



# The identity crisis of sustainable development

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## Abstract

**Purpose** – There are many different conceptualizations to sustainable development and these different approaches may have led to confusion amongst the public. The purpose of this paper is to explore the identities of the term and how the confused identity may be leading to problems for sustainable development efforts.

**Design/methodology/approach** – The design is exploratory, using both secondary and primary data to understand the different sustainable development concepts.

**Findings** – There is no consistent understanding or use of the term “sustainable development” among various groups.

**Research limitations/implications** – Future research should include a larger sample that is more representative of people from different backgrounds and geographical areas.

**Practical implications** – The public is generally willing to support only projects that it understands. Without a clear understanding of sustainable development, the public will be less inclined to support these efforts.

**Originality/value** – This study examines the perceptions and understandings of the term by the general public representing different generations.

**Keywords** Development, Development policies

**Paper type** Research paper

## Introduction

The words “sustainability” and “sustainable development” have become more fashionable in the last decade. There are numerous conferences with “sustainability” in their titles. In fact, the Conference Alert web site identifies 119 sustainable development conferences worldwide between February and December 2013. The number of publications and articles related to sustainable development has increased significantly, in many disciplines. With all of these conferences and publications, one would assume that there is a common understanding of the terms and their meaning amongst the general public. However, in discussions with non-academic and individuals not involved with sustainable development, it seems there is no clear consensus of what the terms mean.

The importance of building meaning based on a shared understanding of the terminology in the area of sustainable development cannot be overstated. As sustainable development has become a worldwide imperative, governments are enacting policies, organizations are developing strategies, infrastructures are built, products and services are developed, resources are reallocated, and so forth. All these adjustments are made according to what each of the actors understands sustainable development to mean for their activity. But a lack of shared understanding can lead to ambiguity, disagreement, even conflict among actors perceived to be working towards similar goals. Norton and Toman (1997) argued that lack of conceptual clarity goes beyond disciplines and affects how we define sustainable development generally, and how we assess it within our area of application specifically.

With this background, the exploratory research described in this paper was undertaken. We approach sustainable development from the perspective and under the



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necessary assumption of a shared identity among diverse groups of actors, such as academics, practitioners and the general public. We analyze the degree of definitional ambiguity at each of these levels, showing how a lack of clarity leads to a sense of identity crisis at the composite level of the construct. To explore ambiguity at the academic level, we rely on existing literature, with a specific interest in papers that focus on definitional clarity in different fields of inquiry. To understand the trades, we report on content analysis of the topics and descriptions of 119 conferences scheduled for 2013 around the world that include sustainable development or sustainability in their programme. Finally, to understand the general public perception, we analyze the definitions provided by a multigenerational sample of individuals.

### **Challenges of sustainability**

The term sustainable development was coined in the paper “Our common future”, released by the Brundtland Commission (United Nations, 1987). The purpose of which, as envisioned by the United Nations, was “[the] hope of narrowing the growing gap between rich and poor nations”. According to the chairman, some individuals desired to focus only on environmental issues. His response was:

This would have been a grave mistake. The environment does not exist as a sphere separate from human actions, ambitions, and needs, and attempts to defend it in isolation from human concerns have given the very word “environment” a connotation of naivety in some political circles. The word “development” has also been narrowed by some into a very limited focus, along the lines of “what poor nations should do to become richer”, and thus again is automatically dismissed by many in the international arena as being a concern of specialists, of those involved in questions of “development assistance”.

But the “environment” is where we all live; and “development” is what we all do in attempting to improve our lot within that abode. The two are inseparable. Further, development issues must be seen as crucial by the political leaders who feel that their countries have reached a plateau towards which other nations must strive. The Commission further opined “Many of the development paths of the industrialized nations are clearly unsustainable. And the development decisions of these countries, because of their great economic and political power, will have a profound effect upon the ability of all peoples to sustain human progress for generations to come”. Therefore, the Commission developed its conceptualization of sustainable development as follows:

Sustainable development is the kind of development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The two key concepts of sustainable development are: • the concept of “needs” in particular the essential needs of the world’s poorest people, to which they should be given overriding priority; and • the idea of limitations which is imposed by the state of technology and social organization on the environment’s ability to meet both present and future needs (United Nations, 1987).

