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Greenwashing:
Corporate Financial Performance Effects

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Defining the Greenwashing effect

In prior decades, increased environmental pressure has created strong incentives for businesses to indicate to their stakeholders that they operate in an environmentally responsible manner. Recent research indicates that businesses that engage in green communication enhance their environmental reputation, legitimacy, and corporate financial performance (CFP). Nonetheless, the substance of green communication remains debatable. Scholars and the media have observed that businesses may use "greenwashing" to engage with their stakeholders. Greenwashing can be viewed as an overdone business communication technique towards sustainability. This technique exaggerates the sustainability successes of businesses by engaging in excessive communication rather than making substantial efforts to enhance environmental and social performance.

The configuration of high- or low-level green communication and green practice generates four strategies, according to Delmas and Burbano (2011): greenwashing (concentrate on green communication but neglect environmental performance improvement); silent green (concentrate on green practice to improve environmental performance but neglect green communication); vocal green (equally high level of green communication and environmental performance); and silent brown (ignore both green communication and environmental performance). Table 1: Matrix of various green communication strategies shows a summary of the abovementioned types of green washing strategies.

		Green practice	
		Low	**High**
Green communication	High	Greenwashing	Vocal green
	Low	Silent brown	Silent green

Table 1: Matrix of various green communication strategies

Compared to 'vocal green' and 'silent green,' greenwashing is a cheaper way to engage with stakeholders and improve a firm's credibility, investing just on the communication side without an actual investment to improve the environmental parameters. In recent years, businesses have been required to demonstrate environmental responsibility (Hoffman, 1999). Although many scholars and consultants have argued that it "pays to be green" (Hart & Ahuja, 1996; King & Lenox, 2001; Porter & Van der Linde, 1995), corporate environmental practices may conflict with a company's primary goal of profit maximization and have a negative financial impact on the corporation (Friedman, 1970). Several studies have demonstrated that environmental efforts increase the operating expenses of businesses (Aldy & Stavins, 2012; Nordhaus, 2007; Stern, 2008). Others have discovered that corporate environmental measures can result in negative anomalous returns (Fisher-Vanden & Thorburn, 2011; Jacobs et al., 2010). In response to increased institutional demands for ecologically responsible company practices, managers must choose between market and environmental rationale (Dahlmann & Grosvold, 2017). If being green does not always increase share value, greenwashing may be a successful method for balancing shareholder demands and environmental challenges (Bansal & Clelland, 2004; Bowen, 2014; Ramus & Montiel, 2005). The symbolic management literature and neo-institutional theory emphasize that organizations can overcome competing logics by adopting symbolic

and substantive behavior that is dissociated (DiMaggio & Powell, 1983; Greenwood et al., 2011; Lyon & Maxwell, 2011; Meyer & Rowan, 1977). Greenwashing is a special type of decoupling tactic involving a combination of symbolic and insubstantial acts (Lyon & Montgomery, 2015). Symbolic acts are actions performed by companies to conform ceremonially to regulatory requirements and public expectations (Weaver et al., 1999; Zott & Huy, 2007). Symbolic gestures can alter the reputational or legitimacy support of an organization, establishing a link between the organization and the principles highly regarded in a particular cultural environment (Fombrun, 2001). Substantive activities refer to a company's quantifiable acts and investments in physical resources (Weaver et al., 1999; Zott & Huy, 2007). Thus, greenwashing enables companies to withstand external environmental legitimacy challenges while avoiding alterations to business operations and substantial investments to improve environmental performance.

Greenwashing may have a stronger signal effect compared to "silent brown" and "silent green." Signal theory (Spence, 2002) states that one party can utilize observable signals to demonstrate its unobservable qualities. If these features are valued by the receivers, the signaler could command a premium (Ramchander et al., 2012; Spence, 2002). Although stakeholders are concerned about environmental issues, they find it challenging to evaluate the green practices and environmental performance of corporations. Most stakeholders lack direct involvement in company processes to learn about the execution of environmental management standards and the deployment of green technologies by businesses (King et al., 2005; Lyon & Maxwell, 2011). As green communication offers information about corporate environmental responsibility that is valued by stakeholders (Su et al., 2016), organizations that engage in green communication may acquire legitimacy and reputation by attracting customers and investors (Lyon & Montgomery, 2015; Testa et al., 2015). Even if they have a high degree of environmental performance and engage in major environmental practices,

businesses without green communication are likely to receive a "brown" classification (Delmas & Grant, 2014). Testa, Miroshnychenko, et al. (2018) discovered, using a multinational sample of 3,490 enterprises, that the 'silent green' strategy can severely impact accounting-based financial performance and shareholder value.

The term “Greenwashing” was first coined in 1986 by an environmentalist named Jay Westervelt. He released an essay about the hospitality industry's efforts to encourage towel reuse. He pointed out to the recently introduced practice of the hotel industry which discouraged guests to use a high quantity of towels making them conscious of the high environmental impact of washing all the towels. The hotels were putting pressure on guests leveraging the environmental impact, while actually the main driver was the high costs the hotels were sustaining in the washing process.

Webster's New Millennium Dictionary of English defines greenwashing as the "practice of presenting environmentally good programs to deflect attention from an organization's ecologically harmful or less desirable actions." In 1999, the term was added to the Concise Oxford English Dictionary, which defines it as "disinformation disseminated by an organization to present an environmentally responsible public image; a public image of environmental responsibility promulgated by or for an organization, etc., but perceived as being unfounded or deliberately misleading."

According to Lyon and Montgomery, greenwashing cannot be precisely defined due to its multidimensional nature. In the following section, the various main ways discovered for characterizing the phenomenon of greenwashing are presented.

Environmental deceit as selective disclosure

Greenwashing is defined by TerraChoice as "the act of deceiving consumers about the environmental practices of a firm or its environmental performance and positive communication about environmental performance."

"Poor environmental performance and positive communication about environmental performance" is what Delmas and Burbano (p. 67) define as "poor environmental performance and positive communication about environmental performance." Baum (p. 424) defines greenwashing as "the dissemination of false information to consumers about a company's environmental practices or the environmental benefits of a product or service."

Tateishi (p. 3) defines greenwashing as "communication that misleads individuals regarding environmental performance/benefits by broadcasting good information about an organization, service, or product."

All of these authors characterize the phenomena as the simultaneous presence of two primary behaviors: the withholding of unfavorable information regarding the company's environmental performance and the release of good information regarding the company's environmental performance. This double-sided tendency is known as selective disclosure.

A number of articles consider greenwashing a form of selective disclosure. Lyon and Maxwell published the first economic analysis of greenwashing, while Milgrom and Roberts presented a specific persuasion game technique. Lyon and Maxwell (p. 9) identify selective disclosure as a form of greenwashing and define the phenomenon as "selective disclosure of positive information about a company's environmental or social performance, without full disclosure of negative information on these dimensions, in order to create an overly positive corporate image."

Lyon and Maxwell presume their study has both social and environmental elements, while others consider solely the environmental dimension and view the social dimension as a separate phenomenon.

Marquis et al. (p. 483) define selective disclosure as "a symbolic technique by which corporations aim to achieve or retain legitimacy by disproportionately disclosing favorable or relatively innocuous performance indicators to mask their less spectacular overall performance."

Decoupling as Greenwashing

Several authors associate greenwashing with decoupling. In economics, decoupling is a way for economics to grow and expand without a parallel increase of the environmental impact. Economics growths generally are directly correlated with environmental impacts and use of resources. Decoupling is then a way to grow sustainably and be able to grow an economy without further affect the environment.

Siano et al. (2017) (p. 27) associate greenwashing with symbolic acts that "tend to deflect attention from smaller difficulties or lead to produce 'green talk' through comments intended to satisfy stakeholder expectations in terms of sustainability, but without concrete action."

Walker and Wan characterize greenwashing as the distinction between "symbolic" and "substantive" corporate social initiatives (CSA). Companies with a negative CSR performance but yet communicate positively about their CSR performance.

According to Guo et al. (2018) (p. 1828), greenwashing is essentially decoupling symbolic environmental protection behaviors with no environmental protection behavior or failure to fulfil environmental protection commitments, in order to alleviate external public pressures and uncertainties and to avoid conflict with external stakeholders. The authors emphasize that these decoupling practices of greenwashing brands serve to preserve corporate legitimacy.

Theory of signaling and corporate legitimacy

In the literature, greenwashing was also linked to the signaling theory. Signaling theory addresses a fundamental communication problem: how can an agent, the receiver, determine if another agent, the signaller, is stating or otherwise transmitting the truth about a state of affairs or event that the signaller has an interest in misrepresenting? How can the signaler convince the receiver that he is talking the truth, regardless of whether he is telling the truth?

In this frame of signaling theory it is possible to insert the greenwashing phenomenon. According to signaling theory and the underlying assumption of asymmetric information (Connelly et al., 2011; Spence, 1973, 2002; Zahavi, 1977), there are two primary reasons why false or misleading corporate green claims or advertisements can be regarded as a successful signaling strategy in misleading stakeholders.

The first advantage is that organizations with both high and bad environmental and social performance gain by showing their commitment to green concerns. Connelly et al. (2011) argue in their discussion of the signaling theory that every organization has the potential to indicate or not signal its genuine quality or value to outsiders. This implies that low-performance companies perceive a substantial incentive (anticipated legitimacy gains) to broadcast their (false) message notwithstanding the expenses involved. Based on a company's engagement in green communication or green advertising (Wong et al., 2014) or green strategy, stakeholders are unable to distinguish between a real and just symbolic value (Prothero et al., 1997).

The second reason for the success of corporations in delivering misleading signals is that the communication is founded on an information asymmetry between the signaler and the receiver. Signaling theory is concerned with the reduction of information asymmetry between two parties (Spence, 2002):'scientific knowledge required to understand issues underlying many environmental claims is frequently complex and subject to change, making it difficult for the general public to decipher what is being said' (Carlson et al., 1993, pp. 28–29). Due to the knowledge

asymmetry between a business and its important stakeholders, it is conceivable to employ misleading green communication as an indicator of corporate environmental behavior.

Therefore, engaging in symbolic action or 'green talk' (Walker and Wan, 2012) to appear committed to green issues is an effective way to signal to corporate stakeholders an organization's positive environmental and social values (Connelly et al., 2011; Ramus and Montiel, 2005; Kjellberg and Stigzelius, 2014), regardless of the company's actual values.

In the literature, greenwashing was also linked to the corporate legitimacy thesis.

To explore greenwashing in the context of legitimacy, it is important to draw from the literature on corporate legitimacy (Scherer et al., 2013), which distinguishes between cognitive legitimacy, pragmatic legitimacy, and moral validity. Cognitive legitimacy is founded on the common, unquestioned assumptions of a group's social environment. Moral legitimacy is based on moral evaluations of the organization and its conduct; hence, it depends on evaluations of whether the action is "the right thing to do" (Suchman, 1995, p. 579). In contrast, pragmatic legitimacy is the product of self-interested calculations by the organization's major stakeholders and is therefore dependent on their perceptions of personal advantage from business actions and communication.

Guo et al. (2018) explain that when corporations fail to achieve their green goals, decoupling actions can undermine cognitive legitimacy (take-for-granted grandness of stakeholders), moral legitimacy (positive green appraisal), and pragmatic legitimacy (benefiting constituents).

What are the attributes and types of greenwashing?

