweet, 2014]. For further information regarding these concepts, refer to discussions by Sheehy and Farneti, [2021]; Engert, Rauter, and Baumgartner, [2016]; Althnayan et al., [2022]; Kantabutra and Avery, [2013] and Kuhlman and Farrington [2010]. There are significant sustainability challenges confronting leaders and as such, a comprehensive review of the sustainable, sustainability and environmental leadership literature is required.

3. Sustainable, Sustainability and Environmental Leadership

This section aims to draw together a narrative of theoretical and empirical research that provides the foundation for this paper. Extant research suggests that sustainable, sustainability and environmental leadership have emerged as ‘topics in their own right’ in recent years [Visser & Courtice, 2011]. However, it is argued that these three leadership approaches are not separate schools of leadership, but a blend of leadership characteristics, styles and practices drawn from previous leadership studies which have been applied within a definitive context [Visser & Courtice, 2011]. As such, this paper will explore sustainable, sustainability and environmental leadership to inform and underpin the contribution and purpose of this paper to clarify the processes of leadership that contribute to the implementation of sustainability initiatives. To this end, we propose a framework (see Figure 1.) which compares both similar and different leadership behaviours and practices that enhance the achievement of sustainability outcomes.



**Figure 1.** Leadership towards Sustainability: A comparison of similarities and differences among Sustainable, Sustainability and Environmental Leadership.

### 3.1 Sustainable Leadership

The emergence of sustainable leadership frameworks and concepts are variable and inconsistent. The extant literature reveals that there is no comprehensive definition of sustainable leadership, however, this review identified the following key findings -: 1) being socially and environmentally responsible, 2) preserving and sustaining organizations, 3) shared responsibility, 4) importance of moral and ethical behaviours, 5) the need for continuous improvement (organizational change), and 6) the importance of organizational culture in achieving sustainability outcomes (see Figure 1).

The first key leadership finding emphasizes the notion of *being socially and environmentally responsible* [Avery & Bergsteiner, 2011; Hallinger & Suriyankietkaew, 2018] by protecting the environment including conservation which honors the past in creating the future [Hargreaves & Fink, 2006]. Consideration of the triple bottom line perspective of caring for people, planet and profits that creates value that is sustainable knowledge is emphasized [McCann & Sweet, 2014]. The importance of developing business objectives to reduce the ecological foot-print, energy inefficiency and waste thus having a social and environmental consciousness is made [Tideman, Arts & Zandee, 2013]. According to McCann and Sweet [2014, p. 374], organizations are part of the natural world and sustainable leaders create knowledge that combines concern for both the environment and society.

The second key leadership finding focuses on *preserving and sustaining* to create lasting and meaningful organizations whereby attention is given to both short and long-term goals [Davies, 2007; Hargreaves & Fink, 2006; Tideman et al., 2013; McCann & Holt, 2001; Suriyankietkaew, Krittayaruangroj & Iamsawan, 2022; Hallinger & Suriyankietkaew, 2018; Nisha, Nawaz, Mahalakshmi, Gajenderan & Hasani, 2022]. McCann and Holt [2011, p.11] found that employees viewed employers as responsible for acting in a sustainable way and confirmed that they were concerned with the longevity of their companies. Hargreaves and Fink [2006] argue that sustainable leadership is about planning and preparing for school leadership succession whilst Davies [2007] suggests that success should be sustainable and accessible to all. Avery and Bergsteiner [2011] and Tideman et al [2013] concur that sustainable leadership is about taking a 'long-term' perspective in addition to ideas of customer value, quality products and services along with skilled and loyal employees. In their study, Suriyankietkaew et al., [2022, p. 5762] revealed that sustainable leaders adopt a strong long-term orientation, going beyond short-term profits with a focus on inclusive sustainable growth for all. Kantabutra & Avery [2013, p. 40] agree and add that organizations need to balance both short and long-term goals with being concerned for the organization now and into the future.

A third key leadership finding identifies sustainable leadership as a *shared responsibility* [Hargreaves & Fink, 2006; Avery & Bergsteiner, 2011] concentrating on including various stakeholders. Tideman et al., [2013, pp. 24-25] recognize the importance of interconnectedness in relation to engaging and building effective relationships. In addition to this, Hargreaves and Fink [2006] propose that both distributed and *transformational leadership* are most effective to promote sustainability within the education sector. Elements of *transformational leadership*, whereby all employees are involved, elevated, encouraged, inspired, motivated and contribute towards a shared responsibility are most effective in promoting sustainability in firms. However, Tideman et al., [2013, pp. 26-27] argue that sustainable leadership is broader than transformational leadership – both in scope and depth and identified the importance of leadership mindsets needed to empower organizations towards sustainable value. Nisha et al [2022] argue that sustainable leadership promotes continuous improvement by focusing on a shared leadership approach. Avery and Bergsteiner [2011] identified twenty-three leadership practices (a 'honeybee' philosophy) and emphasized the inclusion of stakeholders and recommended a social and sharing approach when implementing sustainability objectives.

A fourth key leadership finding features the *importance of moral and ethical behaviours*. Hargreaves & Fink, [2006] argue that sustainable leadership is founded on moral considerations and Svensson & Wood [2007, p. 260] extend this by suggesting that leaders need to be ethical and meaningful to bring



positive change. Suriyankietkaew et al., [2022, p. 5762] confirm that ethics guide people's values and allows them to 'do the right things' thus, leading to pro-environmental behaviours with a focus on social and environmental responsibilities. Kantabutra & Avery [2013, p. 42] found that being ethical is a core principle of sustainable 'honeybee' enterprises (which is a sophisticated stakeholder, social and sharing approach). They point out that ethical behaviour is difficult to define and confirm that acting 'ethically' is difficult for managers operating on short-term principles. However, that they argue that ethical behaviours (such as being transparent and 'doing the right thing') can protect the organization and enhance organizational sustainability in a number of ways [Kantabutra & Avery, 2013, p. 43; Avery & Bergsteiner, 2011]. Hallinger and Suriyankietkaew [2018, p. 3] argue that values underlie conceptions of sustainable leadership and examples of values include -: moderation, prudence, mutual respect, value of individuals, excellence, innovation, quality and ethical behaviour.

A fifth key leadership finding highlights the *need for continuous improvement (organizational change)* to remain competitive [Nisha, et al., 2022]. Here, Svensson & Wood [2007] accept that sustainable leadership is a continual and iterative process that is highly dynamic and innovative as creative ways are needed to solve problems. Tideman et al., [2013, p. 25] support this idea and argue that creativity and innovation are required to empower organizations towards sustainable value. Avery and Bergsteiner [2011] support this notion and argue that leaders should foster systemic innovation. Nisha et al., [2022] suggest that strong leadership is required to sustain a competitive advantage and achieve long-term accomplishment by focusing on the importance for contemporary thinking and data sharing to achieve sustainability goals. This research on continuous improvement and organizational change has improved our understanding of the leadership components that promote sustainability in organizations.

