

Reporting Controversial Issues in Controversial Industries

Journal:	Accounting, Auditing & Accountability Journal
Manuscript ID	AAAJ-07-2020-4684.R4
Manuscript Type:	Research Article
Keywords:	controversial industries, organizational legitimacy, harm, communication, transparency, reporting

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Reporting Controversial Issues in Controversial Industries

Abstract

Purpose: This article explores how companies in multiple controversial industries report their controversial issues. For the first time, we use a new conceptualization of controversial industries, focused on harm and solutions, to investigate the reports of 28 companies in seven controversial industries: Agricultural Chemicals, Alcohol, Armaments, Coal, Gambling, Oil and Tobacco.

Methodology: We thematically analyzed company reports to determine if companies in controversial industries discuss their controversial issues in their reporting, if and how they communicate the harm caused by their products or services, and what solutions they provide.

Findings: From our data we introduce a new legitimacy reporting method in the controversial industries literature: the solutions companies offer for the harm caused by their products and services. We find three solution reporting methods: no solution, misleading solution and less-harmful solution. We also develop a new typology of reporting strategies used by companies in controversial industries based on how they report their key controversial issue and the harm caused by their products or services, and the solutions they offer. We identify seven reporting strategies: Ignore, Deny, Decoy, Dazzle, Distort, Deflect and Adapt.

Originality: This paper develops a new typology of reporting strategies by companies in controversial industries and adds to the theory and discourse on social and environmental reporting (SER) as well as the literature on controversial industries.

Research implications: Further research can test the typology and identify strategies used by companies in different institutional or regulatory settings, across different controversial industries or in larger populations.

Practical implications: Investors, consumers, managers, activists and other stakeholders of controversial companies can use this typology to identify the strategies that companies use to report controversial issues. They can assess if reports admit to the controversial issue and the harm caused by a company's products and services and if they provide solutions to that harm.

Keywords

Controversial industries, Organizational legitimacy, Harm, Reporting, Communication, Transparency, Annual Reports, Sustainability Reports

1. Introduction

Corporate social and environmental reporting (SER) has the potential to provide accurate and transparent accounts of corporate impacts on the environment and society. However, extensive research has demonstrated that companies are most likely to use SER as an impression management tool, utilizing it to support legitimacy, manage risk and reputation, or signal superior performance to investors (Bebbington *et al.*, 2008; Boiral and Heras-Saizarbitoria, 2020; Bradford *et al.*, 2017; Clarkson *et al.*, 2008; Dhandhania and O'Higgins, 2022; Diouf and Boiral, 2017; Kuruppu *et al.*, 2019; Maroun *et al.*, 2018; Milne and Patten, 2002; Talbot and Boiral, 2018). Through SER, a company with significant negative social and environmental impacts can maintain its license to operate, employing sophisticated communication strategies to emphasize positive actions and distract stakeholders, including investors, consumers and communities, from its negative impacts (Brennan and Merkl-Davies, 2014). This privileging of symbolic over substantive disclosure makes it difficult for stakeholders to hold companies to account for the harm their products or services may cause to society and the environment.

In this paper, we contribute to and advance SER literature by investigating controversial industries and, specifically, how they report on the key controversial issue in their industry. Controversial industries are industries that are socially or environmentally "questionable", and typically excluded from responsible investor lists (Lindgreen *et al.*, 2012). Frequent challenges to legitimacy mean that companies in such industries, like tobacco, gambling or armaments, typically communicate their social and environmental activities more, and more often, than companies in other industries (Dhandhania and O'Higgins, 2022; Kilian and Hennigs, 2014), making controversial industries, ironically, an ideal site to examine best practice in SER. There is a growing literature on controversial industries, which has to date focused on understanding how these companies report their social and environmental activities, and how this reporting supports legitimacy (Aqueveque *et al.*, 2018; Cai *et al.*, 2012; De Roeck and Delobbe, 2012; Dhandhania and O'Higgins, 2022; Du and Viera, 2012; Eabrasu, 2012; Jo and Na, 2012; Jo *et al.*, 2016; Leung and Snell, 2017; Leung, 2019; Loh *et al.*, 2015; Rodrigo *et al.*, 2016; Song and Wen, 2019).

Except for a very small number of studies (Leung and Snell, 2019; Loh *et al.*, 2015), how companies report their core *controversial issues*, as opposed to their general SER reporting, is largely, and surprisingly, missing from the literature. Controversial issues are touch-paper issues, and in controversial industries include some of the most pressing current social and environmental issues, such as climate change (oil companies) or human deaths due to war (armaments companies).

To maintain their license to operate companies, especially in controversial industries, have to engage with and report on their controversial issues (Dhandhania and O'Higgins, 2022). For stakeholders, these issues create a focal point for interaction, discussion, and critique of corporate engagement with the issue (Georgakopoulos and Thomson, 2008; Thomson *et al.*, 2015). Campaigners, communities and others concerned with controversial issues can develop "counter accounts" that highlight corporate responsibility and accountability for social and environmental harms, give voice to previously marginalized stakeholders, and potentially change corporate behavior (Apostol, 2015; Denedo *et al.*, 2017; Gallhofer *et al.*, 2006). For example, sustained campaigning by civil society organizations (CSOs) and others, producing counter accounts criticizing the industry (Thomson *et al.*, 2015), is gradually delegitimizing cigarette smoking and forcing the tobacco industry to transition to alternative products. Therefore, research is needed to understand how controversial issues are reported and the role of accounting in doing so (Tregidga and Milne, 2020).

In this paper, we advance understanding of how companies in controversial industries use SER to support legitimacy. Extant literature has defined controversial industries as "sin" industries, a construction which relies on moral legitimacy (Cai *et al.*, 2012; Dhandhania and O'Higgins, 2022; Lindgreen *et al.*, 2012; Lindorff *et al.*, 2012; Oh *et al.*, 2017; Reast *et al.*, 2013). Operations or products are regarded as *sinful*, often referred to as "unwholesome" or "unmentionable" (Wilson and West, 1981). However, what is perceived as sinful, unwholesome, or unmentionable varies with location and era, is reliant on the personal view of the individual (Wilson and West, 1981), and does not stand the test of either geography or time (Eabrasu, 2012; Reast *et al.*, 2013). Instead, we explore the notion of *harm* in the context of controversial industries, namely the harm to society and/or the environment by the company's product(s) or service(s). The focus on harm reflects the development of legitimacy theory, centers direct impact on human health, welfare and the environment, and provides scholars with a basis for comparison across multiple controversial industries. Our research question, therefore, is:

 How do companies in controversial industries report the harm their products or services cause?

This research advances the SER literature in two ways. First, we develop a nuanced and parsimonious typology of controversial issue reporting strategies across multiple controversial industries. This answers calls for further research on how companies report these issues, and for cross-case analysis which compares traditional sin industries with more environmentally-sensitive industries which cause significant environmental (and social) harm (Acuti *et al.*, 2023; Dhandhania and O'Higgins, 2022). Second, we introduce a new legitimacy reporting tactic: the solutions companies offer for the harm caused by their products and services, contributing to the literature on SER and legitimacy. Companies use multiple and sophisticated SER strategies to propose solutions, from Dazzle to Distort to Deflect, and companies also move between strategies. This adds to our understanding of how companies seek to construct the debate around controversial issues. SER scholars can use our findings to better understand accounting and accountability in contested spaces (Denedo *et al*, 2017; Tregidga and Milne, 2020). While, stakeholders such as communities, consumers and CSOs can use our typology to understand the reporting tactics used by companies in controversial industries, and better hold them to account for environmental and social harms.

2. Literature Review

2.1 Controversial Industries and Harm

Defining controversial industries has proven challenging. Much of the controversial industries' literature uses Wilson and West's (1981) definition of a controversial industry, which is grounded in the idea of sin (Aqueveque *et al.*, 2018; Leung and Snell, 2017; Leung, 2019; Lindgreen *et al.*, 2012; Oh *et al.*, 2017; Reast *et al.*, 2013). Wilson and West (1981) divide controversial industries into two groups. The "unwholesome" group of socially condemned products and services, such as pornography, prostitution and armaments and the "unmentionable" group of products and services that are accepted by society, but where the buyer is embarrassed or reluctant to discuss their purchase, such as personal hygiene products and burial arrangements. Further developments by Lindorff *et al.* (2012) view sinful industries as gambling, tobacco, alcohol, sex, and abortion; while Lindgreen *et al.* (2012) and Cai *et al.* (2012) make a distinction between sinful products and services, and industries producing products with persistent or emerging environmental, social, or

ethical issues. Sinful industries are tobacco, gambling, and alcohol; while persistent or emerging issues industries are nuclear power, oil, biotechnology, and cement industries. Armaments are regarded as sinful by Lindgreen *et al.* (2012) and persistent by Cai *et al.* (2012).

However, defining controversial industries based on sin and morality is problematic as there is no consensus on what is sinful or moral (Eabrasu, 2012). Vergne (2011) for example identifies tobacco, weapons, and men's bathhouses as 'contested industries'. To add to this confusion, controversial companies' operations have also been described as morally corrupt, unethical, irresponsible, or immoral (Cai *et al.*, 2012; Campbell, 2003; Du and Viera, 2012; Eabrasu, 2012), regardless of actual or latent harm to society, individuals or the environment.

