

Evidence for the prevalence of the sustainability concept in European corporate responsibility reporting

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Abstract This paper empirically examines the terminology used in the titles of corporate social responsibility (CSR)/sustainability reports in Europe. Our data supports the claim of the rise of the sustainability concept in corporate communication in comparison to other concepts. In detail this research analysed CSR/sustainability reports to support Matten and Moon's [Acad Manage Rev 33(2):404–424, 2008] hypothesis regarding a recent European trend towards a more voluntary and explicit CSR practice. The second and main objective of the research was to describe statistically significant trends in the use of terms and concepts in CSR/sustainability reporting to better understand how European companies interpret CSR and sustainability and how they communicate it to their stakeholders. To this end, a content analysis was conducted on 329 CSR/sustainability reports from 50 leading European companies from Euro Stoxx 50 that were published between the beginning of online CSR/sustainability reporting in 1998 and 2010. Our data analysis clearly indicates that the use of social and environment-related terms occurred more frequently in the past and demonstrates the establishment of *sustainability* in corporate non-financial reporting. Based on the results of our empirical research, the final discussion explores the development and diffusion of the sustainability concept in both the academic

and business fields and examines economic, environmental, and social implications. Different propositions are presented to explain the recent rise of the sustainability concept in European CSR/sustainability reporting, adding to the formation of sustainability as a concept and as a science.

Keywords Sustainability · Corporate communication · Corporate reporting · Corporate social responsibility · CSR terminology · Europe

Introduction

The first communications medium to indicate the corporate responsibility profile, strategy, and actions concerning the social and environmental commitment of a company is its corporate social responsibility (CSR)/sustainability report. In fact, according to Idowu and Towler (2004, p. 420), CSR/sustainability reports are vehicles used to demonstrate how caring a company has been with regards to social and environmental issues over the financial period that has just ended as well as how it intends to continue to act in future periods.

In the last 10 years, CSR/sustainability reporting has achieved growing relevance not only as a field of research for academia, government and the public, but also as a topic of interest for business companies (Kolk 2004), capital markets (Fratz 2003) and investors (Australian Government 2003; Isenmann et al. 2007). CSR/sustainability reporting is becoming part of companies' regular affairs. Growing numbers of business companies have even incorporated CSR/sustainability reporting into their business mainstream (Isenmann et al. 2007). The establishment of CSR reporting and communication can be considered a

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signal of an explicit approach to CSR (Maignan and Ralston 2002; Matten and Moon 2008), characterised by corporate voluntary and free engagement in CSR activities and programmes. Therefore, our study takes into account European publication of CSR reports to verify the theoretical argument supporting the diffusion of an explicit CSR in Europe (Matten and Moon 2008).

Moreover, our research addresses the CSR terminology that companies have adopted in their CSR communication. Confusion exists about which concepts better indicate a more ethical way of doing business incorporating social and environmental responsibilities. Scholars and practitioners have developed several concepts and terms, including “corporate social responsibility”, “corporate citizenship”, “triple bottom line”, and “sustainable development” (Marrewijk 2003; Panwar 2006). Among them, for years the most frequently used in corporate communication has been *corporate social responsibility*, often abbreviated CSR. However, recently, different companies have started to use the term *sustainability* in their reports. In 2008, Karen (2008, p. 72) claimed that the “concept of sustainability is just beginning to have an impact on corporate disclosure. The term sustainability may become an integrating concept linking financial and social performance and joining together corporate social responsibility and risk management”.

Our study aims to determine which concepts companies most commonly use to indicate their corporate commitment to CSR/sustainability and their ethical approach to business. It aims to be the first step towards a better understanding of corporate implementation of CSR/sustainability concepts and terms. By addressing the European diffusion of the explicit approach to CSR and corporate implementation of CSR terminology, this study provides insights on where European CSR/sustainability reporting is going and which academic contributions are needed and can be appreciated by practitioners and the public. Moreover, based on an analysis of corporate preferences and trends related to the use of CSR/sustainability terminology, our study discusses possible explanations of the findings regarding concept preferences and longitudinal trends in CSR reporting.

Theoretical background

European CSR: towards an explicit model of communication

Idowu and Towler (2004) placed the birth of social and environmental reporting in the 1970s. At that time, the main focus of CSR/sustainability reporting—in both the US and Europe—was the identification and measurement

of “social and economic effects of an institution on society” (Kolk 2006, pp 42–43) while the debate centred on duties and responsibilities of business actors. However, European reports, in contrast to American reports, focussed more on employee issues and less on environmental and local community matters (Kolk 2006, pp 42–43). For example, in the UK in the late 1970s, annual employee reports became increasingly common. These reports, like their successors (i.e. the CSR/sustainability report), were voluntary reports with no specified format or standard rules. The diffusion of employee reports was probably influenced by the UK government; in fact, during the 1970s, Parliament passed several acts, including the Equal Pay Act 1970 and the Health and Safety at Work Act 1974, intended to highlight responsibilities of business entities towards their employees (Idowu and Towler 2004).

In the late 1980s, a change in public expectations and pressure from environmental activists and non-governmental organisations forced business companies to treat the environment in a more responsible manner and to show their commitment through corporate reports (Idowu 1989). Environmental reporting also increased as a result of the development of environmental management standards such as the European Eco-Management and Audit Scheme—a corporate management tool to evaluate and report organisational environmental performance—and due to government pressure regarding environmental issues and pollution (KPMG and UNEP 2006). Therefore, until the 1990s, CSR/sustainability reporting was focussed primarily on environmental issues. At the beginning of the new millennium, research on corporate reports revealed that the percentage of reports focussed exclusively on environmental issues declined to 13 % in 2005; in the same year, an increased number of companies (54 %) decided to publish corporate reports related to health and safety, employee relationships and philanthropy and charitable contributions (Palenberg et al. 2006).

The history of European CSR reporting reveals that the main drivers of CSR communication have been associated historically with external institutional pressure to conform to legal requirements or social norms. In this regard, Matten and Moon (2008) argued that “European CSR has been implied in systems of wider organizational responsibility that have yielded narrow incentives and opportunities for corporations to take explicit responsibility” (p 409). While “implicit CSR” consists of respecting social values, norms and rules required by the institutional systems when the firm operates, “explicit CSR” refers to voluntary programmes and strategies designed by corporations to combine social and business concerns. Historically, the US system has favoured the diffusion of explicit CSR, while European companies have adopted a more implicit commitment. However, Arvidsson (2010) claimed that the

approach to CSR communication is moving from a reactive approach focussed on responses to corporate scandals and external pressure to a more proactive approach. In particular, according to Matten and Moon (2008) and Hiss (2009), European companies are moving towards a more explicit CSR based on voluntary and deliberate corporate decisions. The authors hypothesize that recent changes in the European institutional framework have led European corporations towards a more explicit CSR. They conceptualise the rise of European explicit CSR as a response to changing conditions of four major institutional systems: political, financial, educational and labour and cultural. Their argument is addressed by our study, which aims to find empirical support for the European explicit CSR claim by measuring the frequency of CSR report publications.

