Staying Legitimate in a Changing Climate: A Framework for Studying Corporate Climate Change Communication

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1 Introduction

Climate change and its many risks, most notably extreme weather events and rising sea levels, is one of the most overarching issues of our times. It is a multifaceted environmental issue that has roots and implications in the social, institutional, economic, and technological aspects of human life (Pachauri et al., 2014). A problem of this magnitude has the potential to disrupt established norms and societal systems, including business practice and discourse.

With a great role in today's economy, businesses fall under increased pressure from internal and external stakeholders that expect higher levels of corporate social responsibility (CSR) towards the society and the environment. In response, companies, especially those in polluting industries such as the oil and gas sector, tend to increase their level of information disclosure to communicate their stance on environmental issues (Frynas, 2009). This sector has presumably been granted a license to operate, hence legitimized by stakeholders such as governments, other business sectors, non-governmental organizations (NGOs), the media, and the general public. On the other hand, some of these stakeholders have been recently challenging the legitimacy of the oil and gas industry. Accusations included the irresponsible business actions that harm the environment and contribute to the deteriorating of earth's climate, hence putting human lives at risk (Cai et al., 2012).

To respond to such pressure, counter negative image, and attain and retain legitimacy required for long-term survival, oil and gas companies are more than ever engaged in CSR activities on local and global levels. This is coupled with communication strategies that promote these activities through different channels

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I. G. Arraiano et al. (eds.), *Corporate Social Responsibility in a Dynamic Global Environment*, CSR, Sustainability, Ethics & Governance,
https://doi.org/10.1007/978-3-031-24647-0_4

such as corporate websites, annual reports, public relations, CSR advertising, and social media (Du & Vieira, 2012). Yet, it has been proven in some instances that oil and gas companies are practising green-washing: a strategy adopted "to engage in symbolic communications of environmental issues without substantially addressing them in actions" (Walker & Wan, 2012).

1.1 Research Problem

The survival and ongoing operations of oil and gas companies indicate a certain level of legitimacy, that is, societal acceptance of their existence and operations. However, products of these companies, when burned, are the main sources of greenhouse gas (GHG) emissions, the main cause of global warming (NASA, 2017). Operating in such a polluting and controversial industry, oil and gas companies are a main target of criticism and must deal with an increased internal and external stakeholder sensitivity (Du & Vieira, 2012) that presumably challenges their legitimacy and thus threatens their survival. These stakeholders range from employees to media, civil society, and the general public. From the corporate perspective, managing these challenges might require resorting to substantive, symbolic, or a mix of these two approaches to managing legitimacy (Woolfson & Beck, 2005). While substantive management of legitimacy involves actual changes in structures or operations to meet societal expectations, symbolic management is merely appearing to conform to societal expectations.

The focus of many researchers was the study of the symbolic approach to managing legitimacy of organizations in the oil and gas sector or in relation to addressing climate change (e.g. Ferraro et al., 2015; Van Halderen et al., 2016; Whiteman et al., 2013). While only a small number of studies have integrated both substantive and symbolic management of legitimacy (e.g. Matejek & Gössling, 2014; Walker & Wan, 2012), this research answers the call for more studies in this direction (Deephouse et al., 2016, p. 28). In addition, when communicating their climate-related stance and performance, it is argued that companies do not make use of the potential offered by the available digital tools.

1.2 Research Aim and Objectives

The aim of this study is to provide a framework through which we can deepen our understanding of the extent and nature of climate change communication by oil and gas companies on websites and in corporate reports.

Towards this end, this research seeks to achieve the following objectives:

1. To position corporate climate change communication within the sustainability communication literature.

2. To identify the relevant constructs underpinning corporate climate change communication and utilize them to develop a conceptual framework by which it can be systematically studied.
3. To develop a multi-level analysis approach to differentiate between the symbolic and the substantive legitimation tactics and strategies in climate change communication.

1.3 Research Method and Question

Climate change communication and legitimation of oil and gas companies are well researched topics. Nevertheless, the celebrated deal on climate action in 2015, known as the Paris Agreement, calls for new research to gain new insights on the issue at hand, especially that the private sector, including oil and gas companies, had a major role in "orchestrating" the agreement, which was criticized for having no mention of GHG sources, nor how to stop exploration and use of fossil fuel (Spash, 2016). Hence the proposition that oil and gas companies' engagement in the global climate action efforts is aimed merely at legitimacy.

Thus, we identified the need for a conceptual framework through which the aforementioned proposition can be tested and for studies to be replicated. To achieve this, our contribution is the development of a framework to investigate how oil and gas companies utilize websites, annual reports, and sustainability reports as tools of climate change communication.

More specifically, this research answers the following question:

How can we systematically examine climate change communication by oil and gas companies on their websites and corporate reports?

To answer this question, we utilize the integrative review method of inquiry for its appropriateness to the aim of this study, i.e. generating a new framework (Torraco, 2005) and providing a definition of concepts (Souza et al., 2010). Integrative literature review can address a mature topic, or an emerging one. Since corporate climate change communication is a relatively new sub-field of research, our study can be associated with the second type; that is, it will result in a "preliminary conceptualization of the topic" (Torraco, 2005), p. 357).

The study's research question has already provided certain limitation to which literature can be included in the review. Accordingly, we took the following steps:

First, since this review is focused on a relatively new business practice, that is, utilizing websites and corporate reports, we decided to initially include literature from the past 10 years (2008–2017). After starting the review, it seemed we were missing important earlier contributions, and so the period was expanded to 20 years (1998–2017).