According to Delmas and Burbano (2011), greenwashing is the act of misrepresenting the environmental policies of a company or the environmental benefits of a product or service to consumers. Greenwashing at the firm level is

exemplified by General Electric's "Ecomagination" campaign, which promoted the company's environmental practices while lobbying against new clean air EPA regulations. The Energy Star mis-certified refrigerators from LG are an example of product/service-level greenwashing. Energy Star is an eco-label for energy efficiency, and it was discovered that 10 types of LG's refrigerators were not energy efficient enough to be certified.

Two key categories of greenwashing can be defined: claim greenwashing and execution greenwashing. The research in the literature focus on greenwashing at the product/service level, but just two publications in this review mention greenwashing at the execution level. Figure 1: Major classifications of greenwashing depicts the primary classes of the greenwashing phenomena.

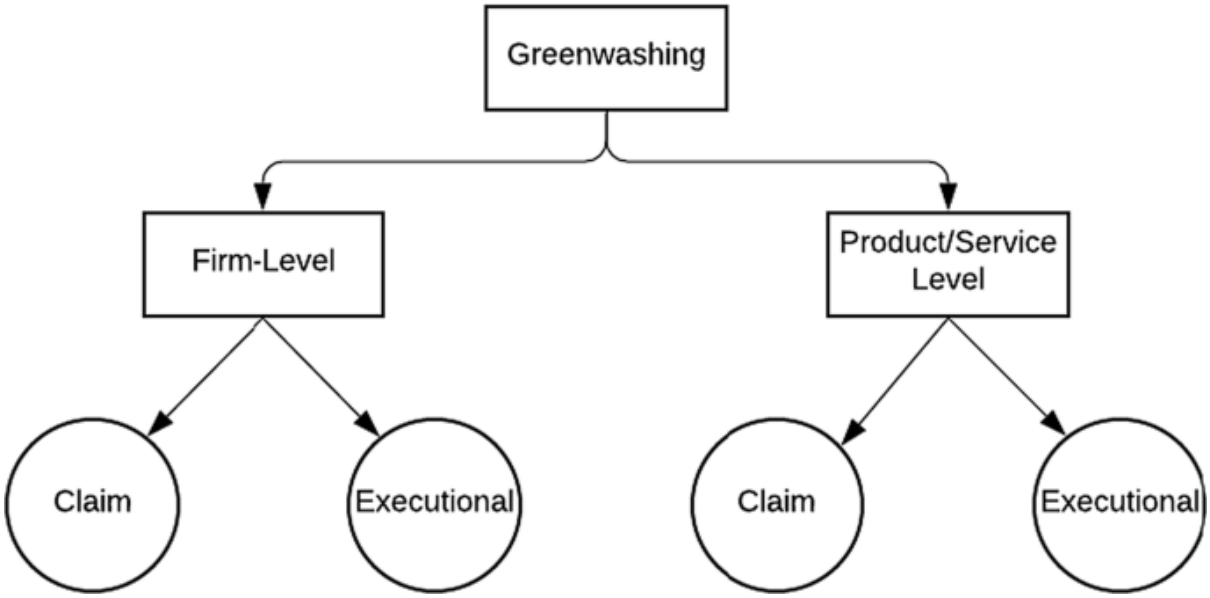

Figure 1: Major classifications of greenwashing (de Freitas Netto, S.V., Sobral, M.F.F., Ribeiro, A.R.B. et al. Concepts and forms of greenwashing: a systematic review. Environ Sci Eur 32, 19 (2020)).

Claim greenwashing

To date, the majority of study has focused on product/service-level claim greenwashing, which is the use of linguistic justifications that overtly or implicitly relate to the ecological benefits of a product or service to produce a deceptive environmental claim.

Parguel et al. cited a 1991 study in which Kangun, Carlson, and Grove distinguished three categories of greenwashed advertising:

(1) those employing false claims;

(2) those omitting important information that could help evaluate the claim's sincerity;

(3) those employing vague or ambiguous terms, which could be summed up as lying, lying by omission, and lying through ambiguity.

According to Tateishi and Baum (2017) , Carlson et al. (1993) identified two typologies of green claims: claim type and claim deceptiveness.

Claim type comprises five typological groups:

(a) product orientation—claims centering on the ecological attribute of a product;

(b) process orientation—claims centering on the ecological high performance of a production process technique, and/or an ecological disposal method;

(c) image orientation—claims centering on enhancing the eco-friendly image of an organization, such as claims that associate an organization with an environmental cause or activity for which there is a high level of public support;

(d) environmental fact—claims centering on the existence of an environmental.

The many sorts of claims are depicted in Figure 2: Types of Claims

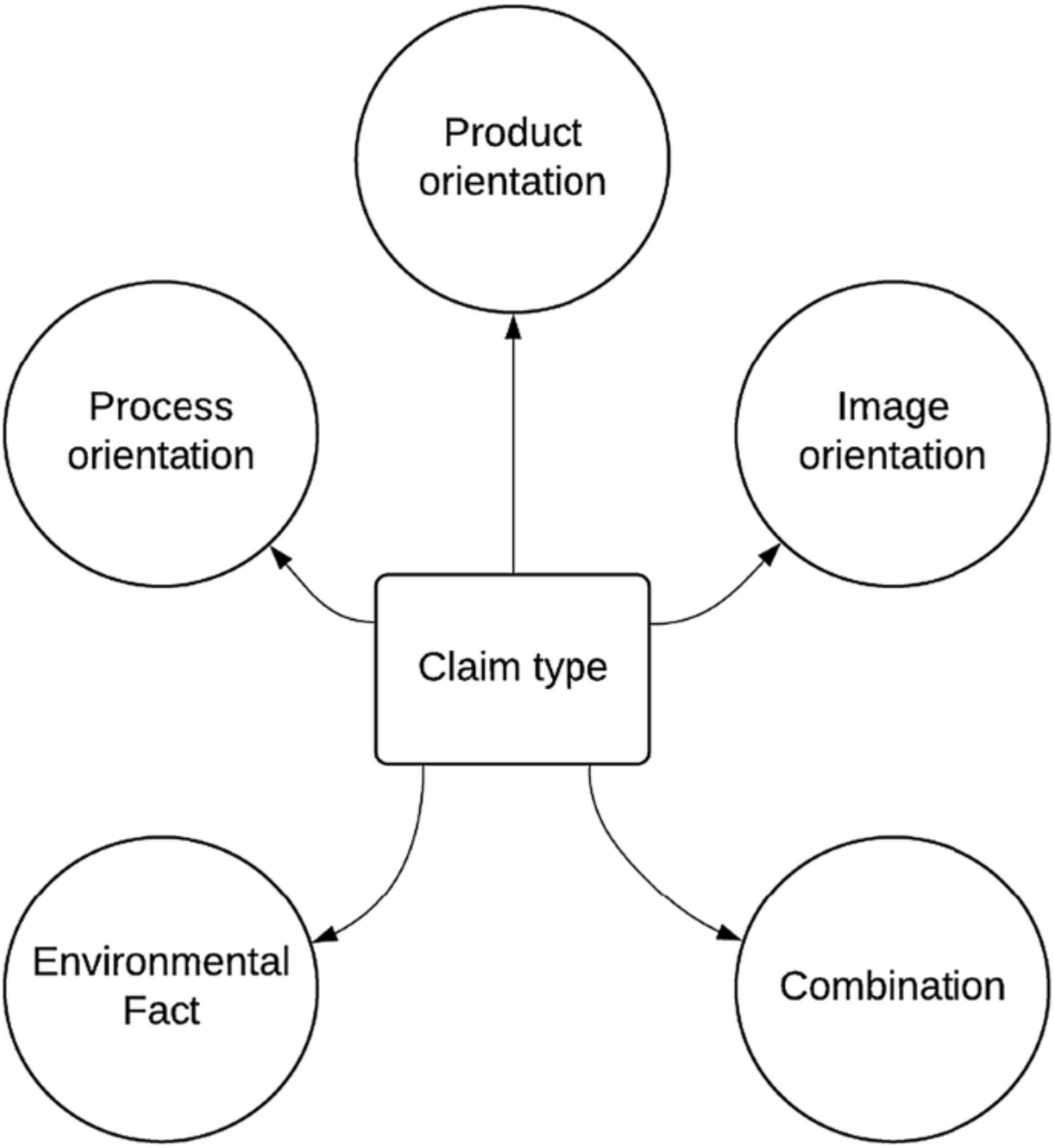

Figure 2: Types of Claims (de Freitas Netto, S.V., Sobral, M.F.F., Ribeiro, A.R.B. et al. Concepts and forms of greenwashing: a systematic review. Environ Sci Eur 32, 19 (2020)).

These abovementioned claim types can be classed according to a second typology, claim deceptiveness, which likewise has five typological categories:

(a) vague/ambiguous—claims that are overly vague, ambiguous, too broad, and/or lack a clear definition;

(b) omission—claims lacking the necessary information to evaluate its validity;

(c) false/outright lie—claims that are inaccurate or a fabrication;

(d) combination—claims with two or more of the above categories;

(e) acceptable—claims that do not contain a deceptive feature.

The claims are shown in Figure 3: Claim deceptiveness.