CSR/sustainability terminology: an evolution of terms

The second aspect addressed by our study is related to the terminology adopted by corporations in communicating CSR. As previously mentioned, different terms and concepts have been developed by academics, consultants and corporate executives to indicate a more ethical way of doing business (Panwar 2006). In his paper *Concepts and Definitions of CSR and Corporate Sustainability: Between Agency and Communion*, van Marrewijk (2003) provided an overview of the debate on definitions and concepts related to CSR. According to van Marrewijk (2003, pp 95–96), academics and practitioners “have created, supported or criticised related concepts such as ‘sustainable development’, ‘corporate citizenship’, ‘sustainable entrepreneurship’, ‘Triple Bottom Line’, ‘business ethics’, and ‘corporate social responsibility’.” Among these terms, the most frequently used is corporate social responsibility, often abbreviated to CSR. However, despite the growing body of literature on CSR, defining CSR is not easy. In both the literature and in business practice, CSR varies in terms of its underlying meaning and the issues addressed (Matten and Moon 2008). Despite the European Union (EU) commission (2002) offering a definition of CSR in 2002, no unique definition has emerged in last decade (Rahman 2011). According to Rahman (2011), the various definitions of CSR presented in the literature cover various dimensions, “including economic development, ethical practices, environmental protection, stakeholders’ involvement, transparency, accountability, responsible behaviour, moral obligation, corporate responsiveness” (Rahman 2011, p 166). Moreover, in addition to CSR, various companies have now started to use the term *sustainability* in their reports (Karen 2008). In literature, sustainability has been represented by a set of triangular concepts as the triple bottom line (people, planet, profit) or the 3P model (people, prosperity, planet) (Kajikawa 2008).

These approaches to sustainability contribute to make explicit the three principles underlying sustainability: environmental integrity, social equity and economic prosperity (Scherer et al. 2013). Another contribution to the definition of sustainability is the introduction of a temporal and spatial perspective (Kajikawa 2008). Indeed, following Kajikawa (2008), sustainability implies an intergenerational phenomenon and a trade-off between short-term gains and long-term concerns. The spatial dimension of sustainability is linked to the concept of intragenerational equity, which addresses the economic and resources disparity among nations (Kajikawa 2008).

Despite the diffusion of sustainability related concepts in corporate communication (Karen 2008), with regard to CSR, the management literature does not offer a universally accepted definition of the terms sustainability and sustainable development (Hartman et al. 2007), and the UN definition has been criticised and subjected to different interpretations (Gatto 1995). Even more difficult is the attempt to distinguish between the concepts of CSR and sustainability, particularly in relation to reporting practice. In fact, as Montiel (2008) stated, in the management literature both terms are used to indicate social and environmental management issues, without a clear distinction of their meaning. Van Marrewijk (2003) suggests that sustainability includes three dimensions (economic, environmental, and social) while CSR translates these dimensions into a concrete responsibility for business actors. However, practitioners often use “sustainability” and “CSR” interchangeably to indicate a more responsible or ethical way of doing business. According to Fassin et al. (2011, p 426), “sustainability and CSR seem to have converged in recent years such that they are now very similar concepts”.

The lack of clear and accepted definitions, the continuous introduction and change of CSR-related concepts and the overlap in terminology and definitions have created confusion in the academic debate (van Marrewijk 2003). This confusion in CSR/sustainability terminology has been underscored by Nielsen and Thomsen (2007), who addressed the difficulties of developing consistent strategies for reporting on CSR/sustainability given the lack of a common understanding.

Research focus: exploring the link between CSR and sustainability concepts and terminology

The first objective of our study is to address the claim regarding the increasing prevalence of an explicit CSR in Europe. As previously discussed, historically, the European legal and cultural systems have yielded narrow incentives for companies to engage in voluntary CSR programmes.

Matten and Moon (2008) and Hiss (2009) suggest that the recent European institutional reorganisation has encouraged the increasing prevalence of an explicit kind of CSR that is typical of American organisations. As the publication of CSR/sustainability reports is currently a voluntary and deliberate corporate practice, it can be considered a signal of explicit CSR. Indeed, one characteristic of explicit CSR is linked to the wording that corporations use in addressing their relationship with society (Maignan and Ralston 2002; Matten and Moon 2008). Companies practicing explicit CSR also tend to communicate their engagement in a more explicit way by publishing CSR reports and by describing their involvement in their corporate communication (Maignan and Ralston 2002). Therefore, the analysis of CSR report publications can be used as a measure of explicit CSR.

By analysing the frequency of corporate publications of CSR/sustainability reports, our research aims to support the theoretical statement formulated by Matten and Moon (2008). Therefore:

H1: Because European CSR is moving towards an explicit model, and CSR reports are signs of explicit CSR, we expect European companies to regularly publish CSR reports.

The second point addressed by our research deals with CSR terminology. The unsolved debate around the definition of CSR/sustainability-related concepts and the lack of common interpretations in the academic debate, as previously described (Fassin et al. 2011; Hartman et al. 2007; Matten and Moon 2008; Montiel 2008; Nielsen and Thomsen 2007; Rahman 2011; van Marrewijk 2003), have led to confusion in the corporate implementation of CSR/sustainability terminology. Given the problems with current terminology, each company has the opportunity—or the burden—to choose which concepts best match its own idea of CSR in accordance with company strategy and intentions (van Marrewijk 2003). Our study attempts to identify which concepts companies consider to be the most appropriate in describing their CSR commitment.

Moreover, our research aims to identify differences in terminology between the present and the past and to discover trends in the use of CSR-related terms. Isomorphism, implied in neoinstitutionalism, assumes that externally codified rules and norms assign legitimacy to management practices and trends, regardless of their actual usefulness (Othman et al. 2011). These rules and norms are not only derived from laws, but they can also be established by self-regulatory and voluntary initiatives. In the case of CSR in Europe, both governmental initiatives (such as the Equal Pay Act 1970 and the Health and Safety at Work Act 1974 that in the 1970s established new rules for employee treatment) and voluntary initiatives are seen as

isomorphisms (Eberhard-Harribey 2006; Matten and Moon 2008). In particular, in relation to CSR reporting, prior research suggests that new accounting and reporting practices are influenced by the institutional environment. According to Othman et al. (2011), new trends in CSR reporting are established through coercive isomorphism, normative isomorphism, and mimetic isomorphism. Coercive isomorphism derives from external pressure exerted on organizations by other organizations upon which they depend, such as the national government, or by the cultural expectations of the society. Normative isomorphism reflects the normative intention of the corporation to be accountable and transparent towards stakeholders. Finally, following mimetic isomorphism, trends in CSR reporting can be driven by the desire to imitate other companies.

Our study assumes that, because there is a tendency towards uniformity in CSR report terminology, there should be recognisable trends in the use of terms over time. Therefore:

H2: Because of isomorphism in CSR reporting, we expect to find statistically significant trends in the use of CSR-related terms with regards to different time periods.

