Advances in Developing Human Resources

http://adh.sagepub.com/

Engaging Organizations in Environmental Change: A Greenprint for Action

David McGuire

Advances in Developing Human Resources 2010 12: 508 DOI: 10.1177/1523422310394759

The online version of this article can be found at: http://adh.sagepub.com/content/12/5/508

Published by:



http://www.sagepublications.com

On behalf of:



Academy of Human Resource Development

Additional services and information for Advances in Developing Human Resources can be found at:

Email Alerts: http://adh.sagepub.com/cgi/alerts

Subscriptions: http://adh.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav

Citations: http://adh.sagepub.com/content/12/5/508.refs.html

>> Version of Record - Jan 11, 2011

Engaging Organizations in Environmental Change: A Greenprint for Action

Advances in Developing Human Resources 12(5) 508–523 © 2010 SAGE Publications Reprints and permission: http://www. sagepub.com/journalsPermissions.nav DOI: 10.1177/1523422310394759 http://adhr.sagepub.com



David McGuire

Abstract

In the past decade, awareness of environmental issues has increased tremendously and organizations are increasingly looking at ways of becoming more environmentally responsible and responsive. However, to date, progress on environmental issues has predominantly taken place in the scientific and engineering fields, with less emphasis on green issues in the management disciplines. This article issues a call for greater attention to environmental issues in all areas of management and as a starting point sets down eight ideas for engaging organizations in environmental change. These ideas include the development of green management modules, establishment of a green contract, environmental scenario planning, environmental auditing, green product redesign, environmental labeling, corporate consciousness, and environmental outreach. Following the discussion of each idea, some examples are provided looking at the concept in practice. The article concludes by encouraging the field of HRD to take a greater role in promoting environmental change in organizations. It argues that HRD practitioners can play an important role in reminding organizations of their social and moral responsibilities and fostering environmentally responsive innovation and change.

Keywords

environment, green, green contract, environmental outreach, green management

We live in a complex ecosystem. Global events dominate our interconnected world affecting our lives and the societies in which we live. Natural disasters, such as Hurricane Katrina and the Asian Tsunami often have wide and far-reaching international consequences affecting individuals, organizations, communities, and societies. All too

Corresponding Author:

David McGuire, School of Business, Enterprise and Management, ¹Queen Margaret University, Newcraighall Campus, Edinburgh, EH21 EUU Scotland

Email: dmcguire@qmu.ac.uk

¹Queen Margaret University, Edinburgh, Scotland, UK

often, such incidents do not respect state or national boundaries with their effects sometimes spread over whole regions and countries, requiring leaders to work closely with one another in formulating a coordinated effective response.

In recent years, awareness of environmental issues and the need for organizations to act in an environmentally responsible manner has increased significantly. Logsdon (2004) suggests that many organizations engage in voluntary environmental improvements for a variety of reasons including alignment with organizational values, enhanced reputation, and the ability to make cost savings. Yet, as Andersson and Bateman (2000) indicate, there is little agreement among businesses on which environmental issues to focus on and how these should be addressed. This lack of clear environmental obligations has led to some companies locating dirty operations in countries with lax environmental regulations (Christmann, 2004). Getting organizations to engage with environmental change has become critical to achieving sustainable long-term progress on environmental issues. In many instances, engaging organizations in environmental concerns will involve getting organizations to understand the changing expectations of society and the effect organizations have on communities and society (Ihlen, 2008). In this regard, there has been a noticeable shift in ideology from corporate social responsibility to corporate social performance with a focus on actions and an evaluation of their effectiveness (Rundle-Thiele, Ball, & Gillespie, 2008). This focus on social performance will undoubtedly move organizations beyond the sometimes mere rhetoric of responsibility toward establishing their societal impact, thus increasing overall organizational accountability.

So, what role does HRD play in helping bring about environmental change? Russ-Eft (2009) argues that HRD professionals are aware of their professional responsibilities to communities, the societies in which they live, and the planet. As such, she argues that HRD professionals have a responsibility to maintain a balance between the clients needs and a range of other needs that encompass the common good. Organizations too are increasingly realizing the need to invest in environmental change, not for humanitarian reasons, but rather for economic reasons (Friedman, 2008). Responding to the challenge of making products and processes greener means that organizations need to learn creatively and innovatively—highlighting the need to deploy HRD tools and interventions.

The purpose of this article is to set down eight ideas for engaging organizations in the process of environmental change. Some of these ideas are new, while others have only received limited attention in the research literature. It is hoped that these ideas might spark off new avenues for researchers and practitioners and open up a dialogue on the role of HRD in environmental change. To contextualize these ideas, we first examine the range of factors leading to environmental change in our community and society.

