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**Article**

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REVIEW ARTICLE

Open Access



# Grey zone in – greenwash out. A review of greenwashing research and implications for the voluntary-mandatory transition of CSR

Lucia Gatti<sup>1\*</sup>, Peter Seele<sup>2</sup> and Lars Rademacher<sup>3</sup>

## Abstract

As public concern over greenwashing has grown in the last two decades, academic research has increased correspondingly, and there is now a substantial body of research addressing issues related to greenwashing. In this paper, we therefore review and analyze greenwashing research, to provide an evaluation of trends and progress in the field and a synthesis of the empirical and conceptual results presented in existing studies.

Our main finding leading to our theory contribution is the criticism raised in greenwashing research that the entirely voluntary CSR (Corporate Social Responsibility) approach facilitates the diffusion of greenwashing. The voluntary idea of CSR is still prevalent in the CSR literature and appears to be a grey-zone that creates space for misleading 'green' communication.

Consequently, we propose that greenwashing could be better prevented with a combination of voluntary and mandatory aspects. The new paradigm should promote creative and effective corporate CSR initiatives, while at the same time design the limits and the rules for their accomplishments and communication, as firms would risk breaching legislation when overstretching CSR messages.

**Keywords:** Greenwashing, Corporate social responsibility, CSR communication, Mandatory CSR

## Introduction

Over the last decades, companies' instrumental use of green and social claims has become a central topic in the public debate about corporate social responsibility (CSR). In this context, an increasing number of organizations have been accused of "not walking the talk," which means their CSR claims on environmental or social issues have not been followed or supported by actual corporate activities (Walker & Wan, 2012). Such divergence between socially responsible communication and practices is commonly known as *greenwashing*.

Three decades after the conceptualization of the term "greenwashing," the practice has grown enormously (Walker & Wan, 2012) and is now more sophisticated (Theguardian, 2016).

According to Furlow (2010), the proliferation of environmental disinformation has become so common and is

of such a concern, that media discourse on greenwashing has parallel increased. Several non-governmental organizations (NGOs), such as Greenpeace or TerraChoice, assume today the roles of market monitors or "watchdogs." In addition, the press expresses a growing concern about causes and consequences of greenwashing (Du, 2015). As a result, consumers are increasingly skeptical about the authenticity of corporate environmental claims (Lyon & Montgomery, 2013).

As the public concern over greenwashing has drastically grown in the last two decades, academic research has increased correspondingly, and there is now a substantial body of literature addressing issues related to greenwashing. Indeed, more than 1.315 scholarly articles are currently<sup>1</sup> mentioning the term "greenwashing" or "greenwash".

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<sup>1</sup>Data retrieved from ABI/Inform database. English scholarly articles. 14-03-2019.

Because of the centrality and actuality of the topic in both the public and academic CSR debate, a review of the literature is needed to understand how scholars have conceptualized and discussed the phenomenon. Indeed, different and sometimes contradictory definitions have thus far been provided and more research is needed to categorize the variety of greenwashing discussed in literature as well as its implications and consequences for business and society (Lyon & Montgomery, 2015; Seele & Gatti, 2017). To our knowledge, only one article has reviewed the academic debate around greenwashing. By focusing on the means and ends of greenwashing, the Lyon and Montgomery's (2015) paper offers valid insights and directions for future research. However, their detailed analysis of the literature needs to be updated, given the fact that it stops in 2013 with a total number of 34 papers. Therefore, by including more than twice as many papers compared to Lyon and Montgomery's literature review on greenwashing, we aim to expand their analysis in order to identify and discuss new issues in the fields and to provide a structured summary of the empirical and conceptual results presented in existing studies.

Our main finding leading to our theory contribution is the criticism raised in greenwashing literature that a totally voluntary and unregulated CSR approach facilitates the diffusion of greenwashing. Indeed, current predominant voluntary approaches create space for grey zones allowing for misleading communications. However, also an exclusive mandatory approach may favor the establishment of grey zones where companies look for ways around the rules. This is particularly true in the today's interconnected and globalized world, where globalization makes self-organizing processes necessary to solve the deficit in regulation (Scherer et al. 2006).

Building on the discussion about the legality of greenwashing, our paper links to and advanced the debate about the voluntary versus mandatory nature of CSR through the lens of greenwashing scholars, thereby providing insights into a burgeoning paradigm shift towards an integration of the voluntary and mandatory perspectives in the application of CSR and corporate CSR reporting and communication.

The paper suggests that greenwashing could be better prevented with a combination of voluntary and mandatory aspects designed to promote CSR and regulate its application and communication, (which is currently in the process of being developed in several countries).

The paper proceeds as follows: we summarize the methodology applied to select and analyze the academic articles about greenwashing. In sections 3 and 4 we present the main results of our quantitative and qualitative analysis. We then discuss these results to highlight

implications and contributions of the greenwashing literature, as well as trends and progress in the field. In the last section, we finally present the main insights of the paper, particularly the theoretical contribution suggesting a reduction of grey zones and an increase in clarity and credibility, to limit the 'temptation' to create misleading green messages, which could open the door to accusations of greenwashing.

### **Method of the systematic literature review**

To identify trends and progress in the field and provide a synthesis of the main issues discussed in literature, we conducted an extensive review articles of the literature. Indeed, review articles play a role in discovering critical issues relevant to the topic and in synthesizing the main trends and perspectives discussed as well as the main methodologies and research techniques that have been used (Randolph, 2009).

As Randolph (2009) suggested, when conducting a systematic and reliable literature review, the data collection process should begin with an electronic search of academic databases and the Internet. To identify the academic literature on greenwashing, we therefore employed keyword searches using the ABI/Inform Global database, considered the most comprehensive source of information on business research (Lyon & Montgomery, 2015), and Google Scholar. For the ABI/Inform database, we first began with a general search to assess the dimension of literature citing the term greenwashing. Therefore, we applied the keywords "greenwash" or "greenwashing" to all the fields (including the title, abstract, keywords and full text of articles) and selected English articles published in scholarly journals. A total number of 1.273 articles in the period from 1995 to 2018 were retrieved from this search.<sup>2</sup> Among the different journals publishing articles about greenwashing, the Journal of Business Ethics represents the top journal in terms of published articles (212 papers), followed by the Journal of Cleaner Production (97), and the Social Responsibility Journal (29). Table 1 reports the list of journals publishing more than 10 articles citing "greenwashing" or "greenwash" to identifying the top journal list of greenwashing research.

In order to identify articles with a clear focus on the topic, as opposed to those merely citing the term, we restricted our search to papers that mention the search terms in the title or abstract. This selection process yielded 136 scholarly articles. After a content review, 62 articles were excluded from the analysis. Although they mentioned greenwashing in their title and/or abstract, greenwashing did not represent a central construct or variable in these articles, or they presented an English

<sup>2</sup>This search included articles published before December 31rst 2018.