Research methodology

To capture corporate preferences in terms of CSR concepts, we took into account the denomination applied in CSR/sustainability report titles. The challenge here is dealing with the lack of agreement among academics and practitioners regarding how to label corporate CSR/sustainability reports. Comparable reports in terms of topic and functions have been titled in different ways by different companies or even by the same company at different times. We assume that companies choose the most appropriate concepts to indicate and communicate to the public their social and environmental commitment. Therefore, the question is: if managers have to choose words to indicate corporate commitment to CSR/sustainability, which concepts do they prefer? Usually, when analysing a text, one part reveals the author's preferred concepts to indicate the topic of the report: the title. The title of a report can summarise the main topics addressed as well as indicate the nature of the report itself. The underlying assumption here is that the title of a CSR/sustainability report works as a condensed version—or visiting card, so to speak—communicating the corporation's responsibilities, including social and environmental responsibilities. The terminology used in CSR/sustainability report titles reveals concepts that the corporation considers appropriate in describing and communicating its specific CSR approach. Therefore, by analysing

the terminology used, we may gain insights into how companies interpret the CSR concept and their approach to it. In comparing the use of terms over time, we might also identify changes and trends in both the topics addressed and the terminology used.

Among the different methodologies adopted in the analysis of corporate websites, scholars have used content analysis (Krippendorf 1980) frequently to study corporate information published online (Robbins and Stylianou 2002). In our study, we used conceptual analysis (Palmquist et al. 1997), a basic method of content analysis, and applied coding categories (Carley 1993) to prove the existence and measure the frequency of certain key terms in CSR/sustainability report titles.

Sampling design

The data selected for the study consist of 329 titles of online CSR/sustainability reports belonging to the 50 European companies listed in the Euro Stoxx 50, a stock index of corporations in the Eurozone designed by Stoxx Ltd., covering 50 stocks from 12 Eurozone countries: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal and Spain. According to the Stoxx web page, this index “provides a Blue-chip representation of supersector leaders in the Eurozone” (Stoxx 2011). Therefore, our sample included report titles from leading European companies. Although the 50 companies identified by the Euro Stoxx 50 do not represent European companies in general, leading companies establish practices and norms that other companies might be likely to follow (Karen 2008). Table 1 reports the names of the 50 companies and the year of publication of the corresponding CSR reports analysed in this study.

The CSR report titles selected for the study refer to the time period from 1998, when the first CSR report from one of the 50 companies from the Euro Stoxx 50 appeared on the company website, to 2010. The sample includes the titles of all the different CSR/sustainability reports published on the websites of the 50 companies between 1998 and 2010.

Process of coding and categorisation

To answer our research questions, we focussed on specific keywords and tested whether or not they were used consistently over time. Key terms and concepts were selected and coded in different categories based on the existing literature on CSR and CSR/sustainability reporting (Karen 2008; Panwar 2006; van Marrewijk 2003). These categories are:

- Sustainability (Sustainability/Sustainable Development/Sustainable Business).
 - Environment (Environment/Environmental).
 - Social (Social/Corporate Social Responsibility/Social Responsibility/Society).
 - Ethics (Business Ethics/Ethics/Ethical).
 - Citizenship (Citizenship/Citizen).
- Following Fassin et al. (2011), other CSR-related concepts, such as corporate governance, accountability, compliance, and code of characters, have emerged recently in the management literature and corporate communication. However, because none of these concepts was found in the titles analysed, we decided to rely on the categorisation proposed by Karen (2008).
- One characteristic of coding categories presented by Carley (1993) relates to the level of generalisation in the coding process. The generalisation of coding corresponds to the level of implication one is going to tolerate. The level of implication accepted in a study allows researchers to code in the same category not only a specific term, but also those sets of terms that imply the concept expressed in the specific category of terms. For example, in the current study, all the sets of words that include the term *responsibility* have been coded in the “Responsibility” category. Generalisation makes it possible to consider different aspects and concepts expressed in the same sets of words simultaneously.
- To address our second hypothesis, six assumptions were formulated and tested statistically to understand whether the same terms/categories, as described previously, were used consistently or not between 1998 and 2010 in CSR/sustainability report titles from the companies listed in Euro Stoxx 50:
- Assumption 1 (A1): The “Responsibility” category is not used consistently over time in CSR report titles.
 - Assumption 2 (A2): The “Sustainability” category is not used consistently over time in CSR report titles.
 - Assumption 3 (A3): The “Environment” category is not used consistently over time in CSR report titles.
 - Assumption 4 (A4): The “Social” category is not used consistently over time in CSR report titles.
 - Assumption 5 (A5): The “Business Ethics” category is not used consistently over time in CSR report titles.
 - Assumption 6 (A6): The “Citizenship” category is not used consistently over time in CSR report titles.
- For each category, we measured the frequency of use in CSR/sustainability report titles during different time periods. We then compared the number of times a category appears in different time periods to identify changes in the use of CSR/sustainability-related concepts. To compare the frequency of use in different time periods, the 13 years

Table 1 Corporate social responsibility (CSR) reports

	Euro stoxx 50 components (2011)	Supersector	Country	CSR reports
1	AIR LIQUIDE	Chemicals	FR	2010–2009
2	ALLIANZ	Insurance	DE	2010
3	ABI	Food and beverages	BE	2010
4	ARCELORMITTAL	Basic resources	LU	2010–2009–2008–2007
5	ASML HLDG	Technology	NL	2011
6	ASSICURAZIONI GENERALI	Insurance	IT	2011–2010–2009–2008–2007–2006–2005–2004
7	AXA	Insurance	FR	2011–2010–2009–2005–2004–2003
8	BASF	Chemicals	DE	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002–2001–2000
9	BAYER	Chemicals	DE	2011–2010–2009–2008–2007–2006–2005–2004–2001
10	BBVA	Banks	ES	2011–2009–2008–2007–2006–2005–2004–2003–2002
11	BCO SANTANDER	Banks	ES	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002
12	BMW	Automobiles and parts	DE	2011–2010
13	BNP PARIBAS	Banks	FR	2010–2009–2008–2007–2006–2005–2004
14	CARREFOUR	Retail	FR	2010–2009–2008–2007–2006–2005–2004–2003
15	CRH	Construction and materials	IE	2010
16	DAIMLER	Automobiles and parts	DE	2011–2010–2009–2008–2007–2006–2005
17	DANONE	Food and beverages	FR	2011
18	DEUTSCHE BANK	Banks	DE	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002
19	DEUTSCHE TELEKOM	Telecommunications	DE	2011–2010–2009–2008–2007–2006–2005–2004
20	E.ON	Utilities	DE	2011–2010–2009–2008–2007–2006–2005–2004
21	FRANCE TELECOM	Telecommunications	FR	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002–2001
22	ENEL	Utilities	IT	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002
23	ENI	Oil and gas	IT	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002–2001
24	ESSILOR INT	Healthcare	FR	2010
25	GDF SUEZ	Utilities	FR	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002
26	GRP SOCIETE GENERALE	Banks	FR	2011
27	IBERDROLA	Utilities	ES	2011–2010–2009–2008–2007–2006–2005–2004–2003
28	INDITEX	Retail	ES	
29	ING GRP	Insurance	NL	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002–2001–2000
30	INTESA SANPAOLO	Banks	IT	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002
31	L'OREAL	Personal and household goods	FR	2011–2010–2009–2008–2007–2006–2005–2003
32	LVMH MOET HENNESSY	Personal and household goods	FR	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002–2001
33	MUNICH RE	Insurance	DE	2011–2010–2009
34	NOKIA	Telecommunications	FL	2011–2010–2009–2008–2007–2006–2005–2004–2003
35	PHILIPS	Industrial goods and services	NL	2011–2010–2009–2008
36	REPSOL	Oil and gas	ES	2011–2010–2009–2008–2007–2006–2005–2004
37	RWE	Utilities	DE	2011–2010–2009–2008–2007–2006–2005–2003–2001–2000–1998
38	SAINT GOBAIN	Construction and materials	FR	2011–2010–2009–2007
39	SANOFI	Healthcare	FR	2011–2010–2009–2008–2007–2006–2005–2004–2003
40	SAP	Technology	DE	2011–2010–2009–2008–2007