The Nature of Environmental Change

Increasingly, individuals, communities, organizations, and societies are realizing the importance of living in harmony with the earth. For hundreds of years, industrial development and economic growth have continued apace without adequately considering the consequences of such actions on our environment. Such actions have increased environmental vulnerabilities threatening our production systems, human health, access to resources, and natural ecosystems (Intergovernmental Panel on Climate Change [IPCC], 2007). This section considers the nature of environmental change looking specifically at the topics of climate change, desertification, deforestation, population growth, and mobility and the growing intensity of natural disasters.

For the past 20 years, climate change has been a widely reported topic in the media—yet the topic has been presented with statistical fuzziness highlighting a strong disparity between media coverage and scientific fact (Dispensa & Brulle, 2003). Where previously there was less than absolute certainty about the effects of climate change leading to the adoption of the precautionary principle (which states "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation") at the Earth Summit in 1992 (IPCC, 1992), the most recent report by the IPCC states that "Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level" (IPCC, 2007, p. 30). A recent report by aid agency Oxfam (2009) found that failure to take decisive action will lead to a significant chance of global warming by 4°C leading to profound social and economic consequences.

The growth of deserts across the world has been highlighted as a problem affecting the natural environment and populations way of life. The United Nations define the term desertification as the "degradation of land in arid, semi-arid and sub-humid dry areas including climate variation and human activities" (United Nations, 1994, p. 4). For his part, Bied-Charreton (2008) estimates that desertification affects 2 billion people in around 100 countries across five continents. He argues that if desertification effects are to continue at the current rate, crop production will be halved over the next 40 years. Desertification is known to have a wide range of consequences including impaired access to safe water resources (Bencala & Dabelko, 2008), decline in agricultural output (Scheipers & Sicurelli, 2008), increase in levels of conflict (Oxfam, 2009), and deterioration of visual amenity for tourists (Perry, 2006).

The clearing of tropic rainforests and the use of the land for agricultural, settlement, and other purposes continues to produce global environmental consequences. Fry (2008) reports that the contribution to greenhouse gas emissions from deforestation ranges from 10% to 25%. He argues that deforestation contributes more to global greenhouse gas emissions annually than the transport sector. For this reason, tropical forests are particularly prized for both their carbon capture and carbon storage capabilities. Aside from their role in carbon capture, tropic forests possess high levels of biodiversity threatened by deforestation and species extinction (Pfaff et al., 2007; Wibowo & Byron, 1999).

In relation to population change, there is evidence of mixed messages in the research. Kumar (2000) reports that many continental and global environmental problems find their roots in population growth. He argues that the rapid population growth of recent

decades has increased the need for cropland and food production as well as leading to overcrowding in cities and some coastal areas. In contrast, Lee (2007) notes a population decline in the technologically rich world and argues that this trend is likely to be followed in poorer countries where modern birth control methods and the spread of western norms are leading to later marriages with less children.

Finally, the growing intensity of natural disasters has been of concern to community and societal leaders. The IPCC (2007) found that climate change is likely to lead to an increase in the number of the most intense tropical cyclones. Basher (2008) highlighted a significant rise in the number of hydrometerological events—coinciding with a decline in the overall death toll from such events indicating better management of floods, storms, and famine events. However, he argues that because of the increase in the incidence of natural disasters, there has been a sharp rise in reported economic losses.

Eight Possible Environmental Change Solutions

Environmental change is exerting a significant impact on our world demanding innovative responses and actions. In this section, we examine eight ideas for engaging organizations in environmental change thereby improving products and services and aligning themselves more directly with customer expectations.

Green Consumption and Environmental Labeling

In the last two decades, concern for the environment has become more common as concepts such as global warming, acid rain, and deforestation have raised consumer awareness of the need to make environmental responsible decisions (Finisterra do Paco, Raposo, & Filho, 2009; Manaktola & Jauhari, 2007). While early research indicated that consumers with green intentions would be unwilling to pay a premium for environmentally related products (Nakardo, 1996; Wiser, 1998), more recent evidence suggests that certain products and services with sound environmental credentials are more popular amongst consumers and are likely to attract premium purchasing behavior (Rodriguez-Ibeas, 2006; Rowlands, Parker, & Scott, 2002). Products and services may also be considered popular where they align with consumer values espousing concern for the environment and possessing well-being characteristics (Haanpaa, 2007; Stern, 2000; Wilska, 2002). Yet commitment to environmental concerns and the integration of environmental considerations into business practices remains mixed (Dahlmann, Brammer, & Millington, 2008). Alsmadi (2007) points out that few companies have developed a green orientation showing a true commitment to environmental concerns. Revell and Blackburn (2006) identified a perceived lack of business benefits as a key obstacle to environmental commitment, while Ghobadian, Viney, and Liu (1995) highlighted the importance of profitability in influencing corporate policy toward the environment.