Harm, in contrast to sin, has a direct impact on human health and welfare (Eabrasu, 2012; Jo and Na, 2012) and/or the environment, when individuals or companies consume or experience a product or service (Cai et al., 2012; Lindgreen et al., 2012). Harmful products and services include those that directly impact human health and welfare, such as smoking, or that negatively impact the environment through air pollution, CO₂ emissions, water pollution or harm inflicted on animals and insects (Elliott, 2006; Levin et al., 2016). In their study of reporting in the gambling and tobacco industries, Dhandhania and O'Higgins (2022) call for research which compares industries historically regarded as sinful with "newly designated sin companies", particularly firms in environmentally sensitive industries, and state that the core activities of sin industries are perceived as harmful. Focusing on harm caused by the use of products or services allows us to provide a clear and updated definition of controversial industries which centers on social and environmental impacts and provides scholars with a basis for less subjective comparison across multiple controversial industries.

Existing definitions of sin industries are closely tied to theories of organizational legitimacy, with sin industries identified based on their level of acceptability to individuals and society (Dhandhania and O'Higgins, 2022). For the purposes of this paper we use the definition of legitimacy proposed by Deephouse *et al.* (2017) based on their extensive review of the development of legitimacy theory. They define legitimacy as "the perceived appropriateness of an organization to a social system in terms of rules, values, norms, and definitions" (Deephouse *et al.*, 2017).

Legitimacy theory has increasingly considered the role of the evaluator, the individual or collective assessing the organization's legitimacy (Tost, 2011). In doing so, the evaluator makes both passive and evaluative judgements (Tost, 2011). The collective rely less on emotional reactions and more on evaluation of information, for example, the organization's communications about its environmental performance (Van Halderan *et al.*, 2016). Here the consequential element of moral legitimacy, where the organization is judged on what it achieves (Suchman, 1995) is highlighted. The concept of harm captures more precisely than sin this evolving focus on evaluation; as a secular concept, evaluation of harm is less about emotion, and more about performance and outcomes.

Our definition of a controversial industry, therefore, focuses on the core business of the company, either products that are supplied and are harmful to people and/or the environment when used or consumed, or services where harm is inflicted on the users and/or the environment. Our working definition of a controversial industry is: 'an industry that provides products or services that when consumed or experienced have a direct harmful impact on human health, welfare and/or the environment.' For the purposes of this paper, our definition of 'environment' encompasses non-human animals. We acknowledge that by failing to specifically highlight harm to non-human

animals we risk adopting an anthropocentric definition of harm which fails to consider key grand challenges such as biodiversity and species loss (Atkins and Maroun, 2018; Russell *et al.*, 2017).

2.2 Legitimacy Reporting

SER research has frequently used legitimacy theory to explore the phenomenon of social and environmental reporting. The legitimacy of a company, and its societal acceptance, is dependent on whether stakeholders accept the decisions, actions, and strategic direction of the organization (Kuruppu *et al.*, 2019; Tyler and Blader, 2005). From this perspective, company communications can establish or even repair the social contract with society (Byrd, 2017; Campbell *et al.*, 2003; Patten, 1992) for example, following a major social or environmental incident or crisis (Brennan and Merkl-Davies, 2014; Deegan *et al.*, 2000; Maroun, 2018; O'Donovan, 2002). Legitimacy also changes over time as society's norms and values evolve (Deephouse *et al.*, 2017). Legitimacy can, therefore, be eroded if stakeholders perceive that companies do not operate in acceptable ways (Cho *et al.*, 2015; Maguire and Hardy, 2009).

Companies can use different information and reporting strategies to ensure their legitimacy with society (Cai et al., 2012; Cho et al., 2015; Dhandhania and O'Higgins, 2022; O'Donovan, 2002; Reast et al., 2013). Impression management strategies as well as reporting on symbols or values are used to proffer social legitimacy onto a company's activities (Brennan and Merkl-Davies et al., 2014; Deegan, 2002; Dhandhania and O'Higgins, 2022; Dowling and Pfeffer, 1975; Merkl-Davies and Brennan, 2007; Reast et al., 2013; Werther and Chandler, 2005). Four criteria are used to judge, debate and negotiate legitimacy; regulatory, pragmatic, moral and culturalcognitive criteria (Deephouse et al., 2017; Scott, 1995; Suchman, 1995). Regulatory criteria means evaluating if the company is complying with regulations without transgression (Deephouse et al., 2017). Pragmatic criteria evaluates if the company offers something that immediate stakeholders value (Suchman, 1995). Moral criteria means comparing a company's activities to societal norms and values and if they are aligned with social welfare (Aldrich and Fiol 1994; Deephouse et al., 2017; Suchman, 1995). While cultural-cognitive criteria is not based on evaluation but instead on the comprehensibility, familiarity and acceptance of the company's activities as necessary or inevitable by stakeholders (Deephouse et al., 2017; Suchman, 1995). Companies use these criteria to manage their legitimacy by attempting to gain, maintain or respond to threats of legitimacy (Ashforth and Gibbs, 1990; Deephouse et al., 2017; Suchman, 1995). While Deephouse et al. (2017) found that the criteria were used to challenge the legitimacy of an organization or were used by the organization to innovate their practices or try to change the regulatory or meaning landscape.

A number of scholars have developed typologies of reporting strategies for legitimacy, and we highlight three key typologies that have informed theoretical development in the SER and controversial industries literature. One of the earliest typologies was developed by Swajkowski (1992), as an amalgamation of the work of Austin (1961), Scott and Lyman (1968) and Schönbach (1990). Swajkowski's unified typology focused and provided a foundation for the accounting for contested issues literature (Brennan and Merkl-Davies, 2014; Merkl-Davies and Brennan, 2007; Ketola, 2004; 2006; 2008). Swajkowski (1992) examined how companies accounted for organizational misconduct and provided a typology examining whether the company took responsibility for the misconduct and/or if the company took responsibility for the harm caused by the misconduct. In this typology companies used four strategies to account for misconduct concessions, where responsibility and harm were admitted; justifications where responsibility was

admitted but harm was not; refusals, neither responsibility not harm were admitted; and excuses where harm was admitted but responsibility was ignored or denied.

Later, Clarkson (1995) developed the reactive-defensive-accommodative-proactive (RDAP) model for analyzing corporate social performance, consisting of four strategies: Reactive: deny responsibility and do less than required; Defensive: admit responsibility but fight against it and do the least that is required; Accommodating: accept responsibility and do all that is required; and Proactive: anticipate responsibility and do more than is required.

A further classification of SER reporting for legitimacy is provided in a series of papers (Brennan and Merkl-Davies, 2014; Merkl-Davies and Brennan, 2007; Merkl-Davies *et al.*, 2011), where the authors argue that companies use reports to engage in two impression management strategies, either concealment, which involves obfuscating bad news and emphasizing good news; or attribution, where positive outcomes are attributed to internal factors and negative outcomes attributed to external factors.

When legitimacy judgements are made, organizational legitimacy is framed as accepted, proper, debated or illegitimate (Deephouse et al., 2017). Accepted legitimacy is when companies are seen as legitimate and legitimacy is taken for granted. Companies with proper legitimacy do not have the same embedded legitimacy as accepted companies, however, deliberate judgements are made for these companies to be seen as legitimate. Debated legitimacy implies a disagreement or challenges by stakeholders about the companies' activities and/or values or that the company has extended into new industries where its legitimacy has not been established. illegitimate means that the company should be fundamentally restructured or its license to operate revoked (Deephouse et al., 2017). Deephouse et al. (2017) highlight the need for further research on reporting strategies for legitimacy. Controversial industries are a unique context where the social contract is particularly weak and constantly under threat, and establishing legitimacy is especially difficult (Reast et al., 2013). Furthermore, the range of stakeholders impacted by controversial companies may be much wider and more interdependent than for companies not in controversial industries, where a wide range of stakeholders is important to legitimize the organization (Dhandhania and O'Higgins, 2022; Freeman, 1994). Therefore, it is essential to understand the reporting dynamics for companies in controversial industries.

2.3 Legitimacy Reporting in Controversial Industries

Most articles on controversial industries focus on how controversial companies communicate sustainability issues (see for example, Aqueveque *et al.*, 2018; Cai *et al.*, 2012; De Roeck and Delobbe, 2012; Dhandhania and O'Higgins, 2022; Du and Viera, 2012; Eabrasu, 2012; Frynas, 2005; Jo and Na, 2012; Jo *et al.*, 2016; Kilian and Hennigs, 2014; Lindgreen *et al.*, 2012; Lindorff *et al.*, 2012; Rodrigo *et al.*, 2016; Song and Wen, 2019). These studies explore sustainability reporting by controversial companies and the methods used by companies to depict themselves as a force for good in society (Leung and Snell, 2017; Palazzo and Richter, 2005). For instance, oil companies reporting on their renewable energy initiatives, even though the vast majority of their products are fossil fuels (Frynas, 2005; Megura and Gunderson, 2022). It is suggested that sustainability reporting in controversial companies can lead to external legitimacy through generating positive moral capital, reducing firm risk, producing insurance-like protection, and contributing to shareholder value (Jo and Na, 2012). However, controversial companies' sustainability reporting is often considered deceitful, misleading, or distracting to stakeholders (Leung and Snell, 2017; Lindgreen *et al.*, 2012). And, while many companies view sustainability

reporting as a means of improving firm reputation (Deegan 2002; Deegan et al., 2002), for controversial companies it may be ineffective (Frynas, 2005; Nwagbara and Belal, 2019).