Later, Drago’s interpretation of Brundtland’s conceptualization included three aspects:

- (1) environmental protection;
- (2) economic growth; and
- (3) social equality (Drago, 2012, p. 11).

While the broad definition of sustainable development offers accessible dimensions to build a shared understanding upon, the application of the definition to the various

domains of human activity is subject to interpretation. Hence, disciplines differ in their understanding of sustainability depending on how they answer the question: What is sustained? One of the key reasons for divergence stems from scholars exploring different levels of analysis. For instance, management scholars focus on the sustenance of organizations and organizational systems, sociologists focus on individuals or groups, political scientists may focus on even broader populations, defined around geopolitical borders and so forth. In its current conceptualization, sustainability and sustainable development aim to unite thought on a common platform, focusing on Earth, as a unifying level of analysis. While the aim of this effort is admirable, it also offers multiple complications, as a focus on the planet has not made it any easier to move out of disciplinary silos, at least not yet. Perhaps it is not accidental that the environmental movement in the USA started in close connection with biology, or the study of life. Rachel Carson – a biologist – wrote about the effects of human activity on life in her book *Silent Spring* (Carson, 1962). In an attempt at convergence, it might be worth connecting the broad and complex planetary level of analysis to the granular, if still very complex, notion of life. As such, central to the concept of sustainability is “life”, broadly understood as a “characteristic that distinguishes objects that have signalling and self-sustaining processes from those that do not”, including “capacity for growth, reproduction, functional activity, and continual change preceding death” (*The American Heritage Dictionary*, 2006).

### **Identity crisis: some implications**

Most successful entities (organizations, nations, companies, etc.) have an identity that is understood by their stakeholders. The identity includes what the entity is, what it does, what it stands for, its purpose and what can be expected from it. National identities can be “a lightning rod, for better or worse” (Strugatch, 1992, p. 75). Whether people support an organization or movement will, in large part, depend on their understanding of the identity. It is more difficult to gain support and traction if the identity is unclear or confusing. This is particularly relevant in efforts to gain support for various projects and endeavours classified as sustainable development activities. Sustainable development is an integrative construct, which means that it builds on concepts from multiple disciplines and fields of study, and, at some level, there is an expectation that often conflicting or divergent forces are reconciled through sustainable development applications or frameworks. Embedded in this hypothesis is the idea that there is a shared understanding of what sustainable development means. Still, if the understanding of core defining elements is not shared by the various actors, sustainable development cannot be integrative, as it would fail to build on a convergent worldview. The operationalization of sustainable development has tended to be fragmented as there does not appear to be a widely understood and agreed upon conceptualization.

### **Identity crisis in the academic context**

At their most basic, approaches to defining sustainable development seem to converge on two basic elements: survival and resource dependence. First, the discussion of sustainability in business converges around survival. Not the survival of the firm in isolation, as seen in organization theories of two decades ago, but the survival of firms in the context of human and environmental thriving. Consequently, when in agreement, theories of sustainable development promote the survival of human collaborative and organized forms in a context of interdependencies.

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Second, while the survival of the planet seems of concern, the discussion is dominated by an underlying assumption of resource dependence, as concerns for the natural environment are only relevant if harvesting resources is possible. Indeed, when sorting the diverse views on organizations and the natural environment, it becomes clearer that the common theme is resource dependence. For instance, resources require protection because of perceived dependence on inputs to production processes (Darnall and Edwards, 2006). As such, the various approaches to sustainable development can be seen in terms of efforts to ensure access to resources (renewable or non-renewable) on which humanity depends for survival.