**Table 1** Analysis of journals

Journal Name	Impact Factor (I.F.) (2017) if available	Num. of Greenwashing-related Articles
<i>Journal of Business Ethics</i>	2.917	212
<i>Journal of Cleaner Production</i>	5.651	97
<i>Social Responsibility Journal</i>	I.F. not available. CiteScore 2017: 0.88	29
<i>Organization &amp; Environment</i>	5.094	27
<i>Accounting, Auditing &amp; Accountability Journal</i>	2.911	26
<i>Sustainability Accounting, Management and Policy Journal</i>	2.2	20
<i>Corporate Communications</i>	I.F. not available. CiteScore 2017: 1.32	18
<i>Agriculture and Human Values</i>	2.568	17
<i>Corporate Reputation Review</i>	I.F. not available. CiteScore 2017: 0.77	14
<i>Corporate Governance</i>	I.F. not available. CiteScore 2017: 1.14	13
<i>MIT Sloan Management Review</i>	I.F. not available. SJR 2017: 1.82	13
<i>Management Decision</i>	1.525	12
<i>Business Strategy and the Environment</i>	5.355	10
<i>Environmental and Resource Economics</i>	1.961	10
<i>International Journal of Contemporary Hospitality Management</i>	2.874	10

title and abstract, but the article content was not in English.

The same keyword searches were applied to the Google Scholar search engine to detect relevant articles, which were not retrieved by the ABI/Inform search. Twenty scholarly articles not included in the ABI/Inform list were identified and added to our sample. The other articles returned by the Google Scholar search matched the previous sample or comprised non-academic papers. The final list, comprising 94 academic papers,<sup>3</sup> was updated and finalized on December, 2018.

### Quantitative data analysis

To assess the status and development of the academic literature on greenwashing, we first categorized the 94 academic articles according to a set of variables: year of publication, type of research (empirical research, conceptual paper, literature review), methodological approaches (qualitative, quantitative, mixed method), methodological techniques (case study, content analysis, model development, analysis of secondary data, survey research method, experimental research method, focus group, visual sociology technique), scope of research (accounting, business ethics, corporate communication, economics, finance, law, management, marketing, political economics), focus of research (environmental issues, social issues, environmental and social issues, ethical issues), and theoretical framework (instrumental, political, ethical, integrative).

<sup>3</sup>For space constraints the full list is not included in the article. The full list is available upon request from the authors.

The coding process involved two different coders categorizing the collected articles separately. For all the variables mentioned above, we calculated the intercoder reliability. Among the various indices proposed in the literature, we employed Cohen's kappa ( $\kappa$ ), which is generally considered a valid measure to assess the level of agreement among coders in a content analysis. While there is no objective standard indicating acceptable levels of intercoder agreement for  $\kappa$ , Landis and Koch (1977) suggest that values lower than 0.20 indicate slight or no agreement, values between 0.21 and 0.40 correspond to a moderate level of agreement, values between 0.61 to 0.80 indicate a substantial agreement, while values higher 0.81 correspond to an almost perfect agreement. The test of the intercoder agreement for  $\kappa$  was performed for the main variables considered in the study. The  $\kappa$  was significantly different from zero (at the 0.05 level) with coefficients between 0.67 to 1.00, thus indicating an acceptable level of agreement. The detailed of the tests and their results are reported in Appendix.

The analysis of the years of publication reveals that, in general, publications on greenwashing are increasing in number. Before 2007 there were only one or two publications on the topic per year. Since the 2008 they continue to increase, reaching 13 publications in 2018. This seems to be a sign of the current productive status of greenwashing research and supports the idea that the diffusion of greenwashing practices in business fields has been accompanied by a development of related literature.

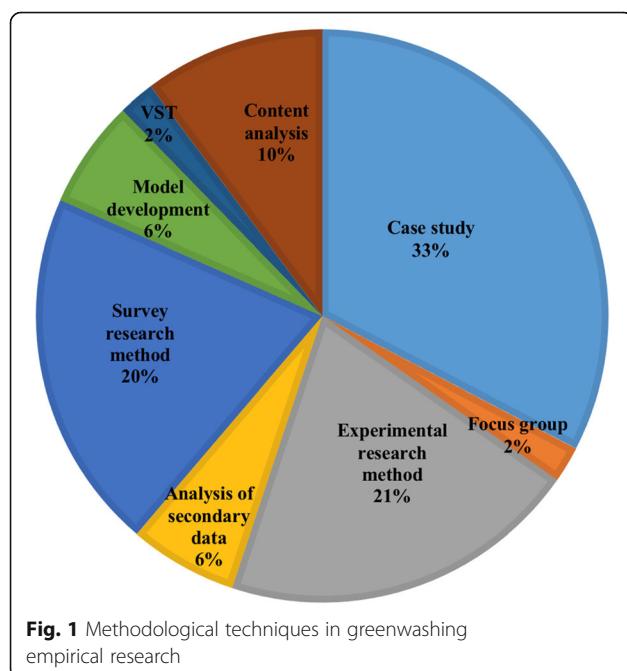
In relation to the "type of research," each paper was classified as either "conceptual," "empirical" or "literature review." Following Lyon and Montgomery (2015), the

conceptual category included those papers discussing philosophical issues, offering frameworks or models for classifying greenwashing related topics, or those developing theories and hypotheses about greenwashing. Empirical papers included both qualitative and quantitative research studies, and they were analyzed in depth to identify the methodological approach and technique used in each study.

As previously mentioned, we only found one literature review revising greenwashing research, which suggests the necessity of deeper analysis of the literature to see how research about the topic is evolving. We also identified one book review. Among the other articles, 32 studies were categorized as conceptual. The remaining 60 articles comprised empirical papers. While conceptual studies show uniform distribution across the publication time frame (1997–2016), empirical papers seem to increase consistently after 2003.

Empirical research about greenwashing was characterized by both qualitative and quantitative methods and by a number of different techniques. In particular, among the 60 empirical papers, 17 studies were based on a qualitative approach, 37 papers on a quantitative approach, while the remaining 10 studies employed a mixed method. Among the different methodological techniques used by greenwashing scholars, the case study method, the experimental research method, and the survey research method were the most widely employed. Figure 1 summarizes the specific techniques of the empirical studies analyzed in our review.

Table 2 reports the analysis of the scope of research of the 94 articles. The majority of papers (78.7%) discussed



**Table 2** Analysis of the scope of research

Scope of research	Frequency	Percent
Corporate Communication	28	29.8%
Marketing	32	34.0%
Management	14	14.9%
Law	12	12.8%
Business Ethics	2	2.1%
Economics	3	3.2%
Accounting	1	1.1%
Finance	1	1.1%
Political Economy	1	1.1%
Total	94	100%

greenwashing in the fields of corporate communication, marketing, and management. It is particularly interesting to note that 12.8% of articles are focused on law and legislation.

