Firms Talk, Suppliers Walk

Firms Talk, Suppliers Walk:

Analyzing the Locus of Greenwashing in the Blame Game and Introducing "Vicarious Greenwashing"

Abstract

Greenwashing extensively deals with scandals at the supply chain; despite this, however, research on this subject remains in the early stages, while much more is needed to advance our understanding of stakeholder's reactions to greenwashing. We propose a new typology of greenwashing based on the *locus* of discrepancy, i.e., the point along the supply chain where the discrepancy between the responsible words and the irresponsible walks happens. With three experiments, we tested how the types affect investor reactions from ethical (blame attribution) and business (intention to invest) perspectives. We developed our hypotheses building on attribution theory, which explains how observers construct perceptions about events. We expected that the more the discrepancy is internal, controllable, and intentional, the higher the blame attributed to a company and the lower the investment intentions. We found that, when greenwashing occurs at a company level (*direct greenwashing*), it increases the blame while decreasing investment intentions. *Indirect greenwashing* refers to

misbehavior perpetrated by a supplier that claims to be sustainable and results to be less negative for a

company. We also propose a third and original type: *vicarious greenwashing*, which happens when the

behavior of a supplier is in breach of a company's sustainability claim. Although stakeholders attribute

less blame on a company when vicariously involved in greenwashing, this type of greenwashing is

detrimental for investments. The findings here advance the understanding of how greenwashing shapes

stakeholder reactions and call attention to the need of a careful management of the supply chain.

Keywords: greenwashing, attribution theory, investment intentions, blame attributions

Introduction

In the last few years, the concern about the role of organizations regarding environmental issues has

drastically increased. Governments, public institutions, and nonprofit organizations ask companies to

be environmentally friendly, consumers look for green products, and investors are more attracted by

companies that take care of the environment (Elliot et al. 2014), as testified by the rise of socially

responsible investing (SRI) (Sandberg et al. 2009).

Although stakeholders have become increasingly sensitive to environmental issues and tend to punish

companies that do not respect the environment (Hartmann and Moeller, 2014), companies are often

initiators of environmental disasters (Schrempf-Stirling et al. 2016) and commit *greenwashing*, that is

when corporate practices (i.e., the "walk") are discrepant with communications (i.e., the "talk")

(Walker and Wan, 2012). Notably, companies often use suppliers as scapegoats for their faults

(Carvalho et al. 2015), tend to morally disengage from what happens at the supply chain level

(Eriksson and Svensson, 2016), and have difficulty to manage and control the supply chain (Crane et

al. 2014); as a result, greenwashing often happens at the supply chain level. For instance, this happens

when a company that declares to be socially and environmentally responsible engages in a relationship

with a supplier that pollutes the environment or abuses its workers. One case is the Apple scandal as a result of the suicides at Foxconn, one of its suppliers. In 2010, there were 18 attempted suicides by Foxconn's employees, resulting in 14 deaths. The suicides were attributed to the poor, inhumane, and abusive working conditions at Foxconn's factories (Tam, 2010). Although the scandal arose due to the conditions at Foxconn's factories, Apple was affected by it, so that back-then CEO Steve Jobs made official statements and introduced Apple's "Supplier Progress Report" to restore and protect the image of Apple.

Supply chain management is widely recognized as one of the most significant factors influencing green practices (Lo and Shiah, 2016) and a substantial body of literature recognizes sustainability supply chain management (SSCM) as critical to be truly sustainable; at the same time, however, it is a complex task for companies. Despite CSR scholars claim for the centrality of the supply chain management in CSR practice, and the number of cases about greenwashing scandals not directly related to the firm's operations but rather to its supply chain (e.g., Mattel and its Chinese manufacturer [Hoyt et al. 2008]), how greenwashing happens and what it causes in a supply chain context remain understudied. In particular, no studies have attempted to understand whether and how a supplier's involvement in greenwashing scandals changes stakeholder reactions to greenwashing.

In this study, we deepen our knowledge on greenwashing consequences by proposing a new typology of greenwashing that considers the supply chain. To develop the typology, we draw from attribution theory, for which events can be attributed to internal or external causes, and, depending on the locus of the cause, they are differently evaluated. The proposed typology considers the locus of the discrepancy between the environmental talk and the walk along the supply chain. It includes three types of greenwashing on a continuum from internal to external locus to a company. At one extreme, there is the *direct greenwashing*, when the locus is completely internal because a company delivers an environmentally friendly communication while misbehaving. On the other side, there is the *indirect*

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greenwashing, meaning that the greenwashing is completely external to a company but attributable to a supplier that has a sustainable communication discrepant with its walk. At the middle of the continuum, we placed an original but common greenwashing type, called *vicarious greenwashing*. A company vicariously greenwashes when it conveys sustainable communications while maintaining a relationship with a supplier that is not environmentally friendly. For this reason, the discrepancy is in between a company (internal) and the supplier (external).

By means of experimental designs, we tested the effect of the locus of the discrepancy on stakeholder reactions from an ethical (i.e., blame attribution) and a business (i.e., investment intentions) perspective. We focus on private investor's reactions given the increased interest of private individuals for investing in the stock market (Aspara and Chakravarti, 2015) and in socially responsible firms (Cellier et al. 2016; Elliot et al. 2014). In line with attribution theory, we proposed and found that the more the discrepancy is internal (i.e., direct greenwashing), the lower is the intention to invest and the higher the blame attributed. We also proposed and tested two moderators (i.e., controllability and intentionality) taken from attribution theory that amplify the negative consequences of greenwashing even when the locus is external. When a supplier's behavior is under a company's strict control, which has enforced environmental standards to the supplier, greenwashing causes greater blame and lower intention to invest for both vicarious and indirect greenwashing. When the greenwashing is intentional because a company is colluded with the supplier, then a company faces more negative consequences.

This study contributes new insights into the current debate about greenwashing in several ways. By taking into consideration the supply chain in the categorization of the greenwashing phenomenon, this typology highlights the presence of two new types of greenwashing next to the well-established *direct* greenwashing, namely, *indirect* and *vicarious*, showing how vicarious can be particularly detrimental. While allowing one to achieve a fine-grained understanding of how the supply chain affects stakeholder reactions to greenwashing, it provides implications for practitioners in the SRI industry

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suggesting elements that should be emphasized in communications during a greenwashing crisis (e.g., low intentionality) and behaviors that should be avoided (e.g., using the supplier as a scapegoat).

Conceptual Development

What is greenwashing?

Greenwashing refers to the practice of "not walking the talk," which means that a company's sustainability claims are not followed by actual corporate activities (Walker and Wan, 2012). Greenwashing implies, by definition, a discrepancy between words and deeds, which combines poor environmental performance and positive communication about the corporate environmental performance (Guo et al. 2017).

The term "greenwashing" was originally coined for the hotel industry by Jay Westerveld, to define the practice of supporting the reuse of towels to "save the environment" while having a poor environmental policy in relation to other aspects of the business (Laufer 2003, Pearson, 2010; Seele and Gatti, 2017). In the last years, the practice of greenwashing has grown enormously (Walker and Wan, 2012) and become more sophisticated (The Guardian, 2016) and also the accusation element that constitutes greenwashing emerged (Seele and Gatti 2017).

Greenwashing is often associated with decoupling (or ceremonial conformity or symbolic conformity [Jamali, 2010]), which is a strategy to gain legitimacy through the appearance of conformity (Jamali et al. 2017). It refers to a deliberate disconnect between organizational formal structures designed to enhance legitimacy (as formal policies, plans, and programs) and actual organizational practices and operations (Guo et al. 2017). Greenwashing can take the form of a decoupling strategy when it is based on policy claims, codes of conduct (Christmann and Taylor, 2006), social accreditations, or green

labels (Walker and Wan, 2012) designed to signal conformity through certifications rather than actually conforming (Roulet and Touboul, 2015).