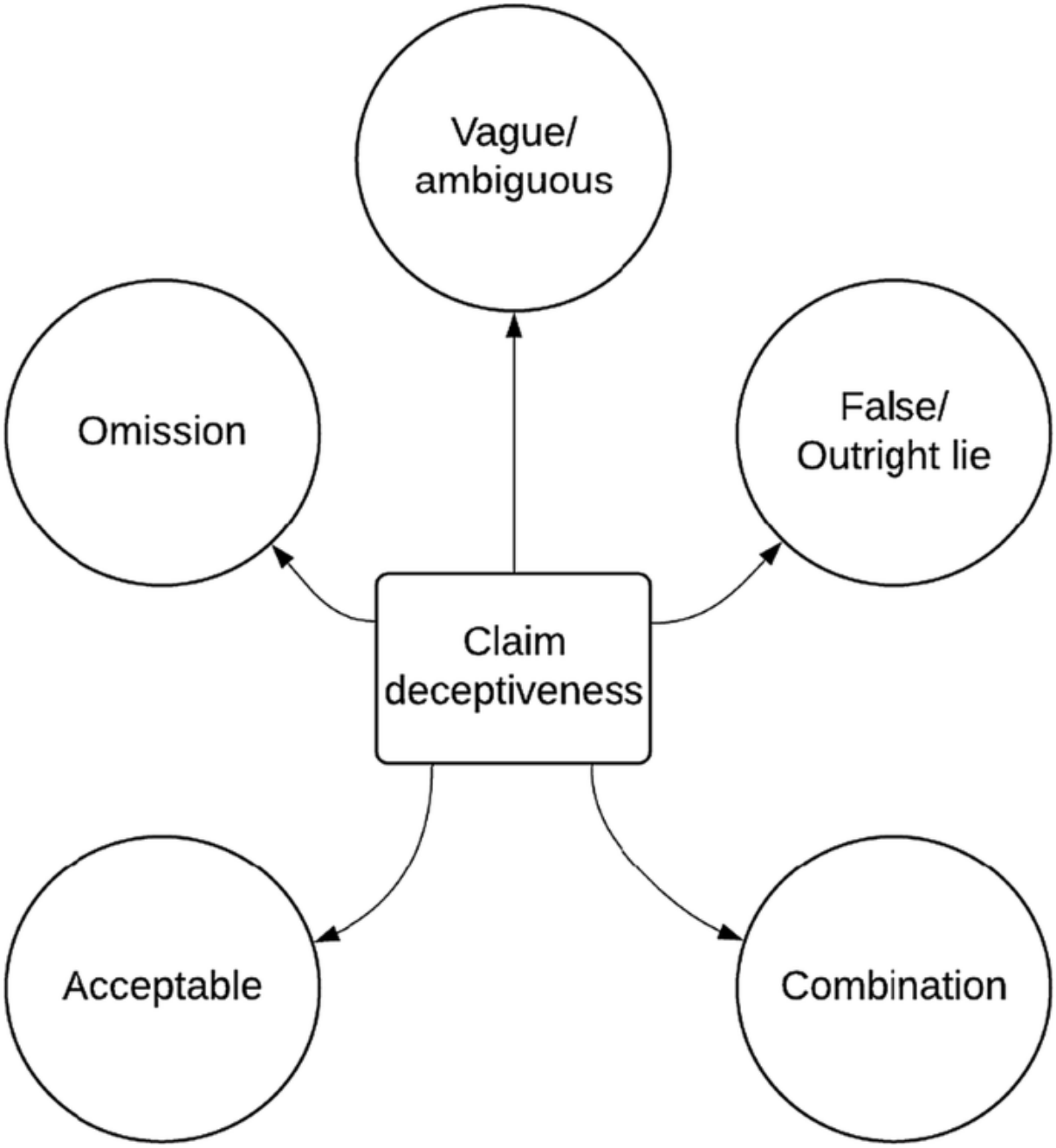

Figure 3: Claim deceptiveness (de Freitas Netto, S.V., Sobral, M.F.F., Ribeiro, A.R.B. et al. Concepts and forms of greenwashing: a systematic review. Environ Sci Eur 32, 19 (2020)).

A taxonomy known as "the seven sins of greenwashing" was developed by the environmental marketing business TerraChoice. According to Scanlan, who used the classification in multiple works, it encompasses a variety of lies, half-truths, ambiguity, and other forms of deception. Markham et al. stated that the seven sins

aid in recognizing instances of company- or product-based greenwashing more precisely.

Baum (2012) stated that the seven sins of greenwashing can reveal the primary ways a corporation can mislead consumers with environmental claims. These seven sins serve as a framework for their advertising study. According to Antunes et al. (2015), the purpose of the seven sins is to dissuade businesses from employing these green marketing methods by providing consumers with the knowledge they need to make prudent purchasing decisions.

According to Delmas and Burbano (2011), the seven sins of the TerraChoice Group are all product-level greenwashing. Listed below are excerpts from ten articles describing the seven faults of greenwashing.

• 1. The sin of the hidden trade-off: a claim that a product is "green" based on a limited set of features while ignoring other significant environmental concerns. Just because paper originates from a sustainably harvested forest does not inevitably make it environmentally favorable. Other critical environmental challenges in the paper manufacturing process, such as greenhouse gas emissions or chlorine use in bleaching, may be similarly significant. Other instances include energy, utility, and gasoline companies who tout the benefits of new energy sources while digging in undiscovered areas for oil, so damaging natural habitats and reducing biodiversity, thereby concealing the inherent hidden tradeoff.

• 2. The sin of insufficient evidence: an environmental claim that cannot be supported by readily accessible supporting evidence or by a reputable third-party certification. Examples include facial tissues and toilet paper that claim to include varying percentages of post-consumer recycled content without giving substantiation. In brief, if a company makes a claim that includes a percentage or statistical information that is not supported by something that could prove it, such

as a fine-print text or a URL that leads to additional information, the claim is deemed to be unsubstantiated.

• 3. The sin of vagueness: a claim that is inadequately defined or excessively broad, a claim so deficient in specificity that the customer is likely to misunderstand its actual meaning. The phrase "all-natural" is an example of this transgression. Toxic substances of natural origin include arsenic, uranium, mercury, and formaldehyde. "All natural" is not always "green. Other examples are "non-toxic" because everything is hazardous in certain doses; "green," "environmentally friendly," "eco-friendly," and "eco-conscious" because they are meaningless without context.

• 4. The sin of adoring fake labels: a product that, by a misleading suggestion or certification-like image, deceives consumers into believing that it has undergone a true green certification process. A paper towel whose packaging features a certification-like graphic and a promise that the product "fights global warming" is one example. Other examples of eco-speak include "eco-safe" and "eco-preferred".

• 5. The sin of irrelevance: an environmental claim that may be accurate but is irrelevant or ineffective for consumers seeking environmentally preferable products. CFC-free is a typical example, as it is a common claim despite the fact that CFCs are illegal.

• 6. The sin of the lesser of two evils: a claim that may be true within the product category but risks diverting the consumer's attention from the greater environmental impacts of the category as a whole. Organic cigarettes and fuel-efficient sport utility vehicles are examples of this Sin.
Environmental assertions that are blatantly untrue constitute the seventh sin. Products falsely claiming to be Energy Star certified or registered were the most prevalent examples.

Scanlan (2017) investigated the oil and gas industry's (OGI) communication on hydraulic fracking and identified additional sins associated with the idea of greenwashing. The OGI conceals damage and other hazards through greenwashing in the form of new sins he articulated on TerraChoice: (8) false hopes; (9) fearmongering; (10) broken promises; (11) injustice; (12) hazardous repercussions; and (13) profits above people and the environment.

A declaration that fosters a mistaken hope constitutes the sin of false hopes. Critics claim that ecological modernity is not possible and that believing otherwise is destructive to the environment; the OGI hydraulic fracking technology has a massive negative impact on the ecosystem.

• 9. The sin of fearmongering: assertions that fabricate uneasiness associated with not "buying in" to an organization's practice, such as OGI's hydraulic fracturing. Scanlan says that "changing the scale of dread and seizing opportunities from instability and uncertainty resulting from the wars in Afghanistan and Iraq, the global war on terror, and variable fuel prices" alters the public's perception of danger.

• 10. The sin of unfulfilled promises: assertions that fracking will elevate poor, rural areas with wealth from mineral rights and economic development, but when data demonstrates the opposite, communities are left with lasting repercussions. According to Scanlan(2017), greenwashing obscures who suffers from the negative effects of fracking, while OGI benefits by exploiting the hopes and faith of the public.

• 11. The sin of injustice: according to Scanlan(2017), the environmental communication analyzed in his research does not directly address the populations most impacted by fracking; rather, it concentrates on a portion of the population that benefits from fracking but does not experience its effects.

• 12. The sin of hazardous consequences: greenwashing conceals the realities of inequality and distracts the public from the perils of risk Scanlan mentions a second sin in reference to harm caused by hazardous outcomes.

• 13. The sin of placing money over people and the environment: According to Scanlan, placing profits over people and the environment is arguably the gravest greenwashing sin of all.

The delivery of false hopes and resulting broken promises, fearmongering that reorients the public's concept of risk and the hazardous implications of fracking, environmental injustice, and the pursuit of profits above people and the environment have grave effects on the globe.

Contreras-Pacheco and Claasen (2017) presented five examples of firm-level greenwashing: (1) filthy business; (2) advertising hyperbole; (3) political spin; and (4) the law, dumb!; Fifth firm-level form of greenwashing: hazy reporting (5)

• Dirty business: belonging to a business that is intrinsically unsustainable, but marketing sustainable techniques or products that are not indicative of the business or society.

• Ad bluster: using advertising to distract attention away from sustainability issues. It is employed to exaggerate accomplishments or propose alternate programs unrelated to the primary sustainability concern.

• Political spin entails lobbying regulations or governments to get sustainability-related benefits. It is customary to observe that these spins are "legitimate" due to the big taxpayer or employer status of the corporations involved.

• Declaring sustainability achievements or pledges that are already mandated by existing laws or regulations.

• Fuzzy reporting: exploiting the nature of sustainability reports as a one-way communication channel in order to distort the truth or present a positive picture regarding CSR corporate operations.

Parguel et al. (2015) described a new type of greenwashing dubbed "Executive Greenwashing". This approach of greenwashing does not include any of the previously identified types of claims, but it does employ nature-evoking components such as visuals with colors (e.g., green, blue) or noises (e.g., sea, birds). Examples of nature-evoking executional features include backgrounds depicting natural settings (e.g., mountains, woods, oceans) or images of endangered animal species (e.g., pandas, dolphins) or renewable energy sources (e.g., wind, waterfalls). This study addressed this gap in the literature by documenting the executional greenwashing effect based on knowledge of advertisement execution.

Intentionally or not, these nature-evoking aspects may create erroneous notions of the greenness of the brand. According to Hartmann and Apaolaza-Ibáez (2009) (Parguel et al., 20125, p. 2), these features can "subtly generate ecological conclusions by activating implicit nature references through nature imagery."

Parguel et al. conducted a study that showed empirical proof of the deceptive effect of these nature-evoking features, dubbed the "executive greenwashing effect," as well as moderator characteristics that can mitigate its effect. The study consisted of a web-based survey of two consumer types: (a) non-expert consumers and (b) expert consumers.

The research findings revealed that the inclusion of advertising executional elements invoking nature only increases non-expert customers' impressions of a brand's greenness; expert consumers are not significantly affected.

Research Papers

2.1 Overview

This section of my thesis will be focused on analyzing three different papers which studied the correlation between Company Financial Performances and the greenwashing strategy chosen by a firm. These three papers have been chosen due to their robustness and relevance to the topic.

The first one (Li et al (2022) "Effects of greenwashing on financial performance: Moderation through local environmental regulation and media coverage") conducted a thorough econometric study to back up its hypothesis. Even more important is the newness of it being published just last year (2022). The second one is a little bit older research conducted by Du in 2014 titled "How does the marketplace view greenwashing? Evidence from China". Also in this case the sample and location of the firms analyzed is the Chinese market. The third one is multi country study conducted by a team of professors from two Italian universities Testa F, Miroshnychenko I, Barontini R, Frey M. "Does it pay to be a greenwasher or a brownwasher?" dated 2018.

The criterium to choose the different paper has also been to pick three studies that approached this correlation from different points of view. This caused the three studies to arrive to conclusions in some cases completely opposite and discordant. It is evident that the correlation between financial performances of companies and greenwashing is still ambiguous.

2.2 Li et al (2022) "Effects of greenwashing on financial performance: Moderation through local environmental regulation and media coverage"

The first paper to be analyzed, summed and of whom the main results are exposed is a very recent study (2022) conducted by a team of Chinese and Finnish researchers (Li, W., Li, W., Seppänen, V., Koivumäki, T) titled "Effects of greenwashing on financial performance: Moderation through local environmental regulation and media coverage".

Given how ambiguous is still the CFP-greenwashing relation, the research conducted by this international team of professors has been a peculiar one. The paper is focused on analyzing this relationship in light of three main moderating variables: local environmental regulations, media visibility and media favorability. The study is a thorough one incorporating and studying a sample of close to 3000 Chinese-listed firms.

The paper starts with a deep dive in the literature overview highlighting the many different correlation discovered and analyzed by previous studies. Two examples of this ambiguity are the 2012 study by Walker and Wan which highlighted a negative impact of greenwashing on CFP and the 2018 by Testa et al which found no significant correlation between greenwashing and CFP. The difference in the results in these two papers is astonishing. The possible reason to this ambiguity proposed in Li's paper is the different samples examined and the fact that external factors can play as contingencies in the greenwashing and corporate performance parameters,
Another huge difference of this study compared to previous ones is the fact in the sample examined, firms which have been public accused of greenwashing are

excluded. Differently to Du (2015) which analyzes obvious greenwashing cases, this paper takes into consideration just the "potential greenwashing" cases.
As briefly anticipated, beyond the specific greenwashing cases studied, the originality of this study is to take into account two new factors.