Due to the multidisciplinary nature of the topic of corporate climate change communication, it was decided not to search on a specific journal or publisher, but to utilize an academic search engine, that is Google Scholar.

To decide on which keywords should be utilized for the search, more inclusion criteria were deemed necessary. The criteria selection was guided chiefly by the research question but also the initial readings done by the author to identify the specific research problem. Thus, we chose to first include academic articles and book chapters on corporate climate change communication. Then, we included literature on corporate sustainability disclosure or CSR in the oil and gas industry. Lastly, we chose to include literature on the legitimacy theory that tackles legitimation strategies by organizations in controversial industries.

Second, based on the criteria identified above, we started the search process by utilizing search filters for the specified dates and various combinations of search terms that were further finely adjusted as the search process continued. Some of the queries utilized are “corporate climate communication”, “corporate climate change communication”, “corporate communication” + “climate change” + “oil and gas”, and “legitimacy theory” + “legitimation strategies”.

Third, the author utilized purposeful sampling technique (Patton, 2002) to select the relevant and important literature to be synthesized. The result was organized in a spreadsheet highlighting the literature attributes (e.g. year of publication, title, industry discussed, country, and topic).

Finally, a thematic analysis was conducted on the literature with a critical lens. The analysis and findings are organized in the following sections from the general to the specific, i.e. starting with the definitions of the broader discipline of CSR and sustainability communication moving to one of its elements and the core focus of this research, that is, corporate climate change communication. Then, the legitimacy theory literature is discussed and integrated.

1.4 Relevance of the Study

This study has important implications for both research and practice. Communication practitioners can make use of the findings to better understand how companies in controversial industries and of several sizes, ownership structures, and nationalities deal with stakeholder pressure. More specifically, the study provides them with a way of systematically studying how the oil and gas sector utilizes websites, annual reports, and sustainability reports to communicate about climate change. This study comes at a time when climate action is gaining momentum, with an unprecedented recognition of the critical role that the corporate sector needs to play (Ernst & Young, 2015), hence the necessity to understand corporate communication regarding this issue.

It also offers insights on an under-researched area of corporate CSR, sustainability, and environmental communication, that is, the use of corporate websites for climate change communication by controversial industries. Identifying the position of climate communication within the whole CSR, sustainability, or environmental communication of the company will offer uncovered knowledge.

2 A Conceptual Framework for Corporate Climate Change Communication

The following section highlights the importance of reporting and communicating corporate social and environmental stances and performances. It focuses on the relations between corporates, the society, communication channels and their audiences, the challenges they face, and finally the motivations for corporate sustainability communication.

We then provide a detailed analytical review of the position of the climate change issue within the reviewed literature and introduce a definition of corporate climate change communication. Next, we reflect on the oil and gas industry mentions with regard to their sustainability communication motivations and challenges. Finally, the legitimacy theory is integrated as a useful approach to understand corporates' motivations to communicate about sustainability in general and climate change in particular.

2.1 Theoretical and Practical Definitions of Corporate Sustainability

Studies of corporate social responsibility (CSR), corporate sustainability, and corporate citizenship have often used the three terms to refer to the same practice. In theory, it is beneficial for scholars to disagree and provide multiple terms and definitions to the same concept with the purpose of enriching and advancing the discipline, while in practice, the presence and usage of several terms to refer to the same concept can result in challenging implications.

Providing an attempt to utilize a joint concept of CSR, corporate citizenship, and sustainable development (CSR/CC/SD), Moreno and Capriotti (2009) suggest differences but also stress similarities in the three concepts. Most studies, however, have opted to use only one term to refer to the increased phenomenon of corporate social, environmental, and economic (financial) reporting. For example, Adams and Frost (2006a) have used sustainability, Ziek (2009) used CSR, albeit integrating sustainability and citizenship as indicators of CSR communication, and to a much lesser extent scholars have used corporate citizenship (e.g. Maignan & Ferrell, 2001).

Maignan and Ferrell (2001, p. 457) defined corporate citizenship as "the extent to which businesses assume the economic, legal, ethical and discretionary responsibilities imposed on them by their various stakeholders." Considering the pressure "imposed" by stakeholders, and the multifaceted perceived responsibility of corporates, this definition aligns and becomes a part of CSR, especially when we consider the widely cited broad definition by Carroll (1991, p. 43), as he postulates that "the total corporate social responsibility of business entails the simultaneous fulfilment of the firm's economic, legal, ethical, and philanthropic responsibilities".

On the other hand, the term "sustainability" provides new dimensions. In 1987, the World Commission on Environment and Development (WCED) coined the term "sustainable development" which refers to "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987). In a business context, the term sustainability is often used to encompass the environmental, social, and financial performance of a company that later came to be known as triple bottom line (TBL) (Elkington, 1997). Borrowed from accounting, this refers to the last line in companies' financial statements usually representing profits, implying profitability from social and environmental performances, in addition to the financial one. These three dimensions mirror the three pillars of sustainability, known as the 3Ps: people, planet, and profit (Elkington, 1997).

For the purpose of this study, the concept of sustainability is preferred to CSR for the following reason. CSR is evidenced to provide companies with sought-after eco-efficiency, through lowering polluting emissions, or recycling, practices that have been proven to positively corelate with financial gains (Frynas, 2009; Walker & Wan, 2012). On the other hand, CSR practices fail to provide sustainable development, that is, managing not to compromise the health, safety, and well-being of future generations (Frynas, 2009). This aspect of considering future needs is of great importance for the debate around the urgency of climate action and energy transition. Sustainability communication is as well more relevant than environmental communication, for climate change is considered a sustainability problem, not merely an environmental (i.e. ecological) one (Newig, 2011).

