The effect of extensive CSR communication and reputation on consumer perception and intention in the fashion industry

An experimental research identifying the effect of the extent of CSR communication and brand reputation on consumer perceptions and purchase intention in the fashion industry.

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Abstract

The communication of Corporate Social Responsibility (CSR) efforts may benefit a fashion brand. Yet, it also bears risks. Especially in the current environment in which CSR becomes it increasingly important in the consumer's choice of brand. Nevertheless, the direction of the effect of CSR communication on consumer perception and intention remains uncertain. This study investigated the relation between CSR communication and consumer perceptions and intentions, considering reputation as a moderator. This has been studied by means of an online experimental design, making use of a hypothetical fashion brand named 'Suspact'. During the experiment the extent of information of the CSR efforts of the brand and the brand's reputation have been manipulated. The study confirms that consumer perception increases purchase intention, however, the results suggests that the extent of CSR information does not significantly affect the consumer perception or the consumer intentions. The findings imply that reputation seems to play an important role, especially for brands with a negative reputation. Even though the results do not provide sufficient evidence of the effect of reputation, it indicated that regarding brands with a negative reputation the CSR efforts may backfire and negatively affect the consumer intentions. All in all, future research should investigate this topic to confirm this relation and include time to find whether this relation will change over time. Overall, this study implicates that brands need to consider the complexity of CSR communication in order to capture potential benefits but avoid the potential risks of CSR communication.

Key words: CSR, Communication, Identification, Reputation, Credibility, Purchase Intentions, Perception, Experiment.

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1. Introduction

In the current competitive and globalized market, Corporate Social Responsibility (CSR) is of increasing importance (Luo & Bhattacharya, 2006; Coombs & Holladay, 2011). The environmental concern of consumers is rapidly growing, leading to increasing demand of environmentally friendly and sustainable products (Chen, 2010; Amed et al., 2019a; Dangelico & Vocalleli, 2017). Hereby, the radically changing consumer behaviour towards sustainable products challenges the existing market mechanisms (Todeschini, 2017). This trend is evident in the fashion industry, showing that the majority of fashion brands has established environmental sustainability programs (Choi, 2017). This societal attention creates opportunities (Chen, 2010), for instance as the study by Carlson et al. (1993) indicated a rising number of consumers prefers to commit to a brand that operates in an environmentally responsible manner. These opportunities are captured by companies at an increasing rate indicated by the rise in investment in CSR (Kotler & Lee, 2004) and the increasing number of fashion brands that develop product lines using sustainable and recycled materials (Choi, 2017; Olsen et al, 2014). CSR is described by Carroll (1979) as what society expects of a brand that goes beyond the economic profitability of a company. The definition of CSR consists of the efforts of a firm based on four responsibilities, namely economic, legal, ethical and discretionary responsibilities (Carroll, 1979).

Besides opportunities based on investment in CSR effort, firms invest in CSR communication (Luo & Bhattacharya, 2006). The findings of Tata and Prasad (2015) imply that external CSR communication is equally important as the CSR commitment itself. The communication or marketing of CSR strategy entails how a brand signals their commitment to their stakeholders. Consumer perception of a firm's commitment and reputation regarding CSR influences consumer behaviour (Tang et al., 2012). Therefore, consumer perception needs to be considered in the implementation of a brand's information strategy (Vlachos et al., 2009;

Hur et al., 2014). Cornelissen et al. (2006) suggests that in our current society, the future of all firms depend on how the firm is perceived by its stakeholders.

The aim of this paper is to identify the way in which the communication of environmental CSR commitment enhances the potential benefits of CSR strategy while reducing the risks of misperception of stakeholders. This research focusses on the consumers as this group of stakeholders is especially susceptible to CSR initiatives (Battacharaya & Sen, 2004). Hereby, this study investigates the following research question:

"How does the extent of external CSR communication of environmental CSR commitment to primary stakeholder's influence purchase intentions and perceptions in the fashion industry, and how is this relation moderated by a brand's reputation?"

The research question is investigated by means of an experimental design, using an online survey to determine the consumer intention and perceptions while manipulating the extent of CSR communication and corporate reputation. This is done by varying the extent to which participants receive information of the CSR strategy. The CSR strategy used is the aim to be CO2 neutral in 2023, the treatment group receives an extensive description of the brand's CSR commitment whereas the control group solely sees a CSR statement.

In this field of research, uncertainty withstands regarding the direction of the effect of CSR communication on brand performance. On the one hand, literature suggests that the benefits of CSR are not limited to societal benefits, stating that CSR strategy and its communication have numerous benefits to the brand itself (Chen, 2010; Homburg et al., 2013; Cowan & Guzman, 2020). Namely, researchers show that sustainability communication positively relates to firm performance (Chen, 2010; Baalbaki & Guzman, 2016). The benefits of communicating CSR strategy entail obtaining a competitive advantage, improving corporate image, seeking new markets and enhancing product value (Chen, 2010; Kim, 2019). These studies examining CSR communication, have concluded that, overall, CSR communication

positively affects stakeholder attitudes and behaviour (Sen et al., 2006). On the other hand, studies show that CSR investment and communication do not always lead to the desired outcome (Sen and Bhattacharya, 2001). More specifically, research suggests that in several scenarios, it may occur that communicating CSR commitment negatively affect consumer intentions (Sen & Bhattacharya, 2001; Wagner, 2009).

This study will add to the current literature by investigating the effect of the extent of CSR communication on consumer perception and intentions, given their corporate reputation in the fashion industry. The fashion industry has changed remarkably towards a more responsible approach (Todeschini, 2017), yet, the main challenge remains to discover the most effective communication to promote sustainable initiatives (Olsen et al., 2014). More specifically, the majority of research identifies perceived credibility (Fombrun, 1996; Sen et al., 2006) and consumer identification (Muniz & O'Guin, 2001) as the main influential factors in consumer purchasing intentions and attitudes. Eberle et al. (2016) confirm that enhanced credibility and the sense of identification lead to higher reported purchase intentions. This indicates the importance of considering perceived message credibility and identification in a brand's information strategy development.

Even though Cowan and Guzman (2020) claim that the consumer perception and purchase intention positively affect a brand performance and financial value, research explaining how CSR and CSR communication affects consumers perceptions and purchase intention is still scarce (Cowan & Guzman, 2020). This scarcity is unexpected, especially since CSR communication can be considered as one of the main resources of a brand to gain moral legitimacy (Arvidsson, 2010; Scherer & Palazzo, 2011). Simultaneously, consumer scepticism of brand's CSR efforts has increased over the last years (Amed et al., 2019), which requires careful consideration of corporate communication to avoid misperception. Especially considering the fashion industry, which is a CSR sensitive market as a large share of the

industry is depending on unethical and unsustainable production processes (Amed et al., 2019; Todeschini et al., 2017). Laudal (2010) describes this as the clothing industry having high CSR potential, based on the fact that the potential improvement is substantial.

The relevant contribution of this study is two-fold. Firstly, it provides insight in how a firm is able to capture the potential benefits of their CSR strategy by communication while limiting the risks accompanied by CSR communication, especially considering the risk accompanied by a negative reputation. This insight is provided by linking the CSR commitment to a brand's reputation and consumer perception. This is particularly relevant because of the complexity of including environmental responsibility in a business strategy (Sen et al., 2006). This complexity is due to the fact that CSR strategy is costly, whereas the direct financial benefits are often lacking, which initially provides limited incentives to commit to such strategy. Secondly, an increasing number of consumers performs a background check of a brand before they decide to purchase its products (Amed et al., 2019). Namely, 52% of the millennials say to always research the brand before buying, compared to 41% of the baby boomers (Amed et al., 2019). As this trend indicates, Amed et al. (2019) predicts that trust issues will play a large role in the coming years. This emphasizes the fact that fashion brands should invest in their information strategy. This research contributes to this by identifying the influence of reputation, credibility and the sense of identification, which has important implication for brands as currently many companies are unprepared for the task of CSR communication (Nielsen & Thomsen, 2007; Ardvidsson, 2010).

This paper is structured as follows. In the first section, the findings of previous literature are discussed. This is followed by a section explaining the methodology and the experimental design of the study. The third section will highlight the results, after which they will be discussed in section four while explaining the limitation of this research and making suggestions for future research. The final section covers the conclusion of the study.

2. Literature Review

The fashion industry has a considerable negative impact on the environment due to its excessive use of natural resources and unethical production processes (Pedersen et al., 2018). As a consequence, this industry has experienced a large amount of pressure of their stakeholders to operate more responsibly and adapt business strategies to include present-day environmental issues (Dangelico & Vocalelli, 2017). This is driven by the changing attitudes of consumers towards a more environmentally engaged approach (Caniato et al., 2012). This increases the importance of CSR strategy and its communication in the fashion industry. CSR strategy entails that firms function carrying responsibilities beyond the basic economic role of a firm (Carroll, 2010). In order to acquire the potential benefits of this strategy, external communication to stakeholders is necessary (Scherer & Palazzo, 2011). Andreu et al. (2015) confirm that the message of CSR commitment is of high relevance and it should suit the market by message type and consumer appeal. This study investigates the effect of extensive communication of environmental CSR commitment of a fashion brand on consumer perception and intention. The analysis includes the perceived reputation of a brand as a potential moderator in the relation between CSR communication and consumer perception and intention. The following section summarizes the existing literature in this field and formulates the hypotheses that are tested in this study.

2.1 Communicating CSR commitment and consumers perception.

The critical step to engage consumers is by making them aware of CSR initiatives (Sen et al., 2006). Companies employ multiple information channels to show their CSR initiative to the public (Bhattacharya et al., 2011). The findings of Kim (2019) suggest that consumers with knowledge of the brand's CSR strategy and trust in the brand's commitment have a more positive perception of the brand. Overall, in order to develop the desired brand image, brands do not only introduce sustainable initiatives, but they also communicate the specific

sustainable-attributes of their initiative (Olsen et al., 2014). Research has identified message credibility and consumer identification as the most influential perceptions to consider in consumer purchase intentions and behaviour (Lafferty et al., 2002). For this reason, the study aims to identify how the extent of communication of CSR commitment influences the consumer perceptions of credibility and identification.

2.1.1 Credibility perception

Firstly, credibility in relation to communication is discussed. For this research, we define credibility as the extent to which the recipient perceives a message to be true and believable (Mackenzie & Lutz, 1989) and is found to have expertise of the brand (Ohanian, 1990). Brands commit to CSR strategy driven by organizational motives, economic motives and institutional motives (Caniato et al., 2012). However, the communication of CSR is criticized as it is often believed to be used as a marketing campaign (Ven, 2008). Due to the perceived strategic nature of CSR communication, CSR statements are often a cause of mistrust (Waddock and Goggins, 2011). This mistrust results from inconsistent CSR communication (Seele & Lock, 2015). Nonetheless, by means of communicating CSR commitment a brand can improve its credibility and reduce the credibility gap, by strengthening the transparency of the corporate information (De Geer, 2009). Relatedly, Wagner et al. (2009) investigate how information strategies have the potential to mitigate the skepticism resulted from CSR inconsistencies, revealing proactive CSR communication strategies seem to be a larger source of hypocrisy than reactive communication in case communication and behavior are perceived as inconsistent. They indicate that communication should be consistent with brand behavior in order to display the desired effect.

In response to the increasing concern and mistrust, several brands have radically changed towards more transparency to recapture the trust of their consumers (Amed et al., 2019). Simultaneously, the competitive environment becomes more crowded with an

increasing number of fashion brands adopting CSR strategy and offering sustainable product lines (Choi, 2017). Therefore, a consumers' perception of the expertise and the trustworthiness of such strategy is of high relevance. Improving message credibility by means of communication can be explained based on the signalling theory stating that by means of signalling, a brand is able to increase trust, inform the consumer about their attributes, highlight quality and limit risks for the consumer (Erdem et al., 2006; Homburg et al., 2013). The communication of CSR commitment reduces the information asymmetry between the consumer and the brand (Bartikowski et al., 2011; Kirmani & Rao, 2000). Reduced information asymmetry decreases uncertainty, Lee et al. (2019) concluded that once uncertainty is reduced, the perceived message credibility increases.

Lock and Seele (2016) argue that understandability of a message is particularly relevant as understandability is found to be a pre-condition of credible communication. The communication of the CSR commitment could positively affect the understandability of the message. Similarly, the findings of Lock and Seele (2016) state that a relatively longer CSR report, providing more information, is found to increase the perceived credible of the report, compared to a less extensive report. This study will investigate whether a similar relation holds regarding the extent of a corporate message stating CSR efforts. Besides, the study of Du et al. (2010) found that stating truthful firm motives, including the benefits to the firm itself, increases credibility, which implies that more transparent communication increases the brand's credibility. The research of Cowan and Guzman (2020) states that communication may increase the credibility of the message.

This study investigates whether the positive effect also holds for communication of CSR commitment. Based on prior findings, we suggest that the communication of CSR commitment increases the perceived credibility. So, this study will test the following hypothesis:

H1a: *Communication of CSR commitment positively influences the perceived credibility.*

1.2.2 Identification perception

Secondly, the relation between identification and communication is discussed. Research has indicated that communicating CSR commitment influences the perceived sense of identification with a brand (Sen et al., 2006; Lichtenstein et al., 2004). Communication allows a brand to inform their consumers about their brand attributes, which enables consumers to find whether these attributes correspond with their personal values (Erdem et al., 2006). For this research, consumer identification is defined as the extent to which a consumer can identify with a company and to what extent a consumer shares similar views as the company (Kim, 2019).

Previous literature indicates that brands that reveal its character and identity, for instance by means of CSR communication, allow consumer to identify with the brand based on their assessment of overlap between the consumer identity and the brand identity (Sen and Bhattacharya 2001; Lichtenstein et al., 2004; Sen et al., 2006). Especially CSR strategy has the potential to positively affect consumer identification since environmental responsibility provides the ability to humanize a brand (Bhattacharya & Sen, 2003).

In the case of CSR, low awareness of CSR initiatives of the brand remains a critical obstacle in the brand's attempt to optimize the benefits of their CSR strategy (Du et al., 2010). Generally, consumers who are made aware of the CSR initiatives and commitment of a brand are found to display higher levels of identification (Sen et al., 2006). CSR information is found to be a specifically relevant basis to build the consumers' consumer-company fit upon (Sen & Bhattacharaya, 2001). The findings of Sen and Bhattacharaya (2001) indicate a positive relation between informing consumers about a brand's CSR initiatives and the consumers' perceived sense of identification. According to Sen and Bhattacharaya (2001), this is based on the fact that as consumers learn about a company's identity, they develop a relationship with

the brand. Similarly, Hall (2006) suggests that consumer awareness of a brand's CSR initiatives, which could be created by means of corporate communication, increases the strength of perceived relation with the brand.

According to Kim (2019), one way to increase awareness of a company's CSR activities is by meeting consumers' need and expectations about CSR information and making that information readily available. The results suggest that different levels of information lead to different behaviour (Li et al., 2014). The study by Pérez and Del Bosque (2015) provides evidence of the positive relation between CSR and consumer identification by showing that CSR enhances brand prestige and enables the brand to differentiate. The study of Olsen et al. (2014) indicates that a brand's identity positively relates to brand attitude as long as a brand show consistent meaningful CSR efforts in order to maintain its sustainable identity.