Research has begun to uncover the legitimacy strategies used by SER in controversial industries. O'Donovan (2002) in his investigation of three companies in three controversial industries mapped when controversial companies would use their annual reports to communicate an environmental issue, based on how significant the issue was. He identified four response tactics to the legitimacy threats experienced by the oil company: avoid talking about it; attempt to alter social values by educating the public about the difficulties of transporting oil and the social value of the commodity; attempt to shape the perceptions of the organization by reporting the achievements of the company and the compliance with regulation; and conform to the public's values where a public inquiry into the oil spill is launched and announce measures to ensure it cannot happen again. These response tactics are then used to gain, maintaining and repair legitimacy and reinforce the idea that the annual report is a public relations exercise.

Reast *et al.* (2013)'s research on a failed super-casino bid offered a widely cited typology of reporting strategies in controversial industries, which builds on the work of Suchman (1995). The strategies they identified focus on the type of support controversial companies seek to gain (active or passive) and the mobilization of corporate resources to create legitimacy (transactional or interactional). They developed four strategies of legitimacy-seeking: bargaining, capturing, earning and construing.

Leung and Snell (2017) found that gambling companies engaged in corporate social responsibility (CSR) and CSR reporting mainly to gain pragmatic legitimacy with influential stakeholders, through reporting on their philanthropic and business contributions, while softening the reporting on the harm gambling addiction causes. The companies also attempted to divert attention from the moral issues by engaging in performative or symbol manipulation in their CSR policies (Leung and Snell, 2017; O'Donovan, 2002; Palazzo and Richter, 2005) to show their concern about the harm of problem gambling to governments. However they downplayed this concern with the public, with problem gambling programs described by respondents as 'window dressing' (Leung and Snell, 2017). In later work, Leung and Snell (2019) drew on Merkl-Davies and Brennan's (2007) impression management strategies of concealment and attribution and found that gambling companies used more specific and sophisticated impression management strategies when communicating their controversial issue: the social impacts of problem gambling. These strategies ranged from zero or minimal coverage of the topic, to warning key stakeholders (investors and consumers) of its impact, to adopting a defensive attitude or conversely, assertively detailing the company's good work and associated awards and honors in relation to the issue. Their findings suggest that rich insights on SER strategies can be uncovered by analyzing how companies in controversial industries report on their controversial issues.

Finally, Dhandhania and O'Higgins (2022) mapped legitimacy criteria for controversial companies and found that tobacco and gambling companies used CSR reports to ensure pragmatic and cultural-cognitive legitimacy but not regulatory or moral legitimacy, despite their behavior damaging their regulatory and moral legitimacy.

Although the literature has started to uncover how communicating sustainability efforts affects legitimacy for controversial companies and has looked at how company communications can repair legitimacy following a major social or environmental incident or crisis, what is largely missing is how companies in these controversial industries communicate their *controversial issues*. This is key, as these issues are the most obvious sources of illegitimacy for a wide range of stakeholders. Illegitimacy, for example, within the coal and oil sectors refers to the impact of

burning coal and oil on the climate (see Table 1 for the key controversial issues by sector). For controversial companies this includes internal stakeholders such as employees, management and owners, as well as external stakeholders including customers, shareholders, government, suppliers, civil society organizations (CSOs) and society. SER is often tailored and targeted according to stakeholder salience (Kuruppu et al., 2019). Who these stakeholders are may differ between different industries. According to Savage et al. (1991) stakeholders include "those individuals, groups, and other organizations who have an interest in the actions of an organization and who have the ability to influence it" (p. 61). For controversial industries, the key stakeholders have been identified as regulators and consumers, with community organizations, CSOs and media influencing public opinion and government decision making (Dhandhania and O'Higgins, 2022). Researchers assert that the key stakeholders most interested in reading the reports from companies in all controversial industries are investors (Merkl-Davies and Brennan, 2007), and those most impacted by the use of the companies' products or services. This includes consumers and related consumer groups and CSOs in the alcohol, gambling, tobacco industries (Dhandhania and O'Higgins, 2022; Leung and Snell, 2019; Palazzo and Richter, 2005; Reast et al., 2013); consumers, workers, environmental groups and NGOs for chemicals (Brennan and Merkl-Davies, 2014); consumers, environmental groups and NGOs in the fossil-fuels industries (Boiral and Heras-Saizarbitoria, 2020; Channa et al., 2021); and large customers including national armies and governments in the arms industry (Vergne, 2012).

Thomson et al. (2015) use the metaphor of a "conflict arena" to describe the dynamic multistakeholder debate and discourse typically associated with controversial issues. Companies attempt to assert their authority in this arena and diffuse conflict by carefully constructing their identity and position in relation to an issue (Tregidga and Milne, 2020). SER forms an important part of this identity (Apostol, 2015). These volatile, "undecidable" contested spaces can however present opportunities for accountability (Tregidga and Milne, 2020). Stakeholders such as CSOs, communities and campaigners take advantage of the visibility and volatility of these contested spaces to produce counter accounts that highlight social and environmental harms and call for greater corporate responsibility and accountability (Denedo et al., 2017; Vinnari and Laine, 2017). Depending on how organizations position themselves in relation to these issues and the reporting strategies they adopt, stakeholders can develop strategies to hold controversial companies to account. For example, Apostol (2015) shows how activists in opposition to a gold mine in Romania identified misleading claims in the company's SER and highlighted this in their own counter accounts of the proposed mine's environmental and social harms. The long campaign against the gold mine culminated in the cancellation of the project and the proposed location becoming a UNESCO World Heritage site.

2.4 Initial Model of Controversial Issue Reporting

This research builds on the previous work on how SER is used to manage legitimacy in controversial industries. As no other papers look directly at the key controversial issues in each industry and the harm done by the products and services of the company, we take a theory-building approach to contribute to the SER and controversial industries literatures, using legitimacy theory as a key theoretical base.

To develop the initial theoretical model, we draw on the literature that calls for a focus on harm rather than sin in controversial industries (Dhandhania and O'Higgins, 2022) as well as the literature on reporting strategies for legitimacy (e.g., Brennan and Merkl-Davies, 2014; Clarkson, 1995; Swajkowski, 1992), and reporting strategies in controversial industries (e.g., Dhandhania

and O'Higgins, 2022; Leung and Snell, 2017, 2019; O'Donovan, 2002; Reast *et al.*, 2013). Our model (Figure 2) is founded on the Swajkowski (1992) typology of accounting for contested issues and is supported by other typologies and related literature. Similar to Swajkowski (1992) we propose an initial typology of four reporting styles for companies in controversial industries: *Admit, Defend, Distract*, or *Avoid*. Companies can either *disclose* or *disregard the harm* they cause (based on findings in Cai *et al.*, 2012; Clarkson, 1995; Leung and Snell, 2019; O'Donovan, 2002; Patten, 1992). They can also focus on their *main controversial issue* or on other issues (as stated in Marshall *et al.*, 2016; and Merkl-Davies and Brennan, 2007).

Using the Admit approach, companies focus on the controversial issue and admit the harm caused. This is similar to the concessions, accommodative and conform to public's values strategies of Swajkowski (1992), Clarkson (1995) and O'Donovan (2002) respectively. Here active support is sought from stakeholders (Reast et al., 2013) and information is provided to make stakeholders more collaborative (Freeman, 2010) to try to ensure pragmatic and/or moral legitimacy (Dhandhania and O'Higgins, 2022). The Defend approach involves focusing on the controversial issue but disregarding harm similar to the justifications and defensive strategies offered by Swajkowski (1992) and Clarkson (1995), with negative outcomes attributed to external factors (Merkl-Davies and Brennan, 2007) to prevent threats to the company's pragmatic or moral legitimacy (Dhandhania and O'Higgins, 2022; Freeman, 2010). Distract, in contrast, involves admitting harm but focusing on other issues, similar to Merkl-Davies and Brennan's (2007) concealment strategy, with good news used to distract stakeholders (Leung and Snell, 2019). This is similar to Swajkowski's (1992) excuses approach. Finally, the Avoid approach, as stated in O'Donovan (2002), means ignoring the controversial issue and the harm caused, with zero or minimal coverage of the issue (Freeman, 2010; Leung and Snell, 2019; O'Donovan, 2002), where the company refuses to engage with the issue or the harm (Swajkowski, 1992) in the hope that stakeholders will leave them alone (Reast et al., 2013) and they can 'fly under the radar' (Dhandhania and O'Higgins, 2022). Figure 1 shows the initial reporting typology developed from the literature.