Leaders play a crucial role in building, maintaining and *determining an organization's culture* [Schein, 2010]. This is the sixth key leadership finding. The values and norms of business leaders determine the culture of their organizations and as such, organizational culture may be defined as the underlying set of key values, beliefs, understandings and norms shared by employees in a firm [Schein, 2010]. Kantabutra & Avery [2013, p. 48] posit that organizational culture revolves around a set of commonly held values and shared beliefs. Their study of sustainable leadership 'honeybee' practices at a leading Asian industrial conglomerate found that the organizational culture revolved around its shared values and vision. To embed the culture, the Chief Executive Officer (CEO) personally communicates with new employees to share the company's vision (clearly articulated), core values, corporate philosophy and code of conduct [Kantabutra & Avery, 2013, p. 48]. Sustainable organizations strive to preserve the core values and ideas that bind the members together and values and beliefs are widely shared and provide the rules for employee behaviour which also helps employees to identify desirable sustainability behaviours [Kantabutra & Avery, 2013; Tideman et al., 2013]. Hallinger and Suriyankietkaew [2018] emphasize that sustainable leaders shape organizational culture, focus on continuous improvement, possess an innovation capacity and implement systemic change in their firms. Within the context of sustainable leadership, organizational culture may be defined as the process whereby the corporation and its individual members embrace a concern for the natural environment in such a way that it becomes an integral component of the organization's core values [Svensson & Wood, 2007; Tideman et al., Nisha et al., 2022]. As purported by Schein [2010], leadership and culture are mutually exclusive as organizational culture guides the beliefs, values and behaviours of organizational members.

The key findings identified above illustrate sustainable leadership behaviours and practices that enhance business performance and contribute to positive business outcomes [Avery & Bergsteiner, 2011; Suriyankietkaew., et al, 2022]. As highlighted in this section, sustainable leadership is not linked to any specific leadership behaviours, styles or practices. Rather, the literature on sustainable leadership can be viewed as applying a broad range of sustainable practices whereby leaders are recognized as the main drivers of change and innovation and where sustainable leadership is required at all

levels of a firm [Gerard, McMillan & D'Annunzio-Green, 2017; Iqbal, Ahmad, & Yongmei, 2021]. A review of the key findings from the sustainability leadership literature is discussed next.

### 3.2 Sustainability Leadership

Sustainability leadership reaffirms the importance of existing knowledge to expand our understanding of leadership and what it means to lead and implement sustainable outcomes. This section will examine the key findings from the sustainability leadership literature that best promote sustainability practices. The key findings ascertained include the following -: 1) taking action on sustainability values (including task and transactional leadership), 2) the importance of finding sustainable solutions demonstrating values, ethics and care, 3) developing relationships that influence all stakeholders and creating opportunities to generate solutions (including relational and transformational leadership), 4) leading organizational change, and 5) organizational culture (see Figure 1).

The first key leadership finding of sustainability leadership is about *taking action on sustainability values* [Adams, Jeanrenaud, Bessant, Denyer, & Overy, 2016; Burns, Vaught, & Bauman, 2015; Timmer, et al., 2007; Knight & Paterson, 2018] and economic imperatives make this a necessary objective. Organizations must achieve solutions that are both sustainable and economically profitable [Quinn and Dalton, 2009]. Several authors explore the notion of *task-oriented leadership* as being critical when implementing sustainability processes in their organizations [Van Velsor & McCauley, 2004]. Aspects of task leadership competencies include planning for contingencies, communicating, mobilizing action in the direction of established goals and coordinating and monitoring activities [Avolio & Bass, 1999; Bass, 1985; Bass, Jung, Avolio, & Berson, 2003]. Features of task leadership are highlighted in Quinn and Dalton's [2009, p. 24] qualitative study of senior leaders who adopted principles, strategies, policies and practices of sustainability. Their findings lead to the development of a framework of leadership called 'Tasks of Leadership' and include -: (i) Setting Direction, (ii) Creating Alignment, and (iii) Maintaining Commitment [Quinn & Dalton, 2009]. They espouse that leaders need to reform, restructure and redesign their organizations if the goals of sustainability are to be achieved [Quinn & Dalton, 2009, pp. 22-24]. Epstein, Buhovac and Yuthas [2010] supports this notion, however, they stress that to improve the implementation of sustainability strategies, key performance measures should be identified. Together, they also identify the significance of performance evaluations, incentive systems and organizational design in motivating employee behaviours towards implementing corporate sustainability [Epstein et al., 2010, p. 46]. Strand [2014] concurs and reinforces the importance of supporting structures in addition to key performance indicators being established. Benn, Dunphy and Griffiths [2014] highlight that *transactional leadership* is necessary when complying with legislative requirements. Knight and Paterson [2018, p. 569] also support the notion that sustainability leaders are results driven and have an ability 'to make things happen'. In this context, sustainability leaders plan for and develop business goals and objectives that support the implementation of sustainability initiatives in their firms.

Sustainability leaders, as discussed in this section, recognize the significance of the sustainability challenges facing organizations and acknowledge the *importance of finding sustainable solutions demonstrating values, ethics and care*. This is the second key leadership finding. The importance of ethics, values and finding innovative solutions to solve sustainability problems are highlighted in this section [Timmer et al., 2007; Benn et al., 2014; Burns et al., 2015; Nicholson & Kurucz, 2019; Knight & Paterson, 2018]. Ferdig [2007, p. 26] implies that people need to lead their organizations and account for their impact on the earth, society and health of global and local communities. Quinn and Dalton [2009, p. 21] suggest that businesses are being called upon to take responsibility for their organization's impact on the natural environment. Crews [2010] and Strand [2014] expand this further arguing that sustainability is not a management fad, but a rebalancing of economic objectives with environmental pressures and changing societal expectations. Metcalf and Benn [2013, p. 370] acknowledge that organizations operate in a dynamic environmental, economic and social system. Wang, Van Wart and Lebrede, [2014] and Burns et al., [2015] emphasize that leaders must work towards finding

answers to address problems of climate change and social inequity. Knight and Paterson [2018] concur and add that generating ideas, being willing to challenge established views and embrace change with optimism are essential competencies of sustainability leaders. Nicholson and Kurucz [2019, pp. 25, 39] suggest that a moral theory of 'ethics of care' can highlight the ethical dimensions of *relational leadership* for sustainability. As outlined above, sustainability leadership features the importance of values, ethical viewpoints and embedding sustainability value to find solutions so that sustainability goals are realized.