### Qualitative data analysis

To better understand how scholars have conceptualized and discussed the phenomenon so far, we also conducted a qualitative content analysis as established in CSR and business ethics research (Seele & Lock, 2015, Lock & Seele, 2016). The main purpose of this analysis was to assess the core findings of empirical and conceptual research. In Table 3, 4, 5, 6, 7 and 8 we present the synthesis of our analysis. Therefore, the following tables summarize the main results of greenwashing research and offer a useful instrument for both academics and practitioners to understand what has been discovered so far, and the main trends and progresses in the fields. A more profound reflection on the findings of greenwashing literature is presented in the discussion section.

### Discussion and contribution

Our content analysis resulted in the identification of three different themes highly debated in the literature: The meaning of greenwashing, its main consequences, and the recent conceptualization of CSR as a form of regulation to prevent greenwashing practices.

### The meaning of greenwashing

Following Lyon and Montgomery (2015), more research is needed to acknowledge the variety of forms and mechanisms related to greenwashing to better understand its meaning. We therefore revise the different definitions presented in literature to identify its main characteristics and the underlying mechanisms of the phenomena.

As claimed by Seele and Gatti (2017), although the literature on greenwashing is expanding, there is not a universally accepted definition of the term, and the

**Table 3** Analysis of research findings related to Category 1

Category of research finding	Description of category/subcategories	References (ordered per year of publication): <i>Description of findings</i>
1. What is greenwashing	Examples and explanations of greenwashing cases and tactics to better understand and describe the phenomenon.	<p>Marciniak, 2009:  <i>The article presents common mechanisms of ecological marketing and shows how greenwashing works in practice. It discusses six signs of greenwashing: 1. Hidden trade-off, 2. Fibbing, 3. Irrelevance, 4. No proof, 5. Vagueness, 6. Lesser of two evils.</i></p> <p>Budinsky and Bryant, 2013:  <i>The article reports three examples of advertisement campaigns (Clorox Green Works cleaning products, the Ford Escape Hybrid, and Toyota Prius motor vehicles) in order to highlight the ways in which companies undertake greenwashing.</i></p> <p>Thomas, 2014:  <i>The article reveals that many corporate reports contain ambiguous presentations of information, and in particular <b>photography</b> is susceptible to both misinforming and disengaging the reader.</i></p> <p>Lyon and Montgomery, 2015:  <i>The article highlights several varieties of greenwash: Selective disclosure, empty green claims and policies, dubious certifications and labels, co-opted NGO endorsements/partnership, ineffective public voluntary programs, misleading narrative and discourse, misleading visual imagery.</i></p> <p>Seele and Gatti, 2015:  <i>The article introduces a new categorization of greenwashing-related phenomena based on the intersection between two variables: the consistency (falsity) of corporate communication and the presence of an accusation from an external party. The resulting matrix identifies 4 different greenwashing cases: greenwashing, false greenwashing (the falsity is in the accusation), potential greenwashing (false message but no accusation), no greenwashing.</i></p>

**Table 4** Analysis of research findings related to Category 2

Category of research finding	Description of category/subcategories	Reference (ordered per year of publication): <i>Description of findings</i>
2. Antecedents and drivers of greenwashing	Internal and external conditions that favor the diffusion of greenwashing.	<p>Watson and Mackay, 2003:  <i>The article suggests that as long as environmental accounting continues to be a voluntary activity over which the corporations have total control, there must be a real danger of businesses either ignoring the process entirely or of skewing their environmental reporting in order to "greenwash" their accounts.</i></p> <p>Alves, 2009:  <i>The article argues that the volunteer-led corporate social responsibility (CSR) paradigm of the last decade has both coddled and promoted the proliferation of "green spin."</i></p> <p>Ekstrand and Nilsson, 2011:  <i>The article criticizes the Danish Consumer Ombudsman (containing guidelines for when and how environmental and ethical claims can be used in marketing) to be very ambitious in the requirement for environmental and ethical claims to be adequately documented.</i></p> <p>Mitchell and Ramey, 2011:  <i>According to the article, consumers are, to some degree, culpable for some of the greenwashing 'sins' organizations commit as they strive to meet customers' demands. Companies are then primed to meet the consumers' demands and attempt to capitalize on that – which may result in greenwashing.</i></p> <p>Budinsky and Bryant, 2013:  <i>The article claims that the existing system of advertising discourses encourage individualism, greed, and consumption, all of which undermine collective social issues, such as those related to the environment.</i></p> <p>Mahoney et al., 2013:  <i>The article suggests that firms that voluntarily issue standalone CSR reports generally have higher CSR performance scores. Therefore, CSR report is a signal of high CSR and not greenwashing.</i></p> <p>Bazillier and Vauday, 2014:  <i>The article criticizes the strategic approach to CSR (instrumental CSR). According to the paper, this way of conceiving CSR favors the diffusion of greenwashing because it discourages the pursuit of socially responsible aims that do not maximize profit.</i></p> <p>Kaylene et al., 2014:  <i>According to the article, the challenge of greenwashing is complicated by the current context characterized by unregulated green claims and imperfect information.</i></p> <p>Hummel and Festl-Pell, 2015:  <i>The article highlights the shortcomings of existing disclosure guidelines to adequately account for material sector-specific sustainability issues.</i></p>