	Disclose harm	Ignore harm
Key Controversial Issue Focus	Admit Admit to the harm caused by product or service and focus on controversial issue	Defend Justify the controversial issue but ignore harm
Ignore Key Controversial Issue	Distract Mention harm but ignore key controversial issue	Avoid Do not mention controversial issue or harm

Figure 1. Initial controversial issue reporting typology.

3. Method

3.1 Company Selection

The companies in this research were selected based on specific criteria. First, the industry the company belonged to had to appear in the literature on controversial industries (Aqueveque *et al.*, 2018; Cai *et al.*, 2012; Campbell *et al.*, 2003; Eabrasu, 2012; Leung and Snell, 2019; Lindgreen *et al.*, 2012; Lindorff *et al.*, 2012; Milne and Patten, 2002; Reast *et al.*, 2013; Wilson and West, 1981). To triangulate the validity of these industries, we consulted the Domini Social Investment List of Excluded Industries (2017), as a source for controversial industry identification. We included the largest companies in each industry according to the Forbes (2017) list of publicly listed companies. These companies are market leaders in their controversial industry and derive over 20% of revenues from the controversial activity. We examined the four largest companies in each industry because, in many of these industries beyond the top four companies, the proportion of the revenues derived from controversial activities decreased significantly.

The industries included in the research are: Agricultural Chemicals, Alcohol, Armaments, Coal, Gambling, Oil, and Tobacco. The list of companies included is:

- Agricultural Chemicals: Bayer, Monsanto, Syngenta, Nutrien, BASF;
- Alcohol: AB InBev, Diageo, Heineken, Pernod Ricard (Pernod);
- Armaments: Lockheed Martin (Lockheed), General Dynamics, Northrup Grumman (Northrup), Raytheon;
- Coal: China Shenhua Energy (Shenhua), Coal India, BHP, Glencore;
- Gambling: Galaxy, Genting, Las Vegas Sands (LVS), MGM Resorts (MGM);
- Oil: ExxonMobil, PetroChina, Royal Dutch Shell (Shell), Total;
- Tobacco: British American Tobacco (BAT), Philip Morris International (PMI), Imperial Brands (Imperial), and Japan Tobacco.

We included BASF in the Agricultural Chemicals companies list as Bayer bought Monsanto in 2017. However, no company in the Forbes list, or other lists we reviewed, derived over 20% of revenue from Agricultural Chemicals, therefore, we included BASF, at 13% of revenues, to complete the Agricultural Chemicals sample but assumed that the company would be less likely to report on the controversial issues of damage to waterways and pollinators and the human health impact of fertilizers, insecticides, pesticides, and fungicides.

3.2 Controversial Issue Analysis

The researchers identified the key controversial issues in each industry and triangulated these using the Domini Social Investment (DSI) List of Excluded Industries (2017). The controversial issues are summarized in Table 1 below.

Table 1. Sectors and Controversial Issues.

Sector	Primary Issues of Harm
Agricultural	Impact of chemicals on the environment (particularly to pollinators and
Chemicals	waterways) and worker's health (harmful and addictive products, DSI)
Alcohol	Impact of alcohol on consumer's health (harmful and addictive products,
	DSI)
Armaments	Death and maiming caused by weapons, particularly to civilians (harmful and addictive products, DSI)

Coal	Impact of burning coal on the environment including emissions and
	climate change (fossil fuel owners and producers, DSI)
Gambling	Impact of gambling addiction on consumer's mental health and welfare
	(harmful and addictive products, DSI)
Oil	Impact of burning oil on the environment including emissions and climate
	change (fossil fuel owners and producers, DSI)
Tobacco	Impact of tobacco on consumer's health (harmful and addictive products,
	DSI)

3.3 Data Collection

Data were collected from secondary document sources: integrated annual reports or company annual reports; or corporate responsibility, corporate sustainability, or sustainability reports (from now on called sustainability reports). We reviewed all available integrated, annual and sustainability reports for each company for three years and used the report that had the most information related to the controversial issue or harm.

Given the nature of our research questions, the focus on company reporting, and the sensitive nature of our research questions, the use of pre-existing secondary data was deemed the most suitable research method as it has several advantages: in many cases, it is deemed to be of higher quality than self-collected primary data; it is permanent; and can be verified by other researchers, increasing the replicability and validity of the research (Smith and Smith, 2008).

Furthermore, as controversial companies seek external legitimacy, company reports are a key communication resource for companies (Fonseca, 2010; Leung and Snell, 2019). We focused on three years' reports as some companies only mention controversial issues in their sustainability reports, which can be biennial. However, most of the companies produced annual sustainability with several producing integrated reports, where sustainability reporting is signed off by the board of directors. Additionally, some companies were bought during the time period. In one case, Monsanto was bought by Bayer in 2018, so we reviewed the next largest company, BASF. Nutrien was formed in 2017 by the merger of several companies, therefore, we reviewed the reports of each of the companies, with Potash Corp the only company with reports in 2017. Raytheon merged in 2019 and did not issue a report, therefore, we used the 2020 report with the most information, their annual report. The total number of reports used in the final analysis was 98. The reports used for the analysis can be found in Table 4.

3.4 Data Analysis

To understand how companies communicate their controversial issues, we looked for specific information within the company reports, summarized in Table 2 below. The first part of the protocol was developed prior to the research and is based on the initial typology to understand if the reports focused on the controversial issue, mentioned the issue, mentioned the harm their products and services cause and admitted to this harm. While solutions for tackling the controversial issues were inductively derived from the report analysis and emerged as a new element of the protocol and applied to all cases.

Table 2: Coding Categories, Questions and Examples

Category	Question	Illustrative Examples
Focus on issue	Does the report have a dedicated section for the controversial issue?	1.10.6 Climate Change (BHP Annual Report, 2017: 5)
Issue mention	Does the report mention the main controversial issue?	"we responded to the climate change risks, conducted comprehensive assessment on climate risks and examination and verification of greenhouse gas emission" (Shenhua Annual Report, 2019: 5).
Harm Mention	Does it mention the harm caused by the product or service the company provides?	increased public and political attention directed at the alcoholic beverage and food and soft drinks industries, as a result of health care concerns related to the harmful use of alcohol (including drunk driving, drinking while pregnant and excessive, abusive and underage drinking) (ABInBev Integrated Report, 2019: 72)
Harm Admission	Does it admit to the harm caused?	We recognise [sic] society's concerns about the health risks of smoking and agree that smoking is a cause of serious disease in smokers (Imperial Brands Annual Report, 2017: 30)
No Solution*	Does the report give no solution?	No solution found in reports.
Misleading Solution:	Does the report focus on how the company is	Another key tool for achieving our strategic goals is the use of
Aspirational *	developing alternative products or services?	groundbreaking technologies. Access to these technologies is facilitated by Leaps by Bayer, a new innovation and collaboration model with locations in Berlin, Boston and San Francisco. This program aims to discover break-through innovations in [] nutrition (for example to significantly reduce fertilizer use in farming). (Bayer Integrated Report, 2018: 39)
Misleading Solution: Operational *	Does the report focus on the operations of the company rather than the harm caused by the product?	All casino employees undergo compulsory RG [responsible gaming] trainings and refresher courses to be well-equipped with the knowledge and skills to support our RG programme [sic] (Genting Annual Report, 2019: 53)
Misleading Solution: Harm as Solution*	Does the report turn harm into a solution or a unique selling point for the harmful product?	We design, manufacture and sustain the world's most lethal, mobile and survivable land combat platforms and combat systems (General Dynamics Annual Report, 2018: 4)
Less-harmful Product*	Does the report give an alternative less-harmful product or service to the harm-causing product or service?	In Europe, the Group relies on its subsidiaries Total Quadran, Total Solar International and Total Solar Distributed Generation and on its shareholding in Total Eren to increase renewable capacities of power generation (solar and onshore wind). (Total Integrated Report, 2019:33)

^{*}Concept induced from data

Content analysis is widely used in the SER literature to study sustainability reporting (Fifka, 2013), and has been used in several studies examining controversial issue reporting (Leung and Gray, 2016; Leung and Snell, 2019). Due to the complexity of the reporting, we used a thematic approach to content analysis to record company responses to the controversial issue to identify and analyze their controversial issue reporting strategies (Leung and Snell, 2019).

To ensure the replicability and credibility of the data, a thematic analysis framework was established, and a data collection process followed. After the retrieval of the company reports, five researchers used an excel template, based on the controversial issues identified in Table 1 and the protocol in Table 2 to analyze the reports from one or two industries each. We first analyzed the 2017 reports. When determining how companies communicated the controversial issue, verbatim sentences were collected from each the report and used as the unit of analysis (Milne and Adler, 1999). After an initial thematic analysis of the reports of the first 14 companies by the five individual researchers, a panel, consisting of all the researchers, re-analyzed the reports to come to a consensus on the final coding framework and to discuss nuances and anomalies. The remaining 15 companies' reporting was then analyzed by the five individual researchers, with the panel again convening to analyze the remaining reports and categories and to ensure consensus. This ensured that the coding framework was created and validated by five researchers. For 2018 and 2019, two researchers coded all the company reports separately and then came to consensus on the coding. with the panel convened to compare, discuss and come to a final consensus on the coding. The panel then analyzed each case separately (within case analysis) and drew conclusions across the companies, industries, and years (cross-case analysis), determining how companies depicted their controversial issues and the reporting strategies they used. Rather than quantitatively measuring reliability, we adopted Braun and Clarke's (2012) interpretation of inter-coder reliability, to achieve a more transparent and qualitatively consistent approach. Drawing on the advice from O'Connor and Joffe (2020) and Cofie et al. (2022), two experienced qualitative data coders followed the same inductive approach to coding the data. Through multiple dialogues with the research team, a consensus was achieved on the shared meaning of codes and the coding of the data.