Environmental labeling is a powerful method of communicating organizational commitment to environmental issues. D'Souza, Taghian, and Lamb (2006) distinguish

three types of environmental labeling. Type 1 labels involve a third-party evaluation of an organization's environmental standards. To qualify for the label, products must satisfy various threshold levels, for which they may be awarded a seal or symbol to certify to their eco-friendly credentials. Type 2 labels refer to general claims related about the recyclable nature of the product, its lack of ozone harmful contents or some other aspect and may appear in symbolic or written form on a product. Type 3 labels involve a third-party assessment of the overall lifecycle of the product and assesses the product in terms of resource use, emissions and waste generation. These labels go further than type 1 labels in indicating the environmental friendly credentials of both the product and the process used to develop the product. The German Blue Angel (Blauer Engel) label created in 1978 as the first and oldest environment-related label is a good example of a Type 3 label used to assist consumers (Blue Angel, 2009). In essence, labeling provides a useful communication tool to consumers in informing them of companies' environmental credentials and assisting them in making a purchase decision. Further information on ecolabeling can be obtained from the Global Ecolabeling Network (GEN) that operates across 26 countries and whose remit is to improve, promote, and develop the ecolabeling of products and services. In the United Kingdom, the Carbon Trust was established by the U.K. government as a not-for-profit company to help companies reduce their carbon footprint. The Carbon Reduction label that appears on many consumer products is a scheme run by the Carbon Trust, which identifies companies that are working to reduce their carbon footprint.

Green Contract

The concept of a green contract is based on the notion that "all contracts are psychological" (Rousseau, 1995, p. 2). Consequently, the psychological act of consumption engages consumers in a contractual relationship with both a product/service and an organization. Underpinning the contract is an exchange of expectations between the consumer and organization regarding the perceived quality and value of the product/ service (Hellier, Geursen, Carr, & Rickard, 2003; Palmer, 1996). Increasingly, however, consumers are forming expectations and evaluating products/services based on their green credentials and respect for the environment. Pickett-Baker and Ozaki (2008) identify an intergenerational values shift in postwar generations is likely to result in proenvironmental behavior and consumption. Empirically, they found that consumers will likely purchase more from organizations that are seen to be proenvironmental. Similarly, Flatters and Wilmott (2009) argue that environmentalism is now deeply rooted in the consumer mind-set and are looking to express their concern for climate change and the environment through consumption and other forms of behavior. Such research advances the case for a green contract, whereby consumers expect and will support organizations who act in an environmentally responsible manner and in return, such organizations can expect higher levels of commitment to products/services from consumers. Indeed, it is arguable that developing a green contract with consumers will lead to higher levels of emotional attachment as

consumers experience an intrinsic value from using green products/services (Hartman & Ibanez, 2006).

For their part, Connolly and Prothero (2008) argue that consumers are voluntarily engaging in proactive environmentally friendly consumption and are becoming increasingly concerned with issues of sustainable consumption and sustainable product development. Organizations must therefore become more aware of rising standards on behalf of consumers and develop products and services that are aligned to increasingly green consumer values. Prothero, McDonagh, and Dobscha (2010) illustrate this trend by pointing to the strategic changes adopted by the British Charity *Comic Relief* in their fundraising efforts. For many years, *Comic Relief* sold T-shirts to raise funds for worthy charities as part of their biannual red nose comedy event. However, in 2009, Comic Relief produced T-shirts made from organic cotton and produced by fair-trade cooperatives—a response to growing consumer awareness of green issues and evidence of a psychological *green contract* between both parties in the consumption process.

Green Management Modules

Despite the importance of environmental issues to future growth and technological advancement, management research looking at environmental issues and how organizational practices need to be reshaped is still in its infancy. Lee and Rhee (2007) argue that external pressures resulting from public opinion, regulations, the green movement, and changes to employee values and awareness has led companies to consider the natural environment in strategic planning. Andersson and Bateman (2000) indicate that managers find environmental issues to be too complex and scientific, encoded in scientific technical language and therefore difficult to understand. While Friedman (2008) argues that the priorities for environmental progress must be in the areas of materials science, chemistry, physics, biology, and nanotechnology, it is arguable that there is also a strong need for the field of management to play an active role in shaping the green agenda. Environmental issues should not be the sole preserve of the hard sciences and both management researchers and academics have an important role to play in addressing environmental issues in the classroom and in their research. Environmental concerns may play an important role in a range of important organizational functions including strategy development, operations and logistics, marketing, and change management. Interdisciplinary approaches are thus required to provide management practitioners with a grounded understanding of how environmental issues will affect business operations and opportunities and how to embed a commitment to environmentalism across the business.

