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Leadership, Innovation, and Sustainability

Robert Verburg

Introduction

Understanding the need for long-term survival and competitiveness at different levels in society, a growing number of organizations aims for sustainability. This implies the creation, delivery, and capturing of all three dimensions of value (economic, social, and environmental) as part of their business model (e.g., Boons et al. 2013; Bocken et al. 2014; Lüdeke-Freund et al. 2016). Innovation is an important means to achieve sustainability and relates to the development of new products and services, processes (production methods and procedures), technologies, organizational practices, and business models. Innovation is vital for organizational survival and constitutes a significant source of competitive advantage for organizations (Teece 2010; Gunday et al. 2011).

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As a field of inquiry, innovation is broad and distinctions can be made between the diffusion and adoption of innovations in the market versus organizational innovating and innovativeness. Here, we regard innovation as a process of turning opportunity into new ideas and of putting these into widely used practice (Tidd et al. 2005). Firms increasingly aim for sustainability-oriented innovation, rather than innovation as a solely profit-oriented pursuit (Adams et al. 2016). Here, we refer to sustainable innovation as both a process and an outcome of pursuits that increase economical, ecological, and social aspects of value creation (Inigo and Albareda 2016). Such innovation is all but easy and leadership seems to be an important driver of this kind of value creation (e.g., Visser 2018). Although some claim that the challenges in relation to sustainable innovation call for a specific kind of leadership, the overall concept of sustainability leadership seems to be plagued by inconsistencies in the way it is conceptualized, studied, and presented.

The aim of this chapter is to further understanding around the leadership challenges associated with sustainable innovation. Leadership is defined as the process by which a leader influences others in ways that help attain group or organizational goals (Yukl 2012) and features as an important predictor in many studies on organizational success. In this chapter, the focus is on formal leadership roles within organizations, and not specifically on leaders of sustainability movements (see, e.g., Johnston 2014). We also do not focus on individuals within organizations trying to exert upward influence in putting sustainability on the leadership agenda, a proactive employee behavior more generally known as ‘issue selling’ (see, e.g., Dutton et al. 2001). The chapter is structured as follows. First, the link between leadership and innovation will be highlighted and next the nature of sustainable innovation will be discussed before I explore whether there is something called *sustainability leadership*.

Leadership Perspectives and Innovation

The urge for organizations to keep innovating implies encouraging creativity in order to stimulate both the generation and implementation of new ideas (Tece 2010; Gilson et al. 2005). Creativity is traditionally

defined as the production of novel and useful ideas (Amabile et al. 1996) and is often associated with individuals, whereas innovation tends to be accomplished by groups, organizations, or societies (West 2002). Montag et al. (2012) show that behaviors driving creative processes are an integral part of the role of R&D professionals. The emphasis on innovation and creativity has a profound impact on the way organizations lead their teams as command and control does not fit well with offering employees the freedom to explore. Therefore, leadership is increasingly regarded as an important predictor of innovation outcomes (Rosing et al. 2011).

Although innovation and creativity are very important areas of inquiry, the empirical research on leadership and innovation is surprisingly limited (see Anderson et al. 2014 for an overview). Only a small percentage of leadership studies were conducted in R&D organizations or other contexts in which creativity and innovation outcomes are central performance indicators (e.g., De Jong and Den Hartog 2010; Gupta and Singh 2015). Research evidence, so far, suggests a link between leadership and innovation outcomes in organizations. More particularly, studies suggest that a transformational leadership style may help stimulate innovative behavior in areas in which creative engagement is important (Rosing et al. 2011).

Transformational Leadership, Innovation, and Sustainability

Transformational leadership is characterized by the use of idealized influence (charisma), inspiration, intellectual stimulation, or individualized consideration in order to move followers beyond immediate self-interests and motivate them to contribute to the goals of the collective (Bass 1999). Before researchers addressed the role of transformational leadership, studying leadership performance used to focus on the characteristics (or traits) of leaders or their behaviors to facilitate group maintenance and ensure task accomplishment. When transformational leadership became more central, the role of leaders providing a vision or overarching goal was added to the agenda. For leaders, a well-articulated and attractive vision or sense of direction is crucial to integrate and align followers' efforts.