3.4.1 From Codes to Themes: Issue/Harm Orientation

When analyzing the difference between controversial issue reporting and harm reporting, several reports mentioned both the controversial issue and the harm caused by the product or service. Particularly, within the initial Defend category over half of the reports had a sentence or paragraph mentioning the key controversial issue and the harm caused. This was in the form of denial of the issue and harm, or justifying the need for the issue and harm. We then compared the Defend and Distract reports and saw an overlap between the reporting methods used in these categories. For example, MGM 2017 and MGM 2018 were initially in separate categories due to the difference in how the reports communicated either gambling addiction or the harm to consumer's mental health and welfare, however, the difference between gambling addiction and the harm that gambling addiction caused was difficult to pinpoint. Therefore, to ensure parsimony of the typology, we collapsed controversial issue and harm into a single category: issue/harm orientation (how the company reports on its controversial issue and/or the harm its product or service causes), to develop the final typology.

3.5 Final Reporting Typology: Communicating Solutions

When we started the report analysis, we found another reporting method not discussed in the current literature: how the company reports the *solutions* to the controversial issues and the harm caused by their products or services.

We identified three solution reporting methods. The first method was not providing or mentioning a solution. This method was used by most of the Agricultural Chemicals companies, most of the Arms companies and one Gambling company, LVS.

The second method was providing misleading solutions that were either aspirational, operational or reported harm as a solution. Aspirational solutions were given when a report stated that a solution was being developed. If the solution is aspirational, it only tells the reader what could happen and may or may not be happening. If the solution is operational then the solution does not focus on the harm caused by the product or service, rather it is focuses on the harm caused by the production process, which is usually not as significant and is easier for the company to deal with. Operational solutions were identified when companies reported training their staff in safety or awareness, particularly in the Agricultural Chemicals and Gambling industries, or where they focused on preventing harm in their operations, particularly in Coal and Oil.

The final solution reporting method is if the company provides less-harmful, alternative products or services to replace their harm-causing product or service. For example, if Agricultural Chemicals companies provide less-harmful or alternative products to insecticides or pesticides, Arms companies produce non-lethal weapons or alternatives to weapons, Alcohol companies sell no-alcohol or low-alcohol drinks, Coal and Oil companies offer renewable alternatives, Gambling companies provide alternative entertainment, or Tobacco companies provide cigarette alternatives that are less harmful and help smokers stop smoking. 26 out of 98 reports had no solution, 47 reports used misleading solutions, and 25 reports focused on less-harmful products.

This meant that the original literature-derived typology, used in Figure 1, was too simplistic and did not identify the full range of reporting strategies used by the companies in the sample. Since this was a new insight, and in order to provide a more complete analysis, we went back to the literature to understand the constructs arising from the reports. Therefore, the definitions for the reporting strategies were derived from multiple literatures. We drew from the literature on greenwashing (Grandia, 2020): Deny and Distort; and the literature on online military strategy (Porter, 2016): Decoy, Dazzle, and Deflect. Ignore and Adapt are descriptive labels.

The final typology for the research is shown in Figure 2.

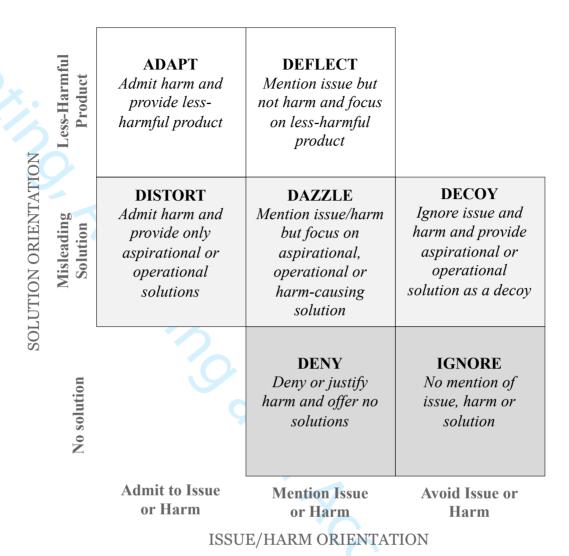


Figure 2. Final controversial issue reporting strategies typology

4. Findings

The research identified the solution orientation and the issue/harm orientation of each company report leading to the final reporting strategies used by the companies.

4.1 No Solution and Issue/Harm Orientations

We identified two strategies based on the company not reporting any solution and avoiding the controversial issue or harm: *Ignore* and *Decoy*. Companies using *Ignore* did not provide a solution to the harm caused by their product or service and did not mention the controversial issue or the harm caused by their product or service. Seven companies used the *Ignore* strategy: Three companies in Agricultural Chemicals, three in Arms and one in Gambling. BASF and Nutrien used this strategy every year, with Monsanto using it in 2017 for their environmental controversial issue by not mentioning pollinators or waterways. In the Arms industry, Lockheed and Northrup used

this strategy every year and Raytheon switched to *Ignore* in 2019. One Gambling company, LVS, used *Ignore* for all their reporting.

Monsanto 2017 is the only report in the *Deny* category by denying the health impact of their products and services. Deny occurs when a company denies the issue or the harm their products cause and provides no solution. The Monsanto report denied that there was an issue with worker's health from the use of chemicals, denied the harm done by their product, and offered no solution. Monsanto (2017) stated: "Q: Does glyphosate cause cancer"? Providing the answer: "No. No regulatory agency in the world considers glyphosate a carcinogen." (Monsanto Sustainability Report, 2017: 54). No other company used the *Deny* strategy.

4.2 Misleading Solutions and Issue/Harm Orientations

We identified three misleading solution reporting methods that differed in how the company reported the controversial issue and the harm caused: *Decoy, Dazzle* and *Distort*.

The *Decoy* label was given to reports that neither mentioned harm nor focused on the controversial issue but provided aspirational or operational solutions to lure the reader away from the issue or harm. *Decoy* was used by five companies in the Agricultural Chemicals, Coal and Gambling industries, who failed to mention the controversial issue or harm but reported misleading solutions including aspirational statements concerning the development of sustainable agricultural products (Nutrien Environment, 2018-2019; Syngenta Environment and Health 2018, 2019); the development of non-fossil fuels (Coal India 2018); or changing operations to make them less fossil-fuel intensive (Shenhua 2018; Coal India 2017, 2019) with no detail or time frame. Another *Decoy* strategy was reporting the provision of training for farmers so they use agricultural chemicals properly (Nutrien Environment, 2018, Syngenta Health, 2019), or training staff to spot problem gambling (MGM, 2019). No Alcohol, Arms, Oil or Tobacco companies used *Decoy*.

Nine companies used the *Dazzle* strategy with reports mentioning the controversial and/or harm and then dazzling the reader by focusing on a misleading solution. Three Gambling companies (Galaxy, Genting and MGM), two Agricultural Chemical companies (Bayer and Syngenta), two Arms companies (General Dynamics and Raytheon), one Coal (Shenhua), and one Oil company (PetroChina) used the *Dazzle* strategy. No Alcohol or Arms companies used *Dazzle*. We identified three tactics for dazzling the reader with solutions: solutions that are either aspirational, operational or harm-causing. The aspirational solution, which involves vague statements about 'developing' a solution, was used by ExxonMobil that stated they are developing biofuels from algae. This statement has been made for over a decade with no detail or time frame (Supran and Oreskes, 2021). Operational solutions focus on changes to the company's operations rather than their products or services. This included Galaxy's (Gambling) focus on trainings, workshops, roadshows, visits and other promotional activities" (Galaxy Annual Report, 2018: 46). Shenhua's (Coal) statement that they: "responded to the climate change risks, conducted comprehensive assessment on climate risks and examination and verification of greenhouse gas emission, vigorously implemented clean production and energy resources utilization, intensively carried out the "Year of Implementation" campaign, and worked with our partners to build a moat of production and environmental safety" (Shenhua Annual Report, 2019: 5). A further misleading solutions method was identified with harm reported as a solution and where harm was justified. Shenhua (Coal) stated that: "in terms of energy security, for a long time, even in the long run, China is still under a [sic] energy landscape dominated by coal, but with decline [sic] proportion and China will not distract attention from coal." (Shenhua Report 2019: 4). While PetroChina (Oil) reported that: "clean and efficient development and utilization of fossil fuels is the most realistic way to deal with climate change" (PetroChina Annual Report, 2019: 25). In two Arms companies' reports (General Dynamics (2017-19) and Raytheon (2017-18), the companies used harm as a selling point with descriptions of "hit-to-kill technology" (Raytheon Annual Report, 2017: 7), "kill vehicles" (Raytheon Annual Report, 2017: 3 and 2018: 7) and the "lethality" of their products (General Dynamics Annual Report 2017: 5, 2018: 5; Raytheon Annual Report 2017: 4, 18: 4). No Alcohol or Tobacco companies used Dazzle.