Several researchers promote the importance of *developing relationships that influence all stakeholders and creating opportunities to generate solutions* [Burns, Vaught & Bauman, 2015; Crews, 2010; Visser & Courtice, 2011; Boeske & Murray, 2022; Jayashree, Barachi, & Hamza, 2022]. This is the third key leadership finding. These types of sustainability leaders correlate with *relational (and transformational) leadership theories* [Burns, 1978; Bass, 1985; Bass & Avolio 1999; Bryman, 1992; Knight & Paterson, 2018] to include -: a strong vision and strategic perspective, inspiration, innovation and creativity, intellectual stimulation, risk taking, and strong personal values [Ferdig, 2007; Judge & Bono, 2000; Taylor, 2008b]. Burns et al. [2015] suggest that leadership for sustainability is related to *transformational and relational models of leadership* that are inclusive, collaborative and a reflective process. Ferdig [2007, p. 31] proposes that sustainability leaders create opportunities for people to work collaboratively together and generate their own answers to address sustainability challenges specific to their context, modifying and adapting these responses to changing circumstances. Visser and Courtice [2011] emphasize that inclusive, visionary, creative, self-sacrificing leadership styles collectively summarize characteristics of sustainability leaders. Jayashree, Barachi and Hamza [2022, p. 17] provide evidence of the importance of a multistakeholder approach whereby various entities operate cohesively. Other aspects of *relational and transformational leadership* such as the ability to share environmental values that inspire and motivate employees to think about sustainability issues in new innovative ways [Robertson & Carleton, 2018, p. 199] are associated with an increase in individual, team and organizational performance [De Groot, Kiker, & Cross, 2000; Wang, Courtright, & Colbert, 2011]. Benn et al. [2014] suggest that it is necessary to encourage new ways of thinking to solve problems creatively and adapt to new challenges. Leaders need to be able to influence team members, network with key stakeholders, act as a mentor or coach and build effective teams [Benn et al., 2014]. The notion that *relational [and transformational] leaders* challenge the status quo implies that higher creativity and innovation will lead to increased organizational performance [Wang et al., 2011; Nicholson & Kurucz, 2019; Knight & Paterson, 2018]. Hence, this new area of sustainability leadership affirms the importance of *relational and transformational leadership theory* types in expanding scholarly understanding of leadership and what it means to lead sustainably [Avery & Bergsteiner, 2011; Benn et al., 2014; Ferdig, 2007].

Incorporating sustainability initiatives and strategies involves change and improvement towards achieving revised organizational goals. Hence, the fourth key leadership finding, *leading organizational change*, includes using appropriate business strategies, developing a new strategic vision and implementing revised policies and procedures to transform organizations [Benn et al., 2014]. Visser and Courtice [2011] argue that sustainability leaders are compelled to make a difference to bring about profound change. Organizational change that inspires employees to think and work differently, assess regulatory requirements, set guiding principles and respond to opportunities to promote a more sustainable future is needed [Ferdig, 2007]. If the goals of sustainability are to be achieved, leaders must challenge the status-quo, gather and interpret information, create and provide meaning and develop a personal mindset towards achieving sustainability outcomes [Wiesner, et al., 2017]. In essence, leaders play a key role in shaping innovative initiatives that positively impacts growth and profitability, thus, providing a business case for change towards sustainability [Sroufe, 2017]. Knight & Paterson [2018, pp. 569 – 570] put forth that leaders need to be willing to challenge established views, seize opportunities and embrace change with optimism. Metcalf and Benn [2013] discuss the importance of engaging groups (including employees) in dynamic adaptive organizational change. Benn et al., [2014] argue that key competencies of sustainability leaders include



managing change and complexity with the ability to implement, monitor and evaluate change processes accordingly. Burns et al., [2015] concur and note the importance of inclusiveness, collaboration, establishing a common purpose and embedding sustainability values to guide organizations towards improving operational processes.

The fifth key leadership finding relates to *organizational culture* in connection with the achievement of sustainability goals has been noted by scholars [Benn et al., 2014; Burns et al., 2015; Epstein, 2008; Jayashree et al., 2022]. Several authors point to the value of building a sustainability culture that emphasizes norms for innovation, openness, initiative and risk taking [Crews, 2010; Epstein et al., 2010]. Epstein et al., [2010] acknowledge that organizational culture can assist in creating an innovative and continuous improvement culture, a 'soft' system that plays an important role in educating employees about why a company should engage in sustainability efforts and 'sensitizing' them to the basic assumptions, values, norms, symbols and myths of leading sustainably [Epstein et al., 2010, pp. 46-47; Schein, 2010]. Crews [2010] also maintains the importance of organizational culture and suggests that companies might reduce resistance to implementing sustainability objectives if the sustainability initiatives are understood as being part of the culture or desired cultural change towards sustainability. An organizational culture that supports sustainability ideas and contributes to the values of the firm will facilitate behavioural change of employees [Crews, 2010]. Sustainability leaders play an important role in developing an organization's culture that is embedded in values of sustainability [Benn, et al, 2014, pp. 205 – 206]. Jayashree et al. [2022, p. 19] concur and add that modelling of inclusive behaviours by leaders and having a clear purpose are important aspects driving sustainability agendas. Organizational culture is defined as the underlying set of key values, beliefs, understandings, expectations, attitudes and norms shared by employees in a firm [Isensee, Teuteberg, Griesse & Topi, 2020] and helps leaders to enlist cooperation, compliance and commitment from employees [Epstein, 2008; Epstein et al., 2010]. Isensee et al. [2020, p. 12] emphasize the role of organizational culture as a crucial foundational process that is integral to achieving sustainability outcomes.

The key findings identified above highlight various sustainability leadership behaviours such as -: (i) taking action on sustainability values, (ii) the importance of finding sustainable solutions, (iii) developing relationships that influence all stakeholders and creating opportunities to generate solutions, and (iv) elements of task leadership that are required to achieve sustainability in their organizations. These four key findings are unique to the sustainability leadership literature. However, there were four similar key leadership findings from this sustainability leadership section such as (a) the importance of moral and ethical values, attitudes and beliefs; (b) organizational change, (c) transformational leadership, and (d) organizational culture that have also been identified as key findings from the previous section on sustainable leadership. Hence, whilst four unique leadership behaviours have been associated with sustainability leadership, there is clear overlap between some of the key leadership findings from sustainable leadership. A review of environmental leadership is discussed next.

### 3.3 Environmental Leadership

Environmental leadership has been examined over thirty years. This section will examine findings from the environmental leadership literature that best promote sustainability practices. These key leadership findings include -: 1) values, beliefs and attitudes, 2) guiding organizations towards change (organizational change), 3) transformational leadership, and 4) the importance of stakeholder influences and expectations (see Figure 1).

Environmental concerns are both scientifically and socially complex [Boiral et al., 2009; Flannery & May, 1994], and requires a deep assessment of *the values, beliefs and attitudes* held by organizations with leaders who know how to manage and lead. This is the first key leadership finding. Environmental leadership depends on practices that care for and protect the natural environment, reduce waste from which costs savings can be made, as well as marketing of safe products and services all

of which go further than prescribed legislative requirements [Flannery & May, 1994]. Robinson & Clegg, [1998] take this further and argue that reducing or preventing pollution is also an important aspect of environmental leadership. Boiral, et al., [2009] concur and suggest that environmental leaders are more aware of eco-centric values which aim to increase employee awareness of environmental concerns. Several studies acknowledge the importance of moral norms [Flannery & May, 1994], the notion of personal values and how these contribute to the welfare of others and the environment [Egri & Herman, 2000] and the importance of organizational members morally committing to an environmentally sustainable planet [Robertson & Barling, 2013]. Niu, Wang and Xiao [2018] found in their study of environmental leaders in the public sector that intrinsic normative motivators such as moral obligations and value driven intents have a significant impact on environmental leadership behaviours. Flannery and May [1994] developed a model called the Environmental Leadership Model (ELM) which outlines the factors influencing top managers. These factors include the importance of -: a) moral norms and values, b) environmental attitudes, c) stakeholder influences, and d) perceived behavioural control in driving environmental strategies [Flannery & May, 1994, pp. 205, 218]. Building on these concepts, environmental leaders are proactive, as opposed to being reactive [Flannery & May, 1994] and take steps to mobilize employees around long-term ecological goals [Boiral et al., 2009; Egri & Herman, 2000].