For this study, we will investigate how communication of CSR commitment externally affects the perceived sense of identification. Based on the findings of prior literature, we have formulated the following hypothesis that is tested in this study:

H1b: *Communication of CSR commitment positively influence the perceived sense of identification of a brand.*

1.2 Consumer perception and Purchase intention

Firstly, Chen (2010) indicates that green brand image positively affects brand equity, which is mediated by satisfaction and trust. Hereby showing that by means of investment in brand image, green trust and green satisfaction, a brand is able to enhance its brand equity (Chen, 2010). This study investigates the effect of perceived identification and credibility on consumers' purchase intention as several researchers indicate consumer identification and message credibility to be the main factors influencing consumer intention (Eberle et al., 2016; Sen et al., 2006; Fombrun, 1996). This study aims to confirm this relation by researching how perceived identification and credibility affect purchase intentions in the fashion industry.

More specifically, the results of the study by Lee et al. (2019) show that CSR credibility has a significant effect on the prediction of CSR participation intention. This is supported by the research by Kim (2019), indicating that the perception of a brand's credibility may eventually determine consumer participation. The results of the research by Erdem and Swait (2004) demonstrate a positive relation between brand credibility and brand choice, suggesting credibility perception is especially influential in markets that are characterized by uncertainty and asymmetry, such as the fashion industry (Todeschini, 2017).

Besides credibility, companies can strengthen consumers' long-term relation with the brand by means of identification (Du et al., 2007). The findings of Sen et al. (2006) suggest that the ability to identify with a brand, increases the purchase intention of a brand. This is backed up by the research of Amed et al. (2019) indicating that an increasing number of young consumers in the fashion industry choose brands that are associated with their personal values and avoid brands that are not. Therefore, this research will study the following hypothesis in an attempt to confirm previous findings:

H2a. Consumer perceptions of identification with the brand and credibility of the brand positively relate to the purchase intention.

In general, Baalbaki and Guzman (2016) have established a positive relation between sustainability signals and brand performance and equity. More specifically, the results of Sen et al. (2006) show that consumers who are aware of the CSR commitment and initiatives of a brand show a higher level of identification and are more likely to purchase the brand's products or invest in the brand. This implies that through increasing brand awareness, for instance by providing consumers with extensive brand information, consumer identification positively affects purchase intentions (Sen et al., 2006). Olsen et al. (2014) demonstrate that CSR initiatives and communication are used to enhance brand identity, which in turn is expected to increase purchase intentions towards the brand. Similarly, the scores of credibility are

positively and significantly related to consumer attitude towards the brand and to the consumer's purchase intention (Newel & Goldsmith, 2001; Lafferty et al., 2002)

In addition, Sen and Bhattarachaya (2001) suggests that CSR action positively affects consumer intention, as long as it does not hurt its core business. This implies that if consumers believe that CSR action is taken at the expense of another brand value, it may negatively affect consumer intention. However, Sen and Bhattarachaya (2001) state that a brand is able to avoid the negative consequences by means of clear communication, showing their CSR efforts won't hurt their core business. Consequently, by means of clear communication the consumer is made aware of their CSR commitment, which increases brand awareness which may positively affect purchase intention (Brown & Dacin, 1997). This increased purchase intention may be enhanced through perceived credibility when information asymmetry is reduced once a brand's communication serves as a signal of their CSR commitment (Baek et al., 2010). The importance of credible signals increases when consumers experience uncertainty about brands (Erdem & Swait, 2004). Simultaneously such signals create brand prestige which increases the consumer purchase intention through improvement of the consumer's sense of social status and self-worth (Baek et al., 2010). To build upon, the research of Li et al., (2014), in which they highlight the importance of firm information strategy, shows that increased information availability decreases price sensitivity.

The sales of green products have increases significantly because of increasing interest in environmentalism and sustainability globally (Chen, 2010). Consequently, Chen (2010) shows that a rising share of consumers is willing to pay a premium price for green products. The study of Dangelico & Vocalelli (2017) confirm these findings by showing a positive relation between sustainable efforts and purchase intentions, as consumers are willing to pay a premium price for products that display environmentally responsible attributes. Based on aforementioned findings, the following hypothesis will be tested in this research:

H2b. *Communication of CSR commitment positively influence the consumers' purchase intentions, moderated by credibility and identification perceptions.*

1.3 CSR communication, the moderating effect of reputation and consumer perception

In recent years, firms invest increasingly in improving their corporate reputation by CSR commitment and sustainability promises (Torelli et al., 2012; Abratt & Kleyn, 2012). This is because a firm's reputation can be used as a business strategy, providing the firm with a competitive advantage, long-term stakeholder values, access to new markets, trust and consumer loyalty (Chen, 2010; Homburg et al., 2013). This paper uses the definition of reputation of Gardberg and Fombrun (2002), they define reputation as "a collective representation of a firm's past actions and results that describe the firm's ability to deliver valued outcomes to multiple stakeholders".

Prior research shows that reputation influences the effect of CSR communication on consumer intention and perception (Torelli et al., 2012; Du et al., 2010; Fombrun & Shanley, 1990). The study by Eberle et al. (2016) indicates that the information treatment of CSR commitment may affect the reputation of a firm. Likewise, the reputation influences the effectiveness of CSR messages as the evaluation process of CSR information provided by a brand is in the context of prior information on a brand's reputation (Torelli et al., 2012). This is confirmed by the findings of Fombrun and Shanley (1990), explaining that reputation is used as a prior schema upon which the consumer relies to interpret equivocal information, hereby influencing the efficacy of the communication of CSR. This suggests that in this manner reputation is used to form perceptions. More specifically, the findings of Bhattarachya and Sen (2004) demonstrate that providing CSR information to consumers increases consumer evaluations, which is enhanced when brands have a better reputation and when consumers have a personal fit with the goal of the brand.

The reputation of a brand is particularly relevant in certain industries (Bhattacharya & Sen, 2004), including the fashion industry, as this sector has been largely criticized in recent years (Choi, 2017). The results of Du et al. (2010) indicate that the effect of reputation moderates the effect of CSR communication, showing brands with a good reputation to have higher perceived message credibility relative to firms with a bad reputation. Cowan and Guzman (2020) have found similar results, indicating that CSR signalling could be affecting firm performance. Yet, their study demonstrates an inconsistent relation between CSR signalling and performance, which according to their findings may be due to the moderating effect of reputation (Cowan & Guzman, 2020). More specifically, the findings of the study by Cowan and Guzman (2018) suggest that the consumer perception of a brand's reputation affects firm performance. These results display that as long as consumers perceive the brand's reputation as sustainable, the firm performance increases.

Previous research shows that brands with a neutral reputation are more likely to gain greater benefits than brands with a positive reputation (Strahilevitz, 2003). Similarly, in the study by Cowan and Guzman (2020) CSR communication for brands with a mid-level reputation appear to be most effective in building firm performance, indicating a significant effect of CSR signals on firm performance of mid-ranked firms.

The effect of CSR communication in the case of poor reputation may backfire and hereby worsen the perceived credibility of a brand (Du et al., 2010). The negative consequence of CSR communication can be explained by negativity bias. The negativity bias entails that the effect of a negative comment is stronger than the effect of a positive comment (Sen and Lerman, 2007; Folkes & Kamins, 1999). The bias involves increased attention to negative messages and increased trust of negative message, compared to positive messages (Ahluwalia, 2000). Moreover, by means of multiple experiments Yoon et al. (2006) show that CSR actions may hurt a brand if consumers do not perceive the brand's motives to be credible. This implies

that a negative company reputation negatively affects the credibility of a brand (Yoon et al., 2006). According to Wagner et al. (2009) this negative relation between a negative reputation and positive CSR communication may be due to inconsistency regarding claims and actions. They demonstrate that CSR information, especially proactive communication, may be counterproductive and negatively influence brand evaluation if communication is accompanied by inconsistent firm behaviour (Wagner et al., 2009). The CSR communication, in case of a bad reputation, may harm the consumer perceptions of the brand. Following their line of reasoning, this research tests the following hypothesis to investigate the moderating effect of reputation on consumer perception and intention given a brand's reputation:

H3a. The effect of communication of CSR commitment on perception of identification is enhanced given a brand has a positive reputation or a neutral reputation; the effect of communication of CSR commitment on consumer intention weakens or backfires given a brand has a bad reputation.

H3b. The effect of communication of CSR commitment on perception of credibility is enhanced given a brand has a positive reputation or a neutral reputation; the effect of communication of CSR commitment on consumer intention weakens or backfires given a brand has a bad reputation.

1.4 CSR communication, the moderating effect of reputation and consumer intention

The reputation perception is crucial for the efficacy of a corporate message (Bhattarachya & Sen, 2001). A brand reveals its commitments by investing in their environmental actions, which eventually creates sustainable legitimacy (Crespin-Mazet & Dontenwill, 2012). The legitimacy of the brand strengthens the relation between sustainable initiatives and brand attitude (Lafferty et al., 2002). A reputation of being committed to the environment acts as a signal to alleviate consumer concern and confirm the brand's ability to generate favourable environmental impact (Fombrun & Shanley, 1990). This leads to

increasing brand performance as experience and knowledge of the brand's reputation are used in the decision of consumers' choice of brand (Wang, 2012). Hereby, Hur et al. (2014) found that the relation between CSR and brand equity is mediated by reputation. This may imply that given a positive reputation, the effect of communication on purchase intentions is mediated by reputation. This supports the findings of Cowan and Guzman (2020), which suggested that the inconsistent relation between CSR signals and firm performance may be due to the moderating effect of reputation. This study will investigate whether communication increases purchase intention given a positive reputation.

On the other hand, Oh et al. (2016) researched advertisement of CSR commitment of sinful firms, which are firms operating in a controversial industry. Their findings demonstrate that the CSR efforts make these firms vulnerable as scepticism of their stakeholders increases. According to Oh et al. (2016) these CSR efforts of sinful firms may eventually backfire and negatively affect the firm's performance. This negative effect is due to scepticism regarding the sincerity of the environmental efforts of a brand, so called "greenwashing", which entails firms engaging in deceptive environmental efforts (Laufer, 2003). This study will analyse how this relation holds regarding communication of CSR effort, given a brand has a negative reputation.

H4. The effect of communication of CSR commitment on consumer purchase intentions is enhanced given a brand has a positive reputation or a neutral reputation; the effect of communication of CSR commitment on consumer intention weakens or backfires given a brand has a bad reputation.

3. Methodology

Figure 3.1

Conceptual Research Model
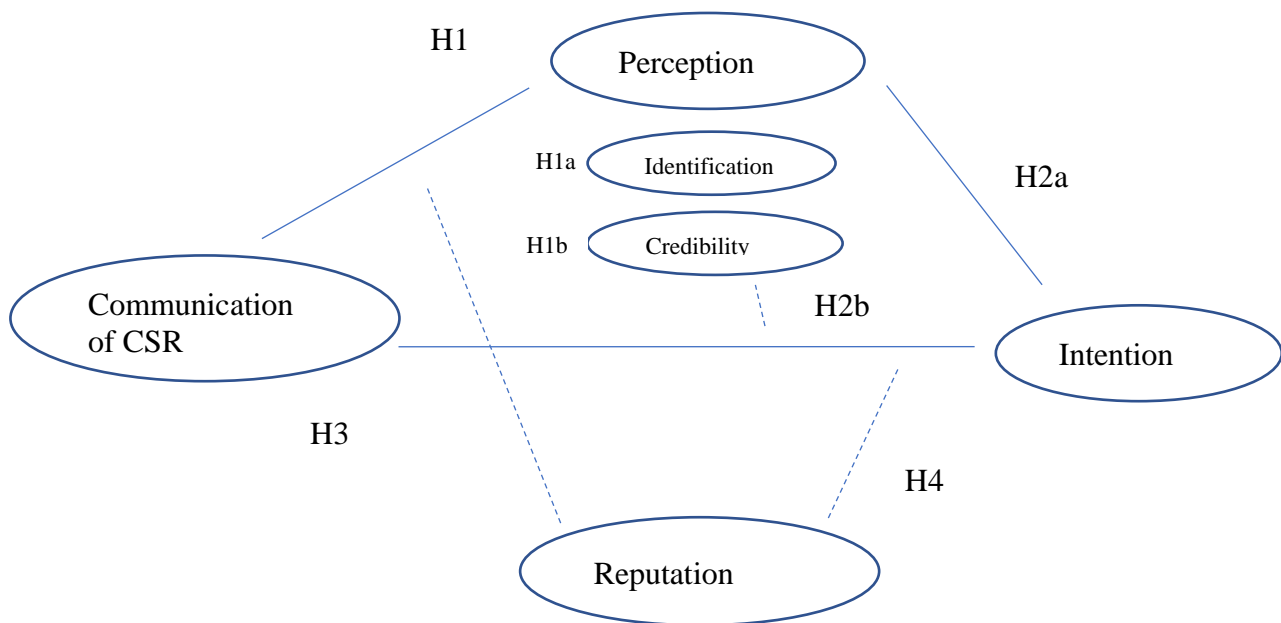
This paper aims to identify the impact of external environmental CSR communication of a firm's CSR commitment on consumer perception and intention by answering the following research question: *"How does the extent of external CSR communication of environmental CSR commitment to primary stakeholder's influence purchase intentions and perceptions in the fashion industry, and how is this relation moderated by a brand's reputation?"*. In order to test the aforementioned hypotheses and attempt to answer this research question, an online experimental approach is used. A fictitious fashion brand was created, named 'Suspact', to eliminate the influence of existing beliefs and prior knowledge of the participants. The brand is committed to a CSR strategy but the extent of provided information to stakeholders varies across treatment groups. Hereby, two groups were formed, one that receives a message communicating CSR commitment of a brand extensively and one receiving a statement only. Besides information on the brand's CSR strategy, the study tests for the effect of reputation.

Therefore, both treatment groups are divided into three subgroups, receiving either a positive, negative or no reputation fragment. All subjects are randomly assigned to the different groups.

3.1 Research Design

The coming sections cover the experimental design and the procedure of this experimental research. The survey can be found in Appendix A.

3.1.1 Experimental design

The experiment is conducted by using an online survey created by means of Qualtrics. The participants are recruited at several universities in the Netherlands, at social media platforms, and at other data collection platforms. All participants are allocated randomly to the different treatment groups. A fictitious fashion brand is developed in order to display a corporate message of a brand and manipulate reputation without interference of existing attitudes or beliefs. The hypothetical brand is named Suspact, which is a sustainable fashion brand with the aim to be CO2 neutral in 2023. Firstly, this fictitious brand is mentioned in a text fragment manipulating the perceived reputation of the brand. This is done by showing the participants a text that states whether the brand seems to be reaching their CSR targets or not. All three messages are constructed such that they are the same, apart from the part that manipulates the perceived reputation. The different messages can be found in Appendix A1.

After providing information on the brand's reputation, the fictitious brand is used to show a corporate message stating the CSR strategy and commitment of Suspact. A corporate message was created, using the website designer software 'Wix', in order to provide the participants with a design that represents a realistically looking fashion brand website. The information messages of CSR commitment are constructed based on the findings of Andreu et al. (2015) and Du et al. (2010) and are adapted to fit the aim of this research. Furthermore, the remaining information provided in the CSR communication is based on the CSR communication of existing fashion brands. The message is written based on the findings of

Andreu et al. (2015) focusing on one type of CSR stimuli (environmental versus social), message appeal (rational versus emotional) and type of service (hedonic versus utilitarian) as these are factors that are found to influence the consumer reaction to CSR communication (Andreu et al., 2015). This is supported by Du et al. (2010) showing that the efficacy of the CSR communication is dependent on industry specific factors. Following their findings, the type of stimuli that has been focused on is environmental CSR in the fashion industry. Additionally, the research uses a rational message appeal, rather than emotional, as that is found to be more effective when it comes to environmental CSR (Andreu et al., 2015; Kim, 2019). By means of specifying the CSR message, the influence of other factors on the participant's perception or purchase intention is limited. Both CSR messages can be found in Appendix A2.