The issue of *green management* was identified and selected as the theme for the 2009 Academy of Management conference—an important signal of the need for the management disciplines to deal more concretely and effectively with growing environmental concerns. For their part, Marcus and Fremeth (2009) acknowledge that green management issues are only starting to be dealt with in a formal way through curricula design and faculty materials. They argue for the need to identify and develop green

competencies within organizations, which can help firms build their internal green skills base and respond to moral and normative concerns to use resources wisely in creating products and services that will not harm people or communities.

Environmental Auditing

Understanding one's impact on the environment is a critical first step to producing sustainable eco-friendly processes and products. Consequently, organizations need to understand the impact they are having on their environment and they need to measure the effectiveness of the green measures they are taking to improve their processes and systems. Bae and Seol (2006) argue that while environmental audits originally arose as a method of assessing compliance with environmental regulation, they have now become an important environmental management tool, which enables organizations to assess their own environmental performance. Bardati (2006) identifies a range of benefits arising from environmental audits including reduced risk of liability, lower longer term utility and materials costs, waste reduction, and better internal and external communications. For their part, Shih, Chen, and Chen (2006) argue that environmental auditing can be used to reinforce perceptions related to an organization's environmental commitment among employees and stakeholders, thus increasing the value of the overall business. They also suggest that the practice of environmental auditing may be helpful in the internationalization of a company. Maltby (1995) posits that environmental auditing may include the following activities: site surveys, assessment of operating facilities, compliance evaluation with environmental policies, reviews of environmental management strategies, reviews of environmental impact assessments, and design of programs for management and control.

However, several criticisms have been leveled at the practice of environmental auditing. Lightbody (2000) argues that environmental auditing is still in its infancy and is being hampered by the ill-defined nature of the market and the lack of formal recognition of environmental management skills. Likewise, Bae and Seol (2006) maintain that environmental auditing may be a costly process and the results of an audit may damage the company both financially and in terms of its reputation. For his part, Siegel (2009) argues that firms seeking to enhance their environmental credentials can voluntarily implement environmental management systems such as ISO14001 and achieve certification through independent third-party auditors. However, he cautions that voluntary programs must be carefully designed to ensure their efficacy and monitored to avoid moral hazard and cheating.

Scenario Planning

As natural disasters become more frequent and more intense, organizations need to plan for the possibility of environmental events affecting the operation of their businesses. As Cornelius, Van de Putte, and Romani (2005) point out, changes in the external environment can both render current strategies obsolete and open up new opportunities for

investment. The sudden and often volatile nature of changes to the external environment makes planning for such eventualities prudent. Chermack and Lynham (2002, p. 16) define scenario planning as "a process of positing several informed, plausible and imagined alternative future environments in which decisions about the future may be played out, for the purpose of changing current thinking, improving decision making, enhancing human and organization learning and improving performance." In this way, Saunders (2009) argues that scenario planning pushes the envelope of possibilities in a collective learning environment. He argues that the collective learning environment that is created challenges tunnel vision by bringing forward a myriad of factors that can affect and shape the future. The value of developing rehearsed futures is articulated by Wright and Goodwin (1999) in the following terms:

When early events in a scenario occur, the decision maker will be able to anticipate how the future will unfold. These "trigger" events will be seen as information among the stream of data that affects on the decision maker, which in turn can lead to early contingency action toward an unfavorable future or more quickly grasping new business opportunities. (p. 318)

Scenario planning provides organizations with a useful methodology for planning responses to future events. Through the use of stories, conversations, and narrative, an imagined future is created from which organizations can map out future actions and identify a range of contingent decisions. Yeoman, Lennon, and Black (2005) describe how VisitScotland (the Scottish tourist agency) have plans in place for a potential future outbreak of foot-and-mouth disease, looking at and estimating the likely impact on Scottish tourism. They examine the importance of communication strategies and through cognitive mapping examine the actions that need to be taken by various parties to the crisis. They conclude that contingency planning is both appropriate and necessary toward providing a focused, flexible, and proactive response to a crisis.

Green Redesign

For organizations to engage effectively in environmental change requires them to reexamine their products and services and where appropriate, commission redesign initiatives to improve their ecological properties. To this end, environmental commitment needs to be understood across the whole organization requiring collaborative initiatives among disparate departments and functions. As Mostafa (2007) puts it, environmental consciousness is a matter of market competition and needs to be functionally understood to allow marketers to develop strategies to meet green customers' requirements. The principles of "green redesign" involve organizations in improving the environmental sustainability of processes including raw materials sourcing, product manufacture, waste disposal, and product packaging. News stories in the popular and trade press attest to the growth in demand for green packaging (O'Brien, 2009; Simonsis, 2009) and increased investment in bioplastics research (Diem, 2009).