**Table 5** Analysis of research findings related to Category 3A

Category of research finding	Description of category/subcategories	Reference (ordered per year of publication): <i>Description of findings</i>
3. Consequences of greenwashing	A. Consumers: Consequences and effects of greenwashing related to consumers' attitudes, behaviors, and intentions.	<p>Furlow, 2010: <i>According to the article, consumers may become confused about which products actually do help the environment.</i></p> <p>Prguel et al., 2011: <i>The article claims that a poor sustainability rating associated with CSR communication has a negative effect on consumers' brand evaluation.</i></p> <p>Mason and Mason, 2012 <i>The article shows how corporate environmental reports use ideological persuasion to promote a responsible image and to influence consumers' opinion about corporate environmental sustainability.</i></p> <p>Nyilasy et al., 2012: <i>According to the article, while under positive firm performance green advertising results in higher attitudes toward the brand than general positive corporate messaging, under negative firm performance green advertising results in significantly lower brand attitudes than when a general corporate message is used.</i></p> <p>Chen and Chang, 2013: <i>The article suggests that greenwashing negatively affect consumer green trust. Moreover, the green consumer confusion and green perceived risk mediate the negative relationship between greenwashing and green trust.</i></p> <p>Chen et al., 2014: <i>The article demonstrates that greenwashing does not only have a direct negative effect on consumer word of mouth (WOM), but it has also an indirect negative effect on it via consumer green perceived quality and green satisfaction.</i></p> <p>Nyilasy et al., 2014: <i>The article suggests that the negative effect of a firm's low performance on consumers' brand attitudes is stronger in the presence of green advertising (greenwashing) compared to general advertising and no advertising. Moreover, when the firm's environmental performance is high, both green and general corporate advertising result in more unfavorable consumers' brand attitudes than no advertising.</i></p> <p>Rahman et al., 2015: <i>According to the article, consumers are increasingly aware of greenwashing and, as a consequence, they are becoming more skeptical of businesses' green claims.</i></p>
		<p>Aji and Sutikno, 2015: <i>According to the article, greenwashing has a positive correlation with green consumer skepticism, perceived consumer skepticism, and green perceived risk. However, the results suggest that the aforementioned variables have no effect on switching intention. Therefore, although consumers are skeptical and perceive certain risks, they do not easily decide to switch to another non-green product.</i></p> <p>De Vries et al., 2015: <i>The article suggests that consumers perceive less corporate greenwashing when an energy company communicates an economic motive than when it communicates an environmental motive for the investment. Moreover, the effect of communicated motive on perceived corporate greenwashing is mediated by skepticism towards the strategic organizational behavior.</i></p> <p>Prguel et al., 2015: <i>According to the article, evoking nature does mislead consumers in their evaluation of corporate ecological image, especially if they are not expert of environmental issues. Moreover, the study suggests that introducing a raw figure indicating the actual environmental performance is not sufficient to help non-experts in revising their opinion, accompanying the figure with a traffic-light label eliminates 'executational greenwashing' and works effectively for both experts and non-experts.</i></p> <p>Rahman et al., 2015: <i>Following the article, due to the diffusion of greenwashing, a superficial and sporadic communication of hotel's environmental claims evokes consumers' skepticism, which in turn has a negative influence on consumers' intention to participate in the linen reuse programs and decrease their intention to revisit the hotel.</i></p> <p>Akturan, 2018: <i>According to the article, greenwashing negatively affects green brand associations and brand credibility, and therefore, indirectly influence green brand equity and purchase intention.</i></p> <p>Lim and Kim, 2018: <i>According to the article, a knowledge intervention significantly aids consumers to identify the misleading nature of vague claims, while still perceived false eco-labels as a genuine claim. The findings support that green consumers are likely to accept deceptive environmental ads because of their sincere desire to protect the environment.</i></p> <p>Zhang et al., 2018: <i>Greenwashing perception has a direct negative effect on green purchasing intentions. Green WOM plays a partial mediating role between greenwashing perception and green purchasing intentions. Further, green concern strengthens the negative relationship between greenwashing perceptions and green purchasing intentions.</i></p>

concept itself is ambiguously defined. For example, although the majority of scholars consider greenwashing as exclusively dealing with environmental issues (61.6% of the selected articles), other researchers maintain that

greenwashing is also related to social issues (38.0% of articles).

Another distinction among greenwashing definitions provided in the academic literature relates to the *degree*

**Table 6** Analysis of research findings related to Category 3B and 3C

Category of research finding	Description of category/subcategories	Reference (ordered per year of publication): <i>Description of findings</i>
3. Consequences of greenwashing	B. Companies: Internal consequences and corporate effects of greenwashing.	<p>Furrow, 2010: <i>Due to some greenwashing cases and their effect on consumer skepticism, companies are now less motivated to become less environmentally harmful because it does not pay off.</i></p> <p>Walker and Wan, 2012: <i>According to the article, greenwashing harms firms financially.</i></p> <p>Lyon and Montgomery, 2013: <i>The article suggests that corporate environmental communications may backfire the company if the public feels that the company is engaging in self-promotion.</i></p> <p>Du, 2015: <i>The article shows that greenwashing is significantly negatively correlated to cumulative abnormal returns (CAR) around the exposure of greenwashing. Moreover, corporate environmental performance is significantly positively associated with CAR around the exposure of greenwashing.</i></p> <p>Seale and Gatti, 2015: <i>An external accusation of greenwashing negatively affects corporate legitimacy and results in reputation damage, even when the corporate communication is not misleading and the falsity lies in the accusation.</i></p> <p>Du et al., 2016: <i>According to the article, corporate philanthropy (greenwashing) may be used by companies, especially from polluting industries, to reduce the negative influence of environmentally unfriendly behaviors and deflect stakeholders' attention away from negative environmental events.</i></p>
	C. Other: Consequences and effects of greenwashing related to other stakeholders, the environments, and society at large.	<p>Furrow, 2010: <i>According to the article, greenwashing causes an increase in consumer skepticism. As a consequence, firms are less motivated to make environmentally helpful products (because it doesn't pay off). Therefore, in the end, greenwashing will not only hurt consumers and companies, but also our environment.</i></p> <p>Mason and Mason, 2012: <i>The article claims that greenwashing, and in particular, corporate environmental reports, are used to promote a socially responsible image and to influence also in-group (e.g. employees and stockholders) opinions.</i></p> <p>Roulet and Touboul, 2015: <i>According to the article, competition and the liberal market are strongly related to firms' greenwashing. Therefore, even though companies are benevolent, social welfare cannot rely on their behavior, as predatory moves prevail in liberal contexts.</i></p> <p>Donia and Sirsly, 2016: <i>The article proposes a model of employee attribution formation in cases of substantive vs only symbolic CSR (greenwashing). According to the article, symbolic CSR will lead to no positive individual outcomes at best, and negative ones at worst. Moreover, job seekers not only expect a potential employer to engage in CSR, but expect that this be substantive CSR (and not greenwashing).</i></p>

of falsehood implied in the message. Some academics consider greenwashing as false advertising or misleading claims (e.g. Lane, 2010, 2013; Mills, 2009). According to a second group of scholars, greenwashing also includes claims that are neither substantiated by a credible third-party certification nor by evidence (e.g. Alves, 2009; Bazillier & Vauday, 2013). Other researchers note that greenwashing is not typically false communication but rather it is the selective disclosure of positive information about a company's environmental or social issues without full disclosure of negative information on these aspects (e.g. Kim & Lyon, 2011; Lyon & Maxwell, 2006, 2011; Marquis & Toffel, 2011; Mitchell & Ramey, 2011). According to this view, greenwashing is understood as the obscuration of potentially harmful information by an organization (Mitchell & Ramey, 2011). Therefore, following the selective view, greenwashing is not the same as having a poor record on environmental performance because "a firm can have a poor record without presenting any positive information about itself, or can have a relatively good record while simultaneously promoting its positive actions publicly and failing to discuss its (few) negative environmental impacts" (Lyon & Maxwell, 2006, p.3).