While there is some agreement regarding high-level defining elements, such as responsibility for the environment and society, scholars do not always converge on how sustainable development is defined. Some argue that there is no clear, uncontested definition (McGee, 1998; Rugman and Verbeke, 1998), while others show that there is still a lack of cohesiveness (Etzion, 2007). Disagreements also span disciplines, as researchers seek to find common meaning as they apply principles of sustainable development to environmental engineering (Glavič and Lukman, 2007), ethics and management (Fergus and Rowney, 2005), education (Bonnett, 1999), global social development and poverty reduction (Lélé, 1991; Stapleton and Garrod, 2007), planning and land economics (Norton and Toman, 1997), among other fields.

These authors all focus their attention on gaps in what should be a shared understanding of what sustainable development and associated dimensions mean. We join these authors in pointing to semantic disconnect as the source of the problem in achieving a shared understanding of sustainable development. For instance, in the organizational studies, the families of words “sustainable” and “environment” have substantially different meanings depending on the discipline or topic of discussion. For strategic management scholars or organizational theorists, environment deals with that which is external to a firm and over which the firm has little control, while sustainability represents a desirable outcome for firms aiming for competitive advantage in their industry. Meanings associated with the natural environment and the sustainability of natural systems represent little more than empirical contexts for these scholars.

Bonnett (1999) argued that the relationship between humans and nature is central to our sense of identity and nature should be vital to the sustainability paradigm, not merely a research context. Similarly, Fergus and Rowney (2005) used philosophical inquiry to show that there has been a change in the semantic meaning of the terms from the idea of development within an ethical framework based on inclusivity, diversity and integration to a dominant economic logic, where the ethic of finance is central. In their overview of management literature from the classics to contemporary works, Ratiu *et al.* (2009) showed that the early works of the 1940s, 1950s, and 1960s were well informed by ethical values similar to the works on sustainability and social responsibility that appeared on the fringe of these disciplines in the 1990s, and more mainstream in the 2000s.

The importance of terminology and a shared understanding of definitions becomes academically important as several forces continually act upon this field, including: the growing number of terms associated with sustainable development; the growing number of measures and metrics; and the increasing use of sustainable development metrics for the reporting of human and organizational activities.

On the issue of associated terms, Glavič and Lukman (2007) argued that terminology and semantics are critical as there are more terms added continuously to the field of

sustainable development and that the addition of new terms often adds to ambiguity. They used examples from the field of environmental engineering to show how the addition of terms such as clean production, green chemistry and others created confusion, as they were often being used with different meanings. Furthermore, Lélé (1991) pointed to a still relevant problem regarding the incomplete evaluation of problems associated with sustainability, such as poverty or environmental degradation, along with confusion about the role of economics as being the source of weakness and contradiction in policy making.

Acknowledging the meanings of terms and definitional accuracy should precede the development of metrics used in the field. Where definitions are still ambiguous, the associated measurements in an empirical context will lack necessary validity as well. This is further complicated by the use of indices to measure various aspects of sustainability. Given the composite nature of sustainable development, scholars and practitioners have developed composite measures to fit the needs of their organizations or fields. While sustainable development lends itself to the creation of indices, the most common problems are indices that do not account for important elements, such as space and time (Niu *et al.*, 1993), or indices that are agenda driven, such as the case of well-being indices (Stapleton and Garrod, 2007).

Organizations increasingly use sustainable development metrics developed by themselves or established in their field, to report performance in these areas. While standards are being developed, such as the Global Reporting Initiative (GRI), the reporting of sustainability performance is still in its infancy. To add to the complexity of how the public perceives these measures and what they mean, organizations increasingly use online media to disseminate reports (Isenmann *et al.*, 2007).

To conclude this section, we have argued that, at its most basic, the identity crisis of sustainable development in the academic arena is a problem of semantics. This approach makes divergence observable and amenable to corrective action, which is what authors in a number of disciplines are attempting to do (Bonnett, 1999; Fergus and Rowney, 2005; Glavič and Lukman, 2007; Lélé, 1991; Norton and Toman, 1997). Semantic divergence at the academic level is problematic because it often translates to statements of policy, which may then be applied expediently or with broad brush strokes, instead of clarity and rigour. Furthermore, divergence at the academic level informs the arenas we discuss below, such as professional context, governmental and general public.