The redesign of many U.K. Easter eggs is a useful example of how product redesign can both save money and make products more environmentally sound. Vidal (2009) reports that Easter egg packaging in 2009 is lighter and thinner, leading to a 25% reduction in waste. By replacing plastic with cardboard, Nestlé has saved 700 tons of packaging, reduced transportation costs, and made the product more environmentally appealing to consumers (Nestlé, 2009). Coffee brand Kenco has also taken initiatives to improve the eco-reputation of its products through redesigning packaging for its coffee and sourcing its coffee from Rainforest Certified Farms. As Alarcon (2009) indicates, Kenco's new eco-refill pack has 97% less packaging weight than the Kenco glass coffee jars, requiring less energy to produce than the glass coffee jars and saving the company money on transportation and logistics costs.

In summary, green redesign can provide both a cost-effective method of becoming more environmentally proactive and a means of responding to consumer expectations that organizations should be more environmentally focused.

Corporate Consciousness

Creating sustainable environmental solutions in organizations cannot be the sole responsibility of a single department, but will require a unified effort across all departments. Both staff and management need to become keenly aware of environmental issues, how they affect the workplace, and the need for organizational priorities to move beyond the confines of shareholder interests toward looking at the welfare of communities and society. For her part, Fiorini (2003) argues that the idea that organizations operate in a vacuum and that their actions have no consequences is shortsighted and not sustainable. Consequently, there is a growing need to embed environmental awareness across all levels of the organization and to awaken a sense of organizational responsibility for one's actions. Selznick (2002) maintains that a corporate conscience is born out of values that transcend narrow self-interests and are entrenched in the culture, structure, and practices of organizations. In this regard, Sirsly (2009) acknowledges the overriding importance of the role of senior management in setting the values, morals, and ethics of the organization's culture and fostering the tone and environment for employees to work in.

In developing an environmentally responsive role, the training of both management and staff provides a powerful mechanism for disseminating positive messages regarding the promotion of environmental issues. When organized effectively, training can help management and staff reconsider the role of organizations as "corporate citizens" where they have responsibility to society and the local community (Trebeck, 2008, p. 351). For their part, Azzone and Noci (1998) argue that training courses aimed at increasing employee awareness of green issues are a necessary prerequisite to fostering environmental innovation in organizations. To this end, they argue that environmentalism needs to be embedded as a core competence across the organization, thus making all employees accountable and having shared ownership of environmental issues.

The U.K. supermarket chain, Marks and Spencer have adopted a proactive response toward becoming the world's most sustainable major retailer by 2015. Plan A was launched in 2007 detailing 100 commitments to be achieved within a 5-year period. They identified the 5 pillars of climate change, waste, sustainable raw materials, health, and being a fair partner as their biggest challenges as a retailer and through their public commitments, the company is moving toward developing long-term sustainable, environmentally responsible business practices.

Environmental Outreach

For organizations fully committed to green issues, outreach programs and initiatives provide a useful mechanism for educating consumers and shaping their values and beliefs. Outreach involves bringing consumers into contact with an issue or group with whom they may have had limited exposure with a view to improving knowledge and learning about particular issues or problems. In this way, outreach may allow organizations to form alliances with powerful interest groups opening their products/services up to a new range of consumers. The benefits of environmental outreach are articulated by Friedman (2008) in the following terms:

If you want to save the forests, you have to save the people first, and in today's world, the only way to do that is with an education through which people can learn . . . At a minimum, you want people to leave the tropical forest alone, and at a maximum, you want them actively protecting it, either for touristic or medicinal or sustainable agricultural purposes. (p. 312)

There are many benefits to organizations in engaging in environmental outreach. Bartel (2001) maintains that outreach programs may help present organizations in a favorable light and may help build stronger organizational commitment as employee values become more clearly aligned with the espoused environmental ethos of the organization. Outreach thus provides organizations with a stronger identity defining what an organization stands for and how it is likely to behave. In some cases, organizations have provided volunteer opportunities for employees to take action on the environment and improve the quality of local communities.

As well as organizations, national Governments and the voluntary sector have an important role to play in supporting environmental change and environmental outreach. As Porter's hypothesis (1991) states, appropriate environmental regulations will encourage technological innovation, reduce costs, and improve overall quality. Consequently, an important aspect of outreach is its advocacy role in convincing regulatory authorities of the need to set appropriate standards for environmental protection.

As the world's leading manufacturer of highly engineered bearings, alloy steels, and related components, Timken's identified values of acting responsibility and being good global citizens has seen the company engage in several environmental outreach initiatives. In Ohio, Timken sponsors a household hazardous waste collection event that

makes local communities aware of the need to properly dispose of hazardous chemicals and avoid such substances going into landfill. In Bangalore, India, Timken worked with locals in the construction of an underground sewage treatment and rainwater harvesting system that has improved the availability of clean water to local communities.