In summary, disagreements and a variety of definitions of concepts in academic literature are implicitly encouraged to advance the knowledge of certain disciplines. However, in practice, it can create confusion and result in lack of standards, hence possible loss of credibility. This is especially true when looking at the practice of corporate sustainability. The blurry definitions may result in three challenging implications: first, from the corporate internal perspective, companies' confusion not knowing which term refers to which practice might contribute to local and global lack of reporting standards (e.g. in Finland; see Laine, 2005). It is then even more difficult for management to define and communicate their sustainable performance (Herzig & Schaltegger, 2011). Second, because of lack of standards, assurances, and accountability, and due to the voluntary nature of corporate sustainability reporting, corporates might resort to constructing their own preferred versions of sustainability, which might lead to the socially undesired business-as-usual scenario (Laine, 2005). Third, from a communication point of view, and from a stakeholders' perspective, receivers of the corporate sustainability messages might stand confused by the variety of terms and definitions. This adds to their potential lack of technical knowledge to understand, for instance, oil companies' emission results (Cox & Pezzullo, 2016).

2.2 Motivations and Channels of Corporate Sustainability Communication

Sustainability communication was not always as integrative as it is nowadays (Herzig & Schaltegger, 2011). Corporate social reporting emerged in the 1970s, following pressure on corporates by social movements, a decade later environmental reporting came to existence in the late 1980s and early 1990s to tackle the environmental problems perceived to be mainly caused by corporates (Herzig & Schaltegger, 2011). In the 1990s, sustainability reports started to gain momentum (Kolk, 2004). Today, communication is a "hot topic" within CSR and sustainability research; its challenging nature has prompted Dawkins (2005, p. 108) to describe it as "the missing link in the practice of corporate responsibility".

Whether discussing CSR or sustainability, corporate communication is seen as a vital element (Du & Vieira, 2012). When used effectively, sustainability communication informs corporate stakeholders of its CSR performance, likely resulting in enhancing its credibility, reputation, and legitimacy, in addition to assisting in the process of stakeholder identification (Deegan, 2002; Du et al., 2010; Maignan & Ferrell, 2004).

Sustainability communication importance has not only been recognized by corporates but can also be noticed in the increasing sustainability reporting by "industry bodies and associations, government institutions, consulting firms, non-governmental organisations and research institutions" (Herzig & Schaltegger, 2011, pp. 151–152).

Four recurrent themes found in the literature reviewed were the relationship between corporations and the society, sustainability communication channels, challenges, and motivations behind such practice.

Companies do not exist in isolation from other members of the society, as one conceptualization of CSR is "the construct describing the relationship between companies and society" (D'Aprile & Mannarini, 2012, p. 48). This relationship is often described to be metaphorically formalized in a "social contract"; that is, society expects certain requirements from businesses, in exchange for granting them legitimacy or a "licence to operate" (Deegan, 2002; Du & Vieira, 2012; Steiner, 1972). While corporations are positioned on one side of the relationship, the society at large is on the other side; this can refer to individuals, e.g. consumers, investors, and employees, or entities, e.g. governments, non-profits, and media (Maignan & Ferrell, 2004).

When discussing the roles of different types of stakeholders in the CSR domain, the following two perspectives are usually considered. From the society perspective, partnerships and cooperation are praised as tools of renegotiation of the social contract with corporations (Hamann & Acutt, 2003). On the other hand, corporates are collaborating with NGOs in developing their environmental policies (Pulver, 2007) while using collaboration with legitimate entities as a legitimation strategy (Oliver, 1990).

The role played by NGOs, especially environmental, has been vital in the sustainability agenda. Mostly assuming a critical stance against corporate unsustainable actions, they reported on various issues ranging from "environmental violations, human rights abuses, detrimental impact on local communities, to breaches of labour and safety standards" (Du & Vieira, 2012, pp. 413–414). Also, they criticized and exposed green-washing practices (Pulver, 2007). According to Dawkins (2005), NGOs are always looking for evidence of companies' sustainability claims. Therefore, NGOs are one of the most powerful stakeholders a corporate must consider, when communicating their social and environmental performance.

Honouring their end of the social contract is not the only reason companies engage in sustainability disclosure and communication. On the same side of the spectrum of motivations lies management acceptance of accountability or responsibility, that is, acknowledging the stakeholders right to know (Vaccaro & Madsen, 2009), thus gaining their support (De Roeck & Delobbe, 2012).

On the other hand, CSR and sustainability actions are often attributed to the corporate need of attaining, maintaining, and repairing legitimacy, that is, future survival (Dowling & Pfeffer, 1975) and long-term prosperity (Du & Vieira, 2012). This motivation is usually associated with controversial industries such as oil and gas, alcohol, and tobacco (Bhattacharya & Sen, 2004). These industries are under external pressure by different stakeholders, mainly the media, NGOs, regulatory institutions, and the public. In a strategic effort to counter and manage this pressure, corporates opt to act socially and environmentally responsible, or at least appear to do so (Ramus & Montiel, 2005), to allow them to continue their business as usual (Palazzo & Richter, 2005), or for their new structures or operations to appeal to the sociocultural norms and societal expectations (Dacin, 1997; Deegan, 2002). Reflecting on the motive of gaining stakeholders' support, this interplay of motivations is consistent with what Gray et al. (1995) postulated, which is the need to consider the legitimacy theory and stakeholder theory as overlapping perspectives, not competing ones.