Linder (2010) distinguishes between two major categories of greenwashing definitions: 1) definitions focused on the attributes of the objects, and 2) definitions focused on the process behind the object. In the *object attribute view*, what is taken into account is the consistency between the attributes of an object and the corporate claims regarding the greenness of the object (Linder, 2010). Therefore, the focus is on the specific object of communication and its characteristics. According to this view greenwashing can be considered "false advertising" (Mills, 2009), "ads and labels that promise more environmental benefit than they deliver" (Dahl, 2010), "unsubstantiated or misleading claims about the environmental or social benefits of a product" (Bazillier & Vauday, 2013). The *process attribute view* focuses on the communication process. In particular, it takes into account the corporate inputs or efforts that have gone into communicating the greenness of a product, in relation to the efforts to improve the product's actual green credentials. Examples of *process attribute view* definitions are the Greenpeace definition (Greenwashing as "the act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service"), which is one of the most cited in literature, or the Marquis and Toffel's definition:

**Table 7** Analysis of research findings related to Category 4

Category of research finding	Description of category/subcategories	Reference (ordered per year of publication): <i>Description of findings</i>
4. How to reduce greenwashing	Internal and external conditions and methods that may reduce the diffusion of greenwashing practices.	<p>Kirchhoff, 2000: <i>The article claims that the existence of an independent labeling authority decreases greenwashing and favors over compliance to CSR standards. Moreover, voluntary over compliance is shown to be more likely than greenwashing when quality premia are relatively high, cost differences are relatively low, and the probability of cheating being discovered is sufficiently high.</i></p> <p>Laufer, 2003: <i>Tripartism, that is the integration of a third party into the regulatory arena occupied by a company and a regulator may be a solution to greenwashing in social reporting. Tripartism protects against regulatory capture, enhances fair and accurate communication, and allows for independent third party monitoring.</i></p> <p>Vos, 2009: <i>The article presents a number of ways we can apply to address and reduce greenwashing, including the implementation of legal, legislative, and societal changes.</i></p> <p>Lane, 2010: <i>According to the article, public anti-greenwashing enforcement attains better results than private consumer actions, and certification mark infringement litigation yields better results than private eco-mark enforcement.</i></p> <p>Polonsky et al., 2010: <i>The article claims that to reduce greenwashing there does need to be some international leaderships to set standards and regulations.</i></p> <p>Delmas and Cuerel Burbano, 2011: <i>According to the article, a multi stakeholder approach (including managers, policymakers, and NGOs) could effectively reduce greenwashing in the current regulatory context. In particular, it may improve the transparency of corporate environmental performance, enhance the sharing of knowledge about corporate environmental effects and strategies, and align intra-firm structures, processes and incentives.</i></p> <p>Cherry and Snejerson, 2011: <i>The article discusses some reforms to increase corporate social responsibility and reduce greenwashing: private standard-setting by independent organizations or other watchdogs, remedies under false advertising laws, and claims under the securities fraud laws. It also suggests that the newly established Bureau of Consumer Financial Protection could play a major role in regulating CSR claims.</i></p> <p>Lyon and Maxwell, 2011: <i>According to the article, environmental management systems discourage companies with poor environmental performance from greenwashing. This may justify and support public policies design to encourage firms to adopt them.</i></p> <p>Parguel et al., 2011: <i>The article suggests that sustainability ratings could effectively reduce greenwashing and encourage virtuous firms to continue their CSR practices.</i></p> <p>Cherry and Snejerson, 2012: <i>According to the article, CSR communication need to be more strongly policed. Civil actions by consumers and investors cannot do the job alone. Certifying organizations and watchdog groups should implement rules and regulate CSR. CSR disclosures may also play an important role, transforming corporate CSR communications that would otherwise raise suspicions of greenwashing into informative and reliable accounts of firm behavior.</i></p> <p>Feinstein, 2013: <i>The article suggests that additional federal regulation is needed to reduce greenwashing, and that regulation should be uniform across the country (USA). Moreover, unlike the Green Guide, future greenwashing regulation should be binding and enforceable.</i></p> <p>Smith and Font, 2014: <i>According to the article, a reduction of greenwashing activities requires at least industry-wide codes of practices and, at best, regulation.</i></p> <p>Seele and Gatti, 2015: <i>The article suggests that by increasing scrutiny from the media and NGOs we can prevent some forms of misleading CSR communication and finally encourage corporate non-instrumental engagement in CSR.</i></p> <p>Huang and Chen, 2015: <i>According to the article, the establishment of an independent environmental audit system may prevent firms with poor environmental performance to engage in greenwashing.</i></p>

“Greenwashing is the practice of promoting environmentally friendly programs to deflect attention from an organization’s environmentally unfriendly or less savory activities” (Marquis & Toffel, 2011, p.19). In relation to the *process attribute view*, Mitchell and Ramey (2011) specify that to be considered greenwashing, the “act” has to

be deliberate, implying the intentionality of the deception (Nyilasy, Gangadharbatla, & Paladino, 2012).

Seele and Gatti (2017) recognize another fundamental aspect of greenwashing: it is a phenomenon in the eye of the beholder. According to the authors, regardless of the level of falsehood of corporate CSR communication,

**Table 8** Analysis of research findings related to Category 5

Category of research finding	Description of category/subcategories	Reference (ordered per year of publication): <i>Description of findings</i>
5. How to detect greenwashing.	Strategies and conditions that favor the detection and identification of greenwashing cases.	<p>Gallicano, 2011: <i>The article proposes an evaluating framework useful to both scholars and practitioners to evaluate whether an organization is engaging in greenwashing.</i></p> <p>Lyon and Maxwell, 2011: <i>According to the article, greater activist pressure helps to detect greenwashing, but it also induces some companies to disclose less about their environmental performance (because of the fear of receiving a greenwashing accusation).</i></p> <p>Bazillier and Vauday, 2014: <i>The article highlights the important role of NGOs and activist groups in detecting greenwashing practices.</i></p> <p>Seele and Gatti, 2015: <i>According to the article, a high level of third-party scrutiny (from media and NGOs) may favor the identification of greenwashing cases.</i></p> <p>Berrone et al., 2017 <i>According to the article, the detection of greenwashing increases when the firm is subject to intense scrutiny from nongovernmental organizations.</i></p>

greenwashing only exists when a message is highlighted as such by NGOs, the media, or other stakeholders. Therefore, the accusation from a third party is an essential aspect of greenwashing.

### Consequences of greenwashing

Our qualitative analysis of greenwashing literature has provided a summary of the main consequences of greenwashing, especially for consumers and companies. Tables 4 A and 4B in the previous chapter provide a structured and comprehensive summary of greenwashing consequences discussed in literature, expanding the analysis of Lyon and Montgomery's article (2015) in light of new studies and research in the field. In the tables, greenwashing consequences are divided into three main groups: A) consumers, B) companies, C) other stakeholders, the environment, and the society at large. The first category presents the effects of greenwashing related to consumers' attitudes, behaviors, and intentions. In the second group, we report internal consequences for companies engaged in greenwashing. Group three includes the more general effects of greenwashing in terms of environmental and social aspects or related to other stakeholders such as employees or stockholders.