The literature on greenwashing paints a picture of a multifaceted phenomenon, which deals with both environmental (e.g., Chen and Chang, 2013) and social issues (e.g., Lyon and Maxwell, 2011), with different degrees of falsehood and manipulative intents (Lane, 2013; Siano et al. 2017) (see also Table A.1 in the Appendix A for a summary of the main greenwashing conceptualizations). As a consequence, greenwashing covers a variety of current topics and subjects, e.g., misleading communications (Golant and Sillince, 2007), manipulative practices (Siano et al. 2017), and poor supply chain management, the latter being a challenging issue for companies nowadays within the global market (Crane et al. 2014; Schrempf-Stirling et al. 2016). Indeed, sustainability goals can be achieved only through truly sustainable partners that work together in a sustainable supply chain (Ha-Brookshire, 2017; Gimenez and Sierra, 2013).

The extant literature suggests that greenwashing has several repercussions for companies. Greenwashing deteriorates brand reputation and trust (Jahdi and Acikdilli, 2009; Guo et al. 2018), increases stakeholder's skepticism (Guo et al. 2018), generates discussion against a company online (Fernando et al. 2014), increases scrutiny by non-governmental organization (Berrone et al. 2017), encourages brand avoidance (Rindell et al. 2013), and decreases environmental legitimacy (Berrone et al. 2017). In addition, greenwashing affects employees' attitudes and job seekers' opinions, as jobseekers tend to avoid firms involved in greenwashing because they expect a potential employer to engage in substantive CSR (Donia and Sirsly, 2016).

Delmas and Cuerel Burbano (2011) suggest that greenwashing also corrodes an investor's confidence in environmentally friendly firms. Greenwashing, indeed, negatively affects stock exchanges and financial performances of firms (Du, 2015; Walker and Wan, 2012; Wu and Shen, 2013; Testa et al.

2018), but less is known about the mechanisms and factors that shape investment variations across different instances of greenwashing. Therefore, we investigate greenwashing from two perspectives, i.e., ethical and business, examining the effects of greenwashing on stakeholder blame attributions and intention to invest, respectively.

In what follows, we introduce the new typology, outline the two perspectives, discuss the rationale of the variables in our framework, and develop hypotheses.

A new conceptualization of greenwashing based on the locus of discrepancy

Although notable attempts have been made to classify greenwashing according to the CSR misbehavior and contextual factors (e.g., Delmas and Cuerel Burbano, 2011; Seele and Gatti, 2017), thus far such typologies do not integrate the supply chain in the model. Given the expanded responsibility of companies in today globalized businesses (Crane et al. 2014; Schrempf-Stirling et al. 2016), the inclusion of the supply chain in the investigation of the phenomenon is paramount for advancing our understanding of greenwashing. For this reason, in this paper we propose a new typology of greenwashing, which integrates the supplier's actions. Starting from the assumption that greenwashing implies, by definition, a discrepancy between communications and behaviors (Guo et al. 2017), we propose three types of greenwashing that differ depending on the locus of the discrepancy between the walk and the talk, which varies on a continuum from the supplier level to company level. Figure 1 introduces and summarizes our conceptualization.

Insert Figure 1 about here

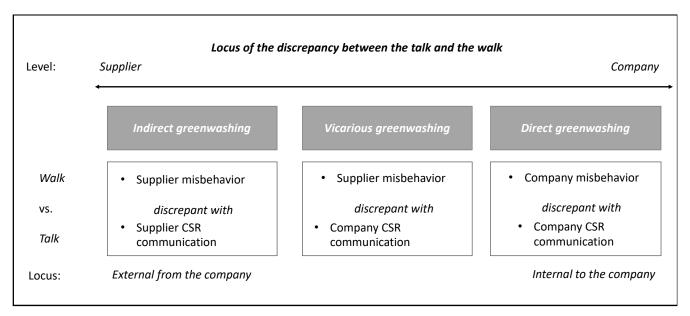For the reader's convenience, the table is integrated.

Figure 1: Conceptualization of greenwashing typology

At a company level, there is *direct greenwashing* where the discrepancy between sustainability words and deeds is internal to a company. In this case, a company is responsible for the communication and the misbehavior, being the corporate misbehavior discrepant with the corporate sustainability claims. An example of direct greenwashing is the Diesel Gate scandal after the installation of manipulative software by Volkswagen to show lower CO_2 emissions.

At the opposite side of the continuum, at the supplier level, there is *indirect greenwashing*, which occurs when the discrepancy is completely external to a company. Here, the supplier is involved in both the sustainability communication and in the misbehavior, i.e., the supplier's behavior is discrepant with its own sustainable statements and causes damage to the environment. The company, conversely, does not communicate to be sustainable nor misbehaves. It means that the greenwashing is completely external to a company and only attributable to the supplier. However, the firm might face negative consequences. An example for indirect greenwashing can be seen in the retailer context, when a retailer purchases from a supplier claiming to be part of a certified CSR standard, e.g., environmental management (e.g., ISO 140000) or fair work (e.g., S.A. 8000). Later, it turns out that the supplier

misleads regarding the certification as, e.g., outdated, and the blame of greenwashing spills over from the supplier to a company, now also being accused of greenwashing.

We also conceptualize a third type of greenwashing, placed at the middle of the continuum, because the discrepancy between the talk and the walk happens at the halfway point from a company to the supplier locus. This happens when a company that declares to be committed toward sustainability is accused of greenwashing because it purchases raw materials or services from a supplier that does not meet sustainability standards. We call this third case *vicarious greenwashing* because a company vicariously (i.e., because of the deeds of someone else) suffers from greenwashing. In this case, the company does not misbehave, but fails to control or sanction the supplier, whose behavior is in breach with the company's CSR. We include this third types of greenwashing building on the concepts of vicarious liability and chain liability. Vicarious liability is a form of secondary liability under the common law doctrine of agency, according to which, because of this ability and duty, the person who engages others must accept the responsibility for his or her wrongdoing (Sykes, 1988). In the case of parental liability, for example, when a child causes an injury or an unintentional wrongful act, parents may be held liable because of their own negligent acts, such as the failure to properly supervise their child (Brady, 2011). Chain liability refers to holding a company responsible for what occurs at the supply chain (Hartmann and Moeller, 2014). Hartmann and Moeller (2014) found that consumers do not attribute different responsibilities to members of the supply chain but tend to hold responsible the firm for the behavior of its suppliers. The scandal about child labor in Côte d'Ivoire's cocoa plantations involving Nestle is an example of vicarious greenwashing. From early 2000, Nestle has been publicity accused of fostering poor working conditions by buying cocoa from suppliers that do not respect workers' rights. Although Nestle and other corporations were not sanctioned by court decision for their supplier's deeds, they are considered morally responsible by public audience (Mihai, 2015). In vicarious greenwashing, a company might be held liable for the supplier's behavior because of the failure to properly deliver the

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promises of its CSR communication and to properly supervise the supplier. In vicarious greenwashing, indeed, a company creates expectations regarding the protection of the environment, expectations that are not satisfied because of the supplier behavior; conversely, in indirect greenwashing, a company does not communicate a commitment towards CSR.

Ethical perspective: Blame attributions

Individuals spontaneously construct attributions of blame for corporate wrongdoings and faults (Folkes, 1984; Folkes and Kotsos, 1986). According to Weiner's (1986) attribution theory, blame attributions are determined by causal dimensions, among which there are *locus* of responsibility of the misbehavior, which can be internal or external to the actor (in our case, a company); and *controllability* of the behavior, the extent by which the event is perceived under control and volition of the actor (in our case, under the control of a company). Greater blame attributions occur when the attribution is internal and controllable by a company; in such case, observers experience anger toward it and expect an apology for the misbehavior (Folkes, 1984). However, causal dimensions are not objective, so that attributions are formed depending on information available to the observer. In the context of greenwashing, sustainability ratings (Parguel et al. 2011) and advertising conditions (Nyilasy et al. 2014) may influence greenwashing attributions.