The sense of purpose that an attractive vision of the future inspires, acts as a powerful motivating force for those who share this vision.

Vision is what contrasts transformational leadership with other forms of leadership such as transactional forms of leader behavior (Bass 1999). Transactional leadership views leader–follower interactions from an exchange perspective. An effective transactional leader recognizes what followers want to get from their work and tries to see that they are rewarded with their desired outcomes if their performance warrants it. The leader clarifies performance criteria, rewards meeting these criteria, and takes action when correction is needed. As such, a transactional leadership style can be effective in driving short-term meeting of performance targets, but is not likely to be associated with innovation and creativity as experimentation is not encouraged (Rosing et al. 2011). Also, the effect of formal control on performance seems to be much stronger in stable and standardized environments, than in knowledge-intensive firms. For example, Horwitz et al. (2003) argue that knowledge-intensive organizations are usually more decentralized, networked, and flatter than traditional firms and therefore rely more on normative kinds of control than on common command and control arrangements (Alvesson 2000).

Transformational leaders go beyond such cost-benefit exchanges and both inspire and challenge followers to make the vision a reality (Bass 1999). The dynamics of transformational leadership involve joining in a shared vision of the future and going beyond the self-interest exchange of rewards for compliance (Bass 1999). By defining the need for change and creating a new vision the leader can help followers see new possibilities. Such leaders also stimulate followers to think outside the box and try out new ideas or work methods if these would help to realize the vision.

Transformational leadership is a proactive rather than a reactive way to lead. Earlier leadership models focused on how follower needs and other contextual conditions determine leaders' actions and leaders were mostly seen as effective when they reacted effectively and thus complemented the environment. Transformational leadership models describe how leaders proactively change their environment and emphasize how they create desirable conditions and affect change rather than merely respond to followers or the context. Transformational leaders (when compared to transactional leaders) have subordinates reporting greater satisfaction,

motivation, trust, and commitment. Such leaders also receive higher ratings of effectiveness and performance and have higher performing business units (see, e.g., the early findings by Fiol et al. 1999).

In a review of more than 30 well-established empirical studies on the link between transformational leadership and innovation, Rosing et al. (2011) show that transformational leadership correlates positively with several innovation outcomes in organizations. They argue that it is plausible to expect such a positive relationship because transformational leadership enhances follower motivation and passion for the vision and may also encourage followers to try new things and challenge the status quo rather than to automatically march in line with management. Rosing and her colleagues warn, however, that it is insufficient to focus on the main effect of transformational leadership on innovation only as there are strong variations in the results of the different studies and the organizational context may affect how effective such leadership is. Nevertheless, the results of their meta-analysis suggest a strong relationship between transformational leadership style and innovation outcomes in organizations.

Ethical Dimensions of Leadership

In the last few years, concepts such as integrity, responsibility, and ethics have prominently entered the field of leadership studies. Focusing on this ethical dimension of leadership has gained popularity following the many infamous cases of ethical misconduct by CEOs, such as Kenneth Lay (Enron), Conrad Black (Hollinger International), and Scott Thompson (Yahoo!) as well as ethical lapses of leaders beyond the business arena. In older work, transformational leadership was described as containing an ethical component, but more recently authors indicate such leaders may have more or less ethical aims and there has been an increased attention for ethical behaviors of leaders more generally (Den Hartog 2015). Studying the ethical dimensions of leadership is not new (see for instance Kanungo and Mendonca 1996) and there are many different perspectives which highlight the ethical dimensions of leadership, such as ethical, authentic, spiritual, and servant leadership¹ (see Table 7.1).