Conclusion

In his Nobel peace prize lecture, Al Gore (2007) stated that we are facing a planetary emergency caused by climate change and issued a call to rescue the global environment through coordinated action and morally responsible decision making. Organizations have an important role to play in addressing environmental change. Yet to date, progress has been slow and green issues have been principally addressed in the scientific and engineering domains. In the management sphere, much work remains in embedding environmental principles into key domains such as marketing, operations, logistics, strategy, and training. Customer expectations in relation to organizations making environmentally responsible decisions are rising and investment in raising environmental consciousness and an organization's green credentials is likely to lead to a significant return on investment.

The field of HRD has an important role in promoting and embracing environmental change. As Gabler (2006) argues, managers have an important role in setting the culture of the organization—in role modeling the behaviors they demand from others and communicating the importance of integrity in decision making. Wilcox (2006) considers that corporations have a range of responsibilities and duties as part of their social contract with society. She argues that HRD exercises an important policy role at a macro (community/societal) as well as micro (organizational) level. To this end, she believes that HRD has a significant role in improving the well-being of employees and customers through access to education and training.

The advent of the recession has focused organizational attention on making sustainable long-term progress. There is a growing awareness that such development must be in harmony with the environment. Organizations therefore are coming to realize that they have a moral responsibility to audit their impact on the environment, make their products and services more ecologically sensitive, and put procedures in place for dealing with any environmentally damaging incidents. In summary, the future is clear: the future is green.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the authorship and/or publication of this article.

Funding

The author(s) received no financial support for the research and/or authorship of this article.

References

Alarcon, C. (2009). Kenco launches reduced packaging initiative. *Marketing Week*. Retrieved from http://www.marketingweek.co.uk/kenco-launches-reduced-packaging-initiative/3004971 article

- Alsmadi, S. (2007). Green marketing and the concern over the environment: Measuring environmental consciousness of Jordanian consumers. *Journal of Promotion Management*, 13, 339-353.
- Andersson, L. M., & Bateman, T. S. (2000). Individual environmental initiative: Championing natural environmental issues in US business organizations. *Academy of Management Journal*, 43, 548-570.
- Azzone, G., & Noci, G. (1998). Seeing Ecology and "green" innovations as a source of Change. *Journal of Organizational Change Management*, 11(2), 94-112.
- Bae, S. H., & Seol, I. (2006). An exploratory empirical investigation of environmental audit programs in S&P 500 companies. *Management Research News*, 29, 573-579.
- Bardati, D. R. (2006). The integrative role of the campus environmental audit: Experiences at Bishop's university, Canada. *International Journal of Sustainability in Higher Education*, 7(1), 57-68.
- Bartel, C. A. (2001). Social comparisons in boundary-spanning work: Effects of community outreach on members organizational identity and identification. *Administrative Science Quarterly*, 46, 379-413.
- Basher, R. (2008). Disaster impacts: Implications and policy responses. Social Research, 75, 937-954.
- Benkala, K. R., & Dabelko, G. D. (2008). Water wars: Obscuring opportunities. *Journal of International Relations*, 61(2), 21-35.
- Bied-Charreton, M. (2008, November). *Integrating the combat against desertification and land degradation into negotiations on climate change: A winning strategy.* Paper presented to United Nations Convention to Combat Desertification, Istanbul. Retrieved from http://www.unccd.int/science/docs/non_paper_desertif_Climate_eng.pdf
- Blue Angel. (2009). *The blue angel: Active in climate protection*. Retrieved from http://www.blauer-engel.de/en/index.php
- Chermack, T. J., & Lynham, S. A. (2002). Definitions and outcome variables of scenario planning. *Human Resource Development Review 1*, 366-383.
- Christmann, P. (2004). Multinational companies and the natural environment: Determinants of global environmental policy standardization. *Academy of Management Journal*, 47, 747-760.
- Connolly, J., & Prothero, A. (2008). Green consumption: Life-politics, risk and contradictions. *Journal of Consumer Culture*, 8(1), 117-145.
- Cornelius, P., Van de Putte, A., & Romani, M. (2005). Three decades of scenario planning in Shell. *California Management Review*, 48(1), 92-109.
- Dahlmann, F., Brammer, S., & Millington, A. (2008). Barriers to proactive environmental management in the United Kingdom: Implications for business and public policy. *Journal of General Management*, 33(3), 1-20.