After the participants have received information of the brand's reputation and information of the brand's CSR strategy, they were asked to answer the questions assessing their purchase intention. This is measured by means of a choice list, which provides participants with a choice between buying a white t-shirt of Suspact or buying the same t-shirt at an alternative brand (Appendix A3). The choice list will provide useful insight into the willingness to pay a premium price, while keeping the task easy. A white t-shirt is used as the product to compare purchase intention, as it is assumed that the majority of the respondents is able to imagine this scenario. Also, it is a basic product that is believed not to influence the choice in any other way apart from the CSR communication and reputation. After the question measuring the purchase intention, the survey continues by asking the participant's perception (Appendix A4). The questions regarding the purchase intentions are asked before the perception as consciously thinking about the perception may affect reported purchase intentions, which might provide biased results as a consequence. The perception questions measure the perceived credibility of the firm, the perceived reputation, the perceived identification and lastly the

perceived informativeness of the message. The participants are asked to state their perceptions by means of a 7-point Likert scale. The questions are asked in a randomized order, to avoid anchoring bias that might occur by answering the questions sequentially.

3.1.2 Procedure

To start with, the participants are guaranteed they answer the questions anonymously in order to minimize socially desirable behaviour. Secondly, the participants are randomly allocated across two groups, by means of the randomization function in Qualtrics. Before they start, they are made aware of the fact that they are able to win a gift card by participating in the research as long as they answer all questions.

The experiment starts with a description of the hypothetical brand 'Suspact', a brand operating in the fashion industry, proposing some general facts that are supposed to induce a perceived positive or negative reputation of the firm. Hereby, the aim is to manipulate the perceived reputation of Suspact. In this way, the participants within both groups are randomly allocated to 3 subgroups, a positive reputation group (PRG), a negative reputation group (NRG) and a no reputation group (NORG). The PRG received a positive description that Suspact is a trustworthy company, which means they have a reputation that supports the fact that what they communicate regarding CSR is made true. The NRG received a negative description that the hypothetical firm has had some negative feedback and there is uncertainty regarding their CSR targets. Lastly, the NORG did not receive any information on the firm's reputation but some general neutral facts about the brand. The messages provided to the respondents can be found in Appendix A, together with an illustration of the distribution of participants across the different samples in Appendix B.

In order to check whether the participants had read the information regarding the reputation of Suspact carefully, they receive a question whether the firm successfully reduces their production waste. The answer could have been found in the text fragment. Hereby, the

participants who did not read the fragment carefully, were unable to answer this question or answered incorrectly are identified.

After the respondent have read the fragments manipulating a perception concerning corporate reputation of Suspact, the participants receive the corporate message stating the CSR efforts of Suspact. A message is created that is claimed to be taken from the corporate website of Suspact. The treatment group receives a message that extensively states the CSR strategy and their commitment of Suspact (C). In addition, at the end of the text of the treatment, there is a button that states: 'learn more'. This implies that if individuals would be willing to receive more information on the CSR strategy of Suspact, it is easily available. The message can be found in the Appendix. The control group receives a message that only states Suspact's CSR strategy (NC). Hereby, CSR information is manipulated by deviating the extent to which the brand communicates its CSR strategy and commitment. Additionally, the participants are not provided with the 'learn more' button, as this might influence their perceptions because they may believe the information is easily available. The message provided to the control group can be found in the Appendix.

Based on the description of Suspact and the corporate message, the respondents are asked to imagine that they are looking for a white t-shirt and they can choose between Suspact and an alternative. This is asked by means of a choice list. This choice list provided the participant with a several choices between Suspact and the alternative, varying the prices of both brands. Hereby, the choice list assesses a participant's WTP, by calculating at what price the participants switches from Suspact to the alternative brand. Afterwards, the participants are asked to state their perception of the message credibility, identification, reputation and informativeness. All constructs are measured by means of a 7-point Likert scale, ranging from strongly agreeing to strongly disagreeing.

3.1.3 Descriptive sample

The experimental survey was distributed during a period of a month, from 10th of June till the 15th of July. The participants were recruited using social media, including Facebook and Whatsapp, and survey distribution website 'Surveyswap', which can be used by students and researchers who need respondents. Following the G-power calculation of the minimal sample size, the research should be based on a sample of 400 participants. However, given the limited resources and time, this has not been reached. The total number of participants of the survey is 267. Nonetheless, to clean the dataset, incomplete observations and the observations of the respondents that show inconsistent answers were excluded. These observations were identified based on the fact that the participants had switched multiple times within the choice list, which should not occur because it represents an unrealistic situation. Consequently, I have a remaining 190 respondents 9 (n=190). This is considerably less than recommended by the G-power calculation, which will be considered during the interpretation of the results.

In this paragraph the demographics of the final sample that will be used in this research will be described. Firstly, the average age of the participants in the sample is 29 years old, with the youngest participant being 18 years old and the oldest participant being 67 years old ($M =$ 28.5, $SD = 12.2$). Secondly, the final sample consists of 58 percent female (n=111) and 42 percent male (n=81). Thirdly, regarding the level of education of the sample, 43 percent of the participants has finished a University Bachelor (n=82), 27 percent a University Master program (n=51), 10 percent an HBO study (n=23) and the remaining 18 percent have finished high school or have done an MBO study (n=36). The majority of the sample consists of students (n=143), who account for 74 percent of the sample, 25 percent indicated to be employed (n=47), and the last two categories, including being unemployed and prefer not to say, account for only 1 percent of the sample (n=2). The Dutch nationality is dominant as 80 percent of the sample is Dutch (n=155). The remaining nationalities are distributed amongst the following countries: Belgium, Germany, United Kingdom, France, Greece, Italy, Poland, Slovenia,

Spain, Switzerland. Due to the unequal distribution of nationality across the sample, I am not able to draw a valuable conclusion regarding the differences between nationalities. Therefore, it is decided to exclude nationality in the analysis.

3.3 Analysis

3.3.1 Measurements

Following the research of Eberle et al. (2013), I used the measurement of message credibility based on the study of (Newel & Goldsmith, 2001), the measurement of identification based on the study of Einweiller et al. (2006), the measurement of corporate reputation of Fombrun et al. (2000) and a self-constructed measurement of information. Additionally, a measure of personal environmental relevance is included to be able to account for personal preferences to test whether this does not significantly differ across groups.

Table 3.1.

Measurement of construct

Construct	Measurement	Source
Message Credibility	Suspact makes truthful claims	Newell and Goldsmith (2001)
	Suspact is honest	
	I trust Suspact	
	I do not believe what Suspact tells me	
Identification	I have a sense of connection with Suspact	Einwiller et al. (2006)
	Suspact is probably similar to me	
	I consider myself as belonging to the group of people who are in favour of Suspact	
	I feel associated with Suspact	
	Employees of Suspact are probably similar to me	
Corporate Reputation	Suspact is an environmentally friendly company	Fombrun et al. (2000)
	Suspact has a responsible approach to CO_2 reduction	
Information treatment	Suspact makes informative claims	Self-constructed
	Suspact shows transparent information	
	Suspact does not hide relevant information	

| Personal | I believe sustainability is of high importance | Self-constructed |
| relevance | | |

3.3.2 Variables

3.3.1.1 Dependent variables. *Perceived identification*. Identification has been measured by several statements regarding the sense of identification with the brand of the participant. Identification can be defined by the extent to which the participant is able to identify with the brand and shares similar values. The variable takes the values 1 to 7, based on a 7-point Likert scale. Since this variable is a measure consisting of several items, the values are non-integer. The mean of the variable representing the perception of identification is 3.4 (*M=3.4, SD=1.4*).

Perceived credibility. Credibility has been measured using several statements assessing the participant's perception of credibility of the brand. It is defined as the extent to which the participant perceives the corporate message to be true and believable. The variable takes values 1 to 7, as the statements were asked to be assessed by means of a Likert scale. However, since the variable credibility is based on three items, the values of the variable are non-integer. The mean of the credibility perception is 4.2 (*M=4.2, SD=1.3*).

Purchase intention. The purchase intentions are measured by means of a Choice List. This method has been chosen as this increases the reliability of the answers of the choice list. It may be difficult for participants to decide on their WTP if they would be asked straight-forward. Therefore, by using a choice-list, participants do not have to come up with the value themselves as they only have to decide what point they want to switch to the other brand. The mean WTP is 18.30 euros with a standard deviation of 3.20 (*M=18.30, SD=3.20*).

3.3.1.2 Independent variables and control variables. *Treatment CSR*. The treatment variable takes the value 0 for those who received only a CSR statement (n=95) and the value 1 for those who received an extensive CSR message (n=97).

Reputation. The reputation variable indicates what reputation description the participants had received before answering the questions. The value of the variable takes 0 when participants were provided with a neutral description (n=67), 1 when they were provided with a negative description (n=69), and 2 when they had received a positive description (n=56).

Control variables. Several demographics may impact 'green' consumer behaviour (Kaufmann et al., 2012). Therefore, the following control variables are included in the model. Firstly, age has been included in the model based on the research of Johnstone and Lindh (2017) and Amed et al. (2019) suggesting age to affect sustainability awareness, indicating that millennials show higher awareness levels than others. Secondly, gender is included, because generally it seems that females are more concerned about the environmental impact of their consumption and may take a more positive attitude towards sustainable initiatives and products compared to males (Luchs & Mooradian, 2012). Thirdly, education has been included in the model as Kaufmann et al. (2012) indicate environmentally conscious consumers are often highly educated. Fourth, occupation was accounted for as this is correlated with income which determines a large part of people's purchase intentions. Lastly, the study of Watkin et al. (2016) indicate attitudes towards green products differ across nationalities, which is the reason why nationality is included as a control variable in this study.

3.3.3 Statistical Analysis

3.3.3.1 Assumptions. For each model, the assumptions of a linear regression were tested by means of Stata. Firstly, the research used a binary explanatory variable, which implies the linearity assumption holds. Secondly, even though the research made use of convenient sampling, the survey was distributed through multiple platforms and hereby it is assumed that a random sample is drawn from the population. Thirdly, the paper identified whether the assumption of no problematic heteroskedasticity holds by plotting the residuals and the fitted values of the model and by carrying out the Breusch-Pagan test for heteroskedasticity. The

findings show that only for Model 3b this assumption does not hold. Therefore, Model 3b has been analysed using robust standard errors. Fourth, the findings of the vif test indicate that the model has no problematic multicollinearity as the value does not exceed the ideal value of 4 in most models, and it does not exceed the acceptable value of 10 in Model 2a (UCLA, n.d.). Fifth, using a RESET test in Stata, the paper is able to assume the model has a zero-conditional mean as the results do not provide evidence to reject the null hypothesis of the model not having omitted variables. This suggests the assumptions hold, so the research may use a linear regression. The results of the aforementioned tests can be found in Appendix C2.

3.3.3.2 Choice of Model. Hypothesis 1 and Hypothesis 2 are researched by means of two samples. One sample consists of the participants receiving the treatment, receiving extensive CSR communication, and the other sample represents the control group, receiving only a CSR statement. The dependent variable of the first hypothesis is the measure of perception, Model 1a measuring perceived consumer identification and Model 1b measuring the brand's credibility. Both models include CSR treatment, age, gender, education and occupation as independent variables. Nationality is not included in the model as the majority has a Dutch nationality which consequently means that the results do not provide reliable insights in the effect and relation of nationality.

$(1a)\ Perceived\ credibility$

$$= Treatment\ CSR + Age + Gender + Education + Occupation$$

$(1b) Perceived\ identification$

$$= Treatment\ CSR + Age + Gender + Education + Occupation$$

The perception is measured by means of several Likert scales, each measure consists of 3 to 4 statements which measure the same construct. Consequently, the final variable indicating the consumer perception is an average of multiple Likert scale items. The analysis of this model consists of a Mann-Whitney U test and a linear regression. Given the limited

number of observations of this study and the ordinal nature of the variables used to calculate the perception variable, a Mann-Whitney U test is used to explore the differences between samples. Yet, for a more detailed estimation, a linear regression is preferred over a non-parametric test as this allows to investigate the direction and the magnitude of the effect. The study ran both models. The ordered logit and the linear regression both had very similar results. Given the fact that the linearity assumptions seem to hold, and the variable takes non-integer values between the smallest and the largest value, the study chose to run a linear regression rather than an ordered logit model. Therefore, the first hypothesis is investigated using a linear regression. The results of the ordered logit regression can be found in the Appendix D3.

The second hypothesis uses the participants' WTP as the dependent variable while including perception, age, gender, education and occupation as independent variables for Model 2a. Thereafter, Model 2b adds the moderating effect of communication by including the interaction variable of CSR treatment and both consumer perceptions.

$(2a) \; Willingness \; To \; Pay$

$$= Consumer \; perception_{identification} + Consumer \; perception_{credibility}$$

$$+ Age + Gender + Education + Occupation$$

$(2b) \; Willingness \; To \; Pay$

$$= Treatment \; CSR + \; Consumer \; perception_{identification}$$

$$+ Consumer \; perception_{credibility} + Treatment CSR$$

$$* Consumer \; perception_{identification} + Treatment \; CSR$$

$$* Consumer \; perception_{credibility} + \; Age + Gender + Education$$

$$+ Occupation$$

WTP is a measure of purchase intention. WTP is used to estimate the price the participant is willing to pay for the t-shirt of Suspact. This regards prices as latent variable and is hereby treated as a continuous variable. Nevertheless, a Mann-Whitney U test is carried out

to discover any differences between samples because of the limited number of observations. After this, a linear regression is used in order to investigate this model in more detail.

Hypothesis 3 and Hypothesis 4 are researched by means of 6 different samples. This is due to adding reputation in these hypotheses. Therefore, all possible combinations of the CSR treatment and reputation are used to investigate the influence of reputation. Hypothesis 3 tests the dependent variable perception and includes the treatment group variable, gender, age, education and occupation as independent variables. Model 3a investigates the effect on the perceived identification with the brand and Model 3b the effect of perceived credibility of the brand. In order to explore the differences in perception for Model 3 and the differences in WTP in Model 4 a Kruskal Wallis test is chosen to be the appropriate test, given the limited number of observations and the six samples without prior ranking. In model 3, the dependent variable perception is measured by means of a multi-item construct using Likert scales. Nevertheless, because perception is not an integer variable and the linearity assumptions hold, a linear regression is used to investigate the relation in more detail.

$$(3a)\ Perceived\ credibility$$

$$= i.Treatment\ Groups + Age + Gender + Education + Occupation$$

$$(3b)\ Perceived\ identification$$

$$= i.Treatment\ Groups + Age + Gender + Education + Occupation$$

The above-mentioned models are used to investigate the influence of communication, given a certain reputation. This has been executed by including the interaction of reputation and communication. Preferably the variables would be added to the model individually as well, yet, this bring multicollinearity upon the model. Therefore, the model has been investigated with the interaction variable and control variables only.

$(4) \: Willingness \: To \: Pay$

$$= i. Treatment \: Groups + \: Consumer \: perception_{identification}$$

$$+ \: Consumer \: perception_{credibility} + Age + Gender + Education$$

$$+ \: Occupation$$

The last hypothesis uses WTP as the dependent variable, similarly to Model 2. Yet, the independent variables differ, as these consists of the treatment groups, age, gender, education and occupation. The variable treatment groups indicate the interaction between reputation and communication, consisting of all possible combination of communication and reputation. Again, this study cannot include the variables of reputation and communication separately in Model 4 as this has multicollinearity as a consequence.