Table 1 continued

	Euro stoxx 50 components (2011)	Supersector	Country	CSR reports
41	SCHNEIDER ELECTRIC	Industrial goods and services	FR	2011–2010–2009
42	SIEMENS	Industrial goods and services	DE	2011–2010–2009–2008–2007–2006–2005–2003–2002–2001–2000
43	TELEFONICA	Telecommunications	ES	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002
44	TOTAL	Oil and gas	FR	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002–2001
45	UNIBAIL-RODAMCO	Real estate	FR	2011–2010
46	UNICREDIT	Banks	IT	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002–2001–2000
47	UNILEVER NV	Food and beverages	NL	2011–2010–2009–2008–2007–2006–2005–2004–2003
48	VINCI	Construction and materials	FR	2011–2010–2009
49	VIVENDI	Media	FR	2011–2010–2009–2008–2007–2006–2005–2004–2003–2002–2001–2000–1999
50	VOLKSWAGEN PREF	Automobiles and parts	DE	2011–2010–2009–2008–2007–2006

considered in the study were divided into four time periods: the first group from 2008 through 2010, the second group from 2005 through 2007, the third group from 2002 through 2004, and the fourth group from 1998 through 2001. The last group is the largest. Although it consists of four instead of 3 years, fewer reports were published online during that period; thus, the class was enlarged to include a robust number of cases.

The decision to divide the years into four groups is explained by the fact that we expected to find differences in terminology every 3–4 years following a regular trend. However, the data analysis showed no significant differences in the use of terms between groups 1 and 2 or between groups 3 and 4. Therefore, the groups were combined into two groups of timing classes: the first from 2005 through 2010 and the second from 1998 through 2004. Independent sample *t* tests were applied to compare the means of the different categories between timing group 1 and group 2 (see results). Because the variables take the values 0 or 1 (0 corresponds to “the word does not appear in the title” and 1 means “the word appears in the title”), the mean value of each variable corresponds to the percentage of frequency of the word for the selected period of time. For example, the mean value of the variable “Sustainability” is 0.54 for timing group 1, indicating that—from 2005 through 2010—54 % of the CSR reports had this word in their titles.

Results: the rise of “sustainability” and the decline of “social” and “environment”

The majority of reports were published by French, German, Italian and Spanish companies. In particular, 110 reports

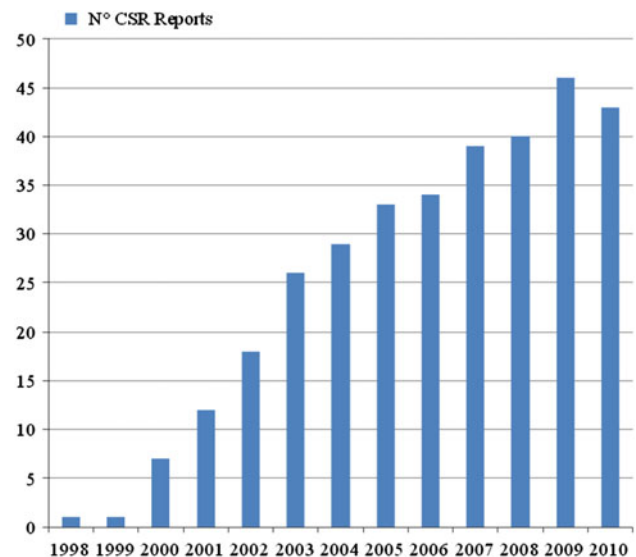


Fig. 1 Histogram of corporate social responsibility (CSR) reports between 1998 and 2010

(33.4 %) belonged to French companies, 85 reports (25.8 %) were published by German companies, 57 reports (17.3 %) came from Italian companies, while 41 (12.5 %) reports were Spanish. Most of the reports came from companies in the financial and telecommunications sectors. In particular, 27 % of reports were from companies in the financial services industry whereas 16 % belonged to the telecommunications sector.

Figure 1 reports the number of CSR reports published between 1998 and 2010. The histogram makes evident that most reports (71.5 %) were published between 2005 and 2010. In addition, the figure shows how the CSR reporting practice is spreading among European companies. In the

Table 2 Means and frequencies of categories for timing groups 1 and 2

Category	Timing groups	Mean	SD	Std. Mean
Responsibility category	2005–2010	0.40	0.490	0.032
	1998–2004	0.40	0.493	0.051
Environment category	2005–2010	0.13	0.339	0.022
	1998–2004	0.35	0.480	0.049
Social category	2005–2010	0.22	0.416	0.027
	1998–2004	0.44	0.499	0.051
Sustainable category	2005–2010	0.54	0.499	0.033
	1998–2004	0.35	0.48	0.049
Ethics category	2005–2010	0.01	0.113	0.007
	1998–2004	0.01	0.103	0.011
Citizenship category	2005–2010	0	0.065	0.004
	1998–2004	0.05	0.226	0.023

Category	Timing groups	% Reports frequency
Responsibility category	2005–2010	40
	1998–2004	40
Environment category	2005–2010	13
	1998–2004	35
Social category	2005–2010	22
	1998–2004	44
Sustainable category	2005–2010	54
	1998–2004	35
Ethics category	2005–2010	1
	1998–2004	1
Citizenship category	2005–2010	0
	1998–2004	5

last years, almost all 50 companies published a CSR/sustainability report.

Our data analysis confirmed that the publication of CSR/sustainability reports has become increasingly important for business companies. This does not mean that European companies are now more concerned about CSR issues, but only that they consider it increasingly important to publish a CSR report. This may be explained by increased engagement in CSR or by a strategic attempt to attain corporate legitimacy or improve business image through symbolic communication.