Turning to corporate sustainability communication channels, the literature reviewed provides accounts on the following facets: the link between the channel, message, and receiver, in addition to the advantages, limitations, and challenges faced when using web technologies for corporate sustainability communication.

As a crucial step in any communication strategy, identifying and utilizing a variety of channels is advised for CSR messages to reach the target audience (Dawkins, 2005; Du et al., 2010). Corporates have abundance of channels to choose from; these include annual reports, social, environmental, and sustainability reports (Gray, 2001), corporate websites (Moreno & Capriotti, 2009), CSR advertising (Yoon et al., 2006), public relations, and social media platforms (Colleoni, 2013; Dawkins, 2005).

Looking at practice, Esrock and Leichty (1998) found that 82% of their sample of US Fortune 500 index used corporate websites to communicate CSR activities. This and other studies suggest a growing utilization of the Internet and World Wide Web (WWW) technologies for corporate sustainability communication, in contrast to the formerly dominant form of using annual reports (Herzig & Godemann, 2010). Some

Table 1 Functional characteristics of websites for corporate sustainability communication

Functionality	Description and literature
Accessibility	A medium to communicate to an international audience (Moreno & Capriotti, 2009)
	Use of the HTML format (Herzig & Schaltegger, 2011)
	24-h accessibility (Adams & Frost, 2006b; Herzig & Schaltegger, 2011)
	Increasing information accessibility and comprehensibility (Adams & Frost, 2006b)
Interactivity	Permits dialogue (two-way communication), feedback (to respond to questions, concerns, and problems) (Esrock & Leichty, 1998; Kent & Taylor, 1998)
	More active interaction with wide and diverse public (Adams & Frost, 2006b)
	Mutual asynchronous forms such as mail-to functions or discussion forums (Herzig & Schaltegger, 2011)
	Mutual synchronous forms such as chats, audio, or video-conferencing (Herzig & Schaltegger, 2011)
Value	Exert agenda-setting function, thus avoiding gate-keeper function of the mass media (Esrock & Leichty, 1998)
	Reduced information costs (Herzig & Godemann, 2010)
	Environmentally friendly (Adams & Frost, 2006b)
Multimedia	Links to other information sources on the company or other organizations (Herzig & Schaltegger, 2011)
	Combination of different media elements such as words, figures, images, or videos (Herzig & Schaltegger, 2011)
Capacity	Permits large quantities of information than print reports (reporting is for example no longer limited by the number of printed pages) (Herzig & Schaltegger, 2011)
	Provision of historical information (archives) (Herzig & Schaltegger, 2011)
Velocity	Provision of real-time data and immediate updates on events and information (Adams & Frost, 2006a, 2006b; Esrock & Leichty, 1998)
Personalization	Integrated view for audience to select from (Herzig & Schaltegger, 2011)
	Addressee-specific information tailoring and distribution (to meet various technical and information needs) (Herzig & Schaltegger, 2011)
	Individual access for stakeholders (Herzig & Schaltegger, 2011)

companies (e.g. Adidas and E. ON UK) have even abandoned the printed reports to focus solely on e-reporting (Herzig & Schaltegger, 2011). Annual reports have also evolved; McQueen (2001) observed that they now have two functions. The traditional function of regulated financial reporting and a new unregulated function of public relations. In the same context, he argues that the audience of these reports have expanded from merely shareholders to include employees, potential investors, and the general public.

While reviewing literature, some patterns have emerged when discussing corporate websites as the main vehicle for sustainability reporting. These include functionality characteristics, advantages, and opportunities offered by using the Internet for corporate sustainability communication. For better presentation, and easier further reference, we grouped these into seven themes (Table 1): interactivity, velocity, accessibility, multimedia, capacity, personalization, and value.

Besides, some researchers highlighted the challenges that might face companies trying to utilize web technologies for communicating their sustainable actions. These include the lack of standards, regulations, and assurance of web content, which might result in a lower level of credibility (Herzig & Schaltegger, 2011). This challenge results from the possibility to change web content very easily. Another challenge being the digital divide (Herzig & Schaltegger, 2011), which, in my opinion, is one of the most important factors considering it might largely affect stakeholder engagement in countries where there is a high level of divide. Finally, some stakeholders might still prefer to consume information the traditional way, that is, printed reports (Herzig & Schaltegger, 2011).

Even though the potential and possibilities offered by the Internet seem to far outweigh the limitations, in practice companies should resort to corporate websites as one medium of sustainability communication that complements, or is rather complemented by, using traditional means such as printed annual and sustainability reports (Herzig & Schaltegger, 2011). In addition to their original content, websites have the potential of widening the audience of these reports. Whereas printed reports reach a limited audience, digital versions of these reports can reach an international audience.

Beyond the challenges facing corporate sustainability pertinent to channels and audience, corporate sustainability challenges arise mainly due to organizations failing to achieve the goals of their economic, social, and environmental practice. There is a great mounting pressure imposed by societal actors on corporations, whether it is a governmental requirement, industry standard, NGO scrutiny, media criticism, or internal powerful stakeholder engagement. Tackling the conflicting interests of the widely diverse stakeholder groups is a challenge that requires an integrative, not only communicative, approach. Herzig and Schaltegger (2011, p. 166) offer a recommendation to corporations as they note that:

> A well-managed, interdisciplinary team-based process seems to be required, one that involves different departments, external stakeholders and possibly communication agencies, as well as diverse competencies in identifying the sustainability issues that are most relevant to both the company and society. Likewise, communicating these issues in a comprehensible way and integrating sustainability reporting with other sustainability communication media and the company's more general corporate communications concept appears to be vital if sustainability communication is to move to a higher level.