Environmental leadership is not about keeping things the same, it involves change and development using business strategies, strategic vision and appropriate leadership to implement and *guide organizations towards change*. This is the second key leadership finding. Flannery and May [1994] highlight the important role that top-level managers perform during the change process. Robinson and Clegg [1998] suggest that elements of an environmental management system should include continuous improvement. Egri and Herman [2000] argue that environmental leaders need to be open to change and be more change and service oriented towards their clients. Leading environmental change involves new ways of collaboration within and outside the firm, guiding, empowering and being reflective and proactive [Egri & Herman, 2000]. Taylor [2008b] adds that the pace of change, including during a time of crisis, is also important when managing a change process. Boiral et al., [2009] argue that environmental commitment is linked to leaders/managers and that change towards environmental sustainability is generally a top-down approach [Boiral et al., 2009]. Niu et al [2018] discuss the importance of change oriented transformational leadership behaviours as relevant to pro-environmental initiatives. As organizations move towards implementing environmentally sustainable outcomes in their firms, there is a priority to understand the leadership behaviours and practices that facilitate this change process. Smith and Sarros [2013, p. 165] point out that environmental issues will become more important as people fight for fewer resources. Overall, the current research acknowledges the importance of environmental leadership and discusses opportunities to lead change towards an environmentally sustainable future.

Research on *transformational leadership* for environmental sustainability abounds. This is the third key leadership finding. Portugal and Yukl [1994] identified transformational leadership behaviours as relevant for environmental leaders. They developed a two-dimensional leadership framework involving *two levels* of influence: individual (single person or small group) and organizational (policies, procedures, structure and organizational culture) and *two types* of influence: internal (setting objectives and strategies, motivating and maintaining relationships) and external (maintaining a network with people outside the organization) [Portugal & Yukl, 1994]. Portugal & Yukl [1994] argue that transformational leadership behaviours such as visioning, sense-making and symbolic action involving sharing efforts of all individuals at all levels will succeed in achieving specified environmental goals [Portugal & Yukl, 1994]. Teamwork, including suggestions and ideas from all employees can be highly motivational when devising an environmental strategy [Robinson & Clegg, 1998]. In their study, Egri and Herman, [2000] examined the importance of both *transformational and transactional leadership* in achieving sustainability in organizations. Taylor [2008a, 2008b] and Smith and Sarros, [2004] confirm and agree that transformational leadership behaviours such as intellectual stimulation, the ability to mentor, coach, motivate and inspire team members to think about environmental

issues in different ways whilst establishing close relationships will lead to desired sustainability outcomes. Robertson and Barling [2013] take this one step further by conceptualizing environmentally specific transformational leadership (ETFL) which encourages team members to engage in pro-environmental behaviours. They argue that both ETFL and general transformational leadership styles are linked to improved organizational environmental sustainability goals being achieved [Robertson & Barling, 2017]. An empirical study by Althnayan et al., [2022] discovered that environmental transformational leadership significantly predicts environmental organizational citizenship behaviour and organizational sustainability performance in the petrochemical industry in Saudi Arabia. They argue that employees look to their leaders as role models and are inspired by leader behaviours and actions that help establish a vision that allows them to participate in sustainable activities [Althnayan et al., 2022, p. 8779]. Niu, et al., [2018] point out that change oriented transformational leadership behaviours are fundamental in achieving pro-environmental initiatives. A somewhat different finding by Smith and Sarros [2004, p. 164] found that intellectual stimulation was not widely used by forty-nine senior business leaders when compared with three environmental political leaders. However, other aspects of relational and transformational leadership such as the ability to coach and mentor employees [Smith & Sarros, 2004] and share environmental values that inspire and motivate employees to think about sustainability issues in new innovative ways [Robertson & Carleton 2018 p. 199] are associated with an increase in individual, team and organizational performance [Wang et al., 2011; De Groot et al., 2000]. The key leadership findings presented here reinforce the relevance of transformational leadership, thus offering an extension of existing leadership theories that provide expanded perspectives on leadership for environmental change [Egri & Herman, 2000]. In addition to the leadership styles of top management, the importance of stakeholders will be considered next.

Environmental leadership research highlights the fourth key leadership finding which is the *importance of stakeholder influences and expectations* [Flannery & May, 1994; Boiral et al., 2009] including teamwork [Robinson & Clegg, 1998] and networking [Portugal & Yukl, 1994; Taylor, 2008b]. Robinson and Clegg [1998, p. 6] contend that the foremost environmental pressure on businesses in the United Kingdom is exerted by government and that all businesses must comply with legislation and regulations. Flannery and May [1994, p. 207] take a broader view of stakeholders arguing that 'all interest groups, parties, actors, claimants and institutions', who are internal or external are affected by the organization's actions. Examples include investors, board of directors, managers, employees, customers, suppliers, competitors, the community and society at large, unions and governments and it is the responsibility of top management to ensure that these stakeholders are as satisfied as possible [Flannery & May, 1994, p. 207]. Building on this, Portugal and Yukl [1994, p. 273] draw attention to external leadership activities that are responsible for dealing with environmental issues such as: learning, lobbying and forming alliances with the aim of solving shared environmental problems thus, reinforcing the importance of creating and maintaining networks to gather, analyze, identify threats and opportunities, and negotiate agreements as central to the organization's environmental mission. Hence, effective environmental leadership is a dynamic process of influencing and includes the involvement of both internal and external stakeholders.

Environmental leadership is about diversity of leadership practices that reflect the diversity of social objectives [Case, Evans, Fabinyi, Cohen, Hicks, Prideauz, & Mills, 2015, p. 414]. It is not necessarily about responding to a crisis but responding to multiple socio-political, cultural or environmental interests [Case, et al. 2015]. As discussed above, environmental leadership recognizes the importance of stakeholders – especially with regards to their influences and expectations. This is a unique key leadership finding. Environmental leadership shares three key leadership findings with both sustainable and sustainability leadership approaches and these include -: (a) the importance of moral and ethical values, attitudes and beliefs, (b) organizational change and (c) elements of transformational leadership. Interestingly, environmental leadership also shares both transactional and relationship leadership behaviours/styles with sustainability leadership, as well. Hence, there is not one leadership style or set of behaviours required of environmental leaders as there are a variety of complex environmental issues to solve that require specific leadership skills and practices.