3.4 Robustness Check

3.3.1 Validation Check

By means of the validation question it is analysed whether people understood and read the text carefully. This question is answered correctly in 88 percent of the surveys (n=167), which means that 12 percent of the respondents either did not understand the text of did not read the text correctly (n=23). Given that it is crucial that participants understand and read the experiment carefully, it has been tested if this has affected the results of the study. This is done by comparing the distributions of the sample containing the participants who have answered the validation question correctly to the sample of participants who have answered the question incorrectly. A Mann-Whitney U test has been used to compare the independent samples. The results show that the groups do not appear to be significantly different based on age (*p=0.334*), gender (*p=0.807*), education (*p=0.916*), occupation (*p=0.271*) and environmental concern (*p=0.452*) at a 10 percent significance level. Additionally, the perception of identification (*p=0.176*) and credibility (*p=0.557*) do not significantly differ either. Therefore, it is decided to include the observation of the participants who did not answer this validation question

correctly but did the survey completely because of the limited number of participants and observations in this study (n=23). The results of the validation test can be found in Appendix B4.

4. Results

4.1 Randomization

The data has been randomized by means of the software of Qualtrics. In order to test whether this has been done correctly, the ANOVA test and the Chi-squared have been used. The analysis of the randomization is done twice as the number of samples needed differ across hypotheses and can be found in Appendix C1.

Firstly, I used the two samples as needed for hypothesis 1 and hypothesis 2. Regarding these two samples, the control variable age is found to be significantly different at a 5 percent significance level based on the ANOVA test ($p=0.020$). This insinuates that age has not been randomized correctly, which might bias the results. Thereafter, Chi-squared analyses have been used to test the randomization of the categorical variables. The results show that the samples do not significantly differ at the 10 percent significance level based on Gender ($p=0.150$), Education ($p=0.976$), Occupation ($p=0.472$) and environmental concern ($p=0.656$) (Appendix C1). The distribution of the variables across the samples can be found in Appendix B.

Secondly, the analysis is repeated for the 6 samples that were used to test hypothesis 3 and hypothesis 4. First, an ANOVA test is carried out to test the continuous variable age. Again, the results show that the samples are significantly different at a 5 percent significance level ($p=0.019$), which implies there is no correct randomization regarding age. After this, a Pearson Chi-squared is used to test the randomization of the categorical control variables. The outcome displays that the control variables gender ($p=0.195$), occupation ($p=0.158$), education ($p=0.926$), and environmental concern ($p=0.833$) are not significantly different (Appendix

C1). This demonstrates correct randomization regarding these variables. The distribution of the

variables across the samples can be found in Appendix.

4.2 Manipulation Check

Table 4.1

Output of linear regression functioning as manipulation check to test whether reputation and informativeness are correctly manipulated.

VARIABLES	(1) Perceived Reputation	(2) Perceived Informativeness
Negative Reputation	-1.155***	
	(0.246)	
Positive Reputation	0.219	
	(0.264)	
Gender	0.344	0.192
	(0.215)	(0.193)
Age	0.00747	-0.00565
	(0.0130)	(0.0120)
Education	0.114	0.0581
	(0.0763)	(0.0690)
Occupation	0.341	0.540*
	(0.327)	(0.297)
treatmentCSR		0.372*
		(0.191)
Constant	3.440***	2.429***
	(0.559)	(0.465)
Observations	191	191
R-squared	0.186	0.051

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Reputation. In order to test whether the perception of reputation is successfully manipulated,

a linear regression model is used, given the variable reputation is measured by means of two

constructs. The aim of this test is to find if reputation has a significant influence on the

perceived reputation of the participants. If this does not hold, it means that the reputation has

not been correctly manipulated and we have to be careful by drawing conclusions based on this

research. Unfortunately, the findings suggest that our manipulation of reputation does not

appear to significantly affect the perception of reputation of the brand regarding the positive

reputation description. The effect shows to be insignificance at a significance level of 10 percent ($p=0.409$). However, the effect of the negative reputation description appears to have a significant effect on the perceived reputation, showing that the reported value decreases with 1.16 likert-scale points, relative to the sample receiving a neutral reputation description. This is significant at a 10 percent significance level ($p=0.000$). This unsuccessful manipulation might be due to the design of the experiment, which imposes a threat as the effect that this research has found regarding brands with a positive reputation might not be the true effect of reputation. The ordered logit model of the manipulation test can be found in Appendix D1.

Information. Besides reputation, the study aimed to manipulate the perceived informativeness of the brand's corporate message in order to test the effect of communication. By means of the manipulation check, it is established whether this manipulation significantly affected the perception of the participants. Correct manipulation means that those groups who received CSR communication are found to show a higher perception of informativeness, which should be a significant effect in order to investigate the desired effect. A linear regression is used to analyse if communication has a significant effect on the perceived informativeness of the participants. The findings of the linear regression indicate that receiving the more extensive CSR communication is positively related to the perceived informativeness of the brand. The effect entails that being in the treatment group, receiving more extensive information, relative to the control group, receiving only a statement, increases the reported perceived informativeness with 0.387 points on a Likert scale. This is significant at a 10% significance level ($p=0.053$). This provides evidence of correct manipulation of informativeness across groups. The ordered logit model of the manipulation test can be found in Appendix D3.

4.1.3 Reliability

The experimental design makes use of several measurement to measure consumer perception. The questions are answered by means of a Likert Scale. To test the consistency of

these scale items, the Cronbach's Alpha of each measure is computed. This is done for the measure of perceived credibility, identification, reputation and informativeness. The rule of thumb entails that a Cronbach's Alpha between 0.7 and 0.8 is acceptable, between 0.8 and 0.9 is good and above 0.9 is very good (Ursachi et al., 2015).

First, we analyse the reliability of the construct measuring identification. The measure consists of four statements. The Cronbach's Alpha displays a value of 0.8827, which implies that the construct is good. We can conclude that the identification measurement is sufficient based on the Cronbach's Alpha. Secondly, the reliability of the measurement of credibility is tested. This perception is measured by means of three statements. The Cronbach's Alpha shows to be 0.7488, which means that we conclude that the credibility measurement is acceptable. Thirdly, the perceived reputation measurement consists of two statements. A Cronbach's Alpha of 0.8642 is found. Based on this value, it can be concluded that the construct to measure perceived reputation is good. Lastly, we test the reliability of the perceived informativeness of the message. This is tested with three statements, which show a Cronbach's Alpha of 0.7784. Therefore, it can be concluded that the measure of informativeness is acceptable. Overall, all measurement constructs are found to be above the 0.7, which means all measurements are at least acceptable. An overview of the Cronbach Alpha's of the measurements can be found in Table 4.2.

Table 4.2

Cronbach's Alpha of measurement constructs

Measurement variable	Cronbach's Alpha
Perceived Identification	0.8819
Perceived Credibility	0.7388
Perceived Reputation	0.8716
Perceived Information	0.7768

4.1.4 Validity

In order to test the validity of the measurement constructs, we run a factor analysis. By means of an Exploratory Factor Analysis (EFA), the research is able to explore and confirm the relationships between the survey items. Before conducting a factor analysis on our multi-construct measurements of perceptions, we conduct a factor test. This is done to determine whether it is necessary to conduct the factor analysis. This included two tests, the Bartlett test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy. The Bartlett test shows that there is sufficient intercorrelation to conduct the factor analysis (*p=0.000*). KMO displays a value of 0.904, which exceeds the recommended value of at least .50 (Yong & Pearce, 2013), showing an overlap of shared variance between pairs of variables. Both tests suggest EFA to be useful (Appendix C3).

Therefore, a factor analysis is executed. An EFA is executed using our Likert scale data of perception measurements. The complete set of perception questions is analysed, which consists of 13 questions. The statistical software recognizes seven separate factors, as it recognizes identification as a separate factor, credibility and reputation are recognized in the second factor, credibility and information fall within the third factor, and environmental concern is found as the fourth factor. The remaining three factors do not contain values over 0.400, which is the recommended value for retaining the factor according to Stevens (2002). The overlap within the factors may be due to the fact that these measurements are relatively similar. The detailed results of the factor analysis can be found in Appendix C3. The validity of the measurement is tested by means of the EFA, however, there is no use in adapting and changing the data as this would measure different constructs. For this reason, this research uses the original pre-set constructs as indicated as the constructs, apart from information and environmental, have been approved by previous literature.

4.2 Hypothesis testing

In the coming section the results of the model are discussed extensively, which is done for each hypothesis separately.

4.2.1 Communicating CSR commitment and consumer perception

Initially, it is investigated whether extensive communication of CSR commitment exerts influence on consumer perceptions of identification and credibility. In order to find this effect, the differences between two samples are analysed. One sample has received a detailed description of the CSR commitment of the brand, whereas the other sample received simply a CSR statement without any explanation. This analysis has been split into two separate parts of hypothesis one. First, we describe the results of communication on the perceived identification of the participants. This is followed by the analysis of the findings on perceived credibility.

Table 4.3

Output of the linear regression of the effect of receiving extensive communication on the dependent variables identification and credibility perception.

VARIABLES	(1) percep_iden	(2) percep_cred
treatmentCSR	0.0688	-0.134
	(0.203)	(0.192)
Gender	0.879***	0.0826
	(0.205)	(0.194)
Age	0.0237*	0.00226
	(0.0131)	(0.0123)
Occupation	0.0324	0.0552
	(0.322)	(0.303)
Education	-0.0481	0.0493
	(0.0732)	(0.0691)
Constant	1.369***	3.940***
	(0.493)	(0.464)
Observations	190	189
R-squared	0.129	0.007

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Standard errors are reported in parentheses

H1a. Communication of CSR commitment positively influences the perceived identification.

To start with, a Mann-Whitney U test is executed to compare two independent samples (Appendix D1). Namely one sample has received detailed CSR communication and the other group has received solely a CSR statement. The p-value of the Mann-Whitney U test shows to be 0.280 (*p=0.321*), concluding the samples do not differ significantly on a 10 percent significance level. Based on this statistical analysis, there is no evidence to reject the null hypothesis of the two groups having an equal median. This suggests that there is no evidence that the CSR treatment, consisting of extensive communication of a brand's CSR commitment, affect the perceived identification of the brand, compared to showing solely a brand's statement.

Secondly, in order to be able to account for the control variables in the experiment, a linear regression is used. The output of the regression can be found in Table 4.3. Aligned with the results of the Man-Whitney U test, the regression confirms that there is no evidence that the CSR treatment affects the perceived identification of the brand. This becomes evident as being in the treatment, compared to the control, exerts an insignificant effect of an increase of 0.07 Likert scale points, ceteris paribus, on the perception of identification at a 10 percent significance level (*p=0.741*). Hereby, the study fails to reject the null hypothesis of no effect of communication. Nonetheless, the results insinuate that gender and age exert an influence on the perceived identification with the brand. The effect of gender entails that being a female, compared to a male, increases the perceived identification by 0.877 on the 7-point Likert scale, keeping all else constant. This effect is significant at a 1 percent significance level (*p=0.000*). Regarding age, the findings demonstrate that with a one-year increase in age, the perceived identification increases by 0.02 Likert scale points, ceteris paribus, which is found to be significant at a 10 percent significance level (*p=0.058*).

H1b. Communication of CSR commitment positively influence the perceived sense of credibility of a brand.

The tests as used for H1a are repeated, starting with the Man Whitney U test, comparing the perception of credibility of the sample that received extensive CSR communication to the sample that only received the CSR statement (Appendix D1). The results of the Mann-Whitney U test present an insignificant difference between the treatment and control group, suggesting that the null hypothesis of the groups having an equal median cannot be rejected (*p=0.551*). Based on this finding, there is no evidence that the CSR treatment affects the consumer perception of a brand's credibility.

To build upon, after the Mann-Whitney U test, a linear regression was carried out with the dependent variable being the perceived sense of credibility and the independent variables including CSR treatment, age, gender, nationality, occupation and education (Table 4.3). The findings suggest that the treatment of CSR, compared to the control, has a negative effect on the consumer's perceived credibility of 0.10 likert-scale points, ceteris paribus, which is insignificant at a 10 percent significance level (*p=0.472*). This provides no evidence of hypothesis 1b, as the relation is found to be insignificant and opposite of the hypothesized relation. Therefore, the null hypothesis of no effect of communication cannot be rejected. Moreover, not a single control variable shows to be significantly related to the participants' perception of the brand's credibility.

4.2.2 Consumer perception and purchase intention

Thereafter, Hypothesis 2 tests whether the participants' perception of the brand affects the WTP of the participants. The WTP is a measure of the participant's purchase intentions. This hypothesis is divided into two sub-hypotheses. The first part of the hypothesis establishes the relation between consumer perception and WTP and the second parts build upon this by investigating how perception affects the relation between communication and WTP.

Table 4.4

Output of the linear regressions analysing the effect of perception on the dependent variable WTP (1) and the moderating effect of perception on the effect of communication on WTP (2).

VARIABLES	(1) WTP	(2) WTP
CSR treatment		0.220
		(1.547)
Perception credibility	0.446**	0.560*
	(0.209)	(0.322)
Interaction CSR treatment and perception credibility		-0.167
		(0.424)
Perception identification	0.373*	0.237
	(0.199)	(0.308)
Interaction CSR treatment and perception identification		0.213
		(0.383)
Age	0.0360	0.0326
	(0.0280)	(0.0287)
Gender	0.710	0.681
	(0.477)	(0.484)
Education	-0.155	-0.161
	(0.161)	(0.163)
Occupation	-1.089	-1.034
	(0.686)	(0.700)
Constant	14.76***	14.69***
	(1.281)	(1.449)
Observations	189	189
R-squared	0.136	0.139

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

H2a. Increased perception regarding credibility of and identification with the brand positively affects the consumer's purchase intentions.

Thereafter, this study investigated whether the perception affects the WTP of the participants. This has been tested by means of linear regressions, considering the WTP variable to be treated as a continuous variable. The model represents the effect of perceived identification and perceived credibility on participants' WTP, while including age, gender, education and occupation as control variables. The results indicate that given a 1-point increase in perceived identification, the WTP of the participants' increases by 0.37 euro, ceteris paribus. This effect is found to be significant at a 10 percent significance level (*p=0.062*). Furthermore, the findings demonstrate that a 1-point increase of the perceived credibility increases the WTP with 0.45 euro, keeping all else constant. This effect is significant at a 5 percent significance

level (*p=0.034*). These results imply that the perception of credibility is positively related to the WTP of consumers. Based on this outcome it can be deducted that both perceived identification and perceived credibility seem to positively affect the WTP of the participants. This provides evidence of hypothesis 2a, suggesting consumer perception of identification and credibility is positively and significantly related to the purchase intentions of consumers. Therefore, there is sufficient evidence to reject the null hypothesis of no perception having no effect. Withal, the results suggest that age, gender, education and occupation do not significantly affect the WTP of the participants.

H2b. Communication of CSR commitment positively influence the consumers' purchase intention, which is moderated by perception.

Regarding the second part of hypothesis 2, it is tested whether being in the CSR treatment group affect the purchase intention of consumers through the moderating effect of perception of the brand's credibility and their perception of being able to identify with the brand. Again, this has been tested by means of a Mann-Whitney U test to analyse the divergence between WTP of the consumers of the two separate samples (Appendix D1). The Mann-Whitney U test indicated that the WTP of the sample receiving CSR communication is not significantly different from the sample receiving only a CSR statement (*p=0.164*) at a significance level of 10 percent. This finding implies that the CSR treatment does not affect the purchase intention, as we fail to reject the null hypothesis of the groups having an equal median.

Figure 4.1.