Thus, a corporate that utilizes several media for sustainability communication, integrates it into the corporate wider communication strategy, and utilizes the same integrative approach for identification and engagement with internal and external stakeholders can expect better organizational performance and results.

2.3 Corporate Climate Change Communication

When discussing climate change communication, one of two general perspectives is usually considered, communication *of* climate change, or communication *about* climate change (Newig, 2011). While the former takes an instrumental or managerial view to inform and educate the audience about climate change, its implications, and actions, the latter takes an analytical view and is more concerned with how societal actors communicate about the issue. Although Newig (2011) did not mention corporate role in either, we argue that corporate climate change communication belongs to the *about* category, that is, corporations are societal actors that do not hold the scientific evidence, as do scientists and environmental groups, which legitimize and qualify them as a source of objective knowledge. Furthermore, corporates, as political figures, utilize the power of interpretation when communicating their stance and performance regarding climate change, therefore using their own logic and frames instead of merely mirroring that of scientists.

> . . .communication is a key element in societal strategies to cope with climate change. (Newig, 2011, p. 119)

As mentioned briefly before, this chapter assumes the stance that climate change communication is part of sustainability communication; thus, corporate climate change communication is part of corporate sustainability communication. This notion, although implicitly postulated throughout the CSR and sustainability literature reviewed (e.g. Escobar & Vredenburg, 2011; Livesey, 2002; Walker & Wan, 2012), has only been made explicit by Newig (2011), as he based his argument on three characteristics of climate change that call for societal communication:

1. High level of complexity and uncertainty
2. No global consensus on goals to be achieved
3. Widely distributed efforts and capacities

This need for a global consensus on goals and call for societal communication has resonated widely in the international political and governance forums. The highest level of these is the United Nations (UN) that historically led the coordination of global efforts to tackle the negative effects of climate change. As early as 1987, the WCED report on sustainable development mentioned climate change as a global threat requiring strategies for minimizing damage and coping with the risks imposed (Brundtland, 1987). The following few years marked several UN resolutions addressing multiple aspects of the phenomenon (Table 2).

Furthermore, the year 1988 witnessed the establishment of the Intergovernmental Panel on Climate Change (IPCC), the world's leading authority on climate change (IPCC, 2013; The Royal Society, 2007). On the other hand, this period marked not only the climate change debate gaining momentum in the international political forums (Paterson, 1996) but also a first substantial intervention from the corporate side in the form of establishing the Climate Change Working Group (CCWG) at the International Petroleum Industry Environmental Conservation Association

Table 2 Some climate change-related UN resolutions (United Nations, 1992)

Year	Resolution number	Addressing the issue of
1988	43/53	Global warming
1989	44/206	Rising sea levels
	44/172	Combating desertification
	44/207	Protection of global climate for present and future generations of humankind
1990	45/212	
1991	46/169	

(IPIECA) in 1988 (Gale, 2015), and the Global Climate Coalition (GCC) in 1989. While the former was concerned with voicing the industry stance to the UN forums, the latter attempted to influence the public opinion by questioning the science of climate change and challenging the need for action (IPIECA, 2007; Mooney, 2007).

More recently, the need for global climate action is listed as number 13 out of 17 UN Sustainable Development Goals (SDGs) of 2016 (United Nations, 2015a). The SDGs give the issue more salience than the preceding Millennium Development Goals (MDGs) for 2000–2015 that included climate change as a sub-topic under goal number seven, which was to "Ensure Environmental Sustainability" (United Nations, 2015b). In the SDGs, climate action is not only tackled in goal 13, but it is also central to other goals as well, including the following:

Goal 7: Ensure access to affordable, reliable, sustainable, and modern energy for all.
Goal 12: Ensure sustainable consumption and production patterns.
Goal 14: Conserve and sustainably use the oceans, seas, and marine resources.
Goal 15: Sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss.

In addition to politics and science, the role of the media in the climate change debate is often highlighted. Weingart et al. (2000) discussed the development of the discourse on climate change in three spheres: science, politics, and media. One more sphere, or rather actor that Cox and Pezzullo (2016) highlighted as having a great role in the broader environmental communication arena, is universities. For instance, they noted that climate change communication is incorporated today in some universities' curricula.

Moving on to look at the role of corporates, or how the climate discourse is taking place in the business sphere, it does not seem to be mentioned as much as other actors or spheres. For example, Weingart et al. (2000) briefly highlighted how the oil industry financed climate-sceptic scientists. Moreover, corporates, especially in polluting industries, are heavily pressured by the new sustainability discourse (Escobar & Vredenburg, 2011; Frynas, 2009). Consequently, they engage in symbolic or substantive actions to address such pressure and manage their legitimacy (Walker & Wan, 2012). Regardless of the real intentions behind these actions, we argue that it is of great importance to consider the business sphere more often when discussing climate change communication, and not only focus on the media, politics, and science. This is of special importance given the increasing role of corporates in shaping our experiences (Allen & Craig, 2016), and since the often hailed "Paris Climate Agreement" adopted in 2015 involved unprecedented activity from the private sector (Grossman, 2017).