Firstly, the institutional environment is considered as a new contextual factor which affects the correlation between greenwashing and corporate financial results. It makes sense to include the local environmental regulations in this kind of analysis, since tighter government regulations make it easier for stakeholders and the public to pinpoint greenwashing behaviors of a company.

Secondly, Li's paper investigates the effect on this correlation of media coverage. The media coverage is further split in two separate phenomena: media visibility and media coverage. Media play a key role in reducing information asymmetry for external stakeholders acting as an information disseminator (Dyck et al, 2008). Also in this case it makes sense to include these new factors since they help to find out companies practicing greenwashing. Media visibility, the volume of coverage given by media to a specific firm or market, makes it easier, having more easily available a greater quantity of information, to identify greenwashing. Media favorability, the tone and type of coverage, can change the attitude and influence stakeholders. Of course, a positive media coverage can improve company financial performances, while a negative one can harm CFP.

To analyze the correlation between greenwashing tactics chosen by a company and the effects they have on the company's financial performances, this paper follows a specific framework. The sample is set within the China environment and it is motivated by two main reasons which make China the perfect test bed for the research:

- Economic side: China is the biggest emerging economy and currently the second largest economy by GDP. It has greatly developed after opening-up policies of the 70s. It has many successful big companies and production sites of multinational companies.
- Environmental side: China still faces serious environmental pollution issues. China is currently the largest carbon emitter globally, China's environmental problem has caused a loss equivalent to 8% of the annual gross domestic product (GDP) (Chan, 2010; Li et al., 2017).

The combination of these two characteristics makes China a perfect case study to analyze the correlation between economics performance and environmental strategy chosen by firms.

A conceptual model to illustrate how greenwashing impacts a corporate financial performance (CFP) was created (Figure 4: Conceptual framework and research hypotheses). Greenwashing is the disparity between a company's green communication and its actual environmental practices (Testa, Miroshnychenko, et al., 2018; Walker & Wan, 2012). CFP is then measured by return on assets, which captures accounting-based financial performance. The Pollution Information Transparency Index (PITI) reflects the stringency of environmental regulation at the city level by measuring the local environmental regulation (Li et

al., 2017). There are two components to media coverage: media visibility and media favorability.

- Media visibility is the volume of media coverage organizations receive (Fiss & Zajac, 2006; Zyglidopoulos et al., 2012).
- Media favorability refers to the negative or positive tendency of media tone, which reflects the environmental reputation of the company in question (Clarkson et al., 2008).

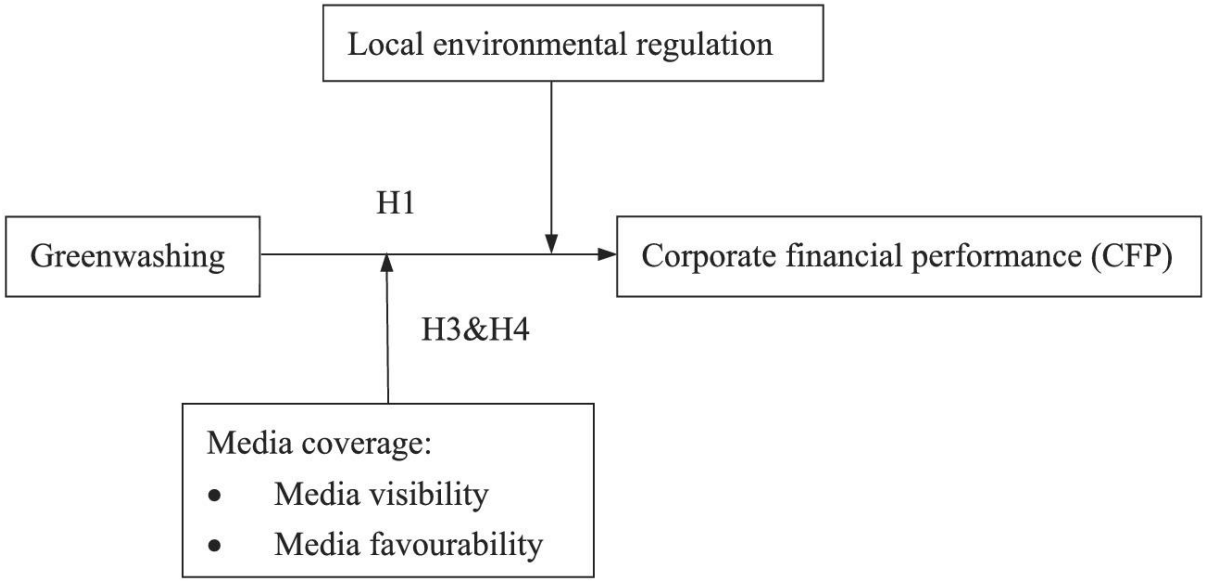

Figure 4: Conceptual framework and research hypotheses (Li, W., Li, W., Seppänen, V., & Koivumäki, T. (2022). Effects of greenwashing on financial performance: Moderation through local environmental regulation and media coverage. Business Strategy and the Environment, 1–22)

Before any other kind of literature reviews or econometric calculations, Li's paper develops 4 hypotheses on how the factors chosen can influence the correlation between greenwashing and CFP.

The first one is a general relation hypothesis on how greenwashing can influence the financial results of a company which decides to follow a greenwashing strategy:

- ***H1.*** The greenwashing strategy has a positive effect on CFP.

This hypothesis is based on the principle it "pays to be green" (Hart & Ahuja, 1996; King & Lenox, 2001; Porter & Van der Linde, 1995). On the other hand, it can be noted that investing on green practices and environmentally friendly practices is opposing the goal of profit maximization, therefore negatively impacting financial performances. Greenwashing is then very useful in this case becoming the perfect strategy to both satisfy the need to be greener without hurting profits.

The risk is when greenwashing is exposed. In the sample of Li's study, as mentioned, no public accused firms are considered. Therefore, not detected greenwashing can work as a green communication strategy, passing an image of eco-friendly company to external stakeholders at low costs. This generates more resources (Jones & Wicks, 1999) and it influences consumers making them more willing to purchase from the specific firm (Steinhart et al, 2013).

In this context the first hypothesis is postulated.

The second one is related to the specific factor of the local environmental regulation. The government has a significant role in monitoring and molding the behavior of businesses, and its regulatory pressure has a significant impact on the activities of businesses (Li et al., 2017). Greater regulatory pressures motivate businesses to enhance environmental performance through green management, innovation, and production. (Berrone et al., 2013)

The stringency of the local environmental control system may influence the ability of local governments to identify greenwashing. According to signal theory, the effectiveness of the signalling process is highly influenced by institutional context (Connelly et al., 2011) since legislation works as standards that help stakeholders evaluate and filter firms' information. Doh et al. (2010) and Wei, Shen, et al. (2017) note that the absence of defined rules, codes, and standards for local governments to evaluate corporate environment performance is a result of the incompleteness of the regulating system. Thus, it is less likely that corporate environmental irresponsibility will be uncovered. Local governments are likely influenced by corporate enterprises' green commitments and ads (Schon & Steinmeier, 2016) and are oblivious to the discord between green communication and environmental performance.

When local environmental regulations are stricter, local governments can evaluate a company's environmental performance by determining if its green practices exceed regulatory requirements (Wei, Shen, et al., 2017). In addition, environmental actions of corporations are subject to stronger oversight; hence, the greenwashing method is likely to be discovered. Therefore, severe local environmental restrictions will result in higher government penalties, lowering the profitability of the greenwashing plan.

When local environmental regulations are more stringent, local governments are likely to demand major green company behavior and monitor corporate environmental efforts. In this instance, greenwashing is more readily identifiable, but its negative effects on government–business relations reduce CFP.

Therefore, the following hypothesize:

- **H2.** Local environmental regulations negatively minimize the influence of greenwashing on CFP.

Media visibility refers to the attention that the media pays to a given thing (Kiousis, 2004; Manheim, 1987), typically measured by the number of articles or space devoted to topics in newspapers, television news, and other media (Kiousis, 2004).

When a company is very visible, there is relatively little information asymmetry between it and its stakeholders (Lange et al., 2011). Also, when media presence is strong, it is more likely that greenwashing will be recognized. There is empirical evidence that perceived greenwashing results in sanctions or negative criticism from external stakeholders. According to marketing studies, greenwashing can negatively impact customers' purchasing intentions (Zhang et al., 2018), trust (Aji & Sutikno, 2015; Chen & Chang, 2013), and attitudes toward a company (Nyilasy et al., 2014). Greenwashing disclosures weaken auditors' confidence in self-reported corporate environmental performance, according to financial and accounting research (Du, 2015). Media-reported greenwashing is viewed by stock investors as a sign of corporate dishonesty, which causes stock investors to lose confidence in an organization (Du et al., 2018).

Consequently, the following was assessed:

- **H3.** Media visibility moderates in a negative way the effect of greenwashing on CFP.

Institutional tradition scholars give strong evidence that the tone of media coverage is a crucial strategic asset (Deephouse, 2000; Durand & Vergne, 2015; McDonnell & King, 2013). The media functions as a mediator by transmitting reputational information and standards among stakeholders (Rhee & Haunschild, 2006). In Li's study, media favorability refers to the propensity for the media to report corporate environmental responsibility or irresponsible information that reflects a company's environmental reputation. The media favorability can affect the identification of greenwashing, as a company's environmental reputation may alter stakeholder confidence in its green communication.

According to signalling theory (Connelly et al., 2011), the credibility and efficacy of a signal may depend on the signaler's reputation. stakeholders can evaluate business information based on the corporate reputation (Barnett, 2014). According to Li's study, the majority of stakeholders have trouble monitoring or analyzing corporate green practice information; as a result, they may be heavily influenced by psychological variables (Barnett, 2014). A stakeholder's judgment of the genuineness of a company's message may be affected by his or her opinion of the company's favorability. Based on this understanding, favorability can increase stakeholder confidence in green communication. Stakeholders typically regard the green communication of reputable businesses as a depiction of environmental performance, as opposed to dishonest or misleading conduct. For instance, Berrone et al. (2017) discovered that green signals of respectable companies acquire more credibility. Positive media coverage enhances the company's reputation and mitigates the danger of its greenwashing PR plan.

However, repeated media revelations regarding corporate environmental irresponsibility will be widely disseminated and will harm the reputation of the targeted company. Consequently, unfavorable media coverage may call stakeholder attention to corporate irresponsibility and offer stakeholders with vital comparative information for evaluating or reappraising the target firm's green communication credibility.

When a firm's media favorability is low, greenwashing is more likely to be perceived, which harms customers' purchasing intentions (Zhang et al., 2018), trust (Aji & Sutikno, 2015; Chen & Chang, 2013), and attitudes toward a brand (Nyilasy et al., 2014), which causes stock investors to lose confidence (Du, 2015). In contrast, when media favorability is high, greenwashing is difficult to detect, allowing a company to strengthen stakeholder relationships and improve financial performance through greenwashing (Jones & Wicks, 1999).