Blame attributions occur when actors are facing a deception, as greenwashing is often defined (Lane, 2010; 2013; Bazillier and Vauday, 2014). When the deception is seen as being due to internal factors, more blame is attributed to the deceiver. Conversely, when the deception is caused by external or situational factors, it leads to a lower level of blame attributions (Gillespie et al. 2016). When a company does not perform the misbehavior (i.e., *indirect* and *vicarious* greenwashing), it might be associated with external or situational factors (i.e., the supplier behavior), which are not dependent on internal production procedures of the accused company. If individuals observe a company's

undesirable behavior, they tend to take into consideration whether a company is culpable or the recipient of such behavior (Lange and Washburn, 2012). The latter case implies that a company is less responsible for the negative event, and observers attribute less blame to it. According to the conceptualization proposed here, in both *indirect* and *vicarious* greenwashing, the supplier behaves inappropriately, i.e., the greenwashing might affect a company, but it is actually caused by the supplier. Likewise, we expect that lower blame is attributed to *indirect* and *vicarious* greenwashing compared with the *direct* case.

The *vicarious greenwashing*, which is intra-level between a company and the supplier, might also increase blame compared with *indirect*. Although a company does not perform the misbehavior, its declared sustainability increases blame attributions because stakeholders recognize a discrepancy between a company's talk and the supplier's walk, for which a company can be recognized as liable. Conversely, in the *direct* greenwashing, the supply chain is not involved, but the greenwashing is completely attributable to a company. This means that the locus of the discrepancy between the talk and the walk is internal to a company, thus increasing blame attributions. Notably, actions affect blame attributions because actors are perceived as being accountable for actions than inactions (Nyilasy et al. 2014), as it happens for *direct* greenwashing, whereby a company performs the misbehavior and acts inconsistently to its claims, thus reinforcing blame attributions. Hence, our first hypothesis states:

> H1: The more external the locus of discrepancy between the talk and the walk, the lower the
> blame attribution.

Role of controllability and intentionality attribution dimensions on blame

Besides the locus, observers tend to identify whether or not a negative event is controllable, predictable and preventable by the actor (Weiner, 1986). Notably, locus of discrepancy and controllability often go hand in hand, meaning that, when the locus of discrepancy is internal, the event is also perceived as

highly controllable (Blank and Peters, 2010). However, the two dimensions are separate constructs (e.g., Sahar and Karasawa, 2005; Mantler et al. 2003). In fact, not all internal events are highly controllable; for instance, an accident that happens to a company due to a human error (e.g., sudden illness, fresh employees, etc.) has low controllability degrees. Similarly, external events can be more or less controllable.

Of more relevance for our investigation, when a greenwashing scandal happens vicariously or indirectly, a company can more or less control supply chain behavior, depending on the nature of the relationship between a company and the supplier (Hartmann and Moeller, 2014). Such relationship can be based on a code of conduct (Sethi et al. 2011; Hartmann and Moeller, 2014) that sets the requirements about a supplier's environmental performance (high control over the supplier). Otherwise a company may have less control, for example when it does not set environmental standards for the supplier (Hartmann and Moeller, 2014).

When a company declares its commitment to CSR, but it has no control over its suppliers (e.g., no code of conducts for suppliers), stakeholders are more eager to tolerate greenwashing without major repercussions (Ha-Brookshire, 2017). Conversely, declaring a control on the supply chain implies expanding a company's responsibility on suppliers' behavior, too (Hartmann and Moeller, 2014). This might lead to greater blame attributions for companies that *indirectly* and *vicariously* greenwash. We expect that, when a declared control on the supply chain is present, a company that faces an *indirect* or *vicarious* greenwashing is perceived as accountable for supplier's actions, too. Such expanded accountability leads to greater blame. More formally:

> H2: Greater controllability increases blame attributions

An additional dimension of attribution theory is intentionality, described as "the extent to which an outcome is attributed to deliberate as opposed to unintentional action" (Harvey et al. 2014, p. 136).

In the organization context, misbehaviors are perceived as highly intentional when they are the result of deliberate and informed actions such as when organizations knowingly place people at risk (Harvey et al. 2014), when the organization benefits from the deception (Gillespie et al. 2016), and when the unethical behavior is premeditated (Mai and Ellis, 2016). Highly intentional misbehaviors are misdeeds and management misconducts (Coombs, 2007; Zhou and Ki, 2018); conversely, misbehaviors are perceived as not intentional, when they are caused by an accident, such as a technical error (Coombs and Holladay, 2012), when the organization is the victim of the misbehavior (Zhou and Ki, 2018), or via impulsive behaviors (Mai and Ellis, 2016).

Behaviors that are internal and controllable, as happens in direct greenwashing, are often assumed to be intentional (Harvey et al. 2014), but intentionality might be particularly relevant for misbehaviors that are not internal, such as for vicarious and indirect greenwashing. The literature suggests that stakeholders are not well informed nor eager to seek complete information before making attributions (Gao et al. 2012). When the discrepancy is not internal to a company, stakeholders might assume that a company uses the supplier as a scapegoat for the environmental damage in order to limit the reputational crisis generated by the greenwashing (Eriksson and Svensson, 2016; Carvalho et al. 2015). Indeed, stakeholders are skeptical about a company's true sustainability commitment and honesty, and such skepticism rapidly increases when there is a scandal involving the environment (Wagner et al. 2009). Stakeholders might then assume that a company actually colluded with the supplier, thus causing the environmental damage. Moreover, given that the intentionality dimension has been mostly studied in association with an internal locus, less is known about how intentionality affects blame attributions when the locus of discrepancy is external. Investigating the role of intentionality, here conceptualized as a company informed connivance with the supplier, is thus paramount for a fine-grained understanding of attribution dimensions' impact on blame attributions in greenwashing scandals.

When intentionality is high, individuals tend to attribute more blame to the actor, greater crisis responsibility to the organization (Zhou and Ki, 2018), and are more likely to interrupt the relationship with such actor (Gillespie et al. 2016). When the cause of the misbehavior is external, intentionality perceptions exert a greater role on blame attributions (Gillespie et al. 2016). When a company is perceived as intentionally deceptive together with the supplier (i.e., high intentionality), blame attributions are higher compared with those of companies that are perceived as not aware of the supplier's misconduct. More formally:

> H3: Greater intentionality increases blame attributions.

Business perspective: Hypotheses on intention to invest

Today, companies and institutions are increasingly interested in alternative forms of finance, including the involvement of individuals. Thanks to new technologies, stock market participation by individuals is growing faster (Aspara and Chakravarti, 2015) and there is a trend among ordinary individuals to become "investors" from being "savers" (Nilsson, 2008), with individuals investing both in mutual funds or directly on stocks (Aspara and Chakravarti, 2015).

When investing, individuals are increasingly interested in a company's involvement in CSR (Elliot et al. 2014). They look for information about CSR activities relying on CSR aggregate indexes (Cellier et al. 2016) or CSR reporting (Nath et al. 2013) and believe that CSR-engaged companies lead to long-term returns (Jansson and Biel, 2011) thanks to the positive reputation of socially responsible firms (Hatch and Schultz, 2003). Private investors are therefore guided by financial motives, expecting greater performances from SRI than conventional investments (von Wallis and Klein, 2015), but also by pro-social factors (Nilsson, 2008). Indeed, they believe that their investments can contribute to advancements in social, environmental, and governance practices (Nilsson, 2008; SIF Foundation,

2018). In particular, private investors are guided by environmental, social, and corporate governance (ESG) criteria when investing in companies (Jansson and Biel, 2011), and they seek investments consistent with their personal values, often driven by religious or political beliefs (Pasewark and Riley, 2010). This is in line with the recent development of SRI, which refers to "the integration of certain non-financial concerns, such as ethical, social or environmental, into the investment process" (Sandberg et al. 2009, p. 521). Based on ESG criteria, SRI aims at combining long-term financial returns and positive societal impact. Socially responsible investing is growing enormously: if in 2010 in the USA $3.07 trillion were invested socially responsibly (SIF Foundation, 2018), in 2016 the amount reached $8.7 trillion and in 2017 more than $12.0 trillion (SIF Foundation, 2018).