Table 7.1 Different leadership perspectives which highlight moral/ethical dimensions

Leadership type	Focus	Main source
Transformational leadership	The use of idealized influence (charisma), inspiration, intellectual stimulation, or individualized consideration in order to move followers beyond immediate self-interests and motivate them to contribute to the goals of the collective	Bass (1999)
Ethical leadership	Leaders have a strong influence on ethical standards and act as ethical role models. Reward and punishment are applied in order to promote ethical behavior of followers	Treviño et al. (2003)
Spiritual leadership	Values, attitudes, and behaviors that are necessary to intrinsically motivate one's self and others so they have a sense of spiritual survival/well-being through calling and membership	Fry (2003)
Authentic leadership	A process that involves positive psychological capacities as well as a highly developed organizational context, which results in greater self-awareness and self-regulated positive behaviors on the part of leaders and associates, fostering positive self-development	Avolio and Gardner (2005)
Servant leadership	Demanded by empowering and developing people; by expressing humility, authenticity, interpersonal acceptance, and stewardship; and by providing direction	Van Dierendonck (2011)

While strong correlations are found between ethical and transformational leadership (as well as the other forms of leadership in Table 7.1) they do also conceptually differ (see Den Hartog 2015). Ethical leadership includes being both a focus on the leader as a moral person and as a moral manager and an ethical leader has qualities, such as honesty and trustworthiness, and tries to act fairly, showing concern for others and considering the consequences of his or her actions (e.g., Brown et al. 2005). Leaders use managerial roles and leadership positions to promote ethics in the workplace for example, through role modeling ethical conduct, setting and communicating ethical standards, and using reward/punishment to ensure that ethical standards are followed (Kalshoven et al. 2011). Kalshoven and colleagues also emphasize that ethical leaders take the effects of their behavior on their surroundings into account, including the effects on society and the natural environment. They present a measure of ethical leadership and argue that sustainable leadership as a relatively new field of inquiry is linked to this specific leadership style.

Understanding Sustainable Innovation and Leadership: A Case Illustration

While innovation is increasingly seen as a potential source of competitive advantage, as noted a growing number of organizations aim to also include social and environmental aspects in their economic value creation. Accordingly, such firms aim for sustainable innovation rather than innovation as such. Sustainability relates to the inclusion of both environmental and social concerns into the organization's business operations and its interactions with stakeholders (Van Marrewijk and Werre 2003). Sustainable businesses offer products and services that fulfill societal needs, while still contributing to the well-being of the earth's inhabitants (Christensen et al. 2007).

Here, I will provide a short illustration of a sustainable business case. For example, up to 40% of the more than 395,000 tons of bananas grown in Australia each year are dumped before they even leave the farm. Just because these bananas are not the right color, shape or size,

or because of oversupply in the market. Banana farmers Krista and Rob Watkins tried to find a solution as they discovered that those unwanted green bananas could be made into a highly nutritious, gluten free flour. Since it takes 10 kilos of green bananas to make about 1 kilo of flour, peeling by hand did not prove very effective. This gave Rob Watkins the impetus to design the world's first mechanical banana peeler. As a result of these efforts, Krista and Rob Watkins founded the so-called Natural Evolution Foods company.²

Between their different product lines, which include gluten-free flour as well as skincare products, and a health supplement made from bananas, they save millions of bananas each year from waste. They now work together with other farmers in the area in order to ensure minimal waste and maximum profits for the community. Their success has attracted international interest and Rob and Krista have won several awards, including a Gold Edison Award, for their now world-renowned waste-reducing technology. Bananas are the fourth largest crop grown in the world and Australia only grows about 1% of the world's crop. The ambition of Natural Evolution Foods is to create more international awareness of the possibilities to use banana waste to help starvation and hunger situations globally. In order to do so, their business case serves as a source of inspiration for other business owners.

The Construction of a Sustainability Vision

The example above illustrates a successful effort in sustainable innovation. The goals of the business are to contribute to the environment by creating less waste, while helping reduce global starvation by offering nutritional alternatives and being an economically healthy organization at the same time. This certainly seems like a powerful vision for a firm that could attract and motivate both employees and customers. As the core element of transformational leadership is the articulation of an attractive vision of a possible future, such leadership if it can create visions such as the one in the example above could also be an effective style for encouraging sustainability. For instance, the vision of Natural Evolution Foods describes a better future in ideological terms, which is likely to be congruent with the dearly held values of people

who are attracted to work at this firm and customers who will buy from them. Older theory suggests that leaders can instill pride, gain trust, and increase a sense of optimism and hope in followers through articulating such a vision (Shamir et al. 1993), which should also be the case for sustainable innovation.