#### 4. Discussion

Knowledge about how leaders manage and lead their businesses is required if sustainability outcomes are to be achieved. Whilst existing theories and frameworks on sustainable, sustainability and environmental leadership have been studied separately, this review has revealed areas of similarity across these leadership constructs that have clear overlap as well distinguishing the leadership behaviours and practices that are unique to each leadership approach (see Figure 1). There were three key leadership findings that were found to be similar in all three leadership approaches. First, the importance of moral and ethical behaviours that demonstrate a leader's values, attitudes and beliefs towards sustainability was emphasized (see Figure 1). This would be as expected as a leader's moral and ethical values influence and guide followers toward sustainability goals. Leaders implementing sustainability strategies have a different perspective about how their business should operate compared with other leaders, as they actively pursue strategies to respect and honor the natural environment [Quinn & Dalton, 2009]. Examples of moral and ethical values include – improving resource efficiency, meet existing business and stakeholder needs whilst maintaining and enhancing the natural environment, caring for and protecting the environment, consideration of the welfare others and 'doing the right thing' [Suriyankietkaew et al., 2022; Knight & Patterson, 2018]. However, not all leaders share the same values or have the same way of managing environmental or sustainability issues [Boiral et al., 2009, p. 479]. Nevertheless, leaders need to be ethical and meaningful to bring about positive sustainability change and economic requirements render incorporating sustainability values into the day-to-day operations of their businesses a priority [Quinn & Dalton, 2009].

The second key leadership finding discussed in all three leadership approaches is the ability to implement organizational change (including revising the organizational vision, updating policies and procedures, involving all employees in making decisions and so on) [Benn et al., 2014; Metcalf & Benn, 2013] to transform their firms towards achieving sustainability goals (see Figure 1). This key finding is predicted. Leaders must be able to engender change to progress towards sustainability objectives and competitive business practices [Wiesner, et al. 2017]. Leaders are committed to and consciously embrace new ways of seeing, thinking and interacting that result in and improve environmental sustainability outcomes [Quinn & Dalton, 2009], and as such, leaders need to be able to seize opportunities and incorporate change within their firms [Knight & Paterson, 2018].

Transformational leadership was identified as the third key leadership finding and was anticipated (see Figure 1), as leaders are required to inspire and motivate employees as well as develop and implement several strategies that will have a positive influence on their organization and the environment [Portugal & Yukl, 1994; Robertson & Barling, 2013]. Elements of transformational leadership include providing a strong vision and sense of mission to generate awareness thus instilling pride as well as gaining respect and trust; communicating high expectations; inspiring innovation and creativity when solving sustainability problems and coaching and advising employees individually [Ferdig, 2007; Avolio & Bass, 1999]. Leaders must be skilled in engaging others in the process of creating a vision and making it a reality through the development and implementation of actions to support goals inherent in the organizational vision [Ferdig, 2007, p. 30]. Taylor (2008a) highlights the significance of transformational leadership styles to promote sustainable operational practices in urban water management organizations. Accordingly, leaders are encouraged to take a transformational leadership approach when inspiring and motivating employees to think about sustainability issues in new and resourceful ways [Robertson & Carleton, 2018].

In addition to the three areas of similarity (discussed above), other similarities exist (see Figure 1). Both sustainable and sustainability leadership share the relevance of organizational culture when implementing sustainability initiatives in their firms. Sustainability and environmental leadership for instance, share both transactional leadership and relational leadership approaches when leading their firms towards sustainability goals. There are also unique key leadership findings in all three leadership approaches. Sustainable leadership, for example, features being socially and



environmentally responsible; includes aspects of preservation and sustaining organizations; and acknowledges the importance of shared responsibilities. Sustainability leadership key findings include taking action on sustainability values; finding sustainable solutions; developing relationships that influence all stakeholders; and elements of task leadership. Environmental leadership focuses on the importance of stakeholder influences and expectations to enhance the implementation and success of environmental initiatives. So, how do leaders implement sustainability in their firms? Do they take action and plan specific goals, mobilize resources and set the new direction or do they focus on developing relationships with all stakeholders and focus on the company's organizational culture – or a combination of all of the above? It is unlikely that leaders will embody all styles, skills, practices, and behaviours of leadership towards sustainability [CISL, 2018]. Instead, leaders will be able to use and adapt these key leadership findings to suit the context of their organization, thus enhancing sustainability practices in their firms.

Our aim was to resolve the similar and different findings from the literature to examine which sustainable, sustainability and environmental leadership approaches are predictive of improved organizational performance with view to understanding leadership towards sustainability. Based on the extant literature and discussion above, we have developed an integrated framework that combines our findings on leadership behaviours and practices in terms of the types of leadership required for sustainability change. The 'leadership towards sustainability' framework (see Figure 1) includes leadership behaviours and styles that have been developed from theoretical and empirical research and describes recurring themes. The framework organizes the current literature and takes a step towards integrating and understanding leadership towards sustainability. This new framework reviews and extends current leadership constructs, thus progressing leadership research in this field. As discussed above, there is much research that seeks to understand how leadership influences the implementation of sustainability in firms and this review uncovered similarities and differences among the three main leadership constructs.

## 5. Limitations and Future Research

This review paper has several limitations. First, whilst the key findings outlined in the 'leadership towards sustainability' framework will assist managers to implement or enhance sustainability initiatives in their firms, it has not been empirically tested. Second, most of the research on leadership and sustainability has focused on top management leader behaviours and practices directing and facilitating change towards sustainable goals. However, attention should be given to followers and their role in facilitating change and progressing sustainability ideas for top management consideration. Third, the approach to sustainability in this paper is mainly driven by business imperatives with the focus on making efficiency gains across economic, social and environmental issues. It is not about maintaining the integrity and viability of natural ecosystems, nor does it discuss capitalism, consumerism or organizational expansion. Fourth, the application of ISO 14000/14001 standard Environmental Management System has not been considered in this review. Finally, there remains considerable differences about the terms discussed in this review. The aim of this paper is not to limit the discussion or to have the final say, conversely, it is about clarifying and building on existing leadership theories to enhance our understanding of leadership knowledge.

## 6. Conclusions

This paper reviewed sustainable, sustainability and environmental leadership literature and identified areas of overlap and complementarity (see Figure 1). These three leadership approaches were chosen in this paper because of its emerging prominence in the leadership literature and its effectiveness through research. What has been missing in the literature is a synthesis of leadership behaviours and practices that combine sustainable, sustainability and environmental leadership. We

believe that this discussion will bring together literatures that have not previously been aligned and thus, will facilitate a deeper understanding of leadership within a sustainability context. Overall, this review is valuable because it develops a 'leadership towards sustainability' framework in which to study and practice leadership and identifies key leadership findings that promote sustainability and business development. Subsequently, this paper attempts to increase our understanding of the leadership behaviours and practices that facilitate the initiation and implementation of sustainability goals within firms.

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**Data Availability Statement:** We encourage all authors of articles published in MDPI journals to share their research data. In this section, please provide details regarding where data supporting reported results can be found, including links to publicly archived datasets analyzed or generated during the study. Where no new data were created, or where data is unavailable due to privacy or ethical restrictions, a statement is still required. Suggested Data Availability Statements are available in section "MDPI Research Data Policies" at <https://www.mdpi.com/ethics>.