### **Identity crisis in the trade and professional context**

As mentioned earlier, when searching for “sustainability” and “sustainable development” on the conference aggregator web site Conference Alerts (2013), we retrieved 119 conferences that include sustainable development topics in their programmes. These conferences span the globe and many different disciplines, which suggests that sustainable development has made it onto the agenda of a large number of trade groups; and that practitioners and academics alike are looking for ways to integrate sustainable development within their disciplines. Both of these speak to our earlier point that sustainable development is an integrative platform, meant to bring together multiple disciplines in the pursuit of comprehensive solutions to world problems.

To gain a more in-depth understanding of the various disciplines and topics associated with sustainable development, we compiled a list of conference topics along with their frequency, based on the sample of 119 events of 2013 (Table I).

Conference topics	Frequency (%)
General	15.70
Energy (reduction, renewable, alternative, clean)	10.31
Business (including corporate governance, management, marketing, entrepreneurship, etc.)	7.17
Planning (urban, rural, and regional development)	7.17
Engineering	6.28
Environment (biodiversity and related issues)	5.83
Academic/education	5.38
Social responsibility (including bottom of pyramid, corporate responsibility, poverty, stakeholder engagement, women studies, etc.)	4.93
Technology (information technology, research and development, etc.)	4.93
Water management	3.59
Construction (including architecture, housing, etc.)	3.14
Tourism	2.69
Climate change	2.24
Innovation	2.24
Chemistry	1.79
Ethics (includes religious studies)	1.79
Food	1.35
Growth	1.35
Infrastructure	1.35
Operations (including facility management)	1.35
Transportation	1.35
Forest management	0.90
Health	0.90
Mining and minerals	0.90
Waste management	0.90
Agriculture	0.45
Crisis management	0.45
Emerging markets	0.45
Law	0.45
Media	0.45
Oil and gas	0.45
Resources	0.45
Scenario planning	0.45
Textile and leather industry	0.45
Trade	0.45

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**Table I.**  
Conference topics  
and frequency

To begin with, observe that the most frequent inclusion of sustainable development on the conference programme is in events focused on the topic from a general perspective. This suggests that there is high demand around the world for knowledge and best practices in this area.

Note also the diversity of conference disciplines, which now include the topic of sustainable development in their programmes. On one hand, the inclusion of sustainable development in such diverse contexts is promising news. On the other, what is worrisome in this observation is that practitioners and academics working through their respective associations and events continue to view sustainable development as a concept to be appropriated within the confines of a disciplinary silo. This situation further underscores the importance of achieving a shared understanding of the fundamental meaning and definitional dimensions of sustainable

development among the trades, which work on integrating it into their rationales. Not achieving interdisciplinary integration leaves the door open for conflicting understandings of sustainable development in real-world applications.

### **Identity crisis in the government and NGO context**

A study by Byrch *et al.* (2007) reported on the cognitive maps related to sustainable development of 21 New Zealand government and NGO officials. These officials were classified based on the role of their organizations: promoting business in New Zealand (B Group); promoting sustainable development in New Zealand (S Group); or promoting sustainable business activity in New Zealand (SB Group). While this study reported greater differences between the groups than within the groups, it was noted that not all participants of each group shared the same meanings. The B Group had a more economic focus and used business language in their cognitions. The S Group emphasized humanity and the environment. The SB Group was reported to have the most diverse responses and therefore, was more difficult to characterize. Economic, social and environmental concepts were all included in the maps of SB Group.

### **Identity crisis in the general public**

To explore the understanding of sustainable development in the general public, the researchers undertook a study that focused on definitions provided by a multigenerational sample of the general public. The approach and findings of this study are now reported.