So far, however, the relationship between investment decisions and sustainability has been mostly based on how a positive commitment facilitates investments, and little is known about the consequences of greenwashing on investment decisions.

The notable exception (Du, 2015) suggests that greenwashing has a negative effect on stock exchange return. Investors are negatively influenced by greenwashing because it increases skepticism toward a company. More broadly, investments decrease when a company faces a corporate crisis because the market responds by updating and adjusting stock prices according to the expected future cash flow (Cleeren et al. 2017). Similarly, when a company faces a greenwashing scandal, investors might negatively forecast a company's future cash flows, because of the risk of regulatory actions (Gatti et al. 2019) or lower sales, and then adjust their investment behavior accordingly. Private investors might be particularly influenced by greenwashing. Socially responsible investors tend to avoid harmful companies (Lewis and Mackenzie, 2000), have the tendency to extrapolate recent performance into the future, and overestimate the likelihood that an event would occur again leading to lower returns (Jain et al., 2015), so that they dispose their stocks often too early (Aspara and Hoffmann, 2015). However, not

all the crises affect investments in the same way, and attribution theory helps understanding how investors respond to a corporate crisis.

When the nature of a crisis is unpredictable and not imputable to a company, a company faces less damages in terms of shareholder value (Marcus and Goodman, 1991; Coombs, 1995; Ferretti et al. 2015). Conversely, mismanagement practices that generate internal locus of discrepancy and are controllable can determine important financial losses (Coombs, 1995; Ferretti et al. 2015). When greenwashing is imputable to a company itself, it can be seen as signal of moral collapse (Shadnam and Lawrence, 2011) or an unethical corporate culture that promotes and normalizes unethical conducts (Martin et al. 2009; Vaughan, 1997).

We hypothesize that greenwashing is detrimental for nonprofessional investments depending on the locus of discrepancy and controllability of the misbehavior. Specifically, we expect that the *direct* involvement of the firm in the greenwashing scandal negatively affects intention to invest because stakeholders tend to see such misbehavior as imputable to a company. Moreover, we expect that the more external the locus of discrepancy (i.e., *indirect greenwashing*) and the lower the controllability, the greater the intention to invest. If the cause of the problem is external to a company, a company can more easily address the problem, e.g., by interrupting the relationship with the unsustainable supplier (Carberry et al. 2018). Such actions decrease the reputational costs of the greenwashing scandal (Carberry et al. 2018). Moreover, if the misbehavior is not controllable by a company, a company can adopt a sustainability standard to force a supplier to act sustainably or to select more sustainable suppliers. Conversely, an increase of controllability might be detrimental for investments, thus lowering the positive effect of the external locus of discrepancy. Hence, our last formal hypotheses states:

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H4: *Vicarious* and *indirect* greenwashing intention to invest is higher compared with *direct* greenwashing.

H5: Greater controllability decreases intention to invest when greenwashing is *indirect* or *vicarious*.

Overview of the Studies

Three experiments were conducted to test our hypotheses. The experiments were conducted between October 2017 and January 2019 and exclusively used for the aims of this study.

All the experiments involved participants from an Amazon Mechanical Turk (MTurk)[1] sample, who participated in exchange for compensation and were randomly assigned to experimental conditions. Several studies prove the reliability of MTurk samples (see Paolacci et al. 2010; Goodman et al. 2013; Ramsey et al. 2016) and their suitability for investigating various variables, including behaviors and perceptions of nonprofessional investors. MTurk samples offer a high variety of participant characteristics, such as investment prowess and sophistication, which allow the researcher to generalize the result to a broad population (Buchheit et al. 2018). Specifically, we use the US MTurk sample, because MTurkers are considered representative of the US population (Goodman and Paolacci, 2017); further, we ad hoc developed our experimental stimuli according to this population (i.e., scenarios described an American company). Following literature recommendations (Cheung et al. 2017; Sharpe Wessling et al. 2017), we increased the quality and reliability of the data collected by i) monitoring the reading and completion time; ii) monitoring MTurker forums during the data collection to avoid contamination; iii) avoiding the chance of multiple participation in the same experiment. Moreover, we

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[1] Following recommendations for the use of MTurkers, we screened participants according to their approval rate, asking on average a minimum of 90% approval rate (Goodman and Paolacci, 2017). Participants were rewarded on average $0.50, in line with Amazon's guidelines (Pittman and Sheehan, 2016).

included attention checks in order to avoid opportunistic behaviors and limit the effect of low attention to instructions and experimental material (Goodman et al. 2013; Cheung et al. 2017; Sharpe Wessling et al. 2017). Participants were informed about the presence of attention check questions and were excluded from completing the questionnaire in case of failure.

The procedures, developed according to the literature (e.g., Parguel et al. 2011; Elliott et al. 2017; Delfino at al. 2016; Aspara and Chakravarti, 2015), were the same in all the experiments, with variations due to the manipulations.

First, participants were exposed to the investment situation. We asked participants to imagine that a fictitious character wants to invest a small amount of money in the stock exchange and ponders to invest in a company suggested by a friend, who already gained good profits from investing in it. The use of a fictitious character was aimed at reducing the desirability bias (Fisher, 1993). We described the fictitious character as a careful investor, who searches for information before investing and who prefers to sustain national companies (Oberecker and Diamantopolous, 2011). Moreover, the investment advisor was described as a friend because peer behavior fosters imitation (Delfino et al. 2016).

Second, a company on which the character was thinking to invest was introduced with a short description (i.e., industry, location, etc.). We used a fictitious company to avoid recall bias and differences on the attitude toward a company between participants. A company was described as a worldwide company founded in the United States and operating in the food industry. Food was selected as a company industry because it retains substantial public visibility, plays a large role in national economies, and has a complex supply chain (Maloni and Brown, 2006).

Third, a company statement (related to CSR and sustainability or neutral, depending on the experimental conditions) and recent news regarding the fictitious company were provided. The manipulation of the independent variables occurred at this last stage, when a company statement and

the news were showed. Scenarios are provided in Appendix B. When a company statement was about

sustainability (i.e., direct and vicarious greenwashing conditions), it was about the respect and the

protection of the natural environment, commonly used in prior research (e.g., Wagner et al. 2009;

Vanhamme et al. 2015), and developed according to real cases (e.g., Barilla, Ferrero, and Nestlé

corporate websites). The news provided was about a case of greenwashing. It reported an accusation of

misbehavior (the "walk") in the environmental sphere that was discrepant with the sustainable claim

(the "talk") of the firm (or the supplier, depending on the conditions). These stimuli of greenwashing

have been developed according to multiple literature sources, for which greenwashing combines two

corporate actions: the release of a misleading corporate communications followed by environmental

misbehavior or poor environmental performance (Guo et al. 2017; Seele and Gatti, 2017).

Insert Table 1 about here

For the reader's convenience, the table is integrated.

Firms Talk, Suppliers Walk

Table 1.