Our results also supported H1 regarding the diffusion of an explicit model of CSR in Europe. Indeed, the fact that European companies regularly publish CSR reports is a sign of the adoption of explicit CSR. Furthermore, the reports made evident the rise in the use of corporate websites for reporting on CSR/sustainability issues and they supported the importance of websites in corporate communication, as also claimed by current research (Isenmann 2006).

To address H2, we tested our six assumptions about the consistent use of CSR categories over time. The

independent sample *t* test revealed that the difference in the frequencies of four categories (Environment, Social, Sustainability, Citizenship) appeared in a significantly different way (Sig. 2-tailed = 0.05) in the present CSR/sustainability reports (timing group 1) compared to the past reports (timing group 2). Therefore, A2, A3, A4 and A6 were confirmed by the data analysis, whereas A1 and A5 were rejected. However, although there was a statistically significant difference in the use of the Citizenship category (A6), it had a very low percentage of frequency; thus, it was not considered a relevant outcome. The detailed results of the independent sample *t* tests for timing groups 1 and 2 are reported in Tables 2 and 3.

The fact that some CSR categories appeared in a significantly different way in past reports versus present reports confirmed H2 regarding isomorphism in CSR/sustainability reporting terminology.

To identify the direction of relevant trends in the use of CSR/sustainability-related words over time, we focussed on the analysis of three CSR categories: Environment, Social and Sustainability. The categories analysed included variables that differed significantly in

Table 3 Independent sample *t* test for equality of means

Category	Levene's test for equality of variances		<i>t</i> Test for equality of means						
	<i>F</i>	Sig.	<i>t</i>	<i>df</i>	Sig. (2-tailed)	Mean difference	Std. error difference	95 % Confidence interval of the difference	
								Lower	Upper
Responsibility category									
Equal variances assumed	0.078	0.781	−0.142	327.000	0.887	−0.009	0.060	−0.126	0.109
Equal variances not assumed			−0.142	170.341	0.888	−0.009	0.060	−0.127	0.110
Environment category									
Equal variances assumed	68.397	0.000	−4.671	327.000	0.000*	−0.219	0.047	−0.311	−0.127
Equal variances not assumed			−4.042	131.779	0.000*	−0.219	0.054	−0.326	0.112
Social category									
Equal variances assumed	36.720	0.000	−3.992	327.000	0.000*	−0.215	0.054	−0.321	−0.109
Equal variances not assumed			−3.696	147.463	0.000*	−0.215	0.058	−0.330	−0.100
Sustainable category									
Equal variances assumed	15.128	0.000	3.214	327.000	0.001*	0.194	0.060	0.075	0.312
Equal variances not assumed			3.268	177.664	0.001*	0.194	0.059	0.077	0.311
Ethics category									
Equal variances assumed	0.101	0.751	0.159	327.000	0.874	0.002	0.013	−0.024	0.029
Equal variances not assumed			0.165	185.851	0.869	0.002	0.013	−0.023	0.028
Citizenship category									
Equal variances assumed	39.259	0.000	−3.029	327.000	0.003*	−0.049	0.016	−0.081	−0.017
Equal variances not assumed			−2.069	99.279	0.041*	−0.049	0.024	−0.096	−0.002

* $P \leq 0.05$

terms of frequencies between present reports and past reports and that presented a relevant frequency in at least one time period. In 2002, 22.2 % of reports used terminology related to the Sustainability category, compared to 51.5 % in 2005 and 62.8 % in 2010. Meanwhile, the frequency of the Environmental category declined from 61.9 % in 2001 to 24.2 % in 2005 and 7.0 % in 2010. Words related to the Social category were presented in 50.0 % of titles in 2002 but only 18.6 % in 2010. Figure 2 shows graphically this evolution of CSR/sustainability report title terminology, highlighting the historical trends of CSR/sustainability-related words in online reports.

As reported in Fig. 2, in the initial years of reporting (1998–2001), the sustainability concept was used by only 23.8 % of companies, whereas the social and the environmental categories were adopted by 42.9 and 61.9 % of companies, respectively. Our interpretation of the results is that recently the Sustainability category—especially after the financial crisis of 2008—gained growing relevance whereas the Social and Environmental categories—especially after 2009—lost importance in European CSR/sustainability reporting. We might speculate that after the financial crisis of 2008, and the collapse of major banking institutes, reporting companies might have been confused

about the validity of the concepts used thus far and, as a result, the majority (56.6 % in 2009 and 62.8 % in 2010) subscribed to the emerging sustainability category, as perhaps the perception of sustainability (in general) better addressed the complex risks than the social and/or environmental categories. In sum, according to our interpretation of the data, the sustainability concept is more complex and encompassing to jointly address social and environmental aspects along with long-term developments, without addressing (the organisations' own) social or environmental responsibilities (which also might become a legal challenge to a company, once admitted).

Discussion

European CSR/sustainability reporting: towards a more explicit CSR

Our results indicate that the publication of CSR/sustainability reports is becoming increasingly important for European companies and that publishing CSR/sustainability reports is currently more of a standard practice than a differentiation tool for creating competitive advantages. The diffusion of CSR/sustainability reports in Europe is a

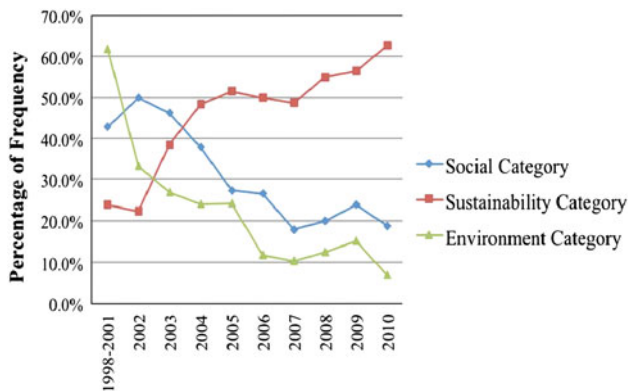


Fig. 2 Percentage of frequency of CSR categories from 1998 to 2010

signal that European companies have started to make more explicit their efforts towards CSR/sustainability. Therefore, the hypothesis of a trend towards more explicit European CSR, as argued by Matten and Moon (2008), is supported by our findings. The authors suggest that the diffusion of explicit CSR among European companies is related to the supranational European institutional reorganisation that created incentives for the adoption of a corporate-level managerial perspective, considering CSR as a voluntary and deliberate corporate decision. For example, as claimed by Hiss (2009), in the 1980s, Germany was characterised by an institutional framework that emphasised implicit regulations to guide responsible corporate behaviour. Today, changes at the institutional level have made CSR a voluntary and explicit corporate practice to address social issues.

Historical trends in the use of environment, society and sustainability terminology.

Our main finding relates to the use of certain terms over time. The results indicate clearly that the frequency in use of terminology from the Environment, Social and Sustainability categories differs significantly between present and past titles. As previously explained, our findings show that social and environment-related terms were used more frequently in the past and demonstrate the establishment of the sustainability concept in corporate non-financial reporting. Therefore our data support the claim of the rise of the sustainability concept as put forward by Komiyama and Takeuchi (2006).