### **Methodology**

#### *Sample*

A modified snowball sampling technique was used to collect the 135 responses. Students enrolled in undergraduate business courses were given two copies of a brief survey. The students were instructed to complete one questionnaire and to have the second questionnaire completed by someone over 35 years of age. This allowed the data collection to include individuals from different generations. The sample was composed of 40 per cent males and 60 per cent females, 86 per cent of the respondents were born in the USA, while the other 14 per cent were from a variety of countries. The ages ranged from 20 to 83, with the average age being 36. In total, 26 per cent of the sample was classified as belonging to the pre-Second World War and Baby Boomer generations. In all, 26 per cent was from Generation X and 64 per cent were classified as Millennials. The sample was relatively well educated. In total, 95 per cent indicated some level of education beyond secondary education with slightly over 10 per cent indicating they had a post-graduate college degree.

#### *Instrument questions*

The first question asked respondents what words came to mind when they heard or saw the word sustainability. There were spaces for up to five responses, however, many respondents chose not to fill in all five spaces. The second question asked respondents to give their understanding of the term sustainable development. The response area allowed for up to six lines of writing, but few respondents used all six lines.

### **Analytical approach**

Words associated with sustainability were entered into a spreadsheet. Variations of words with similar meanings were aggregated. Examples of words that were collapsed

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into a single classification are “continuous” “continuing” and “continual”; “durable” and “durability”; and “economy” and “economics”. The number of times a word was listed was recorded as a simple tally.

A content analysis was performed on each of the written descriptions of the respondent’s understanding of the term sustainable development. The researchers developed a set of 11 concepts or ideas generally associated with the term and then examined each description to determine which concepts were present in each description. Through an iterative process, the coding framework was adjusted, categories were created and new codes were added as needed. Table II shows the final coding framework used in the analysis. Three of the 11 concepts had sub-classifications; for example, “Time-frame” was the broad classification, but sub-classifications included “long-term” and “short-term”. The broad classification of “resources” had three sub-classifications: “scarcity” “renewable” and “reduce, reuse, recycle”. “climate” also had a sub-classification of “global warming”. Both researchers performed this exercise on the first 20 responses to determine inter-rater reliability. Fortunately, inter-rater reliability was over 80 per cent. There was substantial agreement between the researchers on which concepts were in each description.

Some descriptions were focused and mentioned only one idea or concept, while others contained three or four ideas. There was no weighting given to the number of concepts mentioned.

Previous research has found that the generations have different values and attitudes regarding a variety of issues (Joshi *et al.*, 2010; Levy, 2011; Twenge *et al.*, 2010). Specifically, Joshi *et al.* (2010) argued that generational identities have an impact on intergenerational interactions in the organizational context. Building on this finding, it was therefore postulated that the generations would have different understandings of sustainable development. Based on the birth year reported, the respondents were first classified by the following generation classifications: pre-Second World War (1945 and before), Baby Boomer (1946-1964), Generation X (1965-1976) and Millennials (1977 or later). However, there were very few respondents in the pre-Second World War generation, so this generation was combined with the Baby Boomer generation.

## Results

It was interesting to find that there were over 200 different words or phrases mentioned by the respondents to the words that came to mind associated with the word “sustainability”. The most frequently mentioned word/phrase was “long-term”, which was mentioned by 24 respondents. Other words/phrases mentioned, in order of frequency of mention were: maintain (21), environment (20), endure/endurance (14), continuing/continue/continuous (13), lasting (13), support (13), economy/economics (12), green (12), durable/durability (11), environmentally friendly (11), future (11), resources (11), strength/strong (10). All other terms were mentioned by fewer than ten of the respondents. Surprisingly, there were 120 terms that were mentioned by only one individual, some of which are commonly written about in popular literature, such as innovation, progressive, productive, self-sustaining, technology, etc.

A time frame was the most frequently mentioned concept in the descriptions of “sustainable development”. When one includes the sub-classifications of long-term and short-term, a time frame was included in 122 descriptions (see Table II). The second most common concept classification mentioned was “Growth or business performance” (i.e. competitive advantage). The third most frequently mentioned concepts concerned resources and its sub-classifications. Nature and the natural