Below we briefly discuss the main consequences identified by our analysis and reported in the tables:

First of all, the research literature agrees that the practice of greenwashing is associated with several negative effects on consumers' attitudes, behaviors, and intentions (Table 4 A). although evoking nature may mislead consumers in their evaluation of corporate image, especially if they are not experts on CSR related issues (Parguel, Benoit-Moreau, & Larceneux, 2011), the wide range of greenwashing cases is causing consumers to become increasingly skeptical of corporate CSR claims (Aji & Sutikno, 2015; Rahman, Park, & Geng-qing Chi, 2015). As a consequence, superficial and sporadic CSR communication may have a negative influence on consumers' purchase intentions, regardless of the level of corporate involvement in greenwashing practices (Rahman et al., 2015). This widespread skepticism, probably means that consumers perceive less greenwashing when a company communicates an economic motive than when it communicates an environmental or social motive for an investment (de Vries, Terwel, Ellemers, & Daamen, 2015), surprising as this may be.

In addition, greenwashing increases consumers' confusion about corporate CSR (Furlow, 2010) and it seems to have a negative effect on consumers' brand evaluation (Parguel et al., 2011), consumers' opinion about corporate environmental sustainability (Mason & Mason, 2012), consumer green trust (Chen & Chang, 2013), consumer word of mouth (Chen, Lin, & Chang, 2014),

and also on consumers' brand attitudes (Nyilasy et al., 2012; Nyilasy, Gangadharbatla, & Paladino, 2014).

Greenwashing also seems to negatively affect the firm's financial performance (Table 4 B). Indeed, although it may sometimes be used to successfully deflect attention away from negative CSR behavior (Du et al., 2016), it often seems to harm firms financially (Du, 2015; Walker & Wan, 2012), especially in the current context characterized by a high scrutiny from civil society and growing stakeholder skepticism. In particular, it negatively affects corporate legitimacy and reputation, even when corporate communication is not misleading, and the greenwashing accusation is false (Seele & Gatti, 2017). Indeed, corporate CSR communications may backfire on the company if the public feels that the company is engaging in self-promotion (Lyon & Montgomery, 2013). As a consequence, companies are now less motivated to become less environmentally harmful because it does not pay off. Therefore, following Furlow (2010), greenwashing will ultimately hurt not only consumers and companies, but also the environment.

### CSR regulations to prevent greenwashing practices

Greenwashing literature recognizes the importance of NGOs and activist groups in detecting greenwashing (Bazillier & Vauday, 2013; Lyon & Maxwell, 2011; Seele & Gatti, 2017) but it also suggests that some firms may disclose less about their CSR because of the fear of being accused of greenwashing (Lyon & Maxwell, 2011). Nevertheless, scholars agree that the first condition to decrease greenwashing is through the refinement and development of a CSR regulatory system. The interesting point here is that they do not seem to embrace the mainstream view discussed in CSR literature claiming the predominance of the voluntary nature of CSR. Indeed, according to greenwashing scholars, defining and treating CSR essentially as a voluntary practice facilitates the diffusion of greenwashing. As Alves (2009) claims, "the volunteer-led CSR paradigm of the last decades has both coddled and promoted the proliferation of green spin and greenwashing." With the exception of Mahoney, Thorne, Cecil, and LaGore (2013), who suggest that voluntary CSR reports are generally a sign of high-quality CSR and not greenwashing, all the other articles we analyzed look at the voluntary dimension of CSR, supported by the majority of CSR definitions (Dahlsrud, 2008), as one of the main antecedents favoring the diffusion of greenwashing.

In addition, as summarized in Table 5, greenwashing scholars argue that "a reduction of greenwashing activities requires at least industry-wide codes of practices and, at best, regulation" (Smith & Font, 2014). Greenwashing literature is indeed consistent in stressing the necessity of involving regulators and policy makers for

developing CSR standards and legislation. The range of scholarly suggestions covers pleas for self-regulation bodies (Kirchhoff, 2000) or independent auditing or rating (Huang & Chen, 2015; Parguel et al., 2011) and general demands for standards and regulations (Polonsky, Grau, & Garma, 2010) as well as a clear call for "federal regulations" (Feinstein, 2013) as the strongest form of third-party involvement. According to greenwashing scholars, this would substantially decrease greenwashing practices and would ultimately lead to a more trustworthy form of CSR.

As noted above, the perspective adopted by scholars seems not to be in line with the traditional mainstream approach of CSR research. In CSR literature, the principle of voluntarism is predominant and implies that responsible business activities are discretionary and reach beyond the rule of law. Conceptually, this principle implies that governments have a minimal role, if any, in the CSR debate (Dentchev, Balen, & Haezenck, 2015). However, the exclusion of mandatory aspects in the definition of CSR has recently been challenged by a number of scholars (Waagstein, 2011). Moreover, a growing number of governments are enacting CSR laws and regulations (e.g. Indonesia – 2007, Denmark – 2008, France – 2010, Philippines and Spain – 2011, Argentina and Brazil – 2012, India and Norway – 2013, European Union 2014), thus creating a debate as to whether the nature of CSR is exclusively voluntary or may include a mandatory dimension. Even the European Union has changed its well-known definition of CSR ("concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis" Commission of the European Communities, 2001) to include a mandatory dimension, introducing the importance of policy measures and regulations to prevent unfair CSR and greenwashing behaviours.

In this debate, greenwashing scholars reflect recent perspectives on the inclusion of mandatory aspects in the CSR definition and practice (Cominetti & Seele, 2016; Gatti, Vishwanath, Seele, & Cottier, 2018; Sheehy, 2015; Waagstein, 2011; Wagner & Seele, 2017). Indeed, they strongly support the necessary development of mandatory elements for the establishment of a "better", more credible CSR. In this respect, they provide a considerable contribution to the general discussion about voluntary versus mandatory CSR by explicitly addressing the consequences of a totally voluntary approach in terms of greenwashing, and, above all, by proposing and discussing specific regulatory solutions to reduce such practices.

Kirchhoff (2000), for example, tests a model for preventing greenwashing based on the introduction of a fine into the environmental labeling system. To work

effectively, the model requires a third-party independent labeling authority, whose presence seems to decrease greenwashing and favor compliance to CSR standards. The introduction of an external authority to monitor CSR is also supported by Laufer (2003), who introduces the concept of tripartism, i.e. the integration of a third party into the regulatory arena, as a solution against greenwashing.

In relation to environment labeling or eco-marks, Lane (2010) offers an in-depth analysis of enforcement techniques to prevent greenwashing in eco-mark systems. Indeed, though eco-marks' core purpose is to protect and inform consumers about the products' green credentials, sometimes they are used by companies to mislead consumers about the environmental characteristics of a product. Following Lane (2010), public anti-greenwashing enforcement achieves better results than private eco-mark enforcement or consumers' actions. In particular, government agency investigations and certification mark enforcement litigation seem to be the most successful mechanisms against the improper use of eco-marks.