Overview of the Studies

	Manipulated Variables	Sample Size	Hs Tested	Main Results
Study 1	*Locus of discrepancy* (direct vs. vicarious vs. indirect)	107 participants	H1: *effect of locus of discrepancy on blame attributions* H4: *effect of locus of discrepancy on intention to invest*	<u>Support to H1</u>: Blame attributions vary depending on the locus of discrepancy. Direct greenwashing caused greater blame attributions, while indirect greenwashing the lowest. <u>Partial support to H4</u>: Investment intentions were higher for indirect greenwashing compared to the other types. However, vicarious and direct greenwashing did not differ.
Study 2	*Locus of discrepancy* (vicarious vs. indirect)* *Controllability* (control over the supply chain vs. no control) + direct greenwashing	202 participants	H2: *role of controllability on blame attributions* H5: *role of controllability on intention to invest*	<u>Support to H2</u>: Declared control over the supply chain increases blame attributions, especially when the greenwashing is indirect. <u>Support to H5</u>: When a company declared control over the supply chain, intention to invest decreased even if the greenwashing was vicarious or indirect. Results provided also further support to H1 and (partially) H4 – evidences of differences on blame and intentions to invest depending on the locus of discrepancy
Study 3	*Locus of discrepancy* (vicarious vs. indirect)* *Intentionality* (high vs. low)	158 participants	H3: *role of intentionality on blame attributions*	<u>Support to H3</u>: When intentionality is high, stakeholders attribute more blame to a company even if the greenwashing is vicarious or indirect. Results provided also further support to H1– evidences of differences on blame depending on the locus of discrepancy

After the manipulations the dependent and control variables were measured. Specifically, in all the studies, participants filled out questions regarding blame attributions (three items adapted from Xie and Keh, 2016) intention to invest (three items adapted from Elliott et al. 2017), and perceived credibility of the scenarios (four items from Dahlen and Lange, 2006) as a control variable (see Appendix C - Table C.1 for items). We also included manipulation checks to test the effectiveness of our manipulations. Manipulation checks varied between experiments according to the independent variables involved and are described in relevant sections. Finally, demographic data were collected (see Appendix D – Table D.1 for details about demographic characteristics of the samples) and participants thanked.

Study 1: Locus of discrepancy on blame attributions and intention to invest

The aim of Study 1 was to investigate if and how the locus of the discrepancy between the talk and the walk affects blame attributions and the willingness to invest. We expect that, when the locus is internal, i.e., a company is directly involved in greenwashing (here *direct greenwashing*: DGW), individuals attribute more blame to a company and are less willing to invest in it compared with greenwashing cases in which the locus is more or less external, i.e., *indirect greenwashing* (IGW) and *vicarious greenwashing* (VGW), respectively. This study tested H1 and H4.

Participants and Procedures

One hundred and seven participants (M_{age} = 38.3; 46.7% male) took part in a single factor (locus of discrepancy: DGW vs. VGW vs. IGW) between-subjects design. The locus of discrepancy of greenwashing was manipulated by showing discrepancy between the declared commitment to avoid palm oil to improve sustainability and the actual cultivation that causes deforestation and environmental damage. We used palm oil as part of our stimuli because different stakeholders are

largely aware of the environmental threats[2] that its cultivation causes (Aguiar et al. 2018) and its

involvement in environmental scandals (Ionescu-Somers and Enders, 2012; Vanhamme et al. 2015).

The discrepancy varied in terms of locus from internal to external. Specifically, in DGW the

discrepancy was internal, i.e., a company caused environmental damage because it cultivates palm oil,

despite its declared commitment to avoid palm oil. In VGW, a discrepancy happened between a

company and its supplier, i.e., although a company declaration of pursuing sustainability by avoiding

palm oil, it purchased palm oil from a supplier responsible for causing an environmental disaster.

Finally, in IGW, the discrepancy happened at the supplier level, which is external to the company. A

company purchased from a supplier responsible for causing damages to the environment because of

palm oil, despite the supplier's declared commitment toward sustainability.

Analysis on credibility and manipulation checks

The analysis on credibility revealed that scenarios were perceived as being equally credible among

participants ($F_{(2, 104)} = 2.674$, $p > .05$), with an overall high credibility ($M = 5.21(1.08)$).

The analyses on manipulation checks confirmed the effectiveness of the manipulation: DGW and

VGW were indicated as being more sustainably committed compared with IGW ($M_{DGW} = 5.9(1.2)$ vs.

$M_{VGW} = 6(1.2)$ vs. $M_{IGW} = 5.2(1.7)$; DGW vs. IGW: $t = 2.065$, $p < .05$; VGW vs. IGW: $t = 2.429$, $p <$

.05) and palm oil avoidant ($M_{DGW} = 5.7(1.7)$ vs. $M_{VGW} = 5.7(1.8)$ vs. $M_{IGW} = 4.3(1.9)$; DGW vs. IGW:

$t = 3.430$, $p < .01$; VGW vs. IGW: $t = 3.235$, $p < .01$). No other significant differences were found.

Findings

Blame attribution: Supporting our first hypothesis, the ANOVA showed that participants attributed

blame differently to a company depending on the locus of discrepancy ($F_{(2, 104)} = 21.382$, $p < .001$) (see

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[2] Palm oil is a major driver of deforestation, and its cultivation is destroying extremely biodiverse forests, especially in South Asia, thus contributing to the risk of extinction of animals (such as orangutans) and plants (WWF, 2018).

Table 2 for the main descriptives of all studies). As expected, greater blame was attributed to DGW (M = 5.95, SD = 1.19), and lower to IGW (M = 3.36, SD = 1.97), with VGW (M = 4.32, SD = 1.89) positioned in between direct and indirect greenwashing. The simple contrast analyses revealed that each condition significantly differed from the two others. DGW caused greater blame attributions compared with VGW ($t = 4.006$, $p < .001$, mean difference = 1.63) and IGW ($t = 6.464$, $p < .001$, mean difference = 2.59), and VGW was significantly more blamed compared with IGW ($t = 2.348$, $p < .05$, mean difference = .96).

Intention to invest: The analysis revealed significant differences among the three conditions ($F_{(2, 104)} = 6.630$, $p < .01$). Participants were less willing to invest when the greenwashing was internal (DGW: M = 2.90, SD = 1.39). Further analyses revealed that, although the VGW (M = 3.18, SD = 1.435) had higher scores compared with DGW, they did not significantly differ ($t = -.819$, $p > .05$). Conversely, intention to invest was significantly higher for IGW (M = 4.10, SD = 1.63) compared with both DGW ($t = -3.499$, $p < .01$; mean difference = 1.2) and VGW ($t = -2.611$, $p < .05$; mean difference = .92).

The results provide initial support to the idea that the locus of the discrepancy affects stakeholders' blame attributions and investment intentions. Direct greenwashing was the more detrimental for a company because it elicited greater blame attributions and decreased investment intentions. If the supplier performed the misbehavior, it elicited less blame toward a company especially in the case of external locus of discrepancy, i.e., indirect greenwashing. Vicarious greenwashing was also detrimental for a company, lowering intention to invest and increasing blame attributions compared with indirect greenwashing. The significant differences between the three conditions, with direct greenwashing and indirect greenwashing being the most and the least blamed, respectively, provide initial support for H1.

Insert Table 2 about here

For the reader's convenience, the table is integrated.

Table 2.

Means (and standard deviations) per condition for all studies.