- Diem, W. (2009). Bioplastics research accelerating. Ward's Auto World, 45(5), 18-19.
- Dispensa, J. M., & Brulle, R. J. (2003). Media's social construction of environmental issues: Focus on global warming—A comparative study. *International Journal of Sociology and Social Policy*, 23(10), 74-106.
- D'Souza, C., Taghian, M., & Lamb, P. (2006). An empirical study on the influence of environmental labels on consumers. Corporate communications: An international journal, *11*, 162-173.
- Finisterra do Paco, A. M., Raposo, M. L. B., & Filho, W. L. (2009). Identifying the green consumer: A segmentation study. *Journal of Targeting, Measurement and Analysis of Marketing*, 17, 17-25.
- Fiorini, C. (2003). Keynote address: Business for social responsibility conference. Retrieved from http://www.hp.com/hpinfo/execteam/speeches/fiorina/bsr2003.html
- Flatters, P., & Wilmott, M. (2009). Understanding the post-recession consumer. *Harvard Business Review*, 87(7/8), 106-112.
- Friedman, T. L. (2008). *Hot, flat and crowded: Why the world needs a green revolution—And how we renew our global future.* London, UK: Allan Lane.
- Fry, I. (2008). Reducing emissions from deforestation and forest degradation: Opportunities and pitfalls in developing a new legal regime. *Review of European Community & International Environmental Law, 17*, 166-182.
- Gabler, D. (2006). Is your culture a risk factor. Business and Society Review, 111, 337-362.
- Ghobadian, A., Viney, H., & Liu, J. (1995). The influence of environmental issues on strategic analysis and choice: A review of environmental strategy among top UK corporations. *Management Decision*, 33(10), 46-58.
- Gore, A. (2007, December 10). Nobel lecture. Delivered at the Nobel Foundation, Oslo, Norway. Retrieved from http://nobelprize.org/nobel_prizes/peace/laureates/2007/gore-lecture_en.html
- Haanpaa, L. (2007). Consumers green commitment: Indication of a postmodern lifestyle. *International Journal of Consumer Studies*, 31, 478-48
- Hartman, P., & Ibanez, V. A. (2006). Green value added. *Marketing Intelligence and Planning*, 24, 673-680.
- Hellier, P. K., Geursen, G. M., Carr, R. A., & Rickard, J. A. (2003). Customer repurchase intention: A general structural equation model. *European Journal of Marketing*, 37, 1762-1800.
- Ihlen, O. (2008). Mapping the environment for corporate social responsibility: Stakeholders, publics and the public sphere. Corporate Communications: An International Journal, 13(2), 135-146.
- Intergovernmental Panel on Climate Change. (2007, November, 12-17). Climate change 2007: Synthesis Report (4th Assessment Report). Valencia, Spain. Retrieved from http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_spm.pdf
- Intergovernmental Panel on Climate Change. (1992, June 3-14). *Rio Declaration on Environment and Development*. Rio de Janeiro, Brazil. Retrieved from http://www.unep.org/Documents..Multilingual/Default.asp?DocumentID=78&ArticleID=1163
- Kumar, G. S. J. (2000). Population and environment by 2000AD—A social manifesto. *International Journal of Sociology and Social Policy*, 20(8), 55-68.
- Lee, M. (2007). Human resource development from a holistic perspective. Advances in Developing Human Resources, 9(1), 97-110.

Lee, S. Y., & Rhee, S. K. (2007). The change in corporate environmental strategies: A longitudinal empirical study. *Management Decision*, 45, 196-216.

- Lightbody, M. (2000). Environmental auditing: The audit theory gap. *Accounting Forum*, 24, 151-169.
- Logsdon, J. M. (2004). Global business citizenship: Applications to environmental issues. Business and Society Review, 109(1), 67-87.
- Maltby, J. (1995). Environmental audit: Theory and practice. *Managerial Audit Journal*, 10(8), 15-26.
- Manaktola, K., & Jauhari, V. (2007). Exploring consumer attitude and behaviour towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*, 19, 364-377.
- Marcus, A. A., & Fremeth, A. R. (2009). Green management matters regardless. Academy of Management Perspectives, 23(3), 17-26.
- Mostafa, M. M. (2007). A hierarchical analysis of the green consciousness of the Egyptian consumer. *Psychology and Marketing*, 24, 445-473.
- Nakarado, G. L. (1996). A marketing orientation is the key to a sustainable energy future. *Energy Policy*, 24, 187-193.
- Nestlé. (2009). Nestlé removes plastic from 20 million Easter eggs. Retrieved from http://www.nestle.com/MediaCenter/Stories/AllBrandsStories/NestleUKremoves+plasticfrom20millionEastereggs.htm
- O'Brien, T. (2009). The greening of paper and plastic. Restaurant Business, 108(3), FSB13.
- Oxfam. (2009). Suffering the science: Climate change, people and poverty (Oxfam Briefing Paper No. 130). London, UK: Oxfam.
- Palmer, A. J. (1996). Relationship marketing: A universal paradigm or management fad? *Learning Organisation*, *3*(3), 18-25.
- Perry, A. (2006). Will predicted climate change compromise the sustainability of Mediterranean tourism. *Journal of Sustainable Tourism*, 14, 367-377.
- Pfaff, A., Robalino, J., Walker, R., Aldrich, S., Caldas, M., Reis, E., . . . Kirby, K. (2007). Road investments, spatial spillovers and deforestation in the Brazilian Amazonian. *Journal of Regional Science*, 47(1), 109-123.
- Pickett-Baker, J., & Ozaki, R. (2008). Pro-environmental products: Marketing influence on consumer purchase decision. *Journal of Consumer Marketing*, 25, 281-293.
- Porter, M. E. (1991, April). America's green strategy. Scientific American, 264(4), 1-68.
- Prothero, A., McDonagh, P., & Dobscha, S. (2010). Is green the new black? Reflections on a green commodity discourse. *Journal of Macromarketing*, 30, 147-159.
- Revell, A., & Blackburn, R. (2006). The business case for sustainability? An examination in the UK's construction and restaurant sectors. *Business Strategy and the Environment*, 16, 404-420.
- Rodriguez-Ibeas, R. (2006). Environmental regulatory enforcement with "green" consumers. Spanish Economic Review, 8, 271-283.
- Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. New York, NY: SAGE.