Also claim that civil actions by consumers and investors are not enough to prevent greenwashing and that CSR related communication should be more strongly policed. Remedies under false advertising laws and under securities fraud laws should be investigated and further developed (Cherry and Sneirson, 2011).

In general, greenwashing scholars seem to agree that an independent environmental audit system and additional public regulation may prevent companies with poor environmental performance to engage in greenwashing (Huang & Chen, 2015).

### Combining the voluntary and mandatory dimensions to promote CSR

Summing up the contribution of greenwashing literature to the ongoing debate about voluntary versus mandatory CSR, we can see strong support for the inclusion of mandatory aspects in the regulations of CSR.

Voluntary CSR is often considered in literature as a solution to corporate social and environmental externalities caused by globalized companies. The advent of globalization has complicated the regulation of corporate behaviors at the point that governmental regulations are no more capable of preventing several unsustainable behaviors. Not only voluntary CSR is discussed in literature as a solution to a deficit in regulation, but also it is often considered the most efficient way to address social problems. As claimed by Sheehy (2015), the voluntary dimension of CSR is motivated by the argument that "individual firms are better able to find ways to implement CSR and reduce their social costs more effectively when tailored by management to the specific industry or firm in which it is being applied" (p. 640). However, the

voluntary approach is also criticized by CSR scholars for promoting free-riding behaviors and for the impossibility to sanction transgressions (O'Neill, 2007). Following Lock and Seele (2016), voluntary CSR may also question the transparency and credibility of CSR communication, given that companies are free to communicate what they want and how they want. A grey zone is thereby established that reinforces tendencies towards exaggeration and self-promotion, which might also include false information (Lyon & Montgomery, 2013; Seele & Gatti, 2017), and thereby enlarges the risk of reputational damage. A growing culture of self-promotion and falsehood (or the perception of such) increases the chances of the misinterpretation of CSR by consumers and other stakeholders and it increases consumer disorientation and skepticism (Furlow, 2010; Rahman et al., 2015).

It is important to note that also mandatory CSR per se may create grey zone areas where parties look for ways around the rules. For example, Wang et al. (2016) suggests that mandatory CSR may contribute to an unfair allocation of corporate CSR resources to personal projects and initiatives (with a limited social value). At an extreme case, it can “become a cover for graft and corruption by funding local political projects or organizations” (Wang et al. 2016, p. 540).

To reduce and prevent the diffusion of greenwashing, we therefore propose, in line with greenwashing research and institutional theorists (e.g. Sheehy, 2015; Waagstein, 2011), a paradigm shift integrating both the voluntary and mandatory dimensions of CSR.

As suggested by the European Commission, in the development of CSR “public authorities should play a supporting role through a smart mix of voluntary policy measures and, where necessary, complementary regulation” (European Commission (2011) 681). The introduction of reporting and communication standards and the establishment of independent environmental audit systems, as supported by greenwashing scholars, would therefore help to reduce the grey zone created by the predominant totally voluntary approach. Finally, a reduction in greenwashing has the potential to increase trust in corporate green behavior and help to positively impact social welfare (Lyon & Montgomery, 2015).

The new paradigm is based on a new CSR definition integrating both voluntary and mandatory aspects. Indeed, Sheehy (2015) claims that CSR consists of “private international law norms seeking to ameliorate and mitigate the social harms of and to promote public good by industrial organisations” (p. 639). Following the institutional framework, CSR can be therefore defined “as a form of regulation” (Sheehy, 2015), regardless the fact that the “regulation” is a private, self-regulated initiative, or it is publicly imposed. This means that each specific social system (characterized by specific values, norms,

and regulations) is responsible for shaping a specific form of CSR, characterized by a unique combination of voluntary and mandatory aspects. Thus, there is not a priori the perfect combination of voluntary and mandatory aspects, but each context designs a specific form of CSR. In India, for example, The Indian Companies Act 2013 legally requires firms to spend a percentage of their profits on CSR activities, while in US current CSR primarily consists of private business self-regulation (Gatti et al., 2018).

The new conceptualization of CSR “as a form of regulation” (Sheehy, 2015) proposed by institutional theorists and supported by greenwashing scholars as a way to prevent greenwashing, has a number of implications. First, it implies the transition from the idea of CSR as an internal management tool toward a broader understanding of the business and society relationship (Gatti et al., 2018). This shift in perspective has consequences at both a practical and theoretical level. Firms should be prepared to professionalize their CSR effort beyond mere impression management, or corporate communication practices. CSR activities should be increasingly treated as legal responsibilities, not just as marketing-related projects. Professionals in the field of law should therefore collaborate with experts in public relations and communication to ensure the transition of CSR as a form of regulation.

Also on the scholarly level the CSR transition toward regulation implies a shift in the competencies of CSR scholars. While for years CSR issues have been mainly related to business ethics, management and marketing studies, we expect now that the debate would be also addressed (more) in the field of law.

As previously claimed, the introduction of standards to regulate CSR does not mean the complete negation of a voluntary dimension. As discussed by Sheehy (2015), considering CSR as a form of regulation does not merely imply a collection of mandatory rules imposed by public authorities to regulate firms' societal and environmental harms. Indeed, it also includes self-regulation. As reported by Cominetti and Seele (2016), at the moment 88.2% of CSR standards consist of soft law initiatives, that is, self-regulated standards supported by the firms themselves, as for example the United Nations (UN) Global Compact. Firms can voluntarily adopt the UN Global Compact's principles, with the sole obligation of communicating every year their progress about human rights and environmental issues.

## Conclusions

By reviewing existing greenwashing literature, this paper provides an instrument for greenwashing scholars and practitioners to better understand the main implications and characteristics of the phenomenon. Moreover, by

presenting and discussing greenwashing literature, it also contributes to the refining of CSR theory by encouraging reflection on the relationship between CSR and regulation.

First, it offers a picture of the current status of research into greenwashing, showing where and how the field is evolving. In particular, our quantitative analysis shows the current flourishing of greenwashing research and the centrality of the theme within the broader CSR debate. It also reports the variety of subjects addressing the topic, the main methodological techniques applied in the field, and the principal theoretical approaches of greenwashing scholars. This analysis reveals the interdisciplinary state of the field, characterized by a mix of methods, frameworks, and approaches.

Secondly, the presentation of results and findings of greenwashing research, especially the tables provided in section 4, offers a summary that can be used by practitioners to evaluate the consequences and implications of corporate engagement in such practices. In particular, although greenwashing may sometimes be successfully used to influence consumers' perception about the firm's CSR and deflect attention away from negative behaviors, the risk of negative effects on consumers' attitudes, and more generally on the firm's performance, is increasing. This is especially true in the current context, characterized by a high level of scrutiny and skepticism. Therefore, greenwashing may finally backfire on the company and dramatically decrease its corporate reputation, leading to a reduction of corporate legitimacy resulting eventually in a legitimacy crisis.