Study	Locus of discrepancy	DGW	VGW		IGW	
1	Blame attributions	5.95(1.19)	4.32(1.89)		3.36(1.97)	
	Intention to invest	2.90(1.39)	3.18(1.35)		4.10(1.63)	
	Scenario credibility	4.87(1.20)	5.38(.80)		5.37(1.13)	

Study	Locus of discrepancy		VGW		IGW	
2	Controllability	DGW	Control	No-control	Control	No-control
	Blame attributions	6.20(.93)	5.28(1.39)	4.80(1.41)	5.03(1.72)	4.32(1.93)
	Intention to invest	2.66(1.57)	3.18(1.83)	3.53(1.61)	3.33(1.61)	4.07(1.48)
	Scenario credibility	5.13(1.09)	5.34(1.14)	5.44(.93)	5.02(1.23)	5.20(1.48)

Study	Locus of discrepancy	VGW		IGW	
3	Intentionality	High	Low	High	low
	Blame attributions	5.41(1.34)	3.84(2.08)	4.30(1.81)	3.69(2.02)
	Intention to invest	3.79(1.92)	4.09(1.86)	3.50(1.81)	3.98(1.88)
	Scenario credibility	5.72(.87)	5.70(.99)	5.40(1.05)	5.25(.98)

Regarding intention to invest, results provide partial support to H4. Specifically, participants reported significantly higher intention to invest when the locus was completely external to a company; thus, when the greenwashing was indirect, compared with both direct and vicarious greenwashing, conversely, direct and vicarious greenwashing did not diverge on investment intentions. This means that vicarious greenwashing was detrimental for investments as direct greenwashing, although intention to invest was slightly higher in the vicarious condition.

Study 2: Role of controllability on blame attributions and intention to invest

The aim of Study 2 was to test whether controllability affects blame attributions (H2) and intention to invest (H5). We tested to what extent declaring (vs. not) a control on the supply chain can be counterproductive for companies when facing greenwashing involving a supply chain.

Participants and Procedures

Study 2 had 2 x 2 + 1 between-subject design, with the two independent variables being locus of discrepancy (vicarious – VGW- vs. indirect – IGW-) and controllability (control vs. no control). We also included a fifth condition: direct greenwashing, i.e., DGW, which was not further manipulated with controllability because we assumed that companies also have control over the internal procedures. Two hundred and two participants ($M_{age} = 36.2$; 60.4% male) took part in this experiment and were randomly assigned to conditions.

We used the same procedures of Study 1, but we changed the stimuli. In all the scenarios, the unmet sustainability promise was about the commitment toward the protection of the natural environment and the dissemination of sustainable practices within the agricultural sector, and the promotion of the "zero deforestation" initiative. Such sustainability promise was done by a company (in DGW and VGW conditions) or by the supplier (in IGW conditions) and was unfulfilled because of an action (i.e.,

deforestation) done by a company in DGW, or by the supplier in VGW and IGW. The news reporting

the greenwashing case was about deforestation for a cocoa plantation[3] done by a company in DGW or

by the supplier in VGW and IGW. We deemed suitable the case of cocoa plantation as the cause of

greenwashing because of the big role played by chocolate industry in forest destruction (The Guardian,

2018).

To manipulate controllability, we varied the description of the relationship between a company and the

supplier. In a control condition, we mentioned both in a company statement and in the news that a

company declared to control the supply chain. Conversely, in no control condition such declaration was

not mentioned.

Analysis on credibility and manipulation checks.

The ANOVA conducted on the scenario credibility revealed an overall high credibility [M =

5.23(1.17)] and no significant differences among conditions [locus of discrepancy: $F_{(2, 197)} = 1.303$, $p >$

.05; controllability: $F_{(1, 197)} = .041$, $p > .05$; interaction: $F_{(1, 197)} = .580$, $p > .05$].

Manipulation check consisted of three items on a 7-point Likert scale. The analyses conducted on the

manipulation checks showed that participants recognized that a company i) was committed to

guarantee a sustainable supply chain in the control conditions [$F_{(1, 200)} = 13.598$, $p < .001$; $M_{no\text{-}control} =$

4.94(1.81) vs. $M_{control} = 5.75(1.30)$]; ii) purchases from an unsustainable supplier in VGW and IGW

conditions [$F_{(2, 199)} = 4.438$, $p < .05$; $M_{DGW} = 4.62(1.86)$ vs. $M_{VGW} = 5.60(1.68)$ vs. $M_{IGW} = 5.14(1.78)$];

iii) and was committed to the natural environment in DGW and VGW conditions [$F_{(2, 199)} = 7.063$, p

$<.01$; $M_{DGW} = 6.19(1.19)$ vs. $M_{VGW} = 5.67(1.63)$ vs. $M_{IGW} = 5.12(1.58)$].

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[3] Rainforests in West Africa have reduced of the 80% since 1960 because of the chocolate industry (The Guardian, 2017).

Findings

Blame attribution: The ANOVA revealed a main effect of locus of discrepancy [$F_{(2, 201)} = 7.962$, p <.001; $M_{DGW} = 6.20(.93)$ vs. $M_{VGW} = 5.04(1.41)$ vs. $M_{IGW} = 4.66(1.85)$]. Specifically, participants attributed more blame to a company when the locus was internal, i.e., when a company was directly involved in greenwashing compared with VGW ($t = 4.005$, $p < .001$; mean difference = 1.16) and IGW ($t = 5.269$, $p < .001$; mean difference = 1.54). VGW and IGW did not significantly differ, although the overall means were higher for VGW than IGW. We also found a main effect of controllability, with higher blame attributions to control conditions [$F_{(1, 201)} = 4.765$, p <.05; $M_{control} = 5.50$ vs. $M_{no\text{-}control} = 4.60$]. Although the interaction was not significant, planned contrasts revealed that blame scores were significantly higher for DGW compared with VGW*control ($t = 2.787$, $p < .01$; mean difference = .92) and IGW*control ($t = 3.474$, $p < .01$; mean difference = 1.17). Moreover, we found that the control over the supply chain significantly increased blame attributions when the locus was external, i.e., IGW ($t = -2.079$, $p < .05$; mean difference = .71). We found the same effect among VGW conditions, i.e., control over the supply chain generated more blame attributions but not in a significant way.

Intention to invest: The analysis revealed that participants were less willing to invest in a company when control over the supply chain was declared [$F_{(1,201)} = 4.485$, $p = $ <.05; $M_{control} = 3.04(1.69)$ vs. $M_{no\text{-}control} = 3.80(1.56)$]. Locus of discrepancy was slightly significant [$F_{(2,201)} = 2.711$, $p = .07$; $M_{DGW} = 2.66(1.57)$ vs. $M_{VGW} = 3.35(1.72)$ vs. $M_{IGW} = 3.72(1.58)$], but contrasts tests showed that participants were significantly less willing to invest when the locus was internal (DGW) compared with both VGW ($t = -2.237$, $p < .05$; mean difference = -.69) and IGW ($t = -3.394$, p <.01; mean difference = -1.06). Planned contrasts showed that participants were less willing to invest in a company when a company was directly involved compared with VGW*no control ($t = -2.445$, $p < .05$; mean difference = -.87), but the difference was not significant when control was declared (DGW vs. VGW*control: $t = -1.462$,

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$p > .05$; mean difference = -.52). Moreover, control over the supply chain negatively affected IGW: intention to invest was not different between IGW*control and DGW ($t = -1.739$, $p > .05$; mean difference = -.67), but significant compared with IGW*no control ($t = 4.120$, $p < .001$; mean difference = 1.41). Finally, controllability (vs. no control) significantly decreased intention to invest when the greenwashing was indirect ($t = 2.299$, $p < .05$; mean difference = -.74). No other significant results were found.

The findings of this second study provide additional support to the idea that internal locus of discrepancy is detrimental for companies from the ethical and business perspectives, i.e., direct greenwashing generated more blame attributions and lowered intention to invest. Moreover, results suggest that controllability influenced blame attributions. We found that the declared control on the supply chain increased blame attributions when the locus of discrepancy was external, especially when the greenwashing was indirect. The higher blame attributed to a company when the locus of discrepancy was external (i.e., vicarious and indirect) and control declared provide evidence that controllability increases blame attributions, supporting H2.

Moreover, we found that controllability was especially important in shaping investment intentions. Participants were more inclined to invest in those companies that did not declare control over the supply chain, and the declared control was particularly detrimental when the locus of discrepancy was at external. Indeed, when the controllability was high, VGW and IGW did not differ from DGW. These results provide support to H5.