**Table II.**  
Concepts mentioned  
by the generations

Concept no.	Concept	Pre-Second World War and Baby Boomers		Generation X		Millennials		Total
		No.	%	No.	%	No.	%	
1.0	Time frame	8	22.9	2	5.7	7	10.9	17
1.1	Long-term	13	37.1	11	31.4	20	31.3	44
1.2	Short-term	0	0	0	0	1	0.2	1
2.0	Resources	7	20.0	5	14.3	10	15.6	22
2.1	Scarcity	1	2.0	3	8.6	2	3.1	6
2.2	Renewable	5	14.3	2	5.7	2	3.1	9
2.3	Reduce, reuse, recycle	0	0	1	2.9	3	4.6	4
3.0	Climate (change)	0	0	0	0	0	0	0
3.1	Global warming	0	0	1	2.9	0	0	1
4.0	Economic issues	2	5.7	1	2.9	9	14.1	12
5.0	Social issues	3	8.5	3	8.6	3	4.6	9
6.0	Nature/natural environment	8	22.9	6	17.1	17	26.6	31
7.0	Technology	2	5.7	0	0	2	3.1	4
8.0	Pollution	1	2.9	0	0	0	0	1
9.0	Innovation	1	2.9	2	5.7	6	9.4	9
10.0	Self-sufficient, independent, durable	5	14.3	5	14.3	8	12.5	18
11.0	Growth or business performance (i.e. competitive advantage)	9	25.7	14	40.0	22	34.3	45
12.0	No idea, little understanding	1	2.9	3	8.6	7	10.9	11

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environment were the fourth most common notions communicated in the descriptions. Among the different generations, we expected to find differences in the descriptions, however, statistically significant differences were not found.

### **Discussion: towards convergence**

In this paper we argue that sustainable development, as a concept on which theory, policy and practices are developed, is going through an identity crisis. Decades after it was first introduced, the term is yet to see a convergent definition and a shared understanding of its critical dimensions. To further understand the identity crisis, we examine four contexts and show how divergence occurs in the contexts of academia, government, trades and the general public.

Our study of the perceptions of the general public shows that there are no major differences among the different generational groups in how sustainable development is perceived. More importantly, however, despite the existence of various comprehensive definitions of sustainability, the general public seems to be aware of only a few of the main dimensions comprising this important concept: awareness of a time frame (long- or short-term) and resource implications (scarcity, renewability, etc.). As mentioned in the section on identity crisis in academia, the elements on which most academics seem to agree are survival (the idea of a time frame being embedded in it) and resource dependence. Perhaps it is not accidental, then, that the general public is less sensitive to other dimensions known to sustainability scholars, or measured by environmental reports. The general public may inadvertently focus on the areas that contain the least debate.

The one finding from the sample of general public respondents that raises questions regards the ranking of growth/performance/competitive advantage as the second most common theme used to describe sustainable development. The concern is further compounded by the fact that most of these responses made no reference to social or environmental concepts, commonly associated with definitions of sustainability. In other words, respondents that only used notions of competitive advantage to describe sustainable development do not understand the broader context of this term.

The original intent (narrowing the gap between rich and poor nations), which was the notion behind coining the term sustainable development appears to have been lost among many groups. The general public in the USA appears to be more focused on self and the resources needed to continue their current lifestyle. Drago (2012) refers to sustainable development as being “[...] popular, but also indeterminate [...] with many meanings and interpretations” (p. 7). How can we operationalize if we cannot agree on a conceptualization?

In his paper, “From millennium development goals to sustainable development goals”, Jeffrey Sacks said that “[Sustainable Development Goals (SDGs)] could help finally [...] move the world to a sustainable trajectory [...]”. He goes on to state that the “global priorities [...] need active worldwide public participation”. While admirable, it would seem that the establishment of global SDG priorities requires a common understanding of sustainable development and this must be shared amongst the public in order to gain “active worldwide public participation”.

### **References**

- (The) *American Heritage Dictionary* (2006), *The American Heritage Dictionary of the English Language*, 4th ed., Houghton Mifflin Company, Chicago.
- Bonnett, M. (1999), “Education for sustainable development: a coherent philosophy for environmental education?”, *Cambridge Journal of Education*, Vol. 29 No. 3, pp. 313-324.