Although transformational leadership could be an effective style for encouraging sustainability, there is no clear research evidence (yet) for this effect. Only few studies relate transformational leadership with sustainability outcomes. A notable exception is the study by Tabassi and his colleagues (2016) addressing the role of transformational leadership behavior of project managers in sustainable construction projects in Malaysia. They only found limited support for the direct relationship between transformational leadership and sustainable performance measures. Other studies which highlight the importance of stakeholders and both environmental and broader social concerns can be found in the literature on corporate social responsibility (CSR). In this realm, the empirical work by Waldman et al. (2006), who study the link between CSR and CEO transformational leadership and intellectual stimulation, is often cited.

However, CSR and sustainability are not the same, although they are not often separated in studies. CSR is often defined as ‘the voluntary actions taken by a company to address economic, social, and environmental impacts of its business operations and the concerns of its principal stakeholders’ (Christensen et al. 2007: 352). Like the example of Natural Evolution Foods shows, sustainability refers to business that contributes to an equitable and ecologically sustainable economy as their core mission and not so much to separate corporate social or environmental initiatives. Despite their differences CSR and sustainability are often treated as the same. For example, in a study on leader characteristics of newly appointed members of top management teams in a large sample of US firms, Wiengarten et al. (2017) interchange sustainability and CSR in the position titles of the officers and directors in their sample. Although established firms may use sustainability labels for their officers, a chief sustainability officer does not necessarily imply sustainable leadership. This starts to beg the question: Is there such a thing as ‘sustainable leadership’?

Sustainable Leadership?

According to Ferdig (2007), sustainable leadership ‘reflects an emerging consciousness among people who are choosing to live their lives and their organizations in ways that account for their impact on the earth, society, and the health of local and global economies’ (p. 26). In this definition, leadership is regarded as taking charge by individuals in general, rather than being aimed at individuals who are responsible for a business and its people (formal leaders). The former seems more related to emergent (informal) leadership by any individual and not (as we focus on in this chapter) limited to the leadership of those in management and business ownership roles. In other words, individuals from any background taking action to create awareness about sustainability challenges in relation to the natural environment and society seem to be key in much of the sustainable leadership work to date, rather than focusing on the role of managerial leadership in sustainability and sustainable innovation. The term leadership is probably used to underline the importance of being proactive as an individual in order to pursue sustainability goals rather than to be reactive or even complacent. This is in line with the more general work on strategic proactive work behaviors that describe how employees might try to influence the organizational agenda, such as the aforementioned issue selling. The work by Parker and Collins (2010) provides an overview of more such proactive work behaviors that employees can show.

Steve Schein (2015) takes a more corporate perspective and applies the term sustainability leadership in order to present the findings of 65 interviews with what he calls ‘global sustainability leaders’ of multinational corporations, NGOs, and consulting firms. He presents illustrations of how such global sustainability leaders have shaped their ecological worldviews, how they express these, and how they try to influence others through their expressions. He proposes a generally more collaborative approach to leadership with less control. In line with Ferdig (2007) he also emphasizes the importance of collective wisdom. His book relates to the nature and importance of ecological worldviews and contains a number of remarkable examples of leadership within the context of sustainability; however, his analysis does not reveal new insights

that go above or beyond the current theoretical understanding of how leaders influence others in times of change in organizations or society.

In another qualitative study, Quinn and Dalton (2009) focus on leadership associated with the introduction of sustainability initiatives by 17 leaders in 12 organizations in the USA. They argue that sustainability leadership is not particularly different from other effective leadership behaviors in relation to change efforts. A vision must be formulated in a compelling way and must be integrated into the business so that employees may be engaged through this. However, the leaders in their sample differ in their views on how business should operate. Rather than just recognizing the relationships between their business, the natural environment, and society, they 'actively pursue strategies to respect and honor these connections' (p. 34). In other words, sustainability leadership in their model features as a joint vision in which environmental and societal goals are combined with business opportunities.