Study 3: Intentionality dimension on blame attributions

The aim of Study 3 was to investigate the effect of different degrees of intentionality on intention to invest. In this study, we focused on the external locus of discrepancy, investigating whether and how

intentionality affects blame attributions when the greenwashing is vicarious or indirect. We expect

greater blame when intentionality is high (testing H3).

Participants and Procedures

One hundred and fifty-eight participants (M_{age} = 36.2; 61.4% male) participated in a 2 (locus of

discrepancy: VGW vs. IGW) x 2 (intentionality: high vs. low) between-subjects experimental design.

In this experiment, the greenwashing reported was about the use of pesticides that kill nontarget insects

and are dangerous for the ecosystem in contrast with the declared intent to preserve the environment,

ecosystems, and animals. Here, we included pesticides as the cause of the environmental scandal

because of their impact on ecosystems, i.e., pesticides remain in the environment for several years,

poisoning water, air, and soil (WWF, 2019). We specified that pesticides are typically not dangerous

for human health, to avoid side effects related to this issue. We used pesticides as stimulus for our

manipulation because they are the cause of insect death (such as honeybees) worldwide (The Guardian,

2009).

In line with previous studies, the environmental preservation was declared by a company in VGW (vs.

the supplier in IGW), and the use of pesticides was done by the supplier in both VGW and IGW.

Manipulations of intentionality were developed according to the literature that describes high

intentional misbehavior as an informed, deliberate, and premeditated action (Harvey et al. 2014; Mai

and Ellis, 2016). Intentionality was manipulated varying the degree of knowledge a company had about

the supplier use of pesticides. In high intentionality conditions (vs. low intentionality), a company was

informed (not informed) about the supplier's use of pesticides since their first collaboration, and a

company actively helped the supplier to hide the proof of ecosystem contamination (vs. the supplier

actively hid the proof).

Analysis on credibility and manipulation checks

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The analysis on credibility revealed that, overall, the scenarios were perceived as credible (M = 5.51, SD = .98), and the credibility did not vary between intentionality conditions [$F_{(1, 154)}$ = .323, $p > .05$]. Conversely, we found a significant difference between the two conditions of the locus of discrepancy [$F_{(1, 154)}$ = 6.021, $p < .05$] with higher means VGW (M = 5.71, SD = .92) compared with IGW (M = 5.32, SD = 1.01). The low Cronbach alpha (.685), however, questions the reliability of this scale in this experiment, and, consequently, the reliability of this result. No other significant differences were found.

Manipulation checks included one item to check the effectiveness of the locus of discrepancy manipulation and three items for intentionality (adapted from Zhou and Ki, 2018). The analyses revealed that the manipulations were effective. Specifically, we found that participants recognized that the supplier declared to be sustainable in the IGW conditions [$F_{(1, 156)}$ = 7.007, $p < .01$; M_{VGW} = 5.13(1.74) vs M_{IGW} = 5.81(1.49)]. Items for intentionality were averaged in a single variable, i.e., participants indicated that the use of the pesticides was a deliberate, informed, and intentionally hidden act by a company in the high intentionality conditions [$F_{(1, 156)}$ = 65.017, $p < .001$; M_{low} = 3.39(2.04) vs. M_{high} = 5.55(1.18)].

Findings

Blame attributions. We found a main effect of locus of discrepancy [$F_{(1, 154)}$ = 4.525, $p < .05$], with higher attributions of blame on the vicarious greenwashing (M = 4.65, SD = 1.90) compared with the indirect greenwashing (M = 3.96, SD = 1.94). This result is aligned with the Study 1 findings and provided additional support to the idea that the more discrepancy is external to a company, the lower the blame attributed. We also found a main effect of intentionality [$F_{(1, 154)}$ = 13.696, $p < .001$], which generated higher blame when the greenwashing was perceived as an intentional act of a company (M = 4.91, SD = 1.65) rather than less intentional (M = 3.76, SD = 2.03). The interaction effect was not significant.

Intention to invest. The analysis revealed nonsignificant results among conditions. As expected, neither locus of discrepancy nor intentionality affected intention to invest.

The results of Study 3 provide further evidence that blame attributions differ between vicarious and indirect greenwashing but not intention to invest. Moreover, we found that intentionality exerted a greater influence on blame attributions: Supporting H3, greater blame was attributed to a company when the misbehavior happened because of collaboration and collusion with a company (i.e., high intentionality conditions).

Discussion, Contribution, and Conclusions

This study contributes to a greenwashing typology with three types: *direct*, *indirect*, and *vicarious greenwashing*. By developing a greenwashing typology based on the locus of discrepancy, the article offers a new and more comprehensive understanding of the phenomenon in light of its position in the supply chain.

Direct greenwashing and *indirect greenwashing*, placed at the extremes of the locus of discrepancy continuum, generate opposite reactions in nonprofessional investors. Our empirical results suggest that direct greenwashing is always the most detrimental for a company, both in terms of blame attributions and intention to invest. On the opposite, indirect greenwashing causes less damage to a company, i.e., it is less blamed for greenwashing, and investment intentions do not decrease.

Vicarious Greenwashing: The third type, which is positioned in between direct and indirect greenwashing, consists of a greenwashing that involves both a company and the supplier. We define this instance as *vicarious* greenwashing, which is the mirrored effect of a supplier's misbehavior on a stakeholder's attributions and intentions. We named it "vicarious" because a company does not perform the misbehavior; however, it is subject to the greenwashing scandal because of the action of someone

else, i.e., the supplier. Consequently, a company "suffers" the scandal in place of the supplier. In vicarious greenwashing, a company is blamed for the misbehavior of its own suppliers, especially if supplier's misbehaviors are due to the negligence of a company to control them. Thus, we observe a spillover of greenwashing effects, although a company was not involved in the greenwashing case but only has business relations with another company. Our findings on vicarious greenwashing are in line with the current theorizing, which calls attention to the expanded responsibility of companies (Schrempf-Stirling et al. 2016; Hartmann and Moeller, 2014). In line with Hartmann and Moeller's (2014) results, individuals tend to punish those companies that do not match their sustainability standards when working with or purchasing from their suppliers. Our findings emphasize that individuals do not differently blame the company even when it does not perform the misbehavior and advise against the risk of greenwashing for a company.

Cases of greenwashing due to supplier's action are not isolated and call attention to the potential negative effects of supply chain mismanagement for companies, together with the opportunities that a company might take if the greenwashing involves the supplier. For instance, in 2010 Nestlé faced a crisis due to its relationship with a supplier, which was harshly criticized by Greenpeace. Nestlé was accused of sourcing palm oil from an unsustainable supplier, and a parodying video was released that emphasized the risks associated with unsustainable cultivation of palm oil. This accusation challenged Nestlé, which faced immediate damage in terms of reputation; in the long-term, however, it turned out to be an opportunity for Nestlé to move toward more sustainable supply chain management (Ionescu-Somers and Enders, 2012).