In the *Distort* category, companies not only mention but admit to their controversial issue and the harm their products cause but only provide misleading solutions that are aspirational or focused at an operational rather than a product-use level. This strategy is similar to gaslighting, which is so misleading it makes the reader question reality. Eight companies used the *Distort* strategy with Diageo (Alcohol), BHP and Glencore (Coal), and ExxonMobil (Oil) using this strategy for all their reporting. For example, Diageo states: "At the core of our approach is a commitment to positive drinking through encouraging moderation and tackling misuse" (Diageo Integrated Report, 2019: 3) with no alternative non-alcoholic product. Glencore explains: "We believe that coal, as a reliable and cost competitive form of energy, will continue to have a role in meeting future energy demand, particularly in developing countries, with carbon, capture, utilisation [sic] and storage (CCUS) adoption playing an increasingly important role in achieving emissions abatement" (Glencore Annual Report, 2019: 20). Pernod began a Distort strategy in 2018, when they stopped offering non-alcoholic products after 2017. Genting used *Distort* for their 2018-19 reporting. Bayer Environment and Health and PetroChina use *Distort* and admitted harm but only for one report in 2017 before moving into Dazzle. Genting focused on the gaming experience rather than the harm of gambling addiction using statements such as, "We take a holistic approach to Responsible Gaming ("RG") with the aim of providing guests with an enjoyable vet safe environment for a pleasant gaming experience" (Genting Annual Report, 2019: 53). Bayer (Agricultural Chemicals) admitted to harm in 2017 and adopted a *Distort* strategy but after buying Monsanto in 2017 adopted a similar strategy to Monsanto and started to deny harm and *Dazzle* the reader by reporting misleading aspirational or operational solutions. Similar wording from the Monsanto report (2017) appeared in the Bayer reports in 2018-19. For example, a previous Monsanto (2017) quote is paraphrased in the Bayer (2018) report: "the facts have not changed: glyphosate is a safe product. That has been proven by numerous scientific studies and the independent assessments of regulatory authorities throughout the world over a period of more than 40 years" (Bayer Integrated Report, 2018: 8) and further defended a year later "...after conducting a new review, the EPA [Environmental Protection Agency] said in January that it "did not identify any human health risks from exposure to glyphosate" (Bayer Integrated Report, 2019: 7). This strategy also appeared when Bayer reported on pollinator health in 2019: "We are also convinced that our insecticides, including the neonicotinoids, have a favorable environmental safety profile and are not dangerous to bee colonies when used according to label instructions" (Bayer Integrated Report 2019).

4.3 Less-Harmful Product Solution and Issue/Harm Orientations

The two less-harmful product solution reporting strategies are *Deflect and Adapt. Deflect* was identified when companies provided less-harmful alternative products mentioning the issue of smoker's health but failing to admit any harm caused by their products. For example, PMI (Tobacco) moved from *Adapt* (2017-2018) to *Deflect* in 2019, no longer admitting harm as they

had done in previous reports. Similarly, Japan Tobacco moved from Adapt in 2017 to Deflect (2018-19). No other companies used *Deflect*.

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INSERT FIGURE 3 HERE In the Adapt category the company reports focus on the issue, admit to harm, and provide an alternative product. However, the product is either less harmful to the consumer but may still pose risks in the long-term (PMI 2017-18, BAT 2017-19, Imperial 2017-19, Japan Tobacco 2017) or less harmful but makes up only a tiny fraction of their business (AB InBev 2017-19, Heineken 2017-19, Pernod 2017, Shell 2017-19, Total 2017-19). The *Adapt* strategy is not used in the Agricultural Chemical, Arms, Coal or Gambling company reports. Summary findings are shown in Appendix 1 and mapped onto a new typology of reporting strategies by companies in controversial industries, in Figure 3. Figure 3 also shows how some companies move from one strategy and/or issue to another during the three years analyzed.

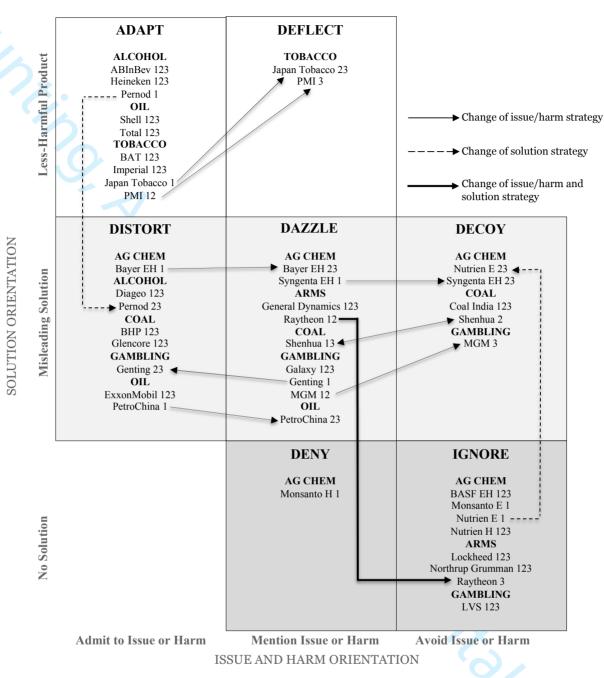


Figure 3. Reporting strategy typology with reports mapped *Note: EH (Environmental (Pollinators and Waterways); Health (Worker's Health); 1=2017; 2=2018; 3=2019.*

5. Discussion

Understanding controversial industries is important because they involve organizations that have a complex relationship with legitimacy and stakeholders (Du and Viera, 2012; Kilian and Hennigs, 2014; Oh *et al.*, 2017; Patten, 1992), so, identifying how they report the issues that cause

illegitimacy is of great value (Reast *et al.*, 2013). We identified one problem with the assumptions of the literature on controversial issues: the focus on sin rather than harm; and a major gap in our current knowledge of controversial industries: the way companies report on solutions to their controversial issue and the controversial issue and harm caused by their products or services.

By developing a definition of controversial industries by focusing on the harm their products and services cause, we have a new understanding of when industries should be classified as controversial and how legitimacy is assessed in these industries. Focusing on harm rather than sin reflects the evolving direction of legitimacy theory scholarship towards evaluation and the evaluator, and highlights the value of focusing on consequential rather than moral legitimacy (Deephouse *et al.*, 2017; Tost, 2011). Classifying controversial industries based on direct impacts on human health and the environment allows evaluators to assess legitimacy in a wide range of industries based on comparative performance. The harm-based typology opens the door for industries not traditionally considered controversial to be classified as such, based on their significant impacts, for example carbon-intensive industries such as aviation or shipping, or industries which impact non-human animals such as agri-food or pharmaceuticals. Future research could draw on this definition to explore reporting strategies in industries classified as controversial based on specific harms *e.g.* animal welfare (Laine and Vinnari, 2017).

From the research findings we developed a typology of controversial issue reporting strategies by finding a new construct that has not been used in the SER or controversial industries literature: if and how reports focus on solutions to the harm their product or service is causing. This solution focus was then coupled with the issue/harm orientation to delineate specific reporting strategies used by companies in controversial industries.

If we followed the initial typology developed from existing SER and controversial industries literature (Clarkson, 1995; Dhandhandia and O'Higgins, 2022; Leung and Snell, 2019; Merkl-Davies and Brennan, 2014; O'Donovan, 2002; Reast, 2013), we would not have a comprehensive picture of controversial issue reporting strategies. The solution-based typology shows us that even if a company admits to their controversial issue and the harm it causes, this can also be a misleading reporting strategy used to distort reality to make readers think that they are providing a meaningful solution when they are clearly not. By making the solution the focus of the typology we can more clearly identify the type of reporting strategy that they are using to mislead readers, avoid the subject altogether or provide a meaningful solution to the controversial issue and the harm caused by it.

In the controversial industries literature, and its theory base of legitimacy theory, most research is concerned with sustainability reporting by companies (Cai *et al.*, 2012; Du and Viera, 2012; Jo and Na, 2012; Yani-de-Soriano *et al.*, 2012), with an emerging but still limited literature on controversial issue reporting (Leung and Snell, 2019; Loh *et al.*, 2015). We add to this literature by focusing on multiple controversial issues across a diversity of industry contexts. In response to calls by Suchman (1995), Reast *et al.* (2013) and Dhandhandia and O'Higgins (2022), we provide a structured and comprehensive typology and generic categories to give the field a clearer picture of the different legitimacy-seeking efforts by controversial industries through their reports. Our research provides an initial literature-derived typology of issue and harm reporting and a data-derived typology of controversial issue reporting strategies.