Even though corporate climate change communication was not discussed extensively in the literature reviewed, one report was completely dedicated to how companies report on their climate-related performance, that is, "The Corporate Climate Communications Report 2007" published in 2008 by Corporate Register, a portal of non-financial reports from different sectors and company types. In this report, they study how Global FT500 companies disclose climate change data. The report starts with a general discussion and moves towards performance disclosure, activity disclosure, target-setting disclosure, assurances, and guidelines disclosure. The report covers a wide range of sectors categorized into heavy, light, and service industries while also covering a wide range of regions including North America, South America, Europe, Africa and Middle East, Asia, Japan, and Australasia (Corporate Register, 2008).

Interestingly, out of 39 oil and gas companies in the sample, 28 (72%) published CSR reports. Of these, 71% had a climate-specific section in their reports. Of these, 64% had climate issues covered in the CEO introduction, and 18% stated management responsibility for corporate climate action. While most industries were proven likely to align with Greenhouse Gas Protocol of the Global Reporting Initiative (GRI), the oil and gas were the second least likely to align with the protocol. When it comes to setting SMART (specific, measurable, achievable, realistic, and time-scaled) targets (Doran, 1981) to reduce emissions, less than 25% of oil and gas companies set SMART targets, while 50% set no targets at all. About 10% of the oil and gas companies had specific climate change assurance for their reports (Corporate Register, 2008).

In summary, the report suggests that climate reporting has become a mainstream business practice. The report also is one of the first to recognize the beginning of "corporate climate activism". This claim is backed by the fact that "companies have the means in terms of global reach and capital, consumer loyalty and international networks to effect change on a significant scale" (Corporate Register, 2008, p. 44).

Turning to another recurrent theme when discussing climate change communication, or the wider umbrella of sustainability communication, we now discuss the presence, or lack thereof, of reporting standards, regulations, and external assurance. Herzig and Schaltegger (2011) echo the differences between corporates in their reporting motivations; following a certain level of guidelines can demonstrate accountability or play a legitimizing role if minimum guidelines are followed. In the same context, going green is distinguished from green-washing (Cox & Pezzullo, 2016). These two motives, we argue, cannot be seen in isolation from each other, but rather as two ends of a continuum. An organization can achieve a certain level of both goals by reporting their social, environmental, and financial performance following guidelines and standards.

Sustainability reporting can be perceived as a green-washing activity. Thus, to move away from such accusation, and for effective reporting, corporates need to reflect an outside-in as well as an inside-out perspective (Herzig & Schaltegger, 2011), that is, explaining activities contributing to sustainable development and corporate strategy, while responding to external expectations. Although Herzig and Schaltegger (2011) did not specify what he means by external expectations, and how it is different from the other perspective, he echoes Bebbington et al.'s (2007) call for a true dialogue with stakeholders. Thus, stakeholder dialogue is considered a measurement of corporate willingness to meet societal expectations, hence acknowledging accountability.

Tackling a global issue such as climate change, corporates need to consider two different types of pressures; these are global and local (Escobar & Vredenburg, 2011). Since there are no enforceable standards—on corporates—agreed upon globally, issues like climate change are tackled mostly by local and regional regulations and standards; thus, multinational companies would respond only to powerful local and regional stakeholder pressure, giving little to no real attention to global concerns (Escobar & Vredenburg, 2011; Oliver, 1991).

However, there have been many global voluntary standards tackling greenhouse gas emissions, energy efficiency, and environmental communication, mainly developed by global standardization organizations such as the Global Reporting Initiative (GRI) and the International Organization for Standardization (ISO). But very few have developed a comprehensive framework for reporting on climate action and related performances. Two of these are the Climate Change Reporting Framework developed by the Climate Disclosure Standards Board (CDSB) and the Science Based Targets (SBT) initiative developed by Carbon Disclosure Project (CDP), World Resources Institute (WRI), the World Wide Fund for Nature (WWF), and the United Nations Global Compact (UNGC).

In addition to standards and regulations, external criteria that corporates seek to conform to include rankings and competitions (Herzig & Schaltegger, 2011). They often aim to improve the practice of sustainability reporting and contribute to standardization. Although a voluntary procedure, having a good ranking or winning a reporting award in sustainability is a symbolic measure that contributes to companies' enhanced image and reputation (Deegan & Carroll, 1993). As the competitions often reflect stakeholders' expectations (Herzig & Schaltegger, 2011), it is also likely to influence organizational legitimacy. With regard to climate change, there is only one award that is given to companies in special recognition of their "Corporate Climate Change Communication". In 2012, this recognition awarded by the Taiwan Institute for Sustainable Energy was given to Taiwan Power Company for their sustainability report (Taiwan Power Company, 2013).

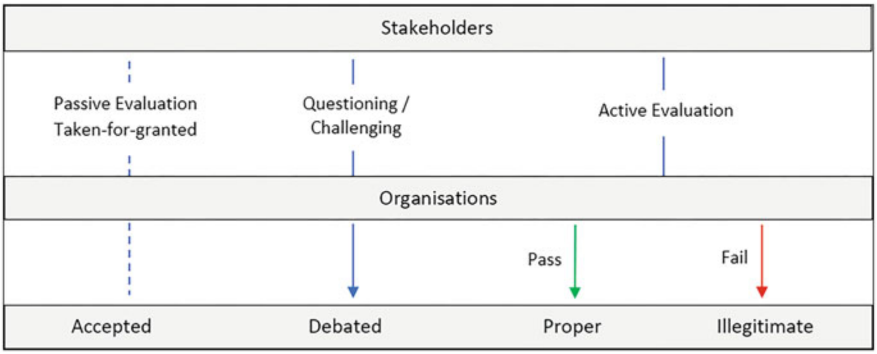

Fig. 1 States of organizational legitimacy, based on Deephouse et al. (2016), pp. 33–34