Initially, the term sustainability was used in the science of ecology to indicate “the ability of the whole or parts of a biotic community to extend its form into the future” (Ariansen 1999, p 84). According to Baker (2005), introduction of the term *development* associated with sustainability expands the focus to society. As claimed by Gibson (2001), the sustainable development perspective also includes

societal development. In the twenty-first century, the combination of the concepts of sustainable development and environmental science favoured the emergence of a new academic discipline: sustainability science (Kates et al. 2001; Komiyama and Takeuchi 2006). While environmental science focusses on the study of environmental systems and the solution of environmental problems, sustainability science integrates holistic and historical sciences (such as geology, ecology, climatology and oceanography) with social sciences and humanities. As Kieffer et al. (2003) claim, sustainability science is the “cultivation, integration, and application of knowledge about Earth systems gained especially from the holistic and historical sciences (such as geology, ecology, climatology, oceanography) coordinated with knowledge about human interrelationships gained from the social sciences and humanities, in order to evaluate, mitigate, and minimize the consequences, regionally and worldwide, of human impacts on planetary systems and on societies across the globe and into the future—that is, in order that humans can be knowledgeable Earth stewards” (Kieffer et al. 2003, p 432). In this regard, according to Yarime et al. (2012) “as sustainability problems cut across diverse academic disciplines, ranging from the natural sciences to the social sciences and humanities, interdisciplinarity has become a central idea to the realm of sustainability science” (Yarime et al. 2012, p 101). By combining an appreciation for the future with its interdisciplinary nature, sustainability integrates economic, environmental and societal objectives in a long-run perspective.

Our study did not provide reasons why companies have changed their preferences regarding CSR/sustainability terminology. However, the following discussion aims to open a debate on the reasons, offering different hypotheses for future research to address the “why” question.

Question of scope

Karen (2008) suggested that use of the term *sustainability* in corporate reporting indicates an overcoming of the CSR concept because the term integrates both financial and social performance. According to van Zeijl-Rozema et al. (2008), sustainable development integrates economic, environmental and societal objectives. Grosskurth and Rotmans (2005) go further by arguing that sustainability transgresses the boundaries between economic, ecological and social aspects. For example, the economic development of the last two centuries has had a dramatic impact on the environment. As claimed by Martens (2006), the significance of the concept lies precisely in the interrelationship among the economic, ecological and socio-cultural domains.

The wide scope of the sustainability concept is also clear in temporal terms. Sustainable development is an

intergenerational phenomenon, a process of transference from one to another generation (Grosskurth and Rotmans 2005; Martens 2006). The definition of the concept itself implies an intrinsic appreciation for future generations and their needs (WCED 1987). Therefore, from a time perspective, the responsibility scope is wide because it includes future responsibilities.

However, when we consider the topics addressed by the sustainability concept, there is confusion in both the literature and corporate practice (Gatto 1995). Because the definition of sustainability is subjected to enormous range in its interpretation (Hartman et al. 2007), it does not help in identifying specific corporate responsibilities, and its scope remains vague and generic. As Hartman et al. (2007) suggest, “when executives refer to sustainability, they may be referencing different issues, depending on their region, industry, or reporting mechanism” (p 377). Socially and environmentally related terms seem to address more specific corporate responsibilities in terms of topics. Moreover, how would it be possible to think about terms like *social responsibility* and *environment* without adopting a long-term perspective? Thus, the shift in corporate preferences might also be related to a corporate attempt to avoid the identification of specific responsibilities and thus legal liabilities. As Rimmer (2005) demonstrates, some corporations have actually used CSR declarations to distract the public from ethical problems related to their main operations. In this sense, through the use of more general concepts, corporations could try to prevent terms that correspond to specific responsibility. In this regard, Hartman et al. (2007) claim that there is a corporate tendency to use *sustainability* to refer to commitment to anything deemed important, rather than specifically to focus on particular environmental or social issues. For this reason, they hypothesised that corporate-wide use of the term *sustainability* is indicative of a certain degree of inauthenticity. However, our findings do not support or reject the two opposing claims. Context-based content analysis of the semantic use of the term would be needed to allow for proving the claims right or wrong (see [future research](#)).

Dealing with different stakeholders' claims through generalisation

The trend towards the use of more general CSR terminology may also be explained as an effort to include all the different corporate stakeholders in a CSR communication. According to the stakeholder theory (Freeman 2004; Roland and Bazzoni 2009; Johnson 2007; Gray et al. 1995), stakeholders' expectations and interests are increasing. Today, stakeholder groups are more aware of consequences of business activities that overcome the economic sphere, and they are more concerned about the ethically and

socially responsible behaviour of business companies. Their expectations are higher and cover more fields, from the environment to very specific social issues. In addition, according to Frooman (1999), different stakeholder groups have acquired significant influential power over corporate decisions: employees, suppliers, financiers, regulators, consumers and special interest groups increasingly have opportunities and means to make their points and force a company to consider their needs. Because of the variety of stakeholders' interests, it is risky to focus exclusively on a specific group's expectations. In fact, different stakeholders have different assumptions about a company and its responsibilities. In this regard, Karen (2008) suggests that sustainability joins together CSR and risk management. In this sense, from a corporate communication perspective, the wide perspective implied in the sustainability concept could be a way of resolving the problem of forgetting something that stakeholders consider important—namely, a strategy to not exclude stakeholder groups' interests—and thus a way to prevent criticism from different stakeholders.

CSR/sustainability trends and 'styles'

Another hypothesis links the change of preferences in European CSR/sustainability report terminology to the process of introducing new academic labels. In this sense, the trends highlighted in our study reflect the academic debate on CSR/sustainability-related concepts. Alvesson (2011) criticises academic fashion, arguing that sometimes what may appear to be a novel concept can just be a matter of shifting labels: “Labels and key vocabulary reflect fashion and the supply of conference and publication possibilities as much as the specific intellectual interest of the authors” (Alvesson 2011, p 24). Despite the fact that the introduction of academic concepts can be a matter of fashion or progress in intellectual development, what this hypothesis highlights is the role of the academic world in creating and diffusing certain concepts. Therefore, according to this perspective, the change in corporate preferences for CSR/sustainability-related concepts may be a sign of the mainstream currently dominating the CSR/sustainability academic debate.

First movers and followers in CSR/sustainability

Although the introduction of new concepts can be linked to the academic debate on CSR terminology, the diffusion of such terms in corporate CSR/sustainability reports highlights interesting processes in CSR/sustainability reporting. Karen (2008) hypothesised that the diffusion of concepts and terms in online CSR/sustainability reports can reveal how a company is actually committed to CSR/sustainability. Karen (2008, p 64) claims that firms low in

corporate social performance would use older, less current formulations of the concept than firms high in corporate social performance and commitment to ethics, which would tend to use more current and varied expressions of their commitment.