Key stakeholders who read these reports, notably investors (Merkl-Davies and Brennan, 2007) and those most impacted by the use of the companies' products or services, which differ between industries (Boiral and Heras-Saizarbitoria, 2020; Brennan and Merkl-Davies, 2014;

Channa *et al.*, 2021; Dhandhania and O'Higgins, 2022; Leung and Snell, 2019; Palazzo and Richter, 2005; Reast *et al.*, 2013; Vergne, 2012) now have a new tool to analyze the reports and reporting strategies of the companies they are interested in. Whereas previously, companies may have been striving for legitimacy through reporting (Dhandhania and O'Higgins, 2022), this typology can allow stakeholders to assess whether their initial judgements of regulatory, pragmatic, moral or cultural-cognitive legitimacy (Deephouse *et al.*, 2017) remain unchanged when assessing the solutions offered by these companies for the harm caused by their products and services.

The typology contributes to legitimacy theory by introducing concepts from the greenwashing (Grandia, 2020) and online military strategy (Porter, 2016) literatures, and provides a new way of exploring and interrogating reports of companies in controversial industries. We better understand how companies adopt and move between reporting strategies on controversial issues, and how they use SER to construct debates in contested spaces. Both SER scholars and stakeholders can use it to identify whether reporting strategies are used to obfuscate or conceal controversial issues or harm or to mislead through focusing on solutions that are aspirational, operational or harmful. This creates space for new accountings and accountabilities, for the development of counter accounts which can interrogate and identify misleading and harmful solutions proposed by companies (Denedo et al., 2017; Thomson et al., 2015; Tregidga and Milne, 2020; Vinnari and Laine, 2017). The typology allows stakeholders to exercise greater scrutiny to understand and challenge the deliberate and sophisticated judgements that underpin and obfuscate the legitimate claims of controversial companies (Deephouse et al., 2017). Controversial companies, in turn, can use the typology to proactively review their reporting strategies and the solutions they are using to address the harm caused by their products and services. In both directions, there is the potential to understand the harm caused and the solutions to those harms.

5.1 Limitations and Further Research

There are several limitations and avenues for further research in this study. First, this research used secondary data to answer the research questions. Like Kuruppu *et al.* (2019), Cho *et al.* (2015; 2018), we suggest that researchers move beyond external reporting to pay closer attention to interactions between organizational participants. If researchers could access controversial companies and gather primary data from respondents, this would help to validate or repudiate the findings of this study and help us to understand if aspirational talk around alternative products is merely symbolic or reflective of a more substantive transition to a consciously less-harmful business model.

Another avenue is to explore how other industries disclose their controversial issues or crises to refine the model and make it more generalizable.

Future research could also examine the explanatory variables driving the use of the identified strategies. For example, within the reporting literature, country of origin of a company is identified as an important determinant of reporting (Branco *et al.*, 2018), impacting how companies deal with government and cultural pressures to report on environmental and social impacts (Tagesson *et al.*, 2009). Tagesson *et al.* (2009), identify the influence of Scandinavian and Nordic culture on greater transparency, while Branco *et al.* (2018) show that companies from Mediterranean European countries have higher engagement with the Global Reporting Initiative in comparison to Nordic countries. While we recognize that there will be governmental and cultural influences based on the company's country of origin, the main focus of this study is on the

market leaders in specific sectors, and the increased scrutiny that comes from that position within a controversial industry. Future research could, however, focus on country of origin differences. Focusing on differences in national, institutional and regulatory settings and their influence on reporting strategies (Belal, 2001), is an important avenue for further research.

Finally, the model could be deconstructed into construct items and be tested using a survey of respondents from controversial companies. It was also evident that some companies changed their reporting strategies over time. Future research could explore reporting strategy patterns and the motivations behind changes to reporting strategies. Further research in controversial issue reporting can only support scholars and stakeholders to better interrogate SER, and hold corporations to account for social and environmental harms.

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Table 1. Sectors and Controversial Issues.

Sector	Primary Issues of Harm	
Agricultural	Impact of chemicals on the environment (particularly to pollinators and	
Chemicals	waterways) and worker's health (harmful and addictive products, DSI)	
Alcohol	Impact of alcohol on consumer's health (harmful and addictive products,	
	DSI)	
Armaments	Death and maiming caused by weapons, particularly to civilians (harmful and addictive products, DSI)	
Coal	Impact of burning coal on the environment including emissions and	
	climate change (fossil fuel owners and producers, DSI)	
Gambling	Impact of gambling addiction on consumer's mental health and welfare (harmful and addictive products, DSI)	
Oil	Impact of burning oil on the environment including emissions and climate	
	change (fossil fuel owners and producers, DSI)	
Tobacco	Impact of tobacco on consumer's health (harmful and addictive products,	
DSI: Domini Social Invest	DSI)	
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Table 2: Coding Categories, Questions and Examples

Category	Question	Illustrative Examples
ocus on issue	Does the report have dedicated section for the controversial issue?	1.10.6 Climate Change (BHP Annual Report, 2017: 5)
ssue mention	Does the report mention the main controversial issue?	"we responded to the climate change risks, conducted comprehensive assessment on climate risks and examination and verification of greenhouse gas emission" (Shenhua Annual Report, 2019: 5).
Iarm Mention	Does it mention the harm caused by the product or service the company provides?	increased public and political attention directed at the alcoholic beverage and food and soft drinks industries, as a result of health care concerns related to the harmful use of alcohol (including drunk driving, drinking while pregnant and excessive, abusive and underage drinking) (ABInBev Integrated Report, 2019: 72)
Harm Admission	Does it admit to the harm caused?	We recognise [sic] society's concerns about the health risks of smoking and agree that smoking is a cause of serious disease in smokers (Imperial Brands Annual Report, 2017: 30)
No Solution*	Does the report give no solution?	-
Aisleading Solution: Ispirational *	Does the report focus on how the company is developing alternative products or services?	Another key tool for achieving our strategic goals is the use of groundbreaking technologies. Access to these technologies is facilitated by Leaps by Bayer, a new innovation and collaboration model with locations in Berlin, Boston and San Francisco. This program aims to discover break-through innovations in [] nutrition (for example to significantly reduce fertilizer use in farming). (Bayer Integrated Report, 2018: 39)
Misleading Solution: Operational *	Does the report focus on the operations of the company rather than the harm caused by the product?	All casino employees undergo compulsory RG [responsible gaming] trainings and refresher courses to be well-equipped with the knowledge and skills to support our RG programme [sic] (Genting Annual Report, 2019: 53)
Misleading Solution: Harm as Solution*	Does the report turn harm into a solution or a unique selling point for the harmful product?	We design, manufacture and sustain the world's most lethal, mobile and survivable land combat platforms and combat systems (General Dynamics Annual Report, 2018: 4)
ess-harmful Product*	Does the report give an alternative less-harmful product or service to the harm-causing product or service?	In Europe, the Group relies on its subsidiaries Total Quadran, Total Solar International and Total Solar Distributed Generation and on its shareholding in Total Eren to increase renewable capacities of power generation (solar and onshore wind). (Total Integrated Report, 2019:33)

Concept induced from the data

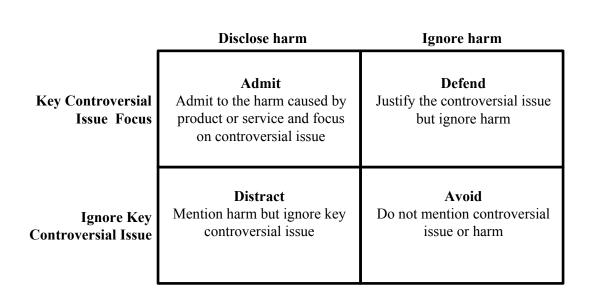
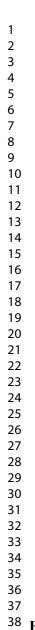


Figure 1. Harm reporting typology.