2.4 *The Legitimacy Theory: Symbolic and Substantive Climate Communication*

The legitimacy theory has been one of the dominant theoretical lenses, through which researchers examined CSR, sustainability (e.g. Deegan, 2002; Du & Vieira, 2012; Matejek & Gössling, 2014; Walker & Wan, 2012; Welbeck et al., 2017), and recently corporate climate change communication (e.g. Giannarakis et al., 2017; Qian & Schaltegger, 2017; Van Halderen et al., 2016). In their meta-review of legitimacy literature, Deephouse et al. (2016, p. 9) suggest the following definition:

> Organizational legitimacy is the perceived appropriateness of an organization to a social system in terms of rules, values, norms, and definitions.

They affirm the importance of societal actors' perception of an organization in assessing its legitimacy, hence the notion that it is not a universal concept, but rather context-dependent (Barkemeyer, 2007). This is especially true when considering the different outcomes of legitimacy. Historically, legitimacy has been characterized as having a fundamental dichotomous nature (Deephouse & Suchman, 2008). Therefore, an organization can be considered either legitimate or illegitimate, while recently, organizational legitimacy can be assessed and placed on a continuum.

Most prominently, Deephouse et al. (2016) put forward four basic outcomes and states of organizational legitimacy; these are accepted, proper, debated, and illegitimate. The main difference between the first two states is active evaluation by societal actors. Accepted organizations that have been actively inspected by regulators are deemed "proper" from the regulator and similar institutions' perspective. They could, however, be deemed "accepted" from the perspective of the consumers who take the organization's existence and operation for granted (Deephouse et al., 2016). On the other hand, organizations can have the "debated" state when their values or operations are actively questioned or challenged by some stakeholders. Finally, entities that do not "pass" the active evaluation by a stakeholder, i.e. not meeting stakeholder expectations, will be deemed inappropriate, hence "illegitimate" as perceived by that same stakeholder (Deephouse et al., 2016). Figure 1 illustrates the four states of organizational legitimacy.

In this study, we adopt Deephouse and Suchman's (2008) strategic perspective to legitimacy, that is, emphasizing organizations' ability to manage legitimacy towards achieving their goals. Examples of these goals or "consequences of legitimacy" include gaining market access, gaining stakeholder support, eliminating competition, improving financial performance, and gaining long-term survival (Deephouse & Suchman, 2008). In managing their relationship with different stakeholder groups, organizations use different approaches to extend, maintain, or defend their legitimacy. Ashforth and Gibbs (1990) highlight two main types of approaches: symbolic management and substantive management.

Symbolic management, on the one hand, comprises the organizational practices that aim at making acts "appear" consistent with stakeholder expectations. Substantive management, however, represents actual changes in organizational goals, structures, or processes (Deephouse et al., 2016). Symbolic management has been criticized because of its ability to "deceive" and "distract" from substantive issues (Bundy & Pfarrer, 2015); nevertheless, both approaches are valuable, especially when used together (Deephouse et al., 2016). We assume this approach and through this research answer to their call for more consideration to the interplay between the two management approaches for organizational legitimacy.

Communication strategy differs greatly according to the management strategy chosen by the organization. If green-washing is only appearing to be responsible by means of symbolic management, green-highlighting is utilizing both symbolic and substantive approaches; "green highlighting combines talking the talk with walking the walk" (Walker & Wan, 2012, p. 232).

Legitimating accounts are usually presented in the form of text (Phillips et al., 2004), hence the central role of communication in managing organizational legitimacy. This aligns with our earlier characterization of legitimacy as a stakeholder perception of the organization. While symbolism enables an organization to be multiple things to multiple stakeholders (Kraatz & Block, 2008), it is the embodiment of commitments that trigger the reciprocal commitment needed for organizational survival (Stinchcombe, 1997).

The text produced and distributed by organizations to manage legitimacy usually takes the form of stories or narratives (Lounsbury & Glynn, 2001), through which they strategically deploy rhetoric that aims at increasing the impact of the messages conveyed (Suddaby & Greenwood, 2005). Thus, researchers investigating organizational legitimation approaches have used methods of rhetorical analysis (Erkama & Vaara, 2010), narrative analysis (Brown, 1998), discourse analysis (Phillips et al., 2004), and framing analysis (Garcia & Greenwood, 2015).

Finally, based on the literature review, we offer the following definition for corporate climate change communication: *the production and distribution of information on corporate performance and stance regarding climate change causes, consequences, and solutions, to relevant stakeholders with the aim of gaining or maintaining their support.*

2.5 The Conceptual Framework

Following the extensive literature review above, we developed a legitimacy-based conceptual framework that can be organized as follows. Oil and gas companies are operating in a controversial industry that is a major contributor of GHG emissions, one of the main causes of climate change. They are facing increasing stakeholder pressure, presumably challenging, and questioning their operations and existence; hence their legitimacy state being "debated". Motivated to survive, some companies are driven by their acceptance of accountability and responsibility towards societal actors, while others are driven by the mere aspiration to continue to exist and stay relevant, that is, being legitimate.

Those accepting accountability adopt a business strategy involving substantive management. This comes in forms of real changes in operations or structures of the company that reflect stakeholder expectations. On the other hand, those merely seeking legitimacy adopt a business strategy that involves symbolic management. In doing so, they appear to be conforming to stakeholder expectations, with no actual changes. A mixed strategy is possible; hence, a company can seek both accountability and legitimacy with different degrees.