Boxplot of the difference in WTP between the sample receiving extensive CSR communication (1) and the sample receiving only a statement (0).
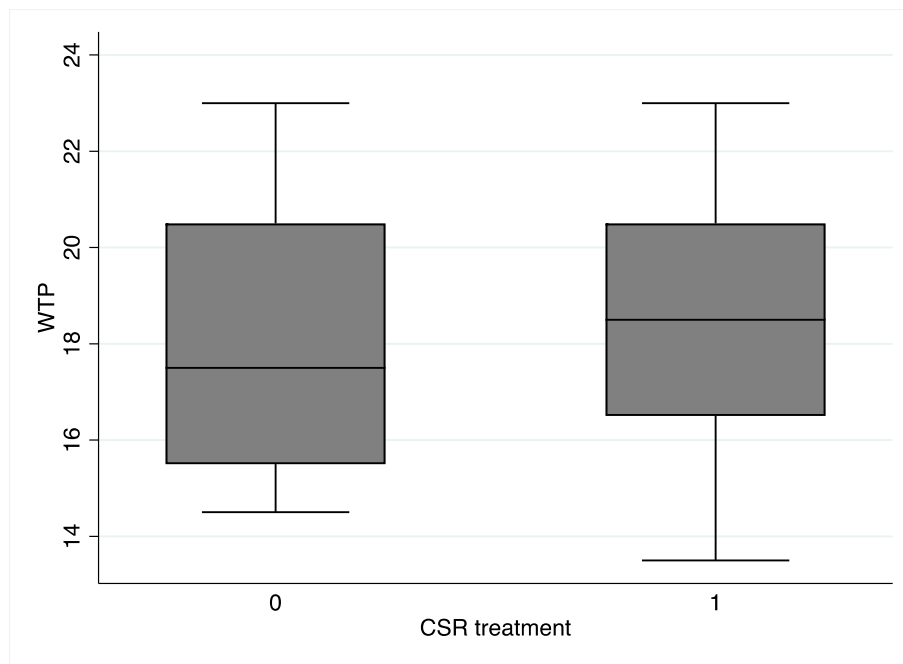
In addition to this, a linear regression is used in order to account for the effect of perceived identification, perceived credibility, and control variables including age, gender, occupation and education. In order to find the effect of communication, through perception, the analysis includes an interaction variable for communication and perception. The interaction is able to indicate if the participants' purchase intention may be affected by communication, depending on the way the information is perceived. The results of the linear regression demonstrate that the interaction effect between treatment and perception of identification and credibility are insignificant (resp. *p=0.769*, *p=0.317*). More specifically, the interaction of credibility and communication demonstrates a negative effect of 0.17 euro, which is given that they receive communication a one-point increase of perceived credibility negatively affects participants' WTP, compared to the sample that did not receive communication treatment, ceteris paribus. Additionally, a 1-point increase in consumer identification seems to positively affect WTP, given that they received CSR communication, showing an increase of WTP of 0.21 euro relative to the sample that did not receive extensive communication.

Nonetheless, the insignificant results suggest that the effect of communication is not significantly moderated by the credibility perception of consumers. Hereby, this suggests that

there is no evidence of the second part of hypothesis 2, testing whether communication influences WTP through the perception of identification. Nevertheless, the effect of perceived credibility seems to remain significantly positive at a 10 percent significance level ($p=0.084$), indicating that in this model increasing perceived credibility by 1-point will positively effect WTP with an increase of 0.55 euro, ceteris paribus. None of the control variables seem to significantly affect the WTP of the participants in this research.

4.2.3 CSR Communication, the moderating effect of reputation and consumer perception

In addition to researching the effect of communication, I test whether reputation has a significant effect on the consumer perception of identification and credibility and on the purchase intention of these consumers. To investigate the role of reputation 6 different samples are used, including all combination of communication treatment and reputation. The third hypothesis is divided into two separate hypotheses again, hypothesis 3a focusses on the effect of perceived identification of the participants whereas hypothesis 3b investigates the effect of perceived credibility on WTP. For the interpretation of the results, the sample receiving no communication and a neutral reputation description is used as the reference group.

Table 4.5

Output of the linear regression testing the effect of communication and reputation on perceived identification and perceived credibility.

VARIABLES	(1) percep_iden	(2) percep_cred
Treatment groups		
NC_NEGR	-0.516	-0.852***
	(0.323)	(0.300)
NC_POSR	0.402	0.630***
	(0.339)	(0.240)
C_NOR	0.412	0.184
	(0.322)	(0.249)
C_NEGR	-0.652**	-1.087***
	(0.314)	(0.295)
C_POSR	0.345	0.273
	(0.337)	(0.274)
Gender	0.973***	0.222
	(0.200)	(0.170)
Age	0.0220*	-0.000171
	(0.0125)	(0.00864)
Occupation	0.131	0.187
	(0.312)	(0.192)

Education	-0.0709	0.0190
	(0.0703)	(0.0648)
Constant	1.264**	3.810***
	(0.542)	(0.383)
Observations	190	189
R-squared	0.220	0.237

Standard errors in parentheses of (1), Robust Standard errors in parentheses of (2)

*** p<0.01, ** p<0.05, * p<0.1

Table Notes. NC_NEGR= sample receiving no extensive CSR communication and a negative reputation description. NC_POSR= sample receiving no extensive CSR communication and a positive reputation description. C_NOR= sample receiving extensive CSR communication and no reputation description. C_NEGR= sample receiving extensive CSR communication and a negative reputation description. C_POSR= sample receiving extensive CSR communication and a positive reputation description.

H3a. The effect of communication of CSR commitment on consumer perception of identification is enhanced given a brand has a positive reputation or a neutral reputation; the effect of communication of CSR commitment on consumer perception of identification weakens or backfires given a brand has a bad reputation.

At the outset, a Kruskal Wallis test has been used to identify whether the treatment groups are significantly different (Appendix D2). The appropriate test is a Kruskal Wallis test as this hypothesis investigates the differences across six samples with no prior ranking. The results of the test indicate that the treatment groups are significantly different at a 1 percent significance level (*p=0.006*), so the null hypothesis of an equal median is rejected. Thereafter, the Mann-Whitney U test was used to test for the treatment groups that received a positive reputation and a negative reputation separately (Appendix D1). This sub-analysis allows to identify whether the effect of communication is enhanced, reduced or shows no changes given a certain reputation. Firstly, the samples that received a positive reputation description do not display significant differences based on communication of CSR efforts, which is found to be insignificant using 10 percent significance level (*p=0.778*). Similarly, the two sub-samples who received a negative reputation description indicate the difference in perception is insignificant at a 10 percent significance level (*p=0.588*). Regarding both Mann-Whitney U tests, the results to not provide evidence to reject the null hypothesis of an equal median

between samples. This depicts that communication does not seem to affect perception differently, given a brand's reputation.

In addition, a linear regression was executed to investigate the effect of communication given the reputation of the brand in more detail. This is carried out by using perceived identification as the dependent variable and treatment groups, age, gender, education, occupation and nationality as the independent variables. The output of the regression can be found in Table 4.5. Hereby, it is tested whether the perception of identification differs significantly given different treatment and reputation interaction. The results demonstrate that the majority of the findings do not provide evidence of communication and reputation exerting an effect on perceived identification with the brand. Hereby, we cannot find evidence to reject the null hypothesis of no effect of the interaction between communication and reputation on consumer perception of identification entirely.

Nonetheless, the second part of the hypothesis argues that CSR communication given brands with negative reputation may backfire or weaken the effect, the findings do provide evidence for this part of the hypothesis. More specifically, it becomes evident that being in the treatment group that received communication and a description of a brand with a negative reputation, compared receiving no communication and a neutral reputation description, decreases the perception of the participants by 0.52 points on the Likert scale, keeping all else constant. Yet, this effect is found to be insignificant at a 10 percent significance level (*p=0.111*). Interestingly, the analysis demonstrates that given a brand with a negative reputation, communication seems to increase the magnitude and significance of the negative effect on perceived identification. The effect of communication while receiving a negative reputation description is a decrease of 0.65 Likert scale points of perceived identification, which is relative to the reference groups receiving no communication and a neutral reputation

description, ceteris paribus. This effect is significant at a 5 percent significance level (*p=0.040*).

Even though the differences between groups receiving communication treatment are insignificant, the results suggest that communication may worsen the perception of identification if the brand shows to have a negative reputation. Yet, this does not suffice as evidence of the first part of the hypothesis as the difference is found to be insignificant. Lastly, the results indicated that age positively relates to perceived identification, showing to increase the participants perception by 0.02 Likert scale points given a one-year increase in age, ceteris paribus. This effect is found to be significant at a 10 percent significance level (*p=0.069*). Next to age, gender seems to significantly affects perceived identification of participants. This regards a positive effect of 0.97 Likert scale point of being female, compared to being male, keeping all else constant, which is significant at a 1 percent significance level (*p=0.000*).

H3b. The effect of communication of CSR commitment on consumer perception of credibility is enhanced given a brand has a positive reputation or a neutral reputation; the effect of communication of CSR commitment on consumer perception of credibility weakens or backfires given a brand has a bad reputation.

The analysis of the first part of the hypothesis is repeated to analyse the effect of communication and reputation on the perception of credibility of the brand. Six separate sample are needed to draw a conclusion of the combined effect of communication and reputation. Therefore, a Kruskal Wallis test is found to be the appropriate test. The findings of this test suggest that there is a significant difference in the median of the samples (Appendix D2). This effect is significant at a 1 percent significance level (*p=0.000*), which implies we reject the null hypothesis of equal medians. More specifically, the hypothesis tests how the effect of communication changes given a brand's reputation. Therefore, a Mann-Whitney U test was used to find the difference in the effect of communication for each reputation sample

(Appendix D1). Communicating CSR efforts for brands with a negative effect, show no significant differences ($p=0.888$), which means there is no evidence to reject the null hypothesis of the groups having an equal median. On the other hand, the perceived credibility of the group receiving communication given a brand has a positive reputation seems to significantly differ compared to no communication ($p=0.092$) at a 10 percent significance level. This suggests that the medians of the samples do differ significantly, so we are able to reject the null hypothesis of the groups having an equal median. The direction and magnitude are investigated in the second part of the analysis.

Additionally, a linear regression is used to investigate the effect of communication and reputation in more detail, using the perception of credibility as the dependent variable and treatment groups, age, gender, education, and occupation as the independent variables. The results indicate that being in treatment groups that received a negative brand reputation description show significant result on perceived credibility (Table 4.5). More specifically, the findings do not provide evidence of the first part of the hypothesis regarding the effect of communication and reputation given a brand has a positive or neutral reputation. Surprisingly, the sample that did not receive extensive CSR communication in combination with a positive reputation description demonstrates a positive significant effect on the perceived credibility. This effect entails an increase of 0.60 Likert scale points, ceteris paribus, for being in the no communication and positive reputation group compared to the group that did not receive extensive CSR communication and a neutral reputation description, which is significant at a 10 percent significance level ($p=0.061$). These results imply that reading about a brand having a good reputation significantly affects the perception of the credibility of the brand, even without any communication. The effect of communication and positive reputation is positive but insignificant ($p=0.392$), relative to the reference group, which suggests that there is no evidence that the perception is enhanced by providing CSR information, given the brand has a

positive reputation. Surprisingly, the magnitude of the positive effect decreases when CSR efforts are communication extensively, which is a significant difference as indicated above by means of the Mann-Whitney U test.

Moreover, the findings indicate a significant negative effect of being in the sample that received a negative reputation description. More specifically, being in the group without extensive CSR communication in combination with receiving a negative reputation description, compared to being in the group without extensive CSR communication and a neutral reputation description, decreases the perception of credibility with 0.85 Likert scale points, keeping all else constant. This effect is significant at a 1 percent significance level (*p=0.005*). Similarly, the effect of being in the group that received extensive CSR communication in combination with a negative reputation description, compared to the reference group and keeping all else constant, decreases the perceived credibility of a brand with 1.08 Likert scale points, which is found to be significant at a 1 percent significance level (*p=0.000*).

Therefore, regardless of communication there is evidence that a negative reputation description decreases the perception of the credibility of a brand. Moreover, it appears that the magnitude of the effect is larger for those that received extensive communication, which suggests that with a negative reputation, extensive CSR communication might worsen the consumers' perception of credibility. Nevertheless, as the findings of the aforementioned Mann-Whitney U indicated that the two groups that received a negative reputation description do not differ significantly there is no evidence that communication significantly worsens the perception of credibility given a negative reputation of the brand. Lastly, none of the control variable are found to be significantly related to the perceived credibility of the brand.

4.2.4 CSR Communication, the moderating effect of reputation and consumer intention

Next to the effect of reputation on perceptions, the effect of reputation on the consumer intention is tested. Again, to investigate the role of reputation 6 different samples are used, including all combinations of communication and reputation. The last model uses perception, age, gender, education and occupation as independent variables. For the interpretation of the results, the sample receiving no communication and a neutral reputation description is used as the reference group.

Table 4.6

Results of linear regression investigating the effect of the interaction between communication and reputation on the dependent variable willingness to pay (WTP).

VARIABLES	(1) WTP
Treatment groups	
NC_NEGR	-1.114*
	(0.595)
NC_POSR	0.888
	(0.618)
C_NOR	-0.190
	(0.582)
C_NEGR	-0.662
	(0.590)
C_POSR	1.186*
	(0.608)
percep_iden	0.400**
	(0.156)
percep_cred	-0.0528
	(0.180)
Gender	0.948**
	(0.383)
Age	0.0217
	(0.0226)
Occupation	-0.0750
	(0.559)
Education	-0.150
	(0.127)
Constant	15.74***
	(1.146)
Observations	189
R-squared	0.224

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table Notes. NC_NEGR= sample receiving no extensive CSR communication and a negative reputation description. NC_POSR= sample receiving no extensive CSR communication and a positive reputation description. C_NOR= sample receiving extensive CSR communication and no reputation description. C_NEGR= sample receiving extensive CSR communication and a negative reputation description. C_POSR= sample receiving extensive CSR communication and a positive reputation description.

H4. The effect of communication of CSR commitment on consumer intention is enhanced given a brand has a positive reputation or a neutral reputation; the effect of communication of CSR commitment on consumer intention weakens or backfires given a brand has a bad reputation.

Lastly, it is analysed how the interaction of communication and reputation affect the purchase intention of the participants. Firstly, a Kruskal Wallis test is executed to measure whether the treatment groups, taking reputation into consideration, show significant differences regarding purchase intentions (Appendix D2). The Kruskal-Wallis test suggests that there are significant differences at a 1 percent significance level between treatment groups ($p=0.006$). This is followed by two Mann-Whitney U tests to investigate how communication affect perception, given their reputation (Appendix D1). The results show that the sample that received communication given a positive reputation, does not show significant differences in WTP compared to the sample that did not receive the CSR communication ($p=0.376$), ceteris paribus. Similarly, the findings of the MWU analysing the effect of communication regarding brands with a negative reputation, do not indicate significant difference in participants' WTP ($p=0.112$). The differences between the treatment groups are displayed in Figure 4.2.

Figure 4.2.