Thirdly, the paper also contributes to the general debate about the voluntary versus mandatory nature of CSR. Greenwashing research consistently supports the inclusion of mandatory aspects in the conceptualization of CSR, which contradicts the traditional CSR paradigm exclusively based on the principle of voluntarism. Our analysis of the literature, therefore, contributes to the refinement of the theory and conceptualization of CSR because it highlights the implications and consequences of a totally voluntary approach, and strongly supports the inclusion of mandatory solutions proposed by greenwashing scholars, which would favor the implementation of a level playing field and thus, a more credible form of CSR. Understanding CSR "as a form of regulation" (Sheehy, 2015), may effectively increase businesses' ability to engage in CSR and defend themselves from unwarranted attacks (Sheehy, 2015). Even when CSR regulation is expressed as a private industry self-regulation and not as public law, it can contribute to improving corporate practice. For example, certification (such as the GRI, SA8000, and ISO26000) (defined by the ISO organization as "the provision by an independent body of written assurance (a certificate) that the product service or system in

question meets specific requirements". [ISO organization. Retrieved Jan 25 from: <http://www.iso.org/iso/home/standards/certification.htm>.)] is an important tool for companies to show their commitment with respect to a specific CSR standard (Knebel & Seele, 2015).

While it is not realistic to think that a new approach to CSR may finally eradicate all the unfair and controversial behaviors, the integration of mandatory and voluntary aspects in the field, as supported by this research, aims at establishing more favorable conditions for the diffusion of good practices and a fair and transparent CSR communication. Indeed, we believe that the inclusion of mandatory aspects in the CSR conceptualization implies a change in the practice. Practitioners in the field of marketing and public relations should prepare to professionalize CSR beyond mere impression management, in favor of a more transparent and controllable practice, subject to different forms of regulations and standards such as GRI (Wagner & Seele, 2017), or the EU directive on mandatory reporting (2014/95/EU), requiring companies with more than 500 employees listed on EU markets to disclose in their annual reports their progresses related to environmental and social issues. The introduction of a legal dimension in the field could in turn decrease skepticism and improve the relationship between organizations and their public. However, it requires the acceptance that the CSR debate is not only a topic in the field of management and corporate communication, but is entering new spheres related to the legal, ethical and political dimensions of business. As recently claimed by Gatti et al. (2018), "this transition asks for theory development in the direction of CSR compliance". Indeed, especially self-regulatory standards as codes of conducts or private corporate initiatives cannot rely on public sanctions. It is therefore fundamental to identify mechanisms to promote compliance. To this regard, as discussed in the previous chapter, greenwashing scholars contribute to the debate by identify a number of mechanisms and initiatives (such as tripartism, public anti-greenwashing enforcement and certification mark infringement litigation) that decrease greenwashing and ensure a more transparent and fair CSR communication.

This study involves some limitations that open up room for future research. The major limitation is probably linked to the selection of our data set. First, the selection of relevant articles is primarily based on specific keywords (greenwash/greenwashing). One shortcoming of this method is that some relevant articles that use labels other than these keywords are not included in the dataset. In particular, new and less established terms, such as CSR washing, poorwashing, bluewashing or corporate hypocrisy (Janney & Gove, 2011) are slowly spreading among scholars to indicate greenwashing practices dealing with social and humanitarian issues.

## Appendix

**Table 9** Intercoder agreement for the different variables: Cohen's Kappa tests

Symmetric Measures	Value	Asymptotic Standardized Error <sup>a</sup>	Approximate T <sup>b</sup>	Approximate Significance
Variable: Topic				
Measure of Agreement Kappa (k)	.667	.249	2.041	.041
Variable: Scope of research				
Measure of Agreement Kappa (k)	.688	.271	2.284	.022
Variable: Type of paper				
Measure of Agreement Kappa (k)	1.000	.000	2.236	.025
Variable: Method				
Measure of Agreement Kappa (k)	.737	.200	3.376	.001
Variable: Theory				
Measure of Agreement Kappa (k)	.688	.271	2.284	.022

<sup>a</sup>Not assuming the null hypothesis

<sup>b</sup>Using the asymptotic standard error assuming the null hypothesis

Another phenomenon very related to greenwashing is indicated by the term symbolic conformity (Jamali, 2010), also known as ceremonial conformity or decoupling of implementation from certification (Aravind & Christmann, 2011; Christmann & Taylor, 2006; Meyer & Rowan, 1977). The concept refers to the phenomenon of obtaining and showing standard certification without continuously complying with the requirements prescribed by the certification (Aravind & Christmann, 2011).

Secondly, in this study, we restricted our selection to papers that mention the search terms in the title or abstract. Although this choice was justified by the intent of identifying those articles with a clear focus on the topic, by narrowing the search in this way we may have excluded some interesting examples or discussions. To extend the analysis of greenwashing research, similar concepts and terms should, therefore, be considered in the selection of greenwashing related literature. In addition, greenwashing-related discussions presented in more general CSR and corporate communication papers should be included in the content analysis.

Future research should try to enlarge the scope of study by also including monographs or book chapters, which were not considered in this review. Additionally, by expanding the analysis to non-English research, future studies may also explore cultural differences in the interpretation and analysis of greenwashing.

In relation to future research, we also suggest maintaining the interdisciplinary character of the field, because the literature may benefit from the variety of approaches and perspectives provided by different subjects and methods and, as this review shows, it may generate original and significant contributions also to the CSR debate and, more generally, to the discussion about the relationship between business and society. Indeed,

we recognize that one of the main characteristics and strengths of greenwashing research is that the issue is not limited to a specific framework or approach but is, on the contrary, addressed from different angles. For instance, while marketing scholars have studied the effects of greenwashing on consumers and companies, academics in the field of law have mainly concentrated on the relationship between regulation and CSR, providing practical solutions for reducing greenwashing, while management scholars have offered an interesting analysis of the institutional framework surrounding greenwashing phenomena, which is useful to understand the conditions and the context of greenwashing. In combination, these different contributions have offered a broad picture of the phenomenon and have allowed an understanding of its nature. We, therefore, suggest increasing the interdisciplinary dialogue that characterizes greenwashing literature in order to encourage the production of new and original insights.

### Abbreviations

CSR: Corporate social responsibility; NGOs: Non-governmental organizations

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### Authors' contributions

LG performed the collection of data (articles). All the authors analyzed and interpreted the material discussed in this review articles. LG was a major contributor in writing the manuscript. All authors read and approved the final manuscript for submission.

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## Competing interests

The authors declare that they have no competing interests.

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