Our results contribute to the literature on a company's ethically questionable behaviors by deepening the understanding of how stakeholders form blame attributions when companies are involved in greenwashing. In particular, the internal locus of discrepancy leads to greater attribution of blame. This finding has been found in all the studies and with different greenwashing accusations (i.e., palm oil

production, cocoa cultivation, pesticides usage) that tap into two main dimensions of sustainability (i.e., animal welfare and environment) in the food supply chain (Maloni and Brown, 2006). When greenwashing happens at the supplier level, or between a company and the supplier locus, it triggers lower blame. However, declaring control on the supply chain generates expectations about a company's management of its supplier, and if available information contradicts expectation, this causes aggravation of the greenwashing effects. A field study reports that several companies publish at least one CSR standard for supplier selection, but few companies are specific and detailed on monitoring activities over their supply chain (Morali and Searcy, 2013). Given such premises, our results call attention to how a claimed standard for supplier screening must be accompanied by strict risk management and monitoring practices. Otherwise, a declaration of the effective control power on suppliers should be released. Indeed, considering that, in some instances, it can be difficult for companies to gather materials from suppliers in a sustainable way (Ha-Brookshire, 2017), a company should avoid making general statements about its relations with suppliers and favor a full disclosure with stakeholders, admitting what it does well or poorly. Patagonia was one of the first at sharing transparent information with stakeholders about its supply chain (Delmas and Cuerel Burbano, 2011), and, more recently, has been followed by the Italian Sweets producer Ferrero. On its CSR websites, Ferrero publishes percentages of certification, sustainability, and traceability of plantations, wherein it gathers its raw materials, including disclosure of indexes that still need improvement.

In the CSR context, another problem related to a company–supplier relationship is that companies often use suppliers as scapegoats for washing away the sins of greenwashing. Because blaming the supplier is a form of moral decoupling (Eriksson and Svensson, 2016), companies prefer to distance themselves from the misbehavior. Such responsibility shift increases critiques and public pressure (Zadek, 2004), because stakeholders are skeptical about a company's transparency when environmental disasters happen (Wagner et al. 2009). Thus, per Study 3, if a company is perceived to be informed and colluded

with the supplier in greenwashing, stakeholders form blame attributions toward a company even if the supplier was responsible for the misbehavior.

If anything, the external locus of discrepancy can be used in a more constructive way by companies because it allows them to open avenues for improvement and crisis resolution. For instance, companies should try to reduce the source of the issue, such as by means of restructuring the supply chain management, as done by Nestlé, or via the introduction of control rules over supplier selection and detailed supplier labor codes (Emmelhainz and Adams, 1999). Such initiatives might allow a company to overcome a crisis efficiently because these are corrective actions (Coombs, 2010) that prevent a repeat of the greenwashing act.

The present research also allows for a more nuanced understanding of locus of discrepancy effects. This attribution dimension has been mostly treated by considering the extremes of the continuum, so that locus of discrepancy has been analyzed as either internal or external, neglecting to examine the several nuances of such continuum. By including vicarious greenwashing, we conceptualize and test the effect of an intermediate locus of discrepancy, which also leads to original results. Vicarious greenwashing, indeed, shows how blame attributions and investment intentions are not always aligned. In Study 1, for example, blame attributions are significantly lower than direct greenwashing; nevertheless, stakeholders seem not willing to invest in a company. Moreover, taking into consideration controllability, too, it seems that controllability exerts less influence on vicarious greenwashing, being that high controllability is less detrimental compared with indirect greenwashing. These results suggest that locus of discrepancy, although widely studied (Harvey et al. 2014), needs further effort toward understanding its effect on attributions and behaviors.

Finally, from the business perspective, the present research offers fine-grained results on how greenwashing affects the value of a company for investors in the short-term and offers a number of

implications for practitioners in the SRI industry. Probably the most important implication is that

private investors are sensitive to greenwashing. If the literature suggests that private investors have

concerns about the environment when making investment decisions (Nilsson, 2008), this research

provides an understanding of what shapes such decisions. In all, this study shows that vicarious

greenwashing is detrimental for investments as per direct greenwashing. This result suggests that, when

stakeholders see a contradiction between talk and walk, even if only one of the two is performed by a

company, they are not willing to trust it nor invest. Moreover, vicarious greenwashing consequences

are further amplified in the context of high controllability and intentionality. This suggests that it might

be counterproductive for companies to use suppliers as scapegoats, and they should ensure that their

environmental standards are effectively enforced at the supply chain level. It also emphasizes the risk

of moral decoupling, i.e., managers sometimes disengage from what happens distant from them (at the

supplier level) (Eriksson and Svensson, 2016), but this can be dangerous for a company. Reducing the

outsourcing in favor of a complete internal supply chain might be a solution against vicarious

greenwashing and moral distancing, generally speaking. On other option is to increase control over

suppliers, as Pirelli does with its green sourcing policy, which is designed to select and control

suppliers on the basis of the concepts of reduction, reuse, and recovery. All Pirelli's suppliers are

expected to integrate the policy into their own sourcing models and throughout their respective supply

chains.

Limitations and Future Research

Although this study contributes to the literature in many ways, it also has limitations. One is the

experimental approach and the procedures we employed. Here, our procedures consisted of exposing a

participant to a company description and then asking him/her to indicate investment intentions. Such

procedures were developed according to previous studies (e.g., Aspara and Chakravarti, 2015; Carlsson

Hauff and Nilsson, 2017). However, in reality, the investment situation is more nuanced and also includes alternative investment solutions. Thus, future research should include alternative investment solutions to scenarios to better investigate how investment decision-making is shaped when greenwashing happens. Follow-up work could also address other behaviors related to decision-making of private investors. For instance, studies in financial decision-making investigate the psychological factors that affect investors divesting and disposing behaviors in the financial domain (e.g., Aspara and Hoffmann, 2015). Future studies could investigate whether the three greenwashing types have an effect on investors' decisions to sell vs. hold vs. invest more money into these stocks because the buying decisions might differ from divesting decisions (Aspara and Hoffmann, 2015) and psychological factors (e.g., investor's attitude toward a company or positive affect toward a company [Aspara and Tikkanen, 2010; 2011]) may affect an investor's decision to sell or hold the stocks.

Although the phenomena related to investments are generally captured well with the MTurk sample (Buchheit et al. 2018), the use of participants from this panel generated limitations to our studies. The results may not be as generalizable as the results of experiments on investor populations. Indeed, given the non-naiveté and self-selection that characterize MTurk samples, a replication of our studies with other samples (e.g., students or real private investors) or a field study could increase the external validity of our results (Goodman and Paolacci, 2017).

Controllability was manipulated by varying the degree of claimed control over the supply chain. In some instances, however, companies can be forced to make specific supply chain choices because rare raw materials are controlled by few (and unsustainable) suppliers (Ha-Brookshire, 2017), such as the cell phone industry for Coltan. Further, how does a Hobson's choice in supply chain affect controllability perceptions, blame attributions, and investment intentions?

Additional research can also deepen our understanding of greenwashing, including other factors to our typology and conceptualization. For instance, literature on crisis management has also discussed a number of corporate features that may moderate the effects of a crisis on stakeholders' attitudes and intentions. For example, the corporate CSR profile and accreditations may create a halo effect that alters consumer attributions during a crisis (Klein and Dawar, 2004). This means that the damaging effect of a crisis may not always be uniform (Dawar and Lei, 2009). In this regard, Dawar and Lei (2009) suggest that the effects of a crisis may be subject to the relevance of the crisis to a company. In the same way, the relevance of greenwashing to a company, or the fit between the firm's main activity and the scope of the greenwashing case, can alter the effect of the locus of discrepancy, changing stakeholders' attributions and intentions.

Another relevant issue in this domain refers to the regulatory system in the supplier chain choice. For example, in 2010, the U.S. Congress passed the Dodd-Frank Act requiring companies to disclose the source of conflict minerals "necessary to the functionality or production of a product" (U.S. Securities and Exchange Commission, 2019), as tantalum, tin, gold, or tungsten. The act was enacted because of concerns that some exploitation and trade of minerals by armed groups helped to finance conflict in the Democratic Republic of Congo and contribute to the humanitarian crisis. How the regulatory system is changing SSCM- and CSR-related standards should be investigated in future studies to understand if it affects the impact of the locus of greenwashing on stakeholders' reactions. Indeed, a greenwashing scandal related to a CSR-regulated industry is perceived as more severe compared with an industry where there are no rules controlling CSR and the firm–supplier relationship.

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