Boxplot indicating differences of participant's WTP between the different treatment groups based on communication and reputation.
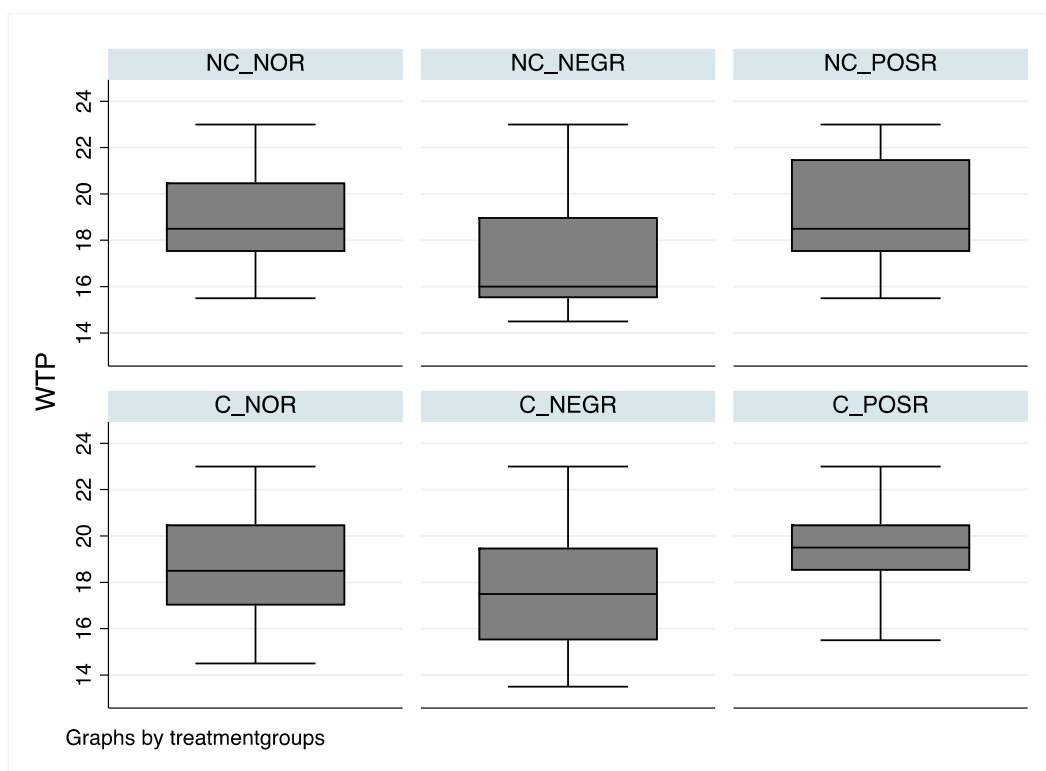
Notes. NC_NEGR= sample receiving no extensive CSR communication and a negative reputation description. NC_POSR= sample receiving no extensive CSR communication and a positive reputation description. C_NOR= sample receiving extensive CSR communication and no reputation description. C_NEGR= sample receiving extensive CSR communication and a negative reputation description. C_POSR= sample receiving extensive CSR communication and a positive reputation description.

Afterwards, in order to investigate the effect of the different groups on the WTP in more detail, a linear regression is carried out with the dependent variable being WTP and the independent variables being the treatment groups, age, gender, education and occupation. The results of the regression are depicted in Table 4.6. By means of the regression the effect of communication in combination with the positive or negative description of the brand's reputation can be assessed separately. Aligned with the hypotheses, the findings suggest that a positive reputation in combination with extensive communication has a positive effect of 1.18 euros of the WTP, ceteris paribus, which is relative to the participants that did not receive extensive communication and a neutral description of reputation. The effect is significant at a 10 percent significance level ($p=0.053$). The effect of receiving a positive reputation description without communication, relative to the reference group, has a smaller magnitude

and is insignificant (*p=0.152*). This may imply that communication effect is enhanced given a positive reputation description. Yet, the difference between the groups is insignificant, so the findings do not provide sufficient evidence to support the hypothesis.

Moreover, the second part of the hypothesis regards the effect of communication and reputation given a negative reputation. The results of the test imply that with no extensive CSR communication and a negative reputation, compared to no extensive communication and a neutral reputation description, the WTP decreases with 1.11 euro, ceteris paribus. This effect is significant at a 10 percent significance level (*p=0.063*). This indicates that the negative reputation shows to be affecting the participant's WTP, especially given that they have not received extensive CSR communication. This is evident as the group that received extensive CSR communication in combination with the negative reputation description shows to be negatively related to the WTP, but the magnitude of the effect decreased relative to the group that did not receive communication and compared to no communication and neutral reputation. However, this effect is insignificant at a 10 percent significance level (*p=0.264*). Additionally, the difference between the groups based on communication do not differ significantly. Hereby, the findings do not provide sufficient evidence to reject the null hypothesis of no effect of the interaction between communication and reputation.

Table 4.7

Overview of the hypotheses.

	Hypothesis	Results
1	*Communication of CSR initiatives positively affects consumer perceptions.*	
1a	Communication of CSR initiatives positively affects consumer perceptions of identification	No evidence to support hypothesis
1b	Communication of CSR initiatives positively affects consumer perceptions of credibility.	No evidence to support hypothesis
2	*Communication, consumer perception and consumer purchase intentions*	

2a	Consumer perceptions affect consumer purchase intentions.	Evidence to support hypothesis
2b	The effect of communication of CSR effort on purchase intentions is moderated by consumer perceptions.	No evidence to support hypothesis
3	*The influence of reputation of perception*	
3a	The effect of communication on consumer perception of identification is enhanced given a neutral or positive brand reputation and may backfire given a negative reputation.	Evidence to support part of the hypothesis.
3b	The effect of communication on consumer perception of credibility is enhanced given a neutral or positive brand reputation and may backfire given a negative reputation.	Evidence to support part of the hypothesis.
4	*The influence of reputation of purchase intention*	
4	The effect of communication on consumer purchase intention of credibility is enhanced given a neutral or positive brand reputation and may backfire given a negative reputation.	Evidence to support part of the hypothesis.

5. Discussion

This section will elaborate on the aim of the paper, the results, and how the results can be placed relative to the existing literature on the topic. Firstly, the aim of this research was to investigate the effect of extensive CSR communication, compared to a statement, on the consumer perception of identification with the brand and the credibility of the brand. Additionally, this effect has been researched while considering reputation as a moderator. This is done by means of an online experiment. A hypothetical brand was created in order to find the effect of communication and reputation without the inference of prior knowledge and beliefs. In the experiment the extent of CSR communication and the reputation of the brand were manipulated.

The results indicated that there is no sufficient evidence that the extent of CSR communication significantly affects consumer perception, neither perceived identification nor

perceived credibility. Regarding credibility, even though the effect is insignificant, it stands out that the direction of the effect is the opposite of what was hypothesized. Namely, the results display that extensive CSR communication negatively affects the perception of credibility. Secondly, the relation between consumer perception and purchase intentions were tested to be able to confirm the positive relation as indicated by previous literature. Regarding this hypothesis, the findings presented sufficient evidence that perceived identification and perceived credibility are positively related to the purchase intentions of the participants. Nevertheless, the results did not find evidence of the moderating effect of perception on the relation between communication and purchase intentions. Thirdly, reputation was included into the analysis and the analyses were repeated to investigate whether reputation moderates the effect of communication on consumer perception and consumer intention. Based on this analysis, there is no evidence that reputation significantly moderates the relation between communication and perception, apart from the group that received a negative reputation description. The results indicated that brands with a negative reputation may experience negative effects of communicating their CSR efforts on consumer perceptions. The moderating influence of reputation on purchase intention seems to hold regarding the participants that received a positive reputation description.

Based on these findings, this study failed to find evidence for the majority of the hypotheses. An overview of all hypotheses and final results can be found in Table 4.7. The next part of this section will discuss the potential explanation of these insignificant results in more detail.

5.1 Consumer perception

To start with, the insignificant results of the effect of the extent of communication on perception provides no evidence of the first hypothesis. Nevertheless, the research of Olsen et al. (2014) demonstrated that the quantity of if information provided may have a negative effect

on brand attitude, based on their findings that few green claims seem to improve the relation between sustainable initiatives and brand attitude. They have explained this is due to the fact that less claims may reduce the risk of generating scepticism and reduce the burden on consumers' processing capacity (Olsen, 2014; Malhotra, 1982). This logic can be applied to explain the insignificant findings of this study regarding the effect of extensive communication on perception, as the extent of communication used in this research may not be optimal. An alternative explanation may be that the CSR message did not suit the market, as Andreu et al. (2015) suggested this may have a considerable influence on the effectiveness of the message. Correspondingly, Bhattarachya and Sen (2004) demonstrate heterogeneity across consumers, indicating that CSR communication may work for one type of consumers, but this does not necessarily imply it works for another type of consumer.

Similarly, the findings of Olsen (2014) may be used to clarify the unexpected negative effect of communication on the perception of credibility. This negative relation may be due to the fact that increasing the extent of CSR communication simultaneously increases the risk of scepticism (Olsen, 2014; Friestad & Wright, 1994). Additionally, it may negatively affect credibility perception if, due to the extensive CSR communication, the brand's CSR efforts are misperceived as a marketing strategy (Waddock and Goggins, 2011). Hereby, this may be worsening the perception of credibility once brands provide extensive CSR communication compared to just a statement. This has been found to be especially problematic as according to Amed et al. (2019) the scepticism of CSR efforts has increased in the last decade. Alternatively, the negative effect of communication on perceived credibility could be due to a mis-fit of personal and brand objectives (Bhattarachya & Sen, 2004). They explain the relevance of consumers having a perceived personal fit with the CSR objectives of a brand, stating that if a mis-fit occurs this increases scepticism regarding the brand. This could appear to play a role in this research, as by communicating more detailed description of the CSR effort may emphasize

the mis-fit of the objectives and consequently deteriorates the participants' credibility perception.

In terms of identification, the insignificant result may be clarified by the findings of Lichtenstein et al. (2004). Their field research indicates that consumers who identify a substantial overlap of the perception of themselves and the perception of the brand depict higher psychological attachments to this brand. However, their findings found that the effect of identification does not appear to affect purchase reactions to CSR (Lichtenstein et al., 2004). Relatedly, Bhattarachya and Sen (2003) suggest identification promotes loyalty and long-term consumer-brand relations, which goes beyond a direct effect of identification on purchase intentions (Lichtenstein et al., 2004). These insights potentially clarify the insignificant influence of identification on purchase intentions while confirming that identification creates positive brand attributes. Alternatively, insignificance may be due to the research design, as this current research focusses on a single corporate message, whereas Olsen et al. (2014) claims that to develop a specific brand identity, in this case a sustainable identity, consistent time and effort is required. This may clarify that a single corporate message does not show to the optimal effect of communication and identification on purchase intention.

5.2 Purchase intention

Aligned with previous research, the perceived identification and credibility are significantly affecting purchase intention. This relation entails that once consumers are able to identify with the brand and perceive the brand to be credible, their WTP increases. Hereby, the study supports the findings of amongst others Lee et al. (2019) and Sen et al. (2006) regarding credibility and the findings of Muniz and O'Guin (2001) regarding identification. Given the relatively young sample of this research, the results may suggest and hereby confirm the findings of Amed et al. (2019) that young consumers increasingly value brand identity in their purchase considerations.

Nevertheless, this effect is not found to be significant once we include perception as a moderator. Thereby, the research does not provide evidence of part two of the second hypothesis, stating that the effect of communication is moderated by perception. Regarding identification, a potential explanation for the insignificant results is that the perception of identification requires time as consumers need to be able to confirm whether brands act consistently following their communicated sustainable identity (Olsen, 2014). Additionally, identification often increases purchase intention through loyalty, which similarly requires multiple actions and time (Bhattaraycha & Sen, 2004). This may clarify that the potential effect requires more than a single corporate message.

The interaction between credibility perception and communication shows to negatively affect WTP in this research, which contradicts the previous research of Erdem and Swait (2004). This implies that, given the participants that have received extensive communication, an increase in credibility seems to negatively affect the WTP of the participant. The research of Bhattarachaya and Sen (2004) suggests that among the main reasons why CSR effort does increase attitude, but does not increase purchase intention, is the hesitancy of consumers caused by their unwillingness to compromise on another attribute, such as price or quality. In this research, following their reasoning, it may clarify why increasing credibility would decrease WTP. This could, for instance, be caused by the believe that sustainable products may be of inferior quality (Skard et al., 2021). The study of Skard et al. (2021) demonstrates that sustainability is perceived as a liability regarding some product categories, mainly including products that require strength. This could explain that increasing credibility, decreases consumers' purchase intentions.

5.3 Reputation and consumer perceptions

Moreover, the results of the model including reputation do not provide evidence of the third hypothesis, which tested whether the effect of communication is moderated by a brand's

reputation. By means of communication, a brand signals their identity to its stakeholders. As demonstrated by Fombrun and Shanley (1990), consumers build their perception of reputation based on such informational signals and other independent sources. Based on this, it is expected that communication and positive reputation would significantly affect consumer perception. However, the findings indicate otherwise, demonstrating an insignificant effect of the interaction between communication and reputation on consumer perception. This insignificant relation may be due to the fact that consumers construct their reputation perception based on informal, formal sources (Fombrun & Shanley, 1990) and expectations (Cowan & Guzman, 2020). Moreover, the insignificance of this study might be due to expectation, consumers expect progress from brands with a positive and neutral reputation (Cowan & Guzman 2020), which as a consequence has that communication in this research does not have a considerable effect as this is what consumers expected after receiving a positive or neutral reputation description. This implies that the benefits of acquired positive reputation offers a brand with a potential path to a competitive advantage (Fombrun & Shanley, 1990), but requires more effort or information before it exerts a significant result. Additionally, Strahilevitz (2003) suggested brands with a strong image have less to gain compared to other brand with relatively less strong brand images. Besides, the insignificant results may alternatively be due to the research design, as this study did not successfully manipulate reputation. The manipulation test displayed an insignificant relation between manipulated positive reputation and perceived reputation

Nevertheless, the findings are able to partly support the hypotheses of the moderating effect of reputation, considering the brand with a negative reputation description. Namely, the results suggest that communication given a brand's negative reputation has a deteriorating effect on perception. The findings regarding negative reputation confirm the research of Yoon et al. (2010), as the results demonstrate that a negative reputation reduces consumer perceptions of credibility. This may result from consumers perceiving CSR efforts of the brand as selfish,

which depict motivation disfluency (Torelli, 2012). As a consequence of this disfluency, people evaluate brands with CSR information less favourable than brands without CSR information (Torelli, 2012). To build upon, Wagner et al. (2009) have indicated that proactive communication bears increasing risk if it concerns a brand with a negative reputation, demonstrating that inconsistent communication and behaviour in this case has destructive consequences for the consumer perceptions.

The differences between the groups receiving communication and those that are not receiving communication are insignificant. Nevertheless, they suggest that communicating CSR effort increases the magnitude of the negative effect, which confirms the findings of Du et al. (2010) that communication of CSR effort backfire given a brand has a negative reputation. This effect is similar for both credibility perceptions and identification perceptions. The fact that communication may backfire may be caused by negativity bias (Sen & Leeman, 2020). This effect suggests that negative signals have a stronger influence than positive signals, which became evident in our findings, as positive reinforcement of reputation description does not seem to affect perception whereas negative description of reputation does. Negativity bias might also clarify why the manipulation of reputation has been successful for the negative description, but not for the positive description, as the negativity bias entails that people pay more attention to negative information compared to positive information (Sen & Leeman, 2020).

For credibility specifically, positive reputation has a significant effect on the perception of credibility. This may be as reputation is essential is building consumer trust. However, once CSR is communicated the effect is no longer significant. Also, the magnitude of the positive effect of the positive reputation decreases. The difference between the group that received communication and the group that did not receive extensive communication are significant, suggesting communication deteriorates the positive effect of reputation in this case. This may

also be considered in the context of the findings of Olsen et al. (2014), which indicated that increasing the extent of provided CSR information may as a consequence increase the risk of scepticism, hereby potentially explaining the decreasing magnitude of the effect of communication on credibility.

5.4 Reputation and consumer intentions

Lastly, regarding the purchase intention the results show that negative reputation and no communication show a significant negative effect on the purchase intention and communication and a positive reputation show a positive effect on the purchase intention. This only provides evidence for a part of hypothesis 4, since the differences between the communication groups remain insignificant. Therefore, there is no evidence that the relation between communication is enhanced by a brand's reputation.