Consequently, it was hypothesized:

- **H4.** Media favorability moderates the effect of greenwashing on CFP both favorably and negatively.

To prove or not the four hypotheses Li's paper develop a robust methodology. It explains in detail the Sample examined (all Chinese-listed firms).
The variables are then introduced, ROA is the main proxy used to measure Corporate financial performances. On the environmental side the team of researchers tried to statistically calculate greenwashing leveraging on its definition of misalignment between the green communication and actual green practices.
The greenwashing index is then created (GWI).
An econometric study is performed in Li's paper to establish the accuracy of their hypotheses.

The results reported in the research paper (Li et al., 2022) are the following:

Recent research indicates that greenwashing has equivocal effects on CFP (Schons & Steinmeier, 2016; Testa, Miroshnychenko, et al., 2018; Walker & Wan, 2012), prompting empirical research into the moderating influences in the greenwashing–CFP relationship. Thus, Li et al study is the first to investigate how the influence of greenwashing on CFP is dependent on local environmental regulation and media coverage.

H1. The positive effect of greenwashing on CFP contradicts the findings of the vast majority of prior empirical investigations, which concluded that greenwashing does not benefit CFP (Du, 2015; Testa, Miroshnychenko, et al., 2018; Walker & Wan, 2012). It means that the majority of greenwashing enterprises in the chosen sample have avoided external allegation and do not suffer from reputation loss (Seele & Gatti, 2017).

H2. The beneficial association between greenwashing and CFP is diminished by strict local environmental regulation and reversed by unfavorable media coverage. The negative moderating effect of local regulation environment demonstrates that local regulation reduces the profitability of greenwashing but does not result in the

punitive consequences of greenwashing identified by theoretical research (Delmas & Burbano, 2011).

H3. No significant moderating influence of media visibility was found in Li's paper, and in the results of its econometrics analysis.

H4. Media favorability positively moderates greenwashing's positive effect demonstrates that media coverage on corporate social and environmental (ir)responsibility actively promotes social approval via reputation and legitimacy (Deephouse, 2000; Durand & Vergne, 2015; McDonnell & King, 2013).

2.3 Du (2014) "How does the marketplace view greenwashing? Evidence from China"

Also this paper is set in the similar conceptual framework of the Chinese market. In the paper, Du evaluates how the market values greenwashing and if company environmental performance might explain distinct and asymmetric market evaluations.

The market's responses to environmentally friendly and unfavorable businesses. Utilizing a sample from the Chinese stock market, he gives convincing evidence that greenwashing is highly negatively correlated with cumulative abnormal returns (CAR) surrounding the exposure of greenwashing. Moreover, corporate environmental performance is considerably positively related with CAR in relation to greenwashing exposure. In addition, data provided by Du indicate that corporate environmental performance has two separate effects on CAR in relation to the exposure of greenwashing: the competitive effect for environmentally friendly enterprises (with better environmental performances results) and the domino effect for potential environmental wrongdoers (markets can pinpoint greenwashing with environmental performances scores and negatively affect them).

In this paper, Du evaluates if and how the market values greenwashing, as well as if a corporation's environmental performance rating might explain market responses to greenwashing. The proposed data indicate that greenwashing and CAR are highly negatively correlated.

He also gives comprehensive evidence demonstrating that company environmental performance is considerably positively correlated with CAR in relation to greenwashing exposure.

Du's study has a number of practical consequences for the corporate-social responsibility and business ethics literature.

First, his research demonstrates that the market disfavors greenwashing by exhibiting a considerably negative CAR, evoking "backfire effects" (Nyhan and Reifler 2010). In other words, once a company is exposed for greenwashing, investors are more likely to maintain their earlier opinion that it is ecologically harmful and that its green promises are false. Thus, investors place a negative value on the company.

Second, his findings reveal that the market reacts negatively to the revelation of greenwashing, suggesting that media coverage plays a crucial role in governing investor behavior and market responses. This conclusion is consistent with research highlighting the role of media coverage as a key intermediary in the creation and dissemination of new information (Bushee et al. 2010; Dyck et al. 2008; Fang and Peress 2009; Joe et al. 2009; Lyon and Montgomery 2013; Miller 2006). Especially in emerging countries such as China, where traditional corporate governance systems are less effective and business ethics are still being developed, media coverage might act as an alternative monitor.

Thirdly, Du gives solid evidence that the corporate environmental performance score is considerably positively correlated with CAR in relation to greenwashing exposure. This result can encourage regulators and the general public to link business environmental performance to true environmental greenization, as opposed to accepting green semblance or environmental greenwashing in advertising claims. In addition, this result lends credence to arguments that public disclosure of environmental performance in emerging markets is beneficial for environmental management, particularly in developing countries where environmental monitoring and enforcement are inadequate (Dasgupta et al., 2001; Gupta and Goldar, 2005).

Fourth, Du in his "How the Market Values Greenwashing? Evidence from China" (2014) gives systematic evidence demonstrating two isolated influences of the environmental performance of corporations on CAR concerning the disclosure of greenwashing: the competitive effect for environmentally friendly companies with superior environmental performance and the infectious effect for environmental wrongdoers with possible greenwashing. His findings imply that the market may identify environmental wrongdoers based on corporate environmental performance scores, hence distinguishing environmental wrongdoers from ecologically favorable companies. Hence, a company should fulfill its environmental responsibilities by substantive actions as opposed to deceptive assertions. If not, the market will harshly punish the company.

In addition to the context of China, Du's conclusions are applicable to other emerging markets. Many companies in emerging markets pursue profits at the expense of irresponsible environmental harm. In addition, the commitment to environmental conservation does not necessarily convert into practical greening operations; hence, many businesses claim getting greener in name only. Consequently, self-regulation alone is insufficient; effective government regulation is required. Instead, environmental protection efforts are cheap, reckless, inauthentic, and meaningless. So, authorities, stakeholders, and the general public must pay particular attention to the phenomenon of pseudo-greenization.

Du's work investigates the relationship between greenwashing, environmental performance, and market responses (i.e. CAR), however it has two drawbacks that may be addressed by future research.

First, he is primarily focused with environmental greenwashing. Due to data constraints, Du in his paper does not study if and how the market reacts to additional elements of greenwashing, such as production with pseudo-greenization and exaggerated advertising of green productions.

Second, Du, similar to Li et al (2022) set his research inside the Chinese setting, therefore his conclusions may not be applicable to every other markets.

Future studies should examine the reactions of other markets to various greenwashing characteristics.

2.4 Testa et al (2018) "Does it pay to be a greenwasher or a brownwasher?"

The last paper included in this thesis is a 2018 study conducted by a team from two Italian universities: Testa F, Miroshnychenko I, Barontini R, Frey M. "Does it pay to be a greenwasher or a brownwasher?".

Also in this case the team of professors are tackling the issue to model the impact of greenwashing strategies on the company financial performances. The two main differences of this study compared to the two previously mentioned ones are the chosen sample and the border of the study. The studied sample in this case is not limited to Chinese listed companies but is composed of close to 3500 companies traded from more than fifty-eight countries. The border of the research in this case is not limited to the greenwashing phenomenon but it is taken into account the opposite strategy: the brownwashing. Introduced byKim and Lyon (2015) brownwashing happens when a company's communication understates its actual environmental results and investments. The concept is very similar and overlaps with the previously mentioned Silent Green strategy.

The approached followed is similar to the one shown in Li's paper: a literature overview, hypotheses development, methodology explanation, econometrics calculations which lead to final results.

Even if adopting the greenwashing strategy can assure some short term increase in customer willingness to purchase and market's reputation, greenwashing on its own doesn't seem to offer any kind of superior financial and operation performance in the long run. Testa et al think that the initial advantages of the greenwashing strategy can be quickly overturned by the market reaction once the strategy is exposed. Their first hypothesis is then:

H1. The greenwashing strategy does not improve corporate financial performances.

On the other hand, Testa's paper tackles the phenomenon of brownwashing. It is easy to imagine that incurring in the costs and efforts of green practices without minimally communicating it can create a misalignment. It is the opposite scenario of the greenwashing. Even worse is that without a clear or absent environment communication strategy, a company can quickly be labelled as "brown". This is a issue in always more environmental friendly society, discouraging environmentally friendly clients.
The hypothesis formulated is then:
H2. The brownwashing strategy has a negative impact on corporate financial performances.

After selecting the sample, choosing the right set of variables to describe this phenomenon and conducting a thoughtful econometric studies, the results are shared.

Regarding the first hypothesis the results showed the effects of the greenwashing strategy on corporate financial performances, both operationally and profit wise, is negligible. Testa et al affirm market is proficient enough to spot exaggerated communication and are not impressed by it. Market and stakeholders will then recognize and reward just the companies implementing real green practices. It is interesting to highlight that in this paper is said that if on one side greenwashing in not rewarded, on the other hand no significant punishment when greenwashing is exposed was found. The first hypothesis was then confirmed by the econometric calculations and analysis. On the managerial side this paper gives a good advice in the light of the results: pursuing greenwashing strategy will not have any negative

impacts but it will not either create added value for the company or improve the corporate financial parameters.

The second hypothesis was also easily confirmed. The market and stakeholder as previously mentioned, reward companies which actually perform green but it also must be communicated. The company should demonstrate it to the market. Managerially speaking is the relevant and paramount to have a total alignment between green practices and their outside communication.

One main limitation of this research which should be exposed is that this paper (and many others on the topic) just takes into account large companies which are public listed. Usually small and medium companies have been excluded from the studied samples and the effects on CFP of their greenwashing strategies have been omitted.

Another topic regarding greenwashing omitted is the reason why the management of a company chose the greenwashing strategy. Which factors join in this choice? What is the decisional process?

Discussion and conclusions

5.1 Discussion

The research and reading of many papers on the effect that greenwashing has on financial performances of a company made me conclude that this is still an ambiguous topic. The results vary very much from paper to paper, country to country and year to year. The correlation of greenwashing with CFP is then a complex problem to mathematically analyze, many variable and conditions play a role and it is difficult to pinpoint just the effect of greenwashing in the operating performances of a company.

The tree shown and summed up research papers offer completely opposite results when analyzing the greenwashing-CFP relation. Li et al affirm there is a positive relations, while Du proves greenwashing strategies have a negative effect on the financial figures of a company and in the third paper Testa et al concluded that in their studies greenwashing had no real impact on CFP.

As pointed out, these three papers are from different years, spanning from 2014 to 2022 but most importantly their samples are different. Two of the papers take into consideration Chines listed firms while the third one has a bigger variety country wise in its simple. The difference, as it is possible to notice analyzing the three of them, is not just limited to the nationality of the companies but also to their sizes, industries in which they are operating and their greenwashing strategies.

My personal consideration is that greenwashing is a very ambiguous phenomenon and even its definition can become non unanimous. Greenwashing can be performed in different ways and at different levels by companies, without considering why companies choose this strategy and the multitude of potential different firms applying it. In this context is quite though to measure greenwashing mathematically and numerically with all its many different faces. Even harder it is

to measure its affect on company performances indexes without the risk of involuntary assign to the greenwashing choice the effects due to other variables. A firm is a complex system interacting in complex market and it is a difficult job to extrapolate just the impact of greenwashing in the financial results of a company. My opinion is backed up by confronting the different papers on this topic, of which the three reported before are examples: three thoughtful studies, with ad hoc developed econometrics studies, had three completely results on the topic.