However, the literature on greenwashing (e.g. Greer and Bruno 1996; Mitchell and Ramey 2011) and empirical evidence (Bansal and Clelland 2004; Russo and Harrison 2005; Walker and Wan 2012) call into question the link between a firm's CSR communication and its actual engagement in CSR. For example, in relation to environmental marketing, Walker and Wan (2012) argue that managers may prefer symbolic communication to substantive actions as "signaling green values is easier and permits greater internal flexibility than implementing these values with action" (Walker and Wan 2012, p 228). This may explain why, for example, in a study on pollution in the electronics industry, Russo and Harrison (2005) found that ISO 14001 certification was associated with greater toxic air emissions. According to the authors, ISO 14001 provides the benefit of appearing green, leading to legitimacy, without requiring many effective, and costly, actions. The same argument was supported by Bansal and Clelland (2004), who conducted a study on environmental legitimacy showing how firms can increase their environmental legitimacy solely by expressing commitment to the natural environment. Hence, because of corporations following first movers, their engagement in social and environmental issues as indicated in their CSR/sustainability reports may not cover entirely their factual actions and may instead lead to accusations of greenwashing.

Limitations and future research

As this study was intended to explore CSR/sustainability terms and concepts used by leading companies in the Eurozone, it does not represent European companies in general. However, other companies might follow the practices established by leading companies (Karen 2008); therefore, we should expect to find similar trends in other European companies. Additional research should address this point to understand the level of generalisation of our results and draw inferences about the entire population. Another limitation of our data set is linked to the fact that the majority of reports (71.5 %) were published between 2005 and 2010. Although future studies should try to decrease the discrepancy of report publications among years to better describe trends, this aspect does not affect the robustness of our statistical analysis because our independent sample *t* tests relied on the relative percentage compared to the total publications per year.

Future research should also investigate how companies translate the economic, environmental and social responsibilities implied in the definition of sustainability into business strategies and operations. In this regard, an interesting aspect to discuss in future studies is the consistency between corporate communication on sustainability and corporate actual impact on environmental and social issues. In particular, future research should investigate the link between terminology used by companies in describing their behaviour and their actual commitment to CSR/sustainability.

Our study did not provide an answer for why companies have changed their preferences regarding CSR/sustainability terminology in report titles. This issue was mentioned in the discussion part, in which hypotheses were presented and compared. As previously mentioned, future research should address the "why" question, i.e. why is there this tendency for isomorphism in European CSR reporting and, in particular, why are European companies shifting from environmental and social words to sustainability-related terms?

An interesting point not addressed in the current study is the definition of sustainability as adopted by European companies. In particular, future research should investigate how European companies interpret the sustainability concept, including exactly what they mean by sustainability. Through a comparison of their interpretations and the main definitions shared in the literature, we may acquire interesting insights into the different uses of CSR/sustainability concepts in a managerial versus academic setting and in terms of the relationship between the two worlds. From an empirical point of view, a conceptual analysis of the content of those reports mentioning the sustainability concept could offer a valid approach to addressing the issue of corporate interpretation of the concept.

Another interesting point to consider in future research relates to the presence of cultural and national differences in the adoption and diffusion of CSR/sustainability-related concepts. This research is from a European context and requires testing in other contexts. A comparison between CSR/sustainability report titles of American and European companies would contribute to the debate about European versus American CSR. Indeed, Matten and Moon (2008) claim that European CSR is now moving towards the more explicit kind of CSR typical of American companies. According to these authors, European companies are now transforming the CSR commitment from a response to public policies (implicit CSR) to a voluntary and deliberate corporate strategy (explicit CSR). Their claim is supported by our findings. In fact, the corporate publication of CSR/sustainability reports is a signal of explicit CSR. A comparison of the terminology used in European and American CSR/sustainability reports could reveal interesting aspects

of the relationship between language and explicit or implicit CSR.

Such a comparison could also identify cultural differences in the adoption and diffusion of CSR/sustainability-related concepts. From a legal point of view, the divergence in the corresponding national legal systems regarding the legal entity of the corporation might have influenced the cultural interpretation of CSR/sustainability and the relative terminology adopted (e.g. the concept of citizenship). An analysis of European versus American reports could lead to a deeper understanding of the impact of culture on the corporate interpretation of CSR/sustainability. Some scholars (Sison 2009; Palazzo 2005) have started to explore the relationship between culture and CSR/sustainability. Sison (2009, p 235) suggests that the ultimate reasons behind differences in the use and interpretation of the concepts of CSR/sustainability and citizenship are of a cultural nature for example in the Anglo-American European comparison.

Future research should investigate the evolution of CSR/sustainability terminology in America and Europe to understand the impact of culture on the adoption and interpretation of CSR/sustainability-related concepts.