This study utilizes the legitimacy theory as a lens through which we can develop a better understanding of how oil and gas companies communicate their climate-related performance and stance. To achieve this, the following four dimensions should be considered.

Presence, Hierarchy, and Accessibility of Climate-Related Information

First, the presence of climate-related information on the companies' websites, annual reports, and sustainability reports should be identified.

Presentation, Format, and Interactivity of Climate-Related Information

Next, how climate information is presented should be examined.

Content Characteristics of Climate Information

To have a more in-depth analysis and meaningful findings, climate content should be examined based on the following: first, conformity to external criteria, including regulations, standards, ranking, awards, and agreements. Second, the explicit mention of stakeholders. Third, themes and topics discussed.

Legitimation Strategies

Finally, to identify the legitimation approaches utilized by the oil and gas industry, the following is suggested. The content characteristics revealed in earlier stages, the conformity to external criteria, the explicit mention of specific stakeholders, and the inclusion of specific themes, will all act as the categories by which the legitimation approach is deduced (Fig. 2).

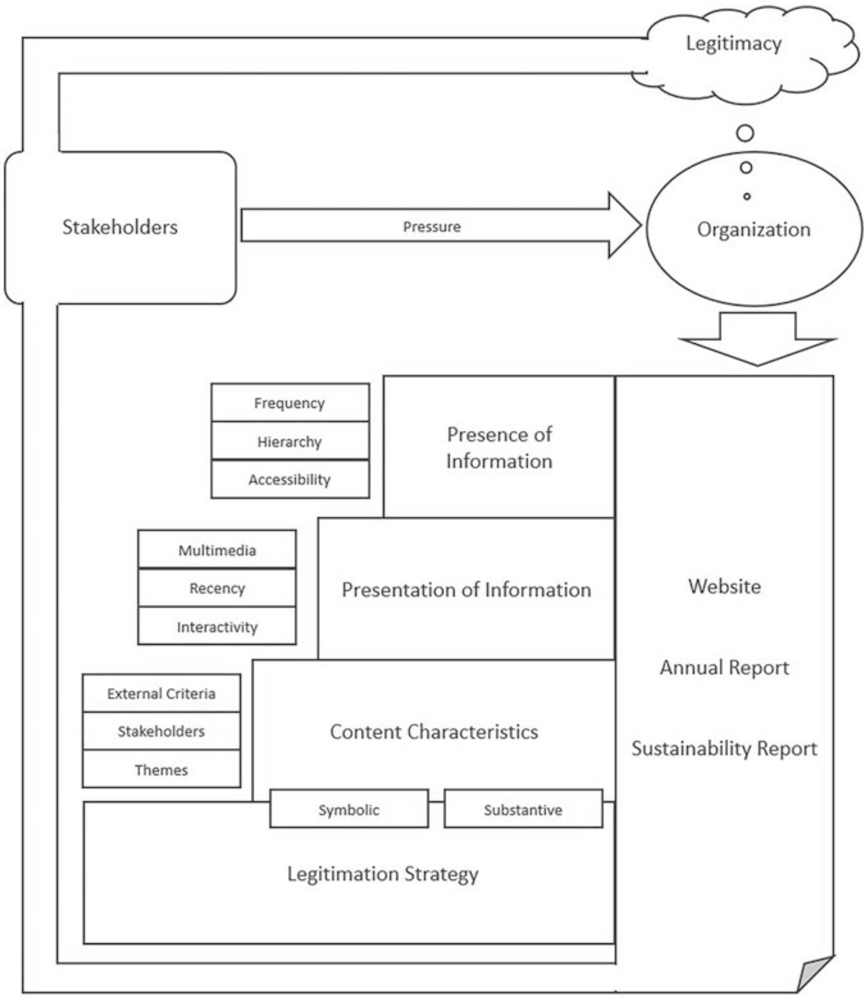

Fig. 2 Conceptual framework developed for the study of corporate climate change communication, based on literature review

3 Conclusion

At a time when anthropogenic climate change is one of the greatest challenges facing our planet, it is crucial for societal actors to engage in a meaningful and honest discussion that is built on common understanding, two-way communication, and willingness to change. This has recently materialized in a global momentum of climate action. Towards this end, this chapter contributes new and important knowledge to the climate debate. Theoretically, we offered, for the first time, a definition and a conceptual framework for corporate climate change communication. The concept was also positioned within sustainability communication after critically discussing the differences with CSR.

We performed an integrative review of a purposeful sample of the literature published during two decades on CSR, sustainability communication, and their link to organizational legitimacy. The developed conceptual framework is a preliminary contribution to the emerging sub-field of corporate climate change communication.

Future studies are encouraged to build on this initial attempt and empirically utilize the framework to provide a deeper understanding of how corporates communicate about this overarching issue; whether organizations operating in controversial industries merely disclose information on performance for symbolic legitimacy or communicate their position to various groups of stakeholders with the underlying belief of a social contract that ties them with multiple actors who can influence these organizations' survival.

Acknowledgements The author thanks the anonymous reviewer for their insightful comments and feedback. The author would also like to thank Roel van Veen, Dr. Maryja Šupa, and Professor Wim Elving, for their valuable feedback on an earlier version of this paper. The author would like to acknowledge as well that this paper is based on a broader research project carried out as partial fulfilment of a master's degree from Hanze University of Applied Sciences, The Netherlands, and Vilnius University, Lithuania.

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