Nonetheless, what follow are the conclusions and discussion taken from the three before mentioned studies. As a disclaimer, it must be underlined again how sensible and sample-specific this conclusions may be. It is difficult to think that these conclusions can be utilized in any context and for any sample or specific company.

5.2 Theoretical implications

Li's study contributes to the debate on the relationship between greenwashing and CFP by presenting an informational asymmetry viewpoint. Some research in environmental management identified greenwashing's negative implications (Berrone et al., 2017; Du, 2015; Ferrón-Vílchez et al., 2021; Walker & Wan, 2012). However, the majority of these research are founded on the assumption that greenwashing is evident and straightforward to identify. The 2022 study challenges the premise and investigates the impact of greenwashing in a relatively obscure environment. The chosen sample eliminates companies accused of greenwashing and includes low-polluting industries in order to detect subtle greenwashing. In addition, Li's study is based on a sample from an emerging economy, where environmental regulations are still in the process of being developed. Prior research has predominantly relied on samples from rich nations

(Walker & Wan, 2012) or multi country data (Testa, Miroshnychenko, et al., 2018). Li et al. explains, from the standpoint of the study setting, why earlier investigations were inconsistent. Scholars could combine these findings with those of prior studies to construct a comprehensive picture of the greenwashing–CFP link.

Moreover, Li's study identifies the long-overlooked contextual elements in the greenwashing–CFP link based on the assumption of knowledge asymmetry. Researchers have only lately observed that stakeholder proximity and public accusation should affect stakeholders' perceptions of potential greenwashing (Schons & Steinmeier, 2016; Seele & Gatti, 2017). The 2022 study extends its core concept by incorporating institutional environment perspective, local environmental control, and media favorability into the contingent model as new contextual components. It is one of the first study to investigate the moderating influence of local environmental regulation and media coverage.

Although the effects of greenwashing depend on stakeholders' perceptions of corporate communication, experts usually disregard geographical differences in stakeholders' perceptions and presume that the evaluation criteria of local stakeholders are uniform. However, local environmental regulation is a crucial basis for local governments and other stakeholders to evaluate corporate behavior, and environmental regulations in various regions are not always well-established and enforced (e.g. Wei, Shen, et al., 2017). This assumption is challenged by comparing the profitability of greenwashing strategies in regions with strict and lax local environmental legislation.

The evaluation of a company by its stakeholders is also substantially influenced by media coverage. Previous research has studied how media coverage of greenwashing impacts shareholder value (Du, 2015). Li's study contributes to the

literature by proposing that direct media coverage of greenwashing is not necessarily the cause of its negative effects. Positive media coverage prevents greenwashing from being discovered and punished by the reputation mechanism, whereas negative coverage has the reverse effect.

In addition, the 2022 research provides a complete measurement of greenwashing among Chinese-listed companies. In the past, Chinese scholars have used the 'yearly list of enterprises with greenwashing' released by newspapers as a proxy for analyzing the economic impact of greenwashing (Du, 2015), which may conflate the impact of greenwashing with that of negative press. Li's article tackles this topic by developing a measure based on the definition of greenwashing using content analysis. The content study encompasses a variety of green communications and green actions across eight categories. Greenwashing is determined by subtracting green messaging from green practices. The previously shown measure's high reliability and validity ensure the method's reproducibility for future research.

Lastly, Li's research contributes to the management literature by reiterating the age-old topic of whether devoting scarce resources to enhance environmental performance is lucrative (Clarkson et al., 2011; Hart, 1995; Porter & Van der Linde, 1995; Russo & Fouts, 1997; Wong et al., 2018). Frequently, empirical models of the relationship between corporate environmental responsibility and CFP miss the role of stakeholders' reactions to symbolic acts. The data indicate that environmental communication can induce a favorable CFP in general. However, when the government and media carefully monitor businesses, environmental communication is more likely to be misconstrued as greenwashing. Thus, corporate sustainability–CFP research must take into account the reaction of stakeholders to symbolic gestures.

5.3 Managerial and policy implication

Li et al. study in particular suggests that managers should prioritize green communication advantages while implementing an environmental plan. However, shown results should not be interpreted as support for greenwashing. Even if recognizing greenwashing is difficult for the majority of external stakeholders, the 2022 study indicated that media coverage of greenwashing is expanding in the chosen market, resulting in investors' growing mistrust regarding firm value (Du, 2015). When implementing a green communication plan, managers must be mindful of risks and pay attention to regional variations and changes in the regulatory context. To avoid the potential accusation of greenwashing, risk assessment and strategic decision making could incorporate public opinion monitoring.

This analysis also has policy practice implications. The Chinese government, location of the first two papers, should enhance rules and regulations to describe acceptable and undesirable scenarios in green advertising, marketing, and corporate sustainability disclosure, as well as standardize the use of terms in corporate sustainability communication.

The media, in addition to the government, plays a vital role in reducing greenwashing. According to policy experts, the polycentric system is more effective than the top-down central system (Aswani et al., 2017; Carlisle & Gruby, 2019). In a polycentric system, governments and the media are distinct authorities from formal and informal institutions that participate in environmental governance by drafting rules and constructing business reputation. Therefore, authorities should ensure media independence for enhanced engagement in external governance.

5.4 Limitations and future research

The empirical setting is restricted to Chinese-listed companies both for Li's and Du's papers. Although China provides a suitable framework for testing this concept, the generalizability of the findings is limited. Future research must be cautious when extrapolating the findings to other locations, taking into account the institutional variations between China and other emerging nations. Future study might evaluate if the findings hold true for various emerging markets, which may be characterized by a higher degree of institutional variability. This study's sample is limited to enterprises listed on the Shanghai and Shenzhen stock exchanges, which does not include all Chinese companies worldwide. Future research should analyze the disparities between the greenwashing effects of Chinese companies in their home country and their host country, as the number of Chinese companies investing overseas continues to rise.

Another drawback is from the scope of the study. Although the literature on greenwashing has been focused on environmental domain sustainability, there has been limited research on the decoupling of symbolic and substantive efforts in other domains. Corporate sustainability is a multifaceted term derived from the 'triple bottom line' notion (Stiller & Daub, 2007). It is recommended that future studies integrate social and economic aspects, which may lead to new conclusions given that stakeholders' oversight and expectations on various facets of corporate sustainability vary.

To quantify greenwashing, this study employed content analysis based on corporate sustainable reports. Content analysis is predicated on the premise that enterprises are willing to gain signal value of environment investment through information disclosure; consequently, sustainability reports comprehensively document the environmental actions of businesses (Toms, 2002). Inaccurate or insufficient

disclosure of information by companies could cast doubt on this assumption and undermine the measure's reliability and validity. Therefore, future studies should include field investigation, interviews, and questionnaires in order to get more trustworthy data.

Bibliography

Abbott, W. F., & Monsen, R. J. (1979). Self-reported disclosures as a strategy for gauging corporate social involvement: [J] a study on the measurement of corporate social responsibility. Academy of Management Journal, vol. 22, pp. 501-515.

Aerts, W., & Cormier, D. (2009). Media legitimacy and corporate environmental communication. Accounting, Organizations and Society, volume 34, issue 1, pages 1 to

Aji, H. M., & Sutikno, B. (2015). The long-term effect of greenwashing is the perception of consumer distrust. 10(4), pages 433–468 in the International Journal of Business and Information.

Aldy, J. E., and R. N. Stavins (2012). The promise and difficulties of carbon pricing: Theory and experience The Journal of Environment & Development, Volume 21 Number 2, Pages 152 to 180.

Allison, P. D. (1999). Multiple regression: A primer. Pine Forge Press.

Cochran, J., Anderson, D., D. Sweeney, T. Williams, and J. Camm (2013).

Statistics for economics and business. Boston: Cengage Learning.

Andrade, S. C., & Chhaochharia, V. (2010). Information immobility and foreign investment in portfolios. The Review of Financial Studies, volume 23, number 6, pages 2429–2463

Aoki, M. (1984). The firm's cooperative game theory. Clarendon.

Aswani, S., Albert, S., & Love, M. (2017). There is no one-size-fits-all solution for efficient community-based resource management in Melanesia: this is a crucial realization. Marine Policy, 81, 381–391.

Baker, H. K., Powell, G. E., & Weaver, D. G. (1999). Does a firm's NYSE listing impact its visibility? Financial Management, 28(2), 46–54.

Bansal, P., & Clelland, I. (2004). Legitimacy, impression management, and unsystematic risk in the setting of the natural environment 47(1), 93–103, Academy of Management Journal.

Barnett, M. L. (2014). Why stakeholders disregard firm misconduct: a cognitive perspective 40(3):677–702 in the Journal of Management

Baum, C. F., Christopher, F., & Baum, C. F. (2006). A Stata-based introduction to contemporary econometrics. Stata Press.

Baumol, W. J. (1959). Business conduct, value, and expansion. MacMillan.

Beder, S. (2002). Putting on the brakes Ecologist, 32(3), 24–28.

Berrone, P., Fosfuri, A., & Gelabert, L. (2017). Is greenwashing profitable?

Understanding how environmental actions relate to environmental legitimacy. 144(2) Journal of Business Ethics: 363–379

Berrone, P., Fosfuri, A., Gelabert, L., & Gomez-Mejia, L. R. (2013). Need as the progenitor of 'green' innovations: Institutional pressures and environmental innovations. Strategic Management Journal 34(8):891-909

Berrone, P., & Gomez-Mejia, L. R. (2009). The relationship between environmental performance and executive compensation: An integrated agency-institution viewpoint. 52(1):103–126 in: Academy of Management Journal

Bowen, F. (2014). After Greenwashing: Corporate Environmentalism as a Symbol and Society Cambridge University Press.

Bowen, F., and J. A. Aragon-Correa (2014). Greenwashing in corporate environmentalism research and practice: The importance of what asay and do. 27(2), pp. 107–112 in Organization & Environment.

Brandt, L., & Li, H. (2003). Ideology, data, or incentives influence bank discrimination in transition economies. 31(3) Journal of Comparative Economics: 387–413.

Brooks, M. E., S. Highhouse, S. S. Russell, and D. C. Mohr (2003). Familiarity, ambivalence, and corporate renown: Is celebrity a double-edged sword? 904–914, Journal of Applied Psychology, 88(5).

Campbell, J. L. (2007). Why would businesses act in a socially responsible manner? A philosophy of institutional corporate social responsibility.

32(3), 946–967, Academy of Management Review

Carlisle, K., and R. L. Gruby (2019). A theoretical model of polycentric forms of governance for the commons. 47 Policy Studies Journal (4)

Carlson, L., S. J. Grove, and N. Kangun (1993). A matrix-based content analysis of environmental advertising claims. Journal of Advertising, 22(3), 27–40.

Carroll, C. E., and D. L. Deephouse (2014). The foundations of a theory explaining organizational news: The VT4 organizational news content framework and the five stages of content production. Organizations and the media: Organizing in a mediatized world. In L. Strannegrd, J. Pallas, and S. Jonsson (Eds.), Organizations and the media: Organizing in a mediatized world (pp. 81–95). Routledge.

Communication in corporate environmental reports, Cerin, P. Corporate Social Responsibility and Environmental Management, volume 9, number 1, pages 46 to 65.

Dr. R. Y. K. Chan (2010). The pursuit of corporate environmentalism by international companies competing in China. Journal of International Business, 45(1), pages 80–92.