Firstly, the findings of the sample receiving a positive reputation description seem to support the hypothesis of the interaction of communication and reputation enhancing the positive effect on WTP. Hereby the findings would be supporting the research of Du et al. (2007). The results show that by extensively communicating CSR efforts, the positive effect of a positive reputation increases and becomes significant. Yet, the differences between the two groups are insignificant, so the study fails to provide sufficient evidence to support the hypothesis. The insignificance may be due to the lack of statistical power because of the limited sample size.

Secondly, the magnitude of the negative effect of a negative reputation is smaller once CSR effort is communicated. These findings support the research of Sen and Bhattarachya (2001) and Wagner et al. (2009), which suggests that given certain conditions, CSR initiatives may extort a negative influence on purchase intentions. This contradicts the hypothesis and the findings regarding perceptions, as the results indicate that the magnitude of the negative effect decreases by communicating a brand's CSR effort, given the negative reputation of a brand.

Torelli et al. (2009) argued that a brand may improve consumer evaluation and openness by focussing on a target that values openness of a brand. This may explain the less negative effect on WTP in this case. Nevertheless, the results of this study are found to be insignificant, which implies that further research is required in order to assess whether brands are able to reduce the negative effect of a negative reputation on consumer intention by communication of their CSR commitment.

5.5 Limitations

Firstly, the main limitation of this study is the limited number of observations, which reduces the statistical power of the research. However, due to the time and resource constraint, a sample of 273 was assumed to suffice. Unfortunately, cleaning the dataset reduced the sample to only 190 observations. Consequently, the last part of the analysis consists of groups of approximately 30 observations, which is far below the recommended value according to the G-power calculation. Due to the nature of this study, the results are not generalizable across a larger population. Moreover, due to the limited number of observations, the research included the observations of participants who finished the survey but did not answer the validation question correctly. Even though this is justified by identifying that the samples are not significantly different, a larger sample would increase the reliability of the results. Additionally, I was not able to test whether the participants that were excluded because of unfinished answers were significantly different because the demographic questions were asked at the end of the survey, so I am unaware of the characteristics of the participants who dropped out.

Secondly, in order to investigate the effect of communication on consumer perceptions and intentions, the provided information and reputation were manipulated. Yet, the manipulation of reputation turned out to be insufficient as indicated by the manipulation check. The description of reputation did not significantly affect the perceived reputation of the brand,

which as a consequence raises uncertainty whether the effect that the research has identified is the true effect. The manipulation check indicated that perceived informativeness was affected by the manipulated communication, however only at a 10 percent significance level. This displays the risk of using self-constructed manipulation in the experiment, which was necessary as such research has not been done before. This is due to the fact that the study uses self-constructed manipulations and measurements of reputation and information. The other constructs were measured based on prior research, however, a measure of perceived informativeness still lacks.

Thirdly, this research used an online experiment to investigate the influence of communication and reputation of consumer perception and purchase intentions. The participants received a scenario and they were asked to base their preferences on this hypothetical scenario. As a consequence of conducting the experiment online, the participants were less involved in the decision compared to running into this scenario in real-life or in a physical experiment. A choice list was used to try to replicate a real-life choice, and minimize the consequences of the online experiment, however, as it remains a hypothetical scenario the findings may differ from a real-life situation. This may affect the results especially in this topic, since choices regarding sustainable may lead to socially desirable answers. Hereby, given the hypothetical scenario, participants may be more likely to report their preferences in a socially desirable way because they do not experience the consequences as if they would in real-life.

5.6 Future research

This study accounts for the effect of either a single statement or extensive CSR communication. However, as Olsen et al. (2014) demonstrate the communication of CSR remains a complex challenge, as too little information might not affect consumer behaviour whereas too much information may negatively affect the credibility of the brand. Therefore, future research should investigate this topic in more detail, including product type, consumer

type and the extent of provided information. More specifically, further research should increase the number of treatments by varying the provided information. Next to the extent of information, further research should investigate how communication differs across products and sector, because the effect is found to differ depending on product and sector (Torelli, 2012; Bhattarachya & Sen, 2004). Additionally, the results of this research are inconclusive which may be due to the heterogeneity of the consumers. This should be included in future research to identify consumers so that brands could adopt their CSR strategies according to their target group. In general, the findings of the research indicate that perception does extort a considerable influence on consumer purchase intention. Therefore, future research should identify the factors that play part in the process of constructing perceptions regarding the brand choice based on CSR.

Additionally, this research investigates the effect of a single corporate message of a hypothetical brand. To find the effect without interference of other factors, this method has proven to be useful. Nevertheless, future research should investigate how communication CSR efforts hold over time. Regarding the negative relation of communication and negative reputation, future research could add to the findings by investigating whether this effect may eventually become a positive effect.

6. Conclusion

To conclude, the research fails to provide evidence of the research question of this study which is: *"How does the extent of external CSR communication of environmental CSR commitment to primary stakeholder's influence purchase intentions and perceptions in the fashion industry, and how is this relation moderated by a brand's reputation?"*. Thus, the results of the experimental study imply that the extent of CSR communication does not significantly affect the consumers' perceptions nor their intentions in the fashion industry.

Moreover, the study is not able to identify a significant effect of reputation, yet the findings suggest that regarding brands with a negative reputation CSR communication may backfire.

More specifically, increasing the extent of the CSR communication does not significantly affect the sense of identification of the consumer. This indicates that by using extensive CSR communication the consumer perception of identification with the fashion brand is not affected significantly. Additionally, the extent of communication does not seem to significantly influence the consumer perception of credibility. The results of credibility are found to be insignificant and contradictory to the hypothesis, as the study shows that increasing the extent of CSR information seems to negatively affect whether the brand is perceived to be credible.

The study is able to confirm the previous findings of perception being positively related to the consumers' purchase intentions. Yet, the findings of the current paper do not find a significant moderation effect of CSR communication. This result implies that consumers do not significantly adapt their perception based on the extent of a brands' CSR communication such that the intentions are affected.

Additionally, the study indicated that reputation and communication only significantly affect the consumer perception of identification when the brand has a negative reputation and extensive CSR communication. The study demonstrates a negative relation of identification perception and negative reputation when CSR effort is communicated. Whereas the relation between a negative reputation and no communication and perception is insignificant, which insinuates that communication may enhance the negative effect. Similarly, the credibility perception decreases significantly for both communication groups given a brand with a negative reputation. This seems to confirm the presence of negativity bias, in both analyses, as the negative description has a stronger effect than the positive description. The extent of communication seems to increase the magnitude of the negative effect of reputation, which

suggest that communication in case of a bad reputation may indeed backfire. However, the results of this study do not provide sufficient evidence of this since the communication groups do not significantly differ in both analyses.

Lastly, the last part of the research entails the influence of communication and reputation on consumer's purchase intentions, measured by means of WTP. To begin with, it should be mentioned that the reputation has not been manipulated sufficiently. This is indicated by the manipulation test, showing solely the negative reputation manipulation significantly affects the perceived reputation of the hypothetical brand. This may clarify the insignificant results of the reputation effect regarding neutral or positive reputation. Nevertheless, the study provides some relevant insights into the relation between communication, reputation and purchase intentions. The findings indicate that CSR communication, when brands have a positive reputation, has a significant positive effect on consumer's WTP. At the same time, no communication in combination with positive reputation does not significantly affect the WTP, which may suggest that communication strengthens the positive effect of a positive reputation. Yet, the differences between these groups are found to be insignificant. On the other hand, the combination of no extensive communication and negative reputation is significantly related to the WTP. This implies that, given a brand with a negative reputation, just a CSR statement negatively affects a brand. However, in this analysis, even though the effect is insignificant, the magnitude of the negative effect of a negative reputation decreases when CSR is communicated extensively. This may imply that communication deteriorates the negative effect of a negative reputation. Yet, there is no significant difference between extensive communication and no extensive communication. It does not seem that communication may backfire in this particular case.

All in all, given the limited design of this research, future research is required to test these concepts and to build upon the potential relationships that are suggested in this research.

6.1 Implications

This research contributes to the existing literature by indicating the potential benefits of the communication of CSR efforts. Yet, it highlights the complexity as these benefits are depending on multiple criteria. As the findings indicate, a brand should be careful with its communication given that their reputation might not be positive. Especially, as existing research highlights the use of CSR effort as a manner to improve reputation without considering there may be potentially negative consequences once consumer misinterpret the CSR efforts of a brand. This is based on the findings that consumers are more sensitive when it comes to information that negatively affects the brand and the brand's reputation. This needs to be considered in the development of strategies as it is difficult to recover in case of dishonest sustainability claims. Hereby, these findings may help brands to prepare themselves in order to successfully commit to CSR communication strategies.

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8. Appendix

Appendix A. Survey

Appendix A1. Reputation

Positive reputation manipulation

Suspact, a promising sustainable fashion brand

Suspact is a brand that sells sustainable fashion. They have been operating in the market for a while and they produce high-quality fashion items. Their business model is as follows, they sell all your basic fashion items but manufactured in a sustainable manner. Hereby, they focus on timeless clothing, selling products ranging from white t-shirts to timeless blazers and trousers and so on. They sell their products with the slogan "carefully crafted products for people that care". Last year, Suspact had announced that they planned to reduce their production waste. Indeed, there is evidence that Suspact minimises textile waste when manufacturing its products. Moreover, Suspact has set absolute targets to further reduce their negative impact on the environment generated from their operations and supply chain. Reporters show that they are on track to meet their targets!

Negative reputation manipulation

Suspact, sustainable or suspicious?

Suspact is a brand that claims to sell sustainable fashion. They have been operating in the market for a while and they produce high-quality fashion items. Their business model is as follows, they sell all your basic fashion items but manufactured in a sustainable manner. Hereby, they focus on timeless clothing, selling products ranging from white t-shirts to timeless blazers and trousers and so on. They sell their products with the slogan "carefully crafted products for people that care". Last year, Suspact had announced that they planned to reduce their production waste. However, there is no evidence that Suspact minimises textile waste when manufacturing its products. Even though Suspact has set absolute targets to further reduce their negative impact on the environment, generated from their operations and supply chain, reporters show that they are not on track to meet these targets.

No reputation manipulation

About Suspact.

Suspact is a brand that sells sustainable fashion. They have been in the market for a while and they produce high-quality products. Their business model is as follows, they sell all your basic fashion items, for both women and men, but manufactured in a sustainable manner. Hereby, they focus on timeless clothing, selling products ranging from white t-shirts and timeless blazers to trousers and so on.

The name Suspact stands for sustainable impact. Suspact is proud to announce their new product line. They sell their products with the slogan "carefully crafted products for people that care".

SUSPACT. Sustainable Impact.

Shop Now

Appendix A2. CSR information

Communication of CSR commitment

We will be CO2
neutral in 2023!

We have developed a set of principles
to encourage innovation to effectively
reduce our CO2 emission. Our
initiatives focus on sustainability
practices to maintain natural resources
in the long-term:

- Conserving natural resources by
  recycling and reusing materials.
  Currently, we are able to use
  recycled material for at least 50% of
  our production.

- Designing our stores and offices to
  be energy efficient by using
  technologically advanced energy
  systems. For instance, by using solar
  panels.

- By improving the efficiency of our
  production and supply chain, we
  minimise our production waste.

Learn More

No Communication of CSR commitment

Appendix A3. Choice List

*repeated up to Suspact being €23, whereas alternative brand sells a similar t-shirt for €15

Appendix A4. Perception

Based on the information you have read, I would like to ask you to assess the following statements regarding your perception of the brand Suspact. By means of the scale you can state to what extent you agree with the statement.

*1 means that you completely **disagree** with the statement and 7 means that you totally **agree** with the statement.*

To what extent do you agree with the following statements?

Disagree						Agree
1	2	3	4	4	5	6	7

I consider myself as belonging to a group in favour of Suspact

O————————————————————————

Employees of Suspact are probably similar to me

O————————————————————————

Suspact is an environmentally responsible company

O————————————————————————

Suspact does not hide relevant information

O————————————————————————

Suspact is honest

O————————————————————————

I do not believe what Suspact claims

O————————————————————————

Suspact makes truthful claims

O―――――――――――――――――――――――――――――――――

Suspact is similar to me

O―――――――――――――――――――――――――――――――――

I believe sustainability is of high importance

O―――――――――――――――――――――――――――――――――

If you are reading this statement, please validate your answer by choosing 7

O―――――――――――――――――――――――――――――――――

Suspact shows transparent communication

O―――――――――――――――――――――――――――――――――

Suspact has a responsible approach towards CO2 reduction

O―――――――――――――――――――――――――――――――――

I have a sense of connection with Suspact

O―――――――――――――――――――――――――――――――――

Suspact makes informative claims

O―――――――――――――――――――――――――――――――――

Appendix A5. General Questions

Hi Everyone,

Firstly, thank you in advance for your participation in my Master Thesis Research! I am doing this research in order to graduate for my Master program at Erasmus University Rotterdam.

The survey consists of short text elements and some follow up questions, I would like to ask you to read the provided information carefully. The survey will take approximately 5 minutes.

Please keep in mind that all questions are answered anonymously and you can discontinue your participation at all times.

Last but not least, you can win an Amazon or Bol.com gift card of €20! If you want to join the lottery you can leave your email address at the end of the survey. This will not be linked to the answers of the questions, so filling in the survey is still completely anonymous.

If you have any questions feel free to send an email to 458729mc@eur.nl.

By ticking the box below you agree you have read the instructions and you agree to participate in the survey.

Consent

○ I agree that I have read the information and that I want to participate in this study

Gender

○ Male

○ Female

○ Other

Age (numerical)

[   ]

Nationality

[   ]

Last finished education

- ○ WO Master
- ○ WO Bachelor
- ○ HBO
- ○ MBO
- ○ High school
- ○ Primary school
- ○ Other

Which of the following best describes your current occupation?

- ○ Student
- ○ Employed
- ○ Un-employed
- ○ Prefer not to say

Do you want to join the lottery to win the €20 voucher of your own choice (Bol.com or Amazon)? Please enter your email address in the box below!

This is the end of the survey. I would like to thank you for your time spent on taking this survey! It is very much appreciated!

Again, if you have any questions you can send an email to 458729mc@eur.nl.

If you have entered your email to enter the lottery, the winner will be announced around the 1st of july!