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## References

- Adams, R.; Jeanrenaud, S.; Bessant, J.; Denyer, D.; & Overy, P. Sustainability-oriented Innovation: A Systematic Review. *International Journal of Management Reviews*, **2016**, *18*, 180-205. DOI: 10.1111/ijmr.12068
- Albertini, E. Does Environmental Management Improve Financial Performance? A Meta-Analytical Review. *Organization & Environment*, **2013**, *26*(4), 431-457. doi:10.1177/1086026613510301
- Althnayan, S.; Alarifi, A.; Bajaba, S.; & Alsabban, A. Linking Environmental Transformational Leadership, Environmental Organizational Citizenship Behaviour, and Organizational Sustainability Performance, *Sustainability*, **2022**, *14*, 8779.
- Aragon-Correa, J. A.; Hurtado-Torres, N.; Sharma, S.; & Garcia-Morales, V. J. Environmental strategy and performance in small firms: A resource-based perspective. *Journal of Environmental Management*, **2008**, *86*, 88-103. doi:<http://dx.doi.org/10.1016/j.jenvman.2006.11.022>
- Avery, G.; & Bergsteiner, H. (2011). Sustainable leadership practises for enhancing business resilience and performance. *Strategy & Leadership*, **2011**, *30*(3), 5-15.
- Avolio, B. J.; & Bass, B. M. Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. *Journal of Occupational & Organizational Psychology*, **1999**, *72*(4), 441-462.
- Bass, B. *Leadership and Performance Beyond Expectation*. New York: Free Press, **1985**.
- Bass, B. From transactional to transformational leadership: Learning to share the vision, *Organizational Dynamics*, **1990**, *18*(3), 19-31.
- Bass, B. Two Decades of Research and Development in Transformational Leadership. *European Journal of Work and Organizational Psychology*, **1999**, *8*, 9-32.
- Bass, B. M.; Jung, D. I.; Avolio, B. J.; & Berson, Y. Predicting Unit Performance by Assessing Transformational and Transactional Leadership. *Journal of Applied Psychology*, **2003**, *88*(2), 207-218. doi:10.1037/0021-9010.88.2.207
- Battilana, J.; Gilmartin, M.; Sengul, M.; Pache, A.-C.; & Alexander, J. A. Leadership competencies for implementing planned organizational change. *The Leadership Quarterly*, **2010**, *21*(3), 422-438. doi:<https://doi.org/10.1016/j.leaqua.2010.03.007>
- Benn, S.; Dunphy, D.; & Griffiths, A. *Organisational change for corporate sustainability*, 3<sup>rd</sup> ed.; New York: Routledge, Taylor & Francis Group, **2014**.
- Boeske, J.; & Murray, P.A. The Intellectual Domains of Sustainability Leadership in SMEs. *Sustainability*, **2022**, *14*, 1978.
- Boiral, O.; Cayer, M.; & Baron, C. M. The Action Logics of Environmental Leadership: A Developmental Perspective. *Journal of Business Ethics*, **2009**, *85*(4), 479-499. doi:10.1007/s10551-008-9784-2
- Bos-Brouwers, H. Corporate Sustainability and Innovation in SMEs: Evidence of Themes and Activities in Practice. *Business Strategy and the Environment*, **2009**, *19*, 417-435.

- Brundtland, G.; Kahlid, M.; Agelli, S.; Al-Athel, S.; Chidzero, B.; Fadika, L.; Hauf, V.; Lang, I.; Shijun, M.; Morino de Botero, M.; Singh, M.; Okita, S. Others, *Our common future, Brundtland report*, **1987**, Oxford University Press, USA. <https://sustainabledevelopment.un.org/content/documents/5987our-common-future>.
- Bryman, A. *Charisma and Leadership in Organizations*, London, Sage, **1992**.
- Burke, L.; & Logsdon, J. M. How corporate social responsibility pays off. *Long Range Planning*, **1996**, 29(4), 495-502. doi:[https://doi.org/10.1016/0024-6301\(96\)00041-6](https://doi.org/10.1016/0024-6301(96)00041-6)
- Burns, H.; Vaught, H.; & Bauman, C. Leadership for sustainability: Theoretical foundations and pedagogical practices that foster change. *International Journal of Leadership Studies*, **2015**, 9(1), 131-143.
- Burns, J. *Leadership*. New York: Harper & Row, **1978**.
- Cambridge Institute of Sustainability Leadership (CISL). *Rewiring leadership: the leadership we need, the future we want*. Cambridge UK: the Cambridge Institute for Sustainability Leadership, **2018**.
- Cantele, S.; & Zardini, A. Is sustainability a competitive advantage for small businesses? An empirical analysis of possible mediators in the sustainability–financial performance relationship. *Journal of Cleaner Production*, **2018**, 182, 166-176.
- Case, P.; Evans, L. S.; Fabinyi, M.; Cohen, P. J.; Hicks, C. C.; Prideaux, M.; & Mills, D. J. Rethinking environmental leadership: The social construction of leaders and leadership in discourses of ecological crisis, development, and conservation. *Leadership*, **2015**, 11(4), 396-423. doi:10.1177/1742715015577887
- Crews, D. E. Strategies for Implementing Sustainability: Five Leadership Challenges. *SAM Advanced Management Journal* (07497075), **2010**, 75(2), 15-21.
- Dailey, S.; & Browning, L. Retelling stories in organizations: understanding the functions of narrative repetition. *Academy of Management Review*, **2014**, 39(1), 22-43.
- Davies, B. *Developing Sustainable Leadership*. London: Paul Chapman Publishing, **2007**.
- De Groot, T.; Kiker, D.; & Cross, T. A Meta-Analysis to Review Organisational Outcomes Related to Charismatic Leadership. *Canadian Journal of Administrative Sciences*, **2000**, 17, 356-372.
- DeRue, D.; & Nahrgang, J.; Wellman, N.; & Humphrey, S. Trait and Behavioural Theories of Leadership: An Integration and Meta-Analytic Test of Their Relative Validity. *Personnel Psychology*, **2011**, 64, 7-52.
- DiSegni, D. M.; Huly, M.; & Akron, S. Corporate social responsibility, environmental leadership and financial performance. *Social Responsibility Journal*, **2015**, 11(1), 131-148. doi:doi:10.1108/SRJ-02-2013-0024
- Du, S.; Swaen, V.; Lindgreen, A.; & Sen, S. The Roles of Leadership Styles in Corporate Social Responsibility. *Journal of Business Ethics*, **2013**, 114, 155-169.
- Egri, C. P.; & Herman, S. Leadership in the north american environmental sector: Values, leadership styles, and contexts of environmental leaders and their organizations. *Academy of Management Journal*, **2000**, 43(4), 571-604. doi:10.2307/1556356
- Elkington, J. *Cannibals with Forks: The Triple Bottom Line of 21st Century Business* **1998**, (Vol. null).
- Endrikat, J.; Guenther, E.; & Hoppe, H. Making sense of conflicting empirical findings: A meta-analytic review of the relationship between corporate environmental and financial performance. *European Management Journal*, **2014**, 32(5), 735-751. doi:<https://doi.org/10.1016/j.emj.2013.12.004>
- Engert, S.; Rauter, R.; & Baumgartner, R. Exploring the integration of corporate sustainability into strategic management: a literature review. *Journal of Cleaner Production*, **2016**, 12, 2833-2850
- Epstein, M. J. *MAKING SUSTAINABILITY WORK*. Sheffield: Greenleaf Publishing Limited, **2008**.
- Epstein, M. J.; Buhovac, A. R.; & Yuthas, K. Implementing Sustainability: The role of leadership and organizational culture. *Strategic Finance*, **2010**, 91(10), 41-47.
- Epstein, M. J.; Buhovac, A. R.; & Yuthas, K. Managing Social, Environmental and Financial Performance Simultaneously. *Long Range Planning*, **2015**, 48(1), 35-45. doi:<https://doi.org/10.1016/j.lrp.2012.11.001>
- Farrell, A.; & Hart, M. What Does Sustainability Really Mean? The Search for Useful Indicators. *Environment: Science and Policy for Sustainable Development*, **1998**, 40(9), 4-31. DOI: 10.1080/00139159809605096
- Ferdig, M. A. Sustainability Leadership: Co-creating a Sustainable Future. *Journal of Change Management*, **2007**, 7(1), 25-35. doi:10.1080/14697010701233809
- Flannery, B. L.; & May, D. R. Prominent factors influencing environmental activities: Application of the Environmental Leadership Model (ELM). *The Leadership Quarterly*, **1994**, 5(3), 201-221. doi:[https://doi.org/10.1016/1048-9843\(94\)90012-4](https://doi.org/10.1016/1048-9843(94)90012-4)
- Gerard, L.; McMillan, J.; & D'Annunzio-Green, N. Conceptualising sustainable leadership, *Industrial and Commercial Training*, **2017**, 49(3), 116-126.
- Hallinger, P.; & Suriuankietkaew, S. Science Mapping of the Knowledge Base on Sustainable Leadership, 1990-2018. *Sustainability*, **2018**, 10, 4846.
- Hargreaves, A.; & Fink, D. *Sustainable Leadership*. San Francisco: Jossey-Bass, **2006**.
- Hart, S. A Natural-Resource-Based view of the Firm. *Academy of Management Review*, **1995**, 20(4), 986-1014.