Chen, Y., Wang, S. S., Li, W., Sun, Q., & Tong, W. H. S. (2015). Institutional context, firm ownership, and initial public offering (IPO) first-day returns: Evidence from China. 32, 150–168, Journal of Corporate Finance.

Chen, Y. S., & Chang, C. H. (2013). The mediating effects of green consumer misunderstanding and green perceived risk on greenwash and green trust.

114(3) Journal of Business Ethics: 489–500.

Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2008). An empirical examination of the relationship between environmental performance and environmental disclosure. 33(4–5):303–327. Accounting, Organizations and Society.

Clarkson, P. M., Li, Y., Richardson, G. D., & Vasvari, F. P. (2011). Does it really pay to be environmentally conscious? Consequences and determinants of proactive environmental strategies. 30(2), 122–144, Journal of Accounting and Public Policy.

Connelly, B. L., S. T. Certo, R. D. Ireland, and R. R. Christopher (2011). A review and analysis of signaling theory. Management Journal, 37(1), 39–67.

Dahlmann, F., & Grosvold, J. (2017). Managers of the environment and institutional work: Resolving conflicts between conflicting institutional logics.

Business Ethics Quarterly, 27(2), pp. 263-289.

Deephouse, D. L. (2000). A synthesis of mass communication and resource-based theories about media reputation as a strategic asset. Journal of Management, 26(6), 1091–1112.

Delmas, M. A., & Burbano, V. C. (2011). The root causes of greenwashing. 54(1), 64–87, California Management Review.

Delmas, M. A., & Grant, L. E. (2014). Eco-labeling strategies and price-premium: The wine industry puzzle. Business & Society, 53(1), pages 6 to 44

M. A. Delmas and M. J. Montes-Sancho (2010). Voluntary agreements to improve environmental quality: Cooperation that is both symbolic and substantive.

Strategic Management Journal, 31(6), pp. 575-601

DiMaggio, P. J., & Powell, W. W. (1983). Institutional isomorphism and collective rationality in organizational fields: The iron cage revisited

147–160. American Sociological Review, 48(2).

Doh, J. P., Howton, S. D., Howton, S. W., & Siegel, D. S. (2010). Does the market respond to social responsibility endorsements? The function of institutions, data, and legitimacy. 1461–1485. Journal of Management, 36(6).

Du, S., Bhattacharya, C., & Sen, S. (2007). The significance of competitive positioning in obtaining relational benefits from corporate social responsibility

24-240. International Journal of Research in Marketing

Du, X. (2015). How does the marketplace view greenwashing? Evidence from China. 547–574 in Journal of Business Ethics, 128(3).

Du, X., Jian, W., Zeng, Q., & Chang, Y. Y. (2018). Do auditors applaud corporate environmental performance? Indications from China. 151(4) Journal of Business Ethics: 1049–1080.

Du, X., Jian, W., Zeng, Q., & Du, Y. J. (2014). Does religion impact corporate environmental responsibility in polluting industries? 485–507 in Journal of Business Ethics, 124(3)

Durand, R., & Vergne, J. P. (2015). As a response to media attacks in stigmatized industries, assets are sold off. Strategic Management Journal, 36(8), pp. 1205–1223.

Duriau, V. J., Reger, R. K., & Pfarrer, M. D. (2007). A content analysis of the literature on content analysis in organization studies: Research themes, data sources, and methodological refinements Organizational Research Methods, vol. 10, no. 1, pp. 5–34.

Dyck, A., Volchkova, N., & Zingales, L. (2008). The role of the media in corporate governance: Evidence from Russia The Journal of Finance, volume 63, number 3, pages 1093–1135.

A. Dyck and L. Zingales (2002). The media's corporate governance function.

Ferron-Vílchez, V., Valero-Gil, J., & Suárez-Perales, I. (2021). How does greenwashing affect the decision-making of managers? An experimental strategy with stakeholder input. Corporate Social Responsibility and Environmental Management, vol. 28, no. 2, pp. 860-880.

Fisher-Vanden, K., & Thorburn, K. S. (2011). Environmental initiatives undertaken voluntarily by businesses and shareholder wealth. 62(3):430–445 Journal of Environmental Economics and Management

Fiss, P. C., & Zajac, E. J. (2006). The symbolic administration of strategic change: Sensegiving through framing and decoupling 1173–1193, Academy of Management Journal, 49(6).

Fombrun, C. J. (2001). Corporate reputations as economic assets. In M. A. Hitt, R. E. Freeman, and J. S. Harrison (Eds.), Corporate reputations as economic assets (pp. 285–308). The Blackwell Publishers Limited

Friedman, M. (1970). The corporate social responsibility is to increase profits. This issue of New York Times Magazine (September 13).

Garriga, E., & Melé, D. (2004). Theories of corporate social responsibility: mapping the terrain. 51–71, Journal of Business Ethics, 53(1).

Graf-Vlachy, L., Oliver, A. G., Banfield, R., Konig, A., & Bundy, J. (2020).

Media coverage of firms: Context, integration, and future research directions Journal of Management Studies, 46(1), pp. 36-69.

Greenwood, R., M. Raynard, F. Kodeih, E. R. Micelotta, M. Lounsbury, and R. Greenwood (2011). Complexity of institutions and organizational responses. 5(1) Academy of Management Annals: 317–371.

Guthrie, D. (2012). China and globalization: the economic, political, and social transformation of Chinese society. Routledge

Hall, M., & Weiss, L. (1967). Size of the firm and profitability. 49(3) Review of Economics and Statistics: 319–331.

Hansen, L. P. (1982). Properties of generalized method of moments estimators for large samples. 50(4), 1029–1054 in Econometrica: Journal of the Econometric Society.

Hart, S. L. (1995). A perspective on the company that focuses on its natural resources. Academy of Management Review, volume 20, issue 4, pages 986–1014.

Hart, S. L., & Ahuja, G. (1996). Does it pay to be environmentally conscious? An empirical investigation into the connection between emission reduction and firm performance. Business Strategy and the Environment, volume 5, issue 1, pages 30-37.

He, Q., Wang, Z., Wang, G., Zuo, J., Wu, G., & Liu, B. (2020). To be green or not to be green: how environmental regulations influence the greenwashing practices of construction contractors 102462 in Sustainable Cities and Society, volume 63.

Hitt, M. A., & Xu, K. (2016). Effects of the institutional environment on business actions in China's transformation. Long Range Planning, 49(5), 589–593.

The author, A. J. (1999). Institutional evolution and transformation: the environmental movement and the U.S. chemical industry Academy of Management Journal, 42(4), pages 351-371.

Hoskisson, R. E., Johnson, R. A., & Moesel, D. D. (1994). Governance, strategy, and performance have an impact on corporate divestiture intensity in restructuring firms. Academy of Management Journal, 37(5), pp. 1207–1251

Howard, J., J. Nash, and J. Ehrenfeld (2000). Standard or deception? Implementation of an environmental code that is voluntary. 42(2), pp. 63–82.

Jacobs, B. W., Singhal, V. R., & Subramanian, R. (2010). An empirical analysis of environmental performance and the firm's market value. 28(5):430–441 Journal of Operations Management.

Jensen, M. C., & Meckling, W. H. (1976). Managerial behavior, agency costs, and ownership structure comprise the theory of the firm. 305–360 in Journal of Financial Economics.

Jones, T. M., and A. C. Wicks (1999). Theory of convergent stakeholders 24:206–221 Academy of Management Review

Kafouros, M., & Aliyev, M. (2016). The role of intangible assets and capabilities in the growth of foreign subsidiaries in transition economies The Management Studies Journal

Khanna, T., & Palepu, K. (1997). Why narrow strategies may not be suitable for emerging markets. Harvard Business Review, 75(4), pages 41 through 54.

Khanna, T., & Palepu, K. G. (2006). Emerging giants: building companies of international caliber in emerging markets. Harvard Business Review, 84(10), pages 60 to 69

Kim, E. H., & Lyon, T. P. (2015). Brownwash versus greenwash: In corporate sustainability disclosure, hyperbole and excessive modesty are prevalent. Organization Science, 26(3), pages 705 to 724.

Kim, J. W., & King, B. G. (2014). Seeing stars: Matthew effects and status bias in major league baseball umpiring. Management Science, 60(11), 2619–2644.

Kim, S. (2019). (2019). The process model of corporate social responsibility (CSR) communication: CSR communication and its relationship with consumers' CSR knowledge, trust, and corporate reputation perception.

Journal of Business Ethics, 154(4), 1143–1159.

Kim, Y. S., & Mathur, I. (2008). (2008). The impact of geographic diversification on firm performance. International Review of Financial Analysis, 17(4), 747–766.

King, A. A., & Lenox, M. J. (2000). (2000). Industry self-regulation without sanctions: The chemical industry's responsible care program. Academy of Management Journal, 43(4), 698–716.

King, A. A., & Lenox, M. J. (2001). (2001). Does it really pay\nto be green? an empirical study of firm environmental and financial performance.

MIT Press, 5(1), 105–116.

King, A. A., Lenox, M. J., & Terlaak, A. (2005). (2005). The strategic use of decentralized institutions: Exploring certification with the ISO 14001management standard. Academy of Management Journal, 48(6), 1091– \s1106.

Kiousis, S. (2004). (2004). Explicating media salience: A factor analysis of New York Times issue coverage during the 2000 US presidential election. Journal of Communication, 54(1), 71–87.

Kölbel, J. F., Busch, T., & Jancso, L. M. (2017). (2017). How media coverage of corporate social irresponsibility increases financial risk. Strategic Management Journal, 38(11), 2266–2284.

Lange, D., Lee, P. M., & Dai, Y. (2011). (2011). Organizational reputation: A review. Journal of Management, 37(1), 153–184.

Li, W., Li, W., Seppanen, V., & Koivumaki, T. (2022). Moderating the effects of greenwashing on financial performance via local environmental regulation and media coverage. Business Strategy and the Environment, pages 1 through 22.

Li, D., Cao, C., Zhang, L., Chen, X., Ren, S., & Zhao, Y. (2017). (2017). Effects of corporate environmental responsibility on financial performance: The moderating role of government regulation and organizational slack.

Journal of Cleaner Production, 166, 1323–1334.

Li, D., Xin, L., Sun, Y., & Ren, S. (2016). (2016). Assessing environmental information disclosures and the effects of Chinese nonferrous metal companies. Polish Journal of Environmental Studies, 25(2), 663–671.

Zhou, L. A. (2008). (2008). Political connections, financing and firm performance: Evidence from Chinese private firms.

Journal of Development Economics, 87(2), 283–299.

Li, T., Sun, L., & Liang, Z. (2009). (2009). State ownership and corporate performance: a quantile regression analysis of chinese listed companies.

China Economic Review, 20(4), 703–716.

Lin, H., Zeng, S., Ma, H., & Chen, H. (2015). (2015). Does commitment to environmental self-regulation matter? An empirical examination from China.

Management Decision, 53(5), 932–956.

Liu, L. X., Sherman, A. E., & Zhang, Y. (2014). (2014). The long-run role of the media: Evidence from initial public offerings. Management Science, 60(8), 1945–1964.

Luo, X. R., Wang, D., & Zhang, J. (2017). (2017). Whose call to answer: Institutional complexity and firms' CSR reporting. Academy of Management Journal,60(1), 321–344.

Lyon, T. P., & Maxwell, J. W. (2011). (2011). Greenwash: Corporate environmental disclosure under threat of audit. Journal of Economics and Management Strategy, 20(1), 3–41.