- Byrch, C., Kearins, K., Milne, M. and Morgan, R. (2007), "Sustainable 'what'? a cognitive approach to understanding sustainable development", *Qualitative Research in Accounting and Management*, Vol. 4 No. 1, pp. 26-41.
- Carson, R. (1962), *Silent Spring*, Houghton Mifflin, Chicago.
- Conference Alerts (2013), *Sustainable Development Events*, available at: [www.Conferencealerts.com](http://www.Conferencealerts.com) (accessed 18 February 2013).
- Darnall, N. and Edwards, D.J. (2006), "Predicting the cost of environmental management system adoption: the role of capabilities, resources & ownership structure", *Strategic Management Journal*, Vol. 27 No. 4, pp. 301-320.
- Drago, K. (2012), "Sustainable development: implementing utopia?", *Sociologija*, Vol. 54 No. 1, pp. 7-20.
- Etzion, D. (2007), "Research on organizations and the natural environment, 1992-present: a review", *Journal of Management*, Vol. 33 No. 4, pp. 637-664.
- Fergus, A.H.T. and Rowney, J.I.A. (2005), "Sustainable development: lost meaning and opportunity?", *Journal of Business Ethics*, Vol. 60 No. 1, pp. 17-27.
- Glavič, P. and Lukman, R. (2007), "Review of sustainability terms and their definitions", *Journal of Cleaner Production*, Vol. 15 No. 18, pp. 1875-1885.
- Isenmann, R., Bey, C. and Welter, M. (2007), "Online reporting for sustainability issues", *Business Strategy and the Environment*, Vol. 16 No. 7, pp. 487-501.
- Joshi, A., Dencker, J.C., Gentz, F. and Martocchio, J.J. (2010), "Unpacking generational identities in organizations", *Academy of Management Review*, Vol. 35 No. 3, pp. 392-414.
- Lélé, A.M. (1991), "Sustainable development: a critical review", *World Development*, Vol. 19 No. 6, pp. 607-621.
- Levy, P. (2011), "Segmentation by generation", *Marketing News*, May, pp. 20-23.
- McGee, J. (1998), "Commentary on corporate strategies and environmental regulation: an organizing framework by A.M. Rugman and A. Verbeke", *Strategic Management Journal*, Vol. 19 No. 4, pp. 377-387.
- Niu, W.Y., Lu, J.J. and Khan, A.A. (1993), "Spatial systems approach to sustainable development: a conceptual framework", *Environmental Management*, Vol. 17 No. 2, pp. 179-186.
- Norton, B.G. and Toman, M.A. (1997), "Sustainability: ecological and economic perspectives", *Land Economics*, Vol. 73 No. 4, pp. 553-568.
- Ratiu, C., Molz, R. and Sharma, S. (2009), "Paths to convergence: a review of corporate sustainability and the strategic management process", *Proceedings of Administrative Sciences Association of Canada, Niagara Falls, 7 June*.
- Rugman, A.M. and Verbeke, A. (1998), "Corporate strategies and environmental regulations: an organizing framework", *Strategic Management Journal*, Vol. 19 No. 4, pp. 363-375.
- Stapleton, L.M. and Garrod, G.D. (2007), "Keeping things simple: why the human development index should not diverge from its equal weights assumption", *Social Indicators Research*, Vol. 84 No. 2, pp. 179-188.
- Strugatch, W. (1992), "Why manufacturers that export are choosing Virginia", *World Trade*, Vol. 5 No. 6, pp. 74-78.
- Twenge, J.M., Campbell, S.M., Hoffman, B.J. and Lance, C.E. (2010), "Generational differences in work values: leisure and extrinsic values increasing, social and intrinsic values decreasing", *Journal of Management*, Vol. 36 No. 5, pp. 1117-1142.
- United Nations (1987), "Our common future", report of the world commission on development and the environment, United Nations, available at: [http://conspect.nl/pdf/Our\\_Common\\_Future-Brundtland\\_Report\\_1987.pdf](http://conspect.nl/pdf/Our_Common_Future-Brundtland_Report_1987.pdf) (accessed 3 April 2013).

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