References

- Alvesson M (2011) Organizational culture: meaning, discourse and identity. In: Ashkanasy NM, Wilderom CPM, Peterson MF (eds) *The handbook of organizational culture and climate*, Sage, Thousand Oaks, pp 11–28
- Ariansen P (1999) Sustainability, morality and future generations. In: Lafferty WM, Langhelle O (eds) *Towards sustainable development: on the goals of development and the conditions of sustainability*, St Martin's, London, pp 84–96
- Arvidsson S (2010) Communication of corporate social responsibility: a study of the views of management teams in large companies. *J Bus Ethics* 96:339–354
- Australian Government Department of the Environment and Heritage (2003) *Corporate sustainability—an investor perspective*. The Mays report. Retrieved 7 May 2010. <http://deh.gov.au/industry/finance/publications/index.html>
- Baker S (2005) *Sustainable development*. Routledge, New York
- Bansal P, Clelland I (2004) Talking trash: legitimacy, impression management, and unsystematic risk in the context of the natural environment. *Acad Manag J* 47(1):93–103
- Carley K (1993) Coding choices for textual analysis: a comparison of content analysis and map analysis. *Sociol Methodol* 23:75–126
- Eberhard-Harribey L (2006) Corporate social responsibility as a new paradigm in the European policy: how CSR comes to legitimate the European regulation process. *Corp Gov Int J Bus Soc* 6:358–368
- Euro Stoxx (2011) Official web site. Retrieved 13 Sept 2011. http://www.stoxx.com/indices/index_information.html?symbol= SX5E
- European Commission (2002) Communication from the Commission concerning corporate social responsibility: a business contribution to sustainable development. COM (2002) 347 (01), European Commission, Brussels
- Fassin Y, Rossem AV, Buelens M (2011) Small-business owner-managers' perceptions of business ethics and CSR-related concepts. *J Bus Ethics* 98:425–453
- Flatz A (2003) Screening for sustainability. A case study of the Dow Jones sustainability index. In: Waage S (ed) *Ants, Galileo, and Gandhi. Designing the future of business through nature, genius, and compassion*. Greenleaf, Sheffield, pp 144–168
- Freeman RE (2004) A stakeholder theory of the modern corporation. In: Beauchamp T, Bowie N (eds) *Ethical theory and business*. Pearson Education, London, pp 56–66
- Frooman J (1999) Stakeholder influence strategies. *Acad Manag Rev* 24(2):191–205
- Gatto M (1995) Sustainability: is it a well defined concept? *Ecol Appl* 5(4):1181–1183
- Gibson RB (2001) Specification of sustainability-based environmental assessment decision criteria and implications for determining 'significance'. In: *Environmental Assessment Report 46 Canadian Environmental Assessment Agency Research and Development Programme*
- Gray R, Kouhy R, Lavers S (1995) Corporate social and environmental reporting. A review of the literature and a longitudinal study of UK disclosure. *Account Audit Account J* 8(2):47–77
- Greer J, Bruno K (1996) *Greenwash: the reality behind corporate environmentalism*. Apex, New York
- Grosskurth J, Rotmans J (2005) The scene model: getting a grip on sustainable development in policy making. *Environ Dev Sustain* 7:135–151
- Hartman L, Rubin R, Dhanda K (2007) The communication of corporate social responsibility: United States and European Union Multinational Corporations. *Business Ethics* 74:373–389
- Hiss S (2009) From implicit to explicit corporate social responsibility—institutional change as a fight for myths. *Bus Ethics Q* 19(3):433–451
- Idowu SO (1989) Accountable to society. *Pass Magazine*, November:14–15
- Idowu SO, Towler BA (2004) A comparative study of the contents of corporate social responsibility reports of UK companies. *Manag Environ Qual Int J* 15(4):420–437
- Isenmann R (2006) Internet based communication. In: Jonker J, de Witte M (eds) *Management models for CSR*. Springer, Berlin, pp 247–256
- Isenmann R, Bey C, Welter M (2007) Online reporting for sustainability issues. *Bus Strategy Environ* 16:487–501
- Johnson CE (2007) *Ethics in the workplace: tools and tactics for organizational transformation*. Sage, Thousand Oaks
- Kajikawa Y (2008) Research core and framework of sustainability science. *Sustain Sci* 3:215–239
- Karen P (2008) Corporate sustainability, citizenship and social responsibility reporting. *J Corp Citizensh* 32:63–78
- Kates R, Clark W, Corell R, Hall J, Jaeger C, Lowe I, McCarthy J, Schellnhuber HJ, Bolin B, Dickson N, Faucheux S, Gallopin G, Grubler A, Huntley B, Jager J, Jodha N, Kasperson R, Mabogunje A, Matson P, Mooney H (2001) *Sustain Sci* 292(5517):641–642
- Kieffer SW, Barton P, Palmer AR, Reitan PH, Zen E (2003) Megascala events: natural disasters and human behavior. *Geol Soc Am Abstr Progr* 2003:432
- Kolk A (2004) A decade of sustainability reporting: developments and significance. *Int J Environ Sustain Dev* 3(1):51–64
- Kolk A (2006) Sustainability reporting. *VBA J* 21:34–42
- Komiyama H, Takeuchi K (2006) Sustainability science: building a new discipline. *Sustain Sci* 1(1):1–6
- KPMG's Global Sustainability Services and the United Nations Environment Program (UNEP) (2006) *Carrots and sticks for starters: Current trends and approaches in voluntary and mandatory standards for sustainability reporting*. <http://ec.europa.eu/>

- enterprise/policies/sustainable-business/corporate-social-responsibility/reporting-disclosure/swedish-presidency/files/surveys_and_reports/carrots_and_sticks_-_kpmg_and_unep_en.pdf
- Krippendorf K (1980) Content analysis: an introduction to its methodology. Sage, Beverly Hills
- Maignan I, Ralston D (2002) Corporate social responsibility in Europe and the US: insights from businesses' self-presentations. *J Int Bus Stud* 33:497–515
- Martens P (2006) Sustainability: science or fiction? *Sustain Sci Pract Policy* 2(1):36–41
- Matten D, Moon J (2008) “Implicit” and “Explicit” CSR: a conceptual framework for a comparative understanding of corporate social responsibility. *Acad Manag Rev* 33(2):404–424
- Mitchell LD, Ramey WD (2011) Look how green I am! An individual-level explanation for greenwashing. *J Appl Bus Econ* 12(6):40–45
- Montiel I (2008) Corporate social responsibility and corporate sustainability. *Organ Manag* 21(3):245–269
- Nielsen AE, Thomsen C (2007) Reporting CSR—what and how to say it. *Corp Commun Int J* 12(1):25–40
- Othman S, Darus F, Arshad R (2011) The influence of coercive isomorphism on corporate social responsibility reporting and reputation 7(1):118–135
- Palazzo B (2005) *Interkulturelle Unternehmensethik*. Gabler, Wiesbaden
- Palenberg M, Reinicke W, Witte J (2006) Trends in non-financial reporting. Global Public Policy Institute, Berlin, pp 3–50
- Palmquist ME, Carley KM, Dale TA (1997) Two applications of automated text analysis: analyzing literary and non-literary texts. In: Roberts C (ed) *Text analysis for the social sciences: methods for drawing statistical inferences from texts and transcripts*. Erlbaum, Hillsdale
- Panwar R, Rinne T, Hansen E, Juslin H (2006) Corporate legitimacy as deliberation. A communicative framework. *J Bus Ethics* 66:71–78
- Rahman S (2011) Evaluation of definitions: ten dimensions of corporate social responsibility. *World Rev Bus Res* 1(1):166–176
- Rimmer L (2005) BAT in its own words. Retrieved 23 September 2011. <http://www.foe.co.uk/resource/reports/bat2005.pdf>
- Robbins SS, Stylianou AC (2002) A study of cultural differences in global corporate website. *J Comput Inform Syst* 42:3–9
- Rolland D, Bazzoni J O’K (2009) Greening corporate identity: CSR online corporate identity reporting. *Corp Commun Int J* 14(3):249–263
- Russo MV, Harrison NS (2005) Organizational design and environmental performance clues from the electronics industry. *Acad Manag J* 48(4):582–593
- Scherer AG, Palazzo G, Seidl D (2013) Managing legitimacy in complex and heterogeneous environments: sustainable development in a globalized world. *J Manage Stud* 50(2):259–284
- Sison AJG (2009) From CSR to corporate citizenship: anglo-American and continental European perspectives. *J Bus Ethics* 89:235–246
- STOXX Limited web page (2011). Retrieved 6 July 2011. http://www.stoxx.com/indices/index_information.html?symbol=SX5E
- van Marrewijk M (2003) Concepts and definitions of csr and corporate sustainability: between agency and communion. *J Bus Ethics* 44:95–105
- Van. Zeijl-Rozema A, Cörvers R, Kemp R, Martens P (2008) Governance for sustainable development: a framework. *Sustain Dev* 16(6):410–421
- Walker K, Wan F (2012) The harm of symbolic actions an greenwashing: corporate actions and communications on environmental performance and their financial implications. *J Bus Ethics* 109:227–242
- WCED (1987) *Our common future*. Oxford University Press, London
- Yarime M, Trencher G, Mino T, Scholz RW, Olsson L, Ness B, Frantzeskaki N, Rotmans J (2012) Establishing sustainability science in higher education institutions: towards an integration of academic development, institutionalization, and stakeholder collaborations. *Sustain Sci* 7(1):101–113