Lyon, T. P., & Montgomery, A. W. (2015). (2015). The means and end of greenwash. Organization & Environment, 28(2), 223–249.

Manheim, J. B. (1987). (1987). A model of agenda dynamics. Annals of the International Communication Association, 10(1), 499–516.

Marquis, C., & Qian, C. (2014). (2014). Corporate social responsibility reporting in China: symbol or substance? Organization science, 25(1), 127–148.

McDonnell, M. H., & King, B. (2013). (2013). Keeping up appearances: Reputational threat and impression management after social movement boycotts. Administrative Science Quarterly, 58(3), 387–419.

McWilliams, A., & Siegel, D. (2000). (2000). Corporate social responsibility and financial performance: Correlation or misspecification? Strategic Management Journal, 21(5), 603–609.

Meyer, J. W., & Rowan, B. (1977). (1977). Institutionalized organizations: Formal structure as myth and ceremony. American Journal of Sociology, 83(2),340–363.

Montabon, F., Sroufe, R., & Narasimhan, R. (2007). (2007). An examination of corporate reporting, environmental management practices and firm performance. Journal of Operations Management, 25(5), 998–1014.

Morgan, G. A., Leech, N. L., Gloeckner, G. W., & Barrett, K. C. (2004). (2004). SPSS for introductory statistics: Use and interpretation. Lawrence Erlbaum \sAssociates.

Naughton, B. (2007). (2007). Transitions and growth. Massachusetts Institute of Technology Press.

Nikolaeva, R., & Bicho, M. (2011). (2011). The role of institutional and reputational factors in the voluntary adoption of corporate social responsibility reporting standards. Journal of the Academy of Marketing Science, 39(1), \s136–157.

Nordhaus, W. D. (2007). (2007). A review of the Stern review on the economics of climate change. Journal of Economic Literature, 45(3), 686–702.

North, D. C. (1990). (1990). Institutions, institutional change and economic performance. Cambridge university press.

Nunnally, J. C., & Bernstein, I. H. (1994). (1994). Psychometric theory (3rd ed). (3rd ed.). McGraw-Hill.

Nyilasy, G., Gangadharbatla, H., & Paladino, A. (2014). (2014). Perceived greenwashing: The interactive effects of green advertising and corporate environmental performance on consumer reactions. Journal of Business Ethics, 125(4), 693–707.

Oliver, C. (1991). (1991). Strategic responses to institutional processes. Academy of Management Review, 16(1), 145–179.

Paniagua, J., Rivelles, R., & Sapena, J. (2018). (2018). Corporate governance and financial performance: The role of ownership and board structure.

Journal of Business Research, 89, 229–234.

Peng, M. W. (2003). (2003). Institutional transitions and strategic choices. Academy of Management Review, 28(2), 275–296.

Pfarrer, M. D., Pollock, T. G., & Rindova, V. P. (2010). (2010). A tale of two assets: The effects of firm reputation and celebrity on earnings surprises and investors' reactions. Academy of Management Journal, 53(5), 1131– 1152.

Pollock, T. G., & Rindova, V. P. (2003). (2003). Media legitimation effects in the market for initial public offerings. Academy of Management Journal, 46(5), 631–642.

Porter, M. E., & Van der Linde, C. (1995). (1995). Toward a new conception of the environment-competitiveness relationship. Journal of Economic Perspectives, 9(4), 97–118.

Ramchander, S., Schwebach, R. G., & Staking, K. (2012). (2012). The informational relevance of corporate social responsibility: Evidence from DS400 index reconstitutions. Strategic Management Journal, 33, 303–314.

Ramus, C. A., & Montiel, I. (2005). (2005). When are corporate environmental policies a form of greenwashing? Business & Society, 44(4), 377–414.

Ren, X., Shangru, W. U., Fan, S. U., Qin, Y., & Shen, Y. (2010). (2010). The extraction and analysis of evaluation object and emotion based on multistage scan. International Conference on Computer Application & System Modeling. IEEE.

Rhee, M., & Haunschild, P. R. (2006). (2006). The liability of good reputation: A study of product recalls in the U.S. automobile industry. Organization Science, 17(1), 101–117.

Russo, M. V., & Fouts, P. A. (1997). (1997). A resource-based perspective on corporate environmental performance and profitability. Academy of Management Journal, 40(3), 534–559.

Scheidler, S., Edinger-Schons, L. M., Spanjol, J., & Wieseke, J. (2019). (2019). Scrooge posing as mother Teresa: How hypocritical social responsibility strategies hurt employees and firms. Journal of Business Ethics, 157(2), 339–358.

Schons, L., & Steinmeier, M. (2016). (2016). Walk the talk? How symbolic and substantive CSR actions affect firm

performance depending on stakeholder proximity. Corporate Social Responsibility and Environmental Management,23(6),358–372.

See, G. (2009). (2009). Harmonious society and Chinese CSR: Is there really a link? Journal of Business Ethics, 89, 1–22.

Seele, P., & Gatti, L. (2017). (2017). Greenwashing revisited: In search of a typology and accusation-based definition incorporating legitimacy strategies. Business Strategy and the Environment,26(2),239–252.

Serrasqueiro, Z. S., & Nunes, P. M. (2008). (2008). Performance and size: Empirical evidence from Portuguese SMEs. Small Business Economics, 31(2), 195–217.

Sheng, S., Zhou, K. Z., & Li, J. J. (2011). The effects of business and political ties on firm performance: Evidence from China. Journal of Marketing, 75(1), 1–15.

Shleifer, A., & Vishny, R. W. (1986). (1986). Large shareholders and corporate control. Journal of Political Economy, 94, 461–488.

Shrout, P. E., & Fleiss, J. L. (1979). (1979). Intraclass correlations: Uses in assessing rater reliability. Psychological Bulletin, 86(2), 420–428.

Smarzynska, B. K., & Wei, S. J. (2001). (2001). Pollution havens and foreign direct investment: Dirty secret or popular myth? The World Bank working paper.

Spence, M. (2002). (2002). Signaling in retrospect and the informational structure of markets. American Economic Review, 92(3), 434–459.

Steinhart, Y., Ayalon, O., & Puterman, H. (2013). (2013). The effect of an environmental claim on consumers' perceptions about luxury and utilitarian products. Journal of Cleaner Production, 53(aug.15), 277–286.

Stephen, A. T., & Galak, J. (2012). (2012). The effects of traditional and social earned media on sales: A study of a microlending marketplace. Journal of Marketing Research, 49(5), 624–639.

Stern, N. (2008). (2008). The economics of climate change. American Economic Review, 98(2), 1–37.

Stevens, J. M., Kevin Steensma, H., Harrison, D. A., & Cochran, P. L. (2005). (2005). Symbolic or substantive document? The influence of ethics codes on financial executives' decisions. Strategic Management Journal, 26(2), 181–195.

Stiller, Y., & Daub, C. H. (2007). (2007). Paving the way for sustainability communication: Evidence from a Swiss study. Business Strategy and the Environment, 16(7), 474–486.

Sun, Z., & Zhang, W. (2019). (2019). Do government regulations prevent greenwashing? An evolutionary game analysis of heterogeneous enterprises.
Journal of Cleaner Production, 231, 1489–1502.

Tao, Y. G., Zhang, F., Liu, W. J., & Shi, C. Y. (2022). (2022). Tourists' perceptions of climate: Application of machine learning to climate and weather data from Chinese social media. Weather Climate and Society, 13(4), 975–987.

Testa, F., Boiral, O., & Iraldo, F. (2018). (2018). Internalization of environmental practices and institutional complexity: Can stakeholders pressures encourage greenwashing? Journal of Business Ethics, 147(2), 287–307.

Testa, F., Iraldo, F., Vaccari, A., & Ferrari, E. (2015). (2015). Why eco-labels can be effective marketing tools: Evidence from a study on Italian consumers.
Business Strategy and the Environment, 24(4), 252–265.

Testa F, Miroshnychenko I, Barontini R, Frey M. Does it pay to be a greenwasher or a brownwasher? Bus Strat Env. 2018;1–13.

Thomsen, S., & Pedersen, T. (2000). (2000). Ownership structure and economic performance in the largest European companies. Strategic Management Journal, 21(6), 689–705.

Toms, J. S. (2002). (2002). Firm resources, quality signals and the determinants of corporate environmental reputation: some UK evidence. The British accounting review, 34(3), 257–282.

Torelli, R., Balluchi, F., & Lazzini, A. (2020). (2020). Greenwashing and environmental communication: Effects on stakeholders' perceptions. Business Strategy and the Environment, 29(2), 407–421.

Walker, K., & Wan, F. (2012). (2012). The harm of symbolic actions and greenwashing: Corporate actions and communications on environmental performance and their financial implications. Journal of Business Ethics, 109(2), 227–242.

Walls, J. L., Phan, P. H., & Berrone, P. (2011). (2011). Measuring environmental strategy: Construct development, reliability, and validity. Business & Society, 50(1), 71–115.

Weaver, G. R., Trevino, L. K., & Cochran, P. L. (1999). (1999). Integrated and decoupled corporate social performance: Management commitments, external pressures, and corporate ethics practices. Academy of Management Journal, 42(5), 539–552.

Wei, J., Ouyang, Z., & Chen, H. (2017). (2017). Well known or well liked? The effects of corporate reputation on firm value at the onset of a corporate crisis. Strategic Management Journal, 38(10), 2103–2120.

Zhang, L., Li, D., Cao, C., & Huang, S. (2018). (2018). The influence of greenwashing perception on green purchasing intentions: The mediating role of green word-of-mouth and moderating role of green concern. Journal of Cleaner Production

Wei, Z., Shen, H., Zhou, K. Z., & Li, J. J. (2017). (2017). How does environmental corporate social responsibility matter in a dysfunctional institutional environment? Indications from China. Journal of Business Ethics, 140(2), \s209–223.

Westphal, J. D., & Zajac, E. J. (1998). (1998). The symbolic management of stockholders: Corporate governance reforms and shareholder reactions.

Administrative Science Quarterly

Zyglidopoulos, S. C., Georgiadis, A. P., Carroll, C. E., & Siegel, D. S. (2012). (2012).

Does media attention drive corporate social responsibility? Journal of Business Research, 65(11), 1622–1627.

Testa, F., Miroshnychenko, I., Barontini, R., & Frey, M. (2018). (2018). Does it pay to be a greenwasher or a brownwasher? Business Strategy and the Environment, 27(7), 1104–1116.

Wong, C. W., Miao, X., Cui, S., & Tang, Y. (2018). (2018). Impact of corporate environmental responsibility on operating income: Moderating role of regional disparities in China. Journal of Business Ethics, 149(2), 363–382.

Zyglidopoulos, S. C., Georgiadis, A. P., Carroll, C. E., & Siegel, D. S. (2012). (2012).

Does media attention drive corporate social responsibility? Journal of Business Research, 65(11), 1622–1627.

Wu, J. (2015). Differentiated customer pressures and environmental policies in China. Business Strategy and the Environment, 24(3), 175–189.

Zott, C., & Huy, Q. N. (2007). (2007). How entrepreneurs use symbolic management to acquire resources. Administrative Science Quarterly, 52(1). (1).

Su, W., Peng, M. W., Tan, W., & Cheung, Y. L. (2016). (2016). The signaling effect of corporate social responsibility in emerging economies. Journal of Business Ethics, 134(3), 479–491.