- Hitt, M. A.; Haynes, K. T.; & Serpa, R. Strategic leadership for the 21st century. *Business Horizons*, **2010**, 53, 437-444.
- Iqbal, Q.; Ahmad, N.; & Yongmei, L. Sustainable Leadership in Frontier Asia Region: Managerial Discretion and Environmental Innovation, *Sustainability*, **2021**, 13, 5002.
- Isensee, C.; Teuteberg, F.; Griesse, K.; & Topi, C.; The relationship between organizational culture, sustainability and digitalization in SMEs: A systematic review, *Journal of Cleaner Production*, **2020**, 275, 122944
- Jansen, J. J. P.; Vera, D.; & Crossan, M. Strategic leadership for exploration and exploitation: The moderating role of environmental dynamism. *The Leadership Quarterly*, **2009**, 20(1), 5-18.  
doi:<https://doi.org/10.1016/j.leaqua.2008.11.008>
- Jayashree, P.; Barachi, M.; & Hamza, F. Practice of Sustainability Leadership: A Multi-Stakeholder Inclusive Framework. *Sustainability*, **2022**, 14, 6346.
- Jones, P.; Hillier, D.; & Comfort, D. WHOLESALING AND SUSTAINABILITY: AN EXPLORATORY CASE STUDY OF THE UK'S LEADING FOOD AND DRINK WHOLESALERS. *International Journal of Sales, Retailing & Marketing*, **2015**, 4(4), 52-63.
- Judge, T.; & Bono, J. Five-Factor Model of Personality and Transformational Leadership. *Journal of Applied Psychology*, **2000**, 85(5), 751-765.
- Judge, T.; Bono, J.; Ilies, R.; & Gerhardt, M. Personality and Leadership: A Qualitative and Quantitative Review. *Journal of Applied Psychology*, **2002**, 87, 765 - 780.
- Kantabutra, S.; & Avery, G. Sustainable leadership: honeybee practices at a leading Asian industrial conglomerate, *Asia Pacific Journal of Business Administration*, **2013**, 5(1), 36-56.
- Kets De Vries, M. Leaders who make a difference. *European Management Journal*, **1996**, 14, 486-493.
- Knight, B.; & Paterson, F. Behavioural competencies of sustainability leaders: an empirical investigation. *Journal of Organizational Change Management*, **2018**, 31, 3, 557-580
- Kotter, J. *Leading Change*. Boston, Harvard Business School Press, **1996**, In. Retrieved from  
<http://ezproxy.usq.edu.au/login?url=http://library.books24x7.com/library.asp?^B&bookid=3479>
- Kuhlman, T.; & Farrington, J. What is Sustainability? *Sustainability*, **2010**, 2, 3436-3448; doi:10.3390/su2113436
- Lourenco, I.; Callen, J.; Branco, M.; & Vurto, J. The Value of Relevance of Reputation for Sustainability Leadership. *Journal of Business Ethics*, **2014**, 119, 17-28
- Malhortra, N.; & Hinings, C. Unpacking continuity and changes as a process of organizational transformation. *Long Range Planning*, **2015**, 48, 1-22.
- McCann, J.; & Holt, R. Sustainable Leadership: A Manufacturing Employee Perspective, *S.A.M. Advanced Management Journal*, **2011**, 76, 4.
- McCann, J., & Sweet, M. The Perceptions of Ethical and Sustainable Leadership. *Journal of Business Ethics*, **2014**, 121, 373-383.
- Metcalf, L.; & Benn, S. Leadership for Sustainability: An Evolution of Leadership Ability. *Journal of Business Ethics*, **2013**, 112(3), 369-384. doi:10.1007/s10551-012-1278-6
- Nicholson, J.; & Kurucz, E. Relational Leadership for Sustainability: Building and Ethical Framework from the Moral Theory of 'Ethics of Care'. *Journal of Business Ethics*, **2019**, 156, 25-43
- Nisha, N.; Nawaz, N.; Mahalakshmi, J.; Gajenderan V.; & Hasani, I. A study on the Impact of Sustainable Leadership and Core Competencies on Sustainable Competitive Advantage in the Information Technology (IT) Sector. *Sustainability*, **2022**, 10, 6899.
- Niu, X.; Wang, X.; & Xiao, H. What motivates environmental leadership practise - an empirical analysis in Taiwan. *Journal of Asian Public Policy*, **2018**, 11(2), 173-187.
- Parker, C.; Redmond, J.; & Simpson, M. A review of interventions to encourage SMEs to make environmental improvements. *Environment and Planning*, **2009**, 27(2), 279-301.
- Portugal, E.; & Yukl, G. (1994). Perspectives on environmental leadership. *The Leadership Quarterly*, **1994**, 5(3), 271-276. doi:[https://doi.org/10.1016/1048-9843\(94\)90017-5](https://doi.org/10.1016/1048-9843(94)90017-5)
- Quinn, L.; & Dalton, M. Leading for sustainability: implementing the tasks of leadership. *Corporate Governance*, **2009**, 9(1), 21-38.
- Robertson, J.; & Barling, J. Green organizations through leaders' influence on employees' pro-environmental behaviours, *Journal of Organizational Behaviour*, **2013**, 34, 176-194. Doi:10.1002/job.1820
- Robertson, J.; & Barling, J. Toward a new measure of organizational environmental citizenship practise. *Journal of Business Research*, **2017**, 75, 57-66.
- Robertson, J. L., & Carleton, E. Uncovering How and When Environmental Leadership Affects Employees' Voluntary Pro-environmental Behavior. *Journal of Leadership & Organizational Studies*, **2018**, 25(2), 197-210. doi:10.1177/1548051817738940