- Rowlands, I. H., Parker, P., & Scott, D. (2002). Consumer perceptions of "green power." *Journal of Consumer Marketing*, 19(2), 112-129.
- Rundle-Thiele, S., Ball, K., & Gillespie, M. (2008). Raising the bar from corporate social responsibility to corporate social performance. *Journal of Consumer Marketing*, 25, 245-253.
- Russ-Eft, D. F. (2009). Human resource development (HRD) evaluation and principles related to the public interest. *American Journal of Evaluation*, *30*, 225-231.
- Saunders, S. G. (2009). Scenario planning: A collage construction approach. Foresight, 11(2), 19-28.
- Scheipers, S., & Sicurelli, D. (2008). Empowering Africa: Normative power in EU—Africa Relations. *Journal of European Public Policy*, 15, 607-623.
- Selznick, P. (2002). The communitarian persuasion. Washington, DC: Woodrow Wilson Center Press.
- Shih, K. H., Chen, H. J., & Chen, J. C. H. (2006). Assessment of sustainable development and knowledge of environmental management: Internal auditors perspectives. *Industrial Manage*ment and Data Systems, 106, 896-909.
- Siegel, D. S. (2009). Green management matters only if it yields more green: An economic/strategic perspective. *Academy of Management Perspectives*, 23(3), 5-16.
- Simonsis, Y. (2009). Green packaging demand to reach \$43 Billion in 2013. *Paper, Film and Foil Converter*, 83(6), 13-13.
- Sirsly, C. A. T. (2009). 75 years of lessons learned: Chief executive officer values and corporate social responsibility. *Journal of Management History*, *15*(1), 78-94.
- Stern, P. C. (2000). Toward a coherent theory of environmentally significant behaviour. *Journal of Social Issues*, 56, 407-424.
- Trebeck, K. (2008). Exploring the responsiveness of companies: Corporate social responsibility to stakeholders. *Social Responsibility Journal*, *4*, 349-365.
- United Nations. (1994). Elaboration of an international convention to combat desertification in countries experiencing serious drought and/or desertification, particularly in Africa. New York, NY: United Nations General Assembly.
- Vidal, J. (2009, April 9). Lighter, thinner—Easter egg packaging goes on a diet. *The Guardian*. Retrieved from http://www.guardian.co.uk/environment/2009/apr/09/easter-eggs-packaging-reduced
- Wibowo, D. H., & Byron, R. N. (1999). Deforestation mechanisms: A survey. *International Journal of Social Economics*, 26, 454-474.
- Wilcox, T. (2006). Human resource development as an element of corporate social responsibility. *Asia Pacific Journal of Human Resources*, 44, 184-196.
- Wilska, T. A. (2002). Me—a consumer? Consumption, identities and lifestyles in today's Finland. *Acta Sosiologica*, 45, 195-210.
- Wiser, R. H. (1998). Supporting renewable generation through green power certification: The green-e program. Berkeley, CA: Ernst Orlando Lawrence Berkeley National Laboratory.
- Wright, G., & Goodwin, P. (1999). Future-focused thinking: Combining scenario planning with decision analysis. *Journal of Multicriteria Decision Analysis*, 8, 311-21.
- Yeoman, I., Lennon, J. J., & Black, L. (2005). Foot and mouth disease: A scenario of reoccurence for scotland's tourism industry. *Journal of Vacation Marketing*, 11, 179-190.

Bio

David McGuire, PhD, is lecturer in human resource development at Queen Margaret University, Edinburgh, UK. He is book reviews editor for the *Journal of European Industrial Training* and serves on the editorial boards of *Advances in Developing Human Resources*, *Human Resource Development Quarterly* and the *Journal of Change Management*. He is a former recipient of the AHRD Early Career Scholar Award and a former Irish American Fulbright scholar and Government of Ireland scholar. His research interests lie in theory-building and HRD, diversity training, leadership, and critical theory.