A final set of studies in the area of sustainability leadership can be found in the area leadership development as well as in the area of (higher) educational programs related to sustainability (e.g., Hargreaves and Fink 2004; Christensen et al. 2007; Burns et al. 2015; Dyer and Dyer 2017). In these approaches, the emphasis is on the development of others in the environment, distribution of responsibilities, and endurance over time (Hargreaves and Fink 2004). Again, in these approaches sustainability features as a visionary component in relation to leadership.

Conclusion

The literature and work under the heading of sustainable or sustainability leadership is growing but so far there is no consensus on what this kind of leadership entails. The question what sustainable or sustainability leadership means, is not so much a semantic discussion rather than the result of different perspectives on sustainability in relation to innovation and leadership. Some use sustainability leadership to better explain the impact of leadership behaviors on sustainability initiatives in organizations and regard it as part of the current developments in

the area of ethical leadership. Others see it as research in the area of CSR initiatives. Although leadership is usually associated with leading and managing people in organizations, some work on sustainability leadership does not imply formal management or leadership positions, but rather focuses on it as a proactive behavior anyone could engage in. Leadership means here that people should proactively take charge in order to contribute to global challenges by (collectively) influencing others to act more sustainably. This particular view on sustainable leadership also features in the growing attention to leadership development and education.

The different viewpoints on sustainable leadership stem from different disciplines and so lead to different definitions and applications. Work on leadership in organizations suggests that a combination of inspirational (transformational) and ethical business leadership will be important for creating sustainable innovation. The sense of purpose that an attractive ecological and economically viable vision of the future inspires, acts as a powerful motivating force for those who share the vision. In relation to sustainable innovation, such a vision should relate simultaneously to helping sustain or improve the natural environment and benefit society as well as creating a viable business that will endure and sustain employee well-being. For leaders, this articulated sense of direction is a first step in order to entice followers so that joint efforts may lead to the realization of this vision.

For current or even new business owners, sustainability challenges may act as a source of inspiration for coming up with viable new products, services, or business models that may contribute to society and the natural environment. Sustainability leadership could mean to focus more particularly on what is needed in order to realize ideas in relation to sustainability challenges. Examples of new ventures or transformations of existing businesses that successfully contribute to society and the natural environment may create awareness about sustainability challenges. Such inspirational examples may also lead to a better understanding of the nature of sustainability leadership. Therefore, more examples of such leadership as well as their inclusion in the education of future leaders are needed.

Notes

1. Some proponents of the servant leadership perspective tend to frame servant leadership as positive and transformational leadership as negative. See, for example, Cater and Beal (2015) who claim that ‘servant leaders (as opposed to transformational leaders) do not seek power, fame, or self-interests (...) but aim to positively impact the employees and the community above the pursuit of short-term profit’ (p. 29). Such statements are problematic for several reasons. First, the theory on transformational leadership does not indicate that such leaders are always seeking power, fame, or self-interests. The theory is about how leaders influence others in order to help attain (group or organizational) goals and the theory is not about the motivations of people to become leaders. Second, transformational leadership also stresses the importance of positive impacts on employees by highlighting the role of individualized consideration (i.e., treating each individual as valuable and unique), intellectual stimulation (i.e., providing subordinates with a flow of challenging new ideas), and some authors even include the use self-sacrifice in order to demonstrate (the leader’s) loyalty to the cause. Third, the outcomes of any leadership style are not necessarily positive or negative. Whether reaching a certain goal is positive or negative depends on the perception of the different stakeholders within a specific context and as the work on ethics in leadership shows the effects can differ for different stakeholders. As such, the fact that servant leaders will positively impact the employees and the community is a normative statement since ‘leadership is in the eye of the beholder’ (Billsberry and Meisel 2009).
2. For more information see the following website: <https://www.naturalevolutionfoods.com.au/story/>. There is also an interesting piece on Natural Evolution Foods entitled ‘Going Bananas,’ which was published in the Oct/Nov (2017) issue of the in-flight magazine of Rex Airlines (Australia), 61–64.

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