- Robinson, D.; & Clegg, A. Environmental leadership and competitive advantage through environmental management system standards. *Eco-Management and Auditing*, **1998**, 5(1), 6-14. doi:doi:10.1002/(SICI)1099-0925(199803)5:1<6::AID-EMA74>3.0.CO;2-I
- Runhaar, H.; Tigchelaar, C.; & Vermeulen, W. Environmental Leaders: Making a Difference. A Typology of Environmental Leaders and Recommendations for a Differentiated Policy Approach. *Business Strategy and the Environment*, **2006**, 17, 160-178.
- Sarros, J. C.; Cooper, B. K.; & Santora, J. C. Building a Climate for Innovation Through Transformational Leadership and Organizational Culture. *Journal of Leadership & Organizational Studies*, **2008**, 15(2), 145-158.
- Savitz, A.; & Weber, K. *The Triple Bottom Line*. San Francisco: John Wiley & Sons, **2006**.
- Schein, E. *Organizational Culture and Leadership*. San Francisco: John Wiley & Sons, **2010**.
- Sheehy, B.; & Farneti, F. Corporate Social Responsibility, Sustainability, Sustainable Development and Corporate Sustainability: What Is the Difference, and Does It Matter? *Sustainability*, **2021**, 13, 5965. <https://doi.org/10.3390/su13115965>
- Sheppard, J.-A.; Sarros, J. C.; & Santora, J. C. Twenty-first century leadership: international imperatives. *Management Decision*, **2013**, 51(2), 267-280.
- Smith, A.; & Sarros, J. Environmental Leadership: Baseline Surveys and Lessons from Australia's Leaders, *Australasian Journal of Environmental Management*, **2004**, 11(2), 164-176, doi.org/10.1080/14486563.2004.10648610
- Solomon, J. *CORPORATE GOVERNANCE AND ACCOUNTABILITY* (4th ed.). West Sussex: John Wiley & Sons, **2013**.
- Smith, A.; & Sarros, J. Environmental Leadership: Baseline Surveys and Lessons from Australia's Leaders, *Australian Journal of Environmental Management*, **2004**, 11(2), 164-176, DOI:10.1080/14486563.2004.10648610
- Smith, P.; & Sharicz, C. The shift needed for sustainability. *The Learning Organization*, **2011**, 18(1), 73-86. doi:doi:10.1108/09696471111096019
- Sroufe, R. Integration and organizational change towards sustainability. *Journal of Cleaner Production*, **2017**, 162, 315-329. doi:<https://doi.org/10.1016/j.jclepro.2017.05.180>
- Strand, R. Strategic Leadership of Corporate Sustainability. *Journal of Business Ethics*, **2014**, 123(4), 687-706. doi:10.1007/s10551-013-2017-3
- Stogdill, R. M. Leadership, membership and organization. *Psychological Bulletin*, **1950**, 47(1), 1-14. doi:10.1037/h0053857
- Sun, P.; & Anderson, M. Civic capacity: Building on transformational leadership to explain successful integrative public leadership, *The Leadership Quarterly*, **2012**, 23(3), 309-323.
- Suriyankietkaew, S.; Krittayaruangroj, K.; & Iamsawan, N. Sustainable Leadership Practices and Competencies of SMEs for Sustainability and Resilience: A Community-Based Social Enterprise Study, *Sustainability*, **2022**, 14, 5762
- Svensson, G.; & Wood, G. Sustainable leadership ethics: a continuous and iterative process. *Leadership & Organization Development Journal*, **2007**, 28(3), 251-268.
- Taylor, A. *Leadership In Sustainable Urban Water Management. An Investigation of the Champion Phenomenon Within Australian Water Agencies*, **2008a**.
- Taylor, A. *Ten Attributes of emergent leaders who promote sustainable urban water management in Australia*. Paper presented at the 11th International Conference on Urban Drainage, Edinburgh, Scotland, **2008b**.
- Tideman, S. G.; Arts, M. C.; & Zandee, D. P. Sustainable Leadership. *Journal of Corporate Citizenship*, **2013**, 49, 17-33.
- Timmer, D.; Creech, H.; & Buckler, C. *Becoming a Sustainability Leader*. Retrieved from Winnipeg, Manitoba, **2007**.
- Van Velsor, E.; & McCauley, C. D. *The Center for Creative Leadership handbook of leadership development* (2nd Ed), Jossey-Bass, **2004**.
- Vardiman, P. D.; Houghton, J. D.; & Jinkerson, D. L. Environmental leadership development: Toward a contextual model of leader selection and effectiveness. *Leadership & Organization Development Journal*, **2006**, 27(2), 93-105. doi:doi:10.1108/01437730610646606
- Visser, W.; & Courtice, P. Sustainability leadership: Linking theory and practice. In CPSL Report, *A Journey of a Thousand Miles: The State of Sustainability Leadership*, available on [www.cpsl.cam.ac.uk](http://www.cpsl.cam.ac.uk), **2011**.
- Wang, X.; Van Wart, M.; & Lebrede, N. Sustainability Leadership in a Local Government Context. The Administrator's role in the Process, *Public Performance & Management Review*, **2014**, 37(3), 339-364. doi:10.2753/PMR1530-9576370301
- Wang, G.; Oh, I.; Courtright, S.; & Colbert, A. Transformational Leadership and Performance Across Criteria and Levels: A Meta-Analytic Review of 25 Years of Research. *Group & Organization Management*, **2011**, 36(2), 223-270. DOI: 10.1177/1059601111401017

- Wiesner, R.; Chadee, D.; & Best, P. Managing Change Toward Environmental Sustainability: A Conceptual Model in Small and Medium Enterprises. *Organization & Environment*, **2017**, 1-26 1086026616689292. doi:10.1177/1086026616689292
- Yukl, G. Managerial Leadership: A Review of Theory and Research. *Journal of Management*, **1989**, 5(2), 251-289.
- Yukl, G. How leaders influence organizational effectiveness. *The Leadership Quarterly*, **2008**, 19(6), 708-722. doi:<https://doi.org/10.1016/j.leaqua.2008.09.008>
- Yukl, G. Effective Leadership Behaviour: What We Know and What Questions Need More Attention. *Academy of Management Perspectives*, November, **2012**, 26(4).
- Yukl, G.; Gordon, A.; & Taber, T. A Hierarchical Taxonomy of Leadership Behaviour: Integrating a Half Century of Behaviour Research. *Journal of Leadership & Organisational Studies*, **2002**, 9(1), 15-32.