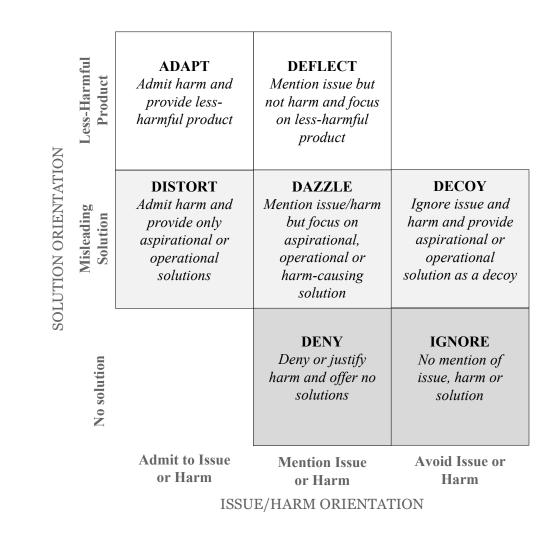
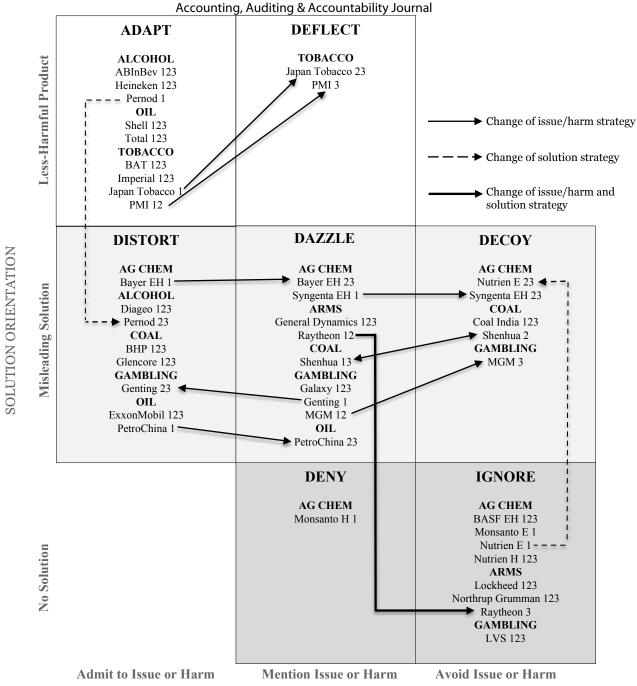


Figure 2. Final Reporting Strategies Typology



Industry	Company Report and Year	_
·	BASF (Env) No report mentions 2017	-
	BASF (Env) No report mentions 2018	
	BASF (Env) No report mentions 2019	
	BASF (Health) No report mentions 2017	
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	Raytheon Annual Report 2017**	
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	Ag Chemicals Arms Gambling Ag Chemicals	BASF (Env) No report mentions 2017 BASF (Env) No report mentions 2018 BASF (Env) No report mentions 2019 BASF (Health) No report mentions 2017 BASF (Health) No report mentions 2017 BASF (Health) No report mentions 2018 Ag Chemicals BASF (Health) No report mentions 2019 Monsanto (Env) Sustainability Report 2017 Nutrien (Env) PotashCorp* Annual Report 2017 Nutrien (Health) PotashCorp* Annual Report 2017 Nutrien (Health) Annual Report 2018 Nutrien (Health) Annual Report 2019 Lockheed Martin Sustainability Report 2017 Lockheed Martin Sustainability Report 2017 Lockheed Martin Sustainability Report 2018 Lockheed Martin Sustainability Report 2017 Northrup Grumman Sustainability Report 2017 Northrup Grumman Sustainability Report 2019 Raytheon Annual Report 2020 (2019 not available) Las Vegas Sands Sustainability Report 2018 Las Vegas Sands Sustainability Report 2018 Las Vegas Sands Sustainability Report 2018 Las Vegas Sands Sustainability Report 2019 Ag Chemicals Monsanto (Health) Sustainability Report 2019 Ag Chemicals (Env) Annual Report 2018 Syngenta (Env) Annual Report 2018 Syngenta (Env) Sustainability Report 2019 Syngenta (Health) Sustainability Report 2019 Coal India Sustainability Report 2019 Coal India Sustainability Report 2019 Shenhua Annual Report 2018 Gambling MGM Resorts Sustainability Report 2019 Bayer (Env) Integrated Report 2019 Bayer (Health) Integrated Report 2019 Syngenta (Env) Sustainability Report 2019 Syngenta (Env) Integrated Report 2019 Syngenta (Env) Sustainability Report 2019 Syngenta (Health) Integrated Report 2019 Syngenta (Health) Sustainability Report 2017 General Dynamics Annual Report 2017 General Dynamics Annual Report 2017

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45	Coal	Shenhua Sustainability Report 2017
46		Shenhua Sustainability Report 2019
47		Galaxy Entertainment Annual Report 2017
48		Galaxy Entertainment Annual Report 2018
49	Camblina	Galaxy Entertainment Annual Report 2019
50	Gambling	Genting Sustainability Report 2017
51		MGM Resorts Sustainability Report 2017
52		MGM Resorts Sustainability Report 2018
53	0:1	PetroChina Sustainability Report 2018
54	Oil	PetroChina Sustainability Report 2019

^{*}became Nutrien 2018 **No Sustainability Report available

Report	Industry	Company
55	A a Chamiagla	Bayer (Env) Integrated Report 2017
56	Ag Chemicals	Bayer (Health) Integrated Report 2017
57		Diageo Integrated Report 2017
58		Diageo Integrated Report 2018
59	Alcohol	Diageo Integrated Report 2019
60		Pernod Ricard Integrated Report 2018
61		Pernod Ricard Integrated Report 2019
62		BHP Annual Report 2017
63		BHP Annual Report 2018
64	G 1	BHP Annual Report 2019
65	Coal	Glencore Annual Report 2017
66		Glencore Annual Report 2018
67		Glencore Annual Report 2019
68	G 11:	Genting Sustainability Report (Singapore) 2018
69	Gambling	Genting Sustainability Report (Singapore) 2019
70		ExxonMobil Annual Report 2017
71	0.1	ExxonMobil Summary Annual Report 2018
72	Oil	ExxonMobil Summary Annual Report 2019
73		PetroChina Sustainability Report 2017
74		Japan Tobacco Annual Report 2018
75	Tobacco	Japan Tobacco Integrated Report 2019
76		PMI Annual Report 2019
77		ABInBev Integrated Report 2017
78		ABInBev Integrated Report 2018
79		ABInBev Integrated Report 2019
80	Alcohol	Heineken Integrated Report 2017
81		Heineken Integrated Report 2018
82		Heineken Integrated Report 2019
83		Pernod Ricard Integrated Report 2017
84		Shell Annual Report 2017
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93		Imperial Brands Annual Report 2017
94	Tobacco	Imperial Brands Annual Report 2018
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Key Controversial Issue	Focus on Issue	Harm Mention	Solution
Pollinators and Waterways	-	-	-
Pollinators and Waterways	-	-	-
Pollinators and Waterways	-	-	-
Worker's Health	-	-	-
Worker's Health	-	-	-
Worker's Health	-	-	-
Pollinators and Waterways	-	-	-
Pollinators and Waterways	-	-	-
Worker's Health	-	-	-
Worker's Health	-	-	-
Worker's Health	-	-	-
Death	-	-	-
Death	-	-	_
Death	-	-	-
Death	_	-	_
Death	_	-	_
Death	-	-	-
Death	-	-	-
Gambling Addiction	-	-	-
Gambling Addiction	_	-	_
Gambling Addiction	-	-	-
Worker's Health	Denial	Denial	-
Pollinators and Waterways	-	_	Operations
Pollinators and Waterways	_	_	Aspirational
Pollinators and Waterways	-	_	Aspirational
Pollinators and Waterways	_	_	Aspirational
Worker's Health	_	_	Aspirational
Worker's Health	_	_	Operations
Climate Change			Operations
Climate Change	_	_	Aspirational
Climate Change	_	_	Operations
Climate Change	_	_	Operations
Gambling Addiction		_	Operations
Pollinators and Waterways	Denial	Denial	Aspirational
Pollinators and Waterways	Denial	Denial	Aspirational
Worker's Health	Denial	Denial	Operations
Worker's Health	Denial	Denial	•
	Demai		Aspirational
Pollinators and Waterways	-	X	Aspirational
Worker's Health		X	Aspirational
Death	-	X	Selling Point
Death	-	X	Selling Point
Death	-	X	Selling Point
	-	X	Selling Point
Death Death			Selling Point

Climate Change	_	X	Operations
Climate Change	X	-	Operations
Gambling Addiction	X	-	Operations
Gambling Addiction	X	-	Operations
Gambling Addiction	X	-	Operations
Gambling Addiction	-	X	Operations
Gambling Addiction	X	-	Operations
Gambling Addiction	-	X	Operations
Climate Change	X	-	Aspirational
Climate Change	Justification	Justification	Aspirational

Key Controversial Issue	Focus on Issue	Harm Mention	Solution	
Pollinators and Waterways	X	Admit	Operations	
Worker's Health	X	Admit	Operations	
Consumer's Health	X	Admit	Operations	
Consumer's Health	X	Admit	Operations	
Consumer's Health	X	Admit	Operations	
Consumer's Health	X	Admit	Operations	
Consumer's Health	X	Admit	Operations	
Climate Change	X	Admit	Operations	
Climate Change	X	Admit	Operations	
Climate Change	X	Admit	Operations	
Climate Change	X	Admit	Operations	
Climate Change	X	Admit	Operations	
Climate Change	X	Admit	Operations	
Gambling Addiction	X	Admit	Operations	
Gambling Addiction	X	Admit	Operations	
Climate Change	X	Admit	Aspirational	
Climate Change	X	Admit	Aspirational	
Climate Change	X	Admit	Aspirational	
Climate Change	X	Admit	Aspirational	
Consumer's Health	-	X	Less-Harmful	
Consumer's Health	-	X	Less-Harmful	
Consumer's Health	X	-	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Climate Change	X	Admit	Less-Harmful	
Climate Change	X	Admit	Less-Harmful	
Climate Change	X	Admit	Less-Harmful	

Climate Change	X	Admit	Less-Harmful	
Climate Change	X	Admit	Less-Harmful	
Climate Change	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	
Consumer's Health	X	Admit	Less-Harmful	

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