Lastly, to receive your credits on surveyswap you can use the following link: https://surveyswap.io/sr/QqscrUS6rWkQTOqn

And for surveycircle you can use:
https://www.surveycircle.com/JVX6-TV7Q-KS3S-KSVY

Appendix B. Graphical representation of the distribution across treatment groups

Figure B1. The distribution of participants across the treatment groups.
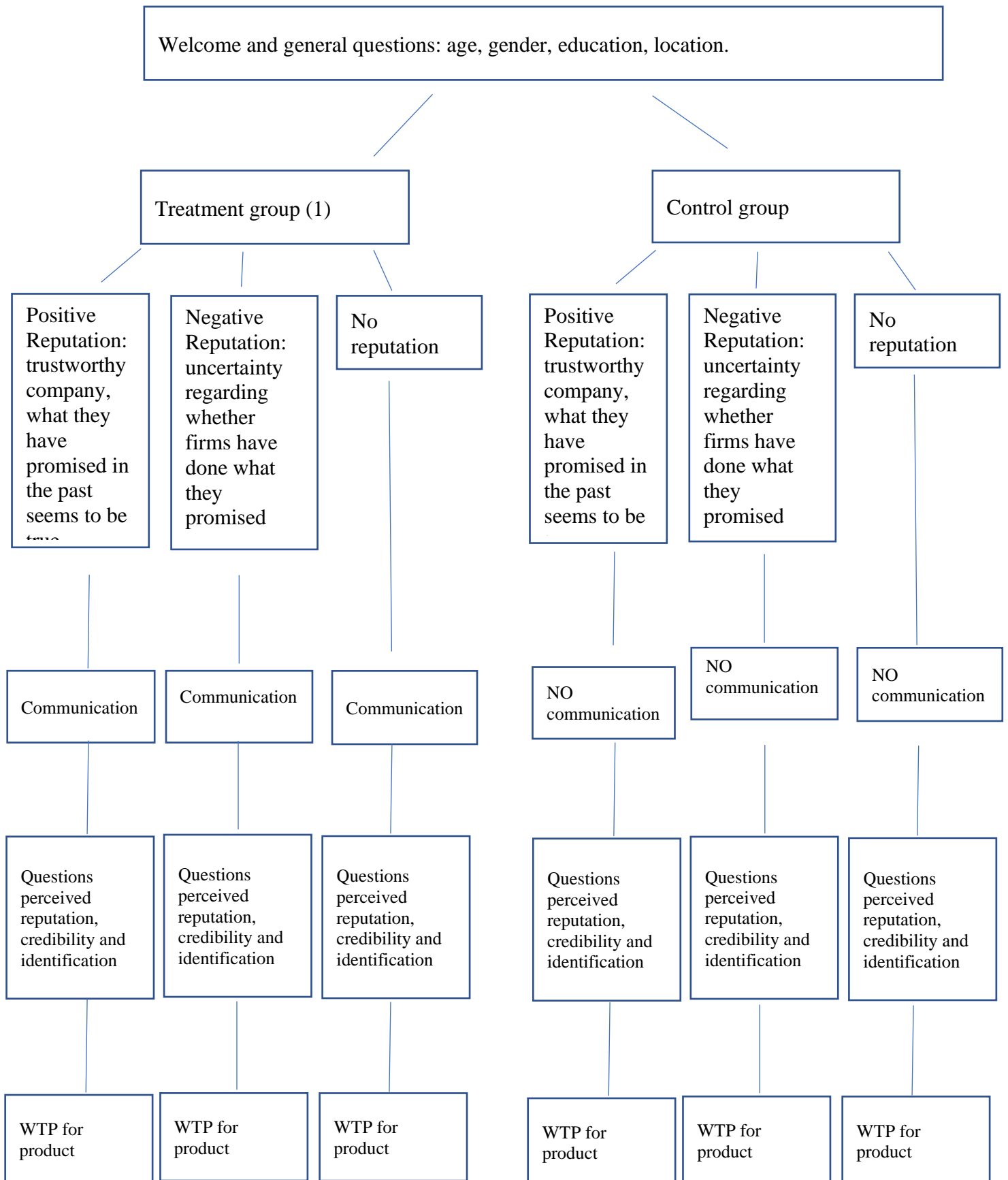
Appendix C. Methodology

Appendix C1. Randomization

Randomization across 2 samples

Table C1.1. Randomization Occupation

Treatment: CSR communication

OCCUPATION	0	1	Total
STUDENT	72	71	143
EMPLOY	21	26	45
UNEMPLOY	1	0	1
PNTS	1	0	1
Total	95	97	190

Pearson Chi2 = 2.52 Prob = 0.4720

Table C1.2. Randomization Education

Treatment: CSR communication

EDUCATION	0	1	Total
MSC	24	27	50
BSC	41	41	82
HBO	11	12	22
MBO	1	2	3
HIGH_SCHOOL	17	14	31
OTHER	1	1	2
Total	95	97	190

Pearson Chi2 = 0.82 Prob = 0.9756

Table C1.3. Randomization Age

Summary of Age

Treatment: CSR Communication	Mean	Std. Dev.	Freq.
0	27.105	10.606	93
1	29.887	13.495	96
Total	28.510	12.199	189

Analysis of variance

Source	SS	df	MS	F	Prob > F
Between groups	371.279	1	371.279	2.51	0.1145
Within groups	28054.699	190	147.656		

Total	28425.9792	191	148.827

Bartlett's test for equal variances: chi2(1) =   5.4225 Prob > chi2 = 0.020

Table C1.4. Randomization Environmental Concern

Summary of env_concern

Treatment: CSR Communication	Mean	Std. Dev.	Freq.
0	5.479	1.486	93
1	5.722	1.420	96
Total	5.602	1.454	189

Analysis of variance

Source	SS	df	MS	F	Prob > F
Between groups	2.817	1	2.817	1.33	0.249
Within groups	398.942	189	2.111		
Total	28425.9792	191	148.827		

Bartlett's test for equal variances: chi2(1) =   0.1980 Prob > chi2 = 0.656

Randomization across 6 samples

Table C1.5. Randomization Occupation

OCCUPATION	treatmentgroups						
	NC_NR	NC_NEGR	NC_POSR	C_NOR	C_NEGR	C_POSR	Total
STUDENT	23	28	21	23	22	26	143
EMPLOY	11	3	6	9	13	3	45
UNEMPLOY	1	0	0	0	0	0	1
PNTS	0	1	0	0	0	0	1
Total	35	32	27	32	35	29	190

Pearson Chi2 = 20.81 Prob = 0.1430

Table C1.6. Randomization Education

EDUCATION	treatmentgroups						
	NC_NOR	NC_NEGR	NC_POSR	C_NOR	C_NEGR	C_POSR	Total
MSC	12	7	5	8	10	8	50
BSC	10	16	15	12	16	13	82
HBO	5	3	2	5	5	2	22
MBO	1	0	0	1	0	1	3
HIGH_SCHOOL	7	6	4	5	4	5	31
OTHER	0	0	1	1	0	0	2
Total	35	32	27	32	35	29	190

Pearson Chi2 = 15.58 Prob = 0.9267

Table C1.7. Randomization Age

Summary of Age

Treatment: CSR Communication	Mean	Std. Dev.	Freq.
NC_NOR	29.086	12.519	35
NC_NEGR	25.188	9.382	32
NC_POSR	25.778	7.428	27
C_NOR	30.312	13.627	32
C_NEGR	31.657	14.602	35
C_POSR	27.448	12.194	29
Total	28.389	12.108	190

Analysis of variance

Source	SS	df	MS	F	Prob > F
Between groups	1046.961	5	209.392	1.45	0.210
Within groups	26662.218	184	144.903		
Total	27709.179	191	146.609		

Bartlett's test for equal variances: chi2(5) = 16.1325 Prob>chi2 = 0.006

Table C1.8. Randomization Environmental Concern

Summary of env_concern

Treatment: CSR Communication	Mean	Std. Dev.	Freq.
NC_NOR	5.529	1.461	34
NC_NEGR	5.5	1.459	32
NC_POSR	5.333	1.593	27
C_NOR	6.031	1.231	32
C_NEGR	5.771	1.416	35
C_POSR	5.414	1.524	29
Total	5.608	1.446	189

Analysis of variance

Source	SS	df	MS	F	Prob > F
Between groups	10.381	5	2.076	0.99	0.423
Within groups	382.645	183	2.091		
Total	393.655	188	146.609		

Bartlett's test for equal variances: chi2(5) = 2.1454 Prob>chi2 = 0.829

Appendix C2. Assumptions

Model 1a – Identification
Figure C2.1. Residual plot to detect heteroskedasticity Model 1a
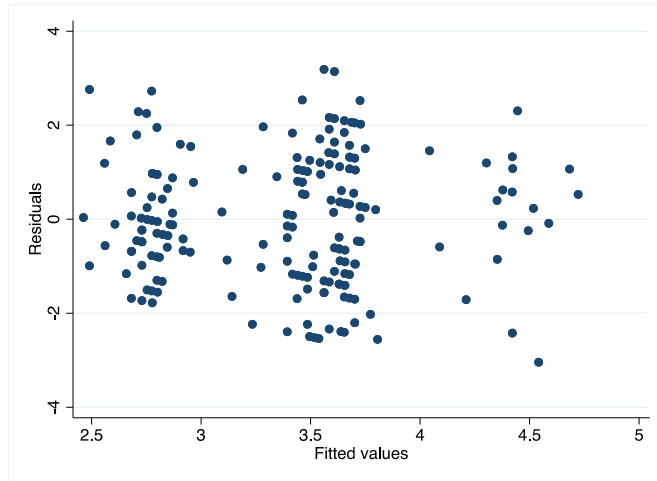
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
    Ho: Constant variance
    Variables: fitted values of percep_iden
    chi2(1)   =   2.08
    Prob > chi2 = 0.1488

Table C2.1. VIF Model 1a

Variance inflation factor

	VIF	1/VIF
Age	2.47	.405
Occupation	2.44	.409
Education	1.08	.924
Gender	1.05	.953
treatmentCSR	1.05	.955
Mean VIF	1.62	.

Ramsey RESET test using powers of the fitted values of percep_iden
    Ho: model has no omitted variables
        F(3, 181) =   0.36
         Prob > F =   0.7804

Model 1b – Credibility
Figure C2.2. Residual plot to detect heteroskedasticity Model 1b

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
    Ho: Constant variance
    Variables: fitted values of percep_cred
    chi2(1)   =   0.09
    Prob > chi2 = 0.7694

Table C2.2. VIF Model 1b

Variance inflation factor

	VIF	1/VIF
Age	2.47	.405
Occupation	2.44	.410
Education	1.09	.920
Gender	1.05	.951
treatmentCSR	1.05	.954
Mean VIF	1.62	.

Ramsey RESET test using powers of the fitted values of percep_cred
    Ho: model has no omitted variables
        $F(3, 182) =$ 0.98
         Prob > F =   0.4034

Model 2a – WTP
Figure C2.3. Residual plot to detect heteroskedasticity Model 2a
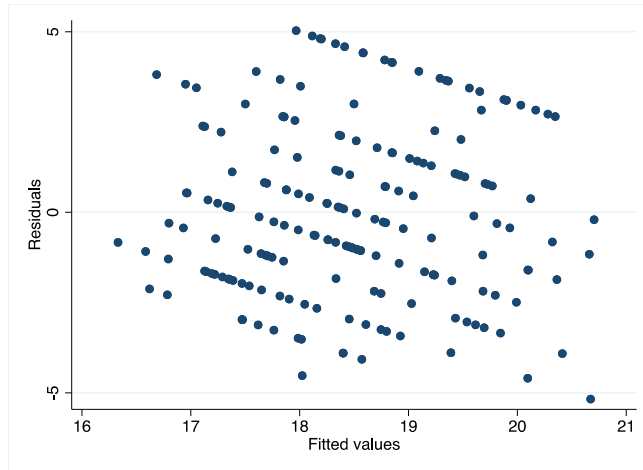
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
    Ho: Constant variance
    Variables: fitted values of WTP
    chi2(1)   =   1.71
    Prob > chi2 = 0.1910

Table C2.3. VIF Model 2a

Variance inflation factor

	VIF	1/VIF
Age	2.48	.404
Occupation	2.40	.417
percep iden	1.74	.576
percep cred	1.52	.656
Gender	1.18	.849
Education	1.10	.913
Mean VIF	1.74	.

Ramsey RESET test using powers of the fitted values of WTP
    Ho: model has no omitted variables
        F(3, 181) =   1.58
         Prob > F =   0.1964

Model 2b – WTP and CSR
Figure C2.4. Residual plot to detect heteroskedasticity Model 2b

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
    Ho: Constant variance
    Variables: fitted values of WTP
    chi2(1)   =   0.70
    Prob > chi2 = 0.4037

Table C2.4. VIF Model 2b

Variance inflation factor

	VIF	1/VIF
2.nonzero treatment	12.52	.08
percep cred	3.58	.279
2.nonzero treatmen~cred	19.60	.051
percep iden	4.09	.244
2.nonzero treatmen~iden	12.78	.078
Age	2.56	.39
Gender	1.20	.835
Education	1.11	.902
Occupation	2.46	.407
Mean VIF	6.66	.

Ramsey RESET test using powers of the fitted values of WTP
    Ho: model has no omitted variables
        F(3, 176) =   0.39
         Prob > F =   0.7627

Model 3a – identification
Figure C2.5. Residual plot to detect heteroskedasticity Model 3a

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
     Ho: Constant variance
     Variables: fitted values of percep_iden
     chi2(1)   =   0.71
     Prob > chi2 =   0.4002
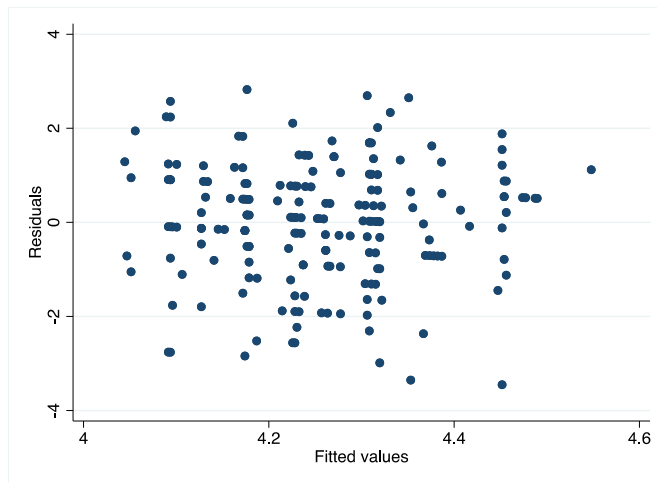
Table C2.5. VIF Model 3a

Variance inflation factor

	VIF	1/VIF
2.treatmentgroups	1.64	.611
3.treatmentgroups	1.57	.638
4.treatmentgroups	1.62	.617
5.treatmentgroups	1.67	.599
6.treatmentgroups	1.63	.612
Gender	1.09	.917
Age	2.48	.403
Occupation	2.52	.397
Education	1.09	.917
Mean VIF	1.70	.

Ramsey RESET test using powers of the fitted values of percep_iden
     Ho: model has no omitted variables
          F(3, 177) =   0.69
          Prob > F =   0.5589

Model 3b – credibility
Figure C2.6. Residual plot to detect heteroskedasticity Model 3a
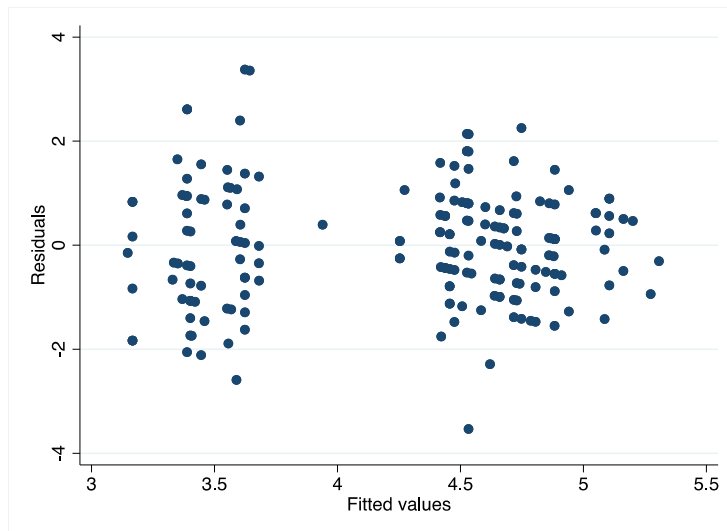
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
    Ho: Constant variance
    Variables: fitted values of percep_cred
    chi2(1)   =   10.50
    Prob > chi2 =   0.0012

Table C2.6. VIF Model 3b

Variance inflation factor

	VIF	1/VIF
2.treatmentgroups	1.66	.603
3.treatmentgroups	1.59	.631
4.treatmentgroups	1.64	.609
5.treatmentgroups	1.70	.59
6.treatmentgroups	1.66	.604
Gender	1.09	.917
Age	2.48	.404
Occupation	2.52	.397
Education	1.10	.913
Mean VIF	1.71	.

Ramsey RESET test using powers of the fitted values of percep_cred
    Ho: model has no omitted variables
        $F(3, 176) =$ 1.37
         Prob > F =   0.2529

Model 4 – WTP, CSR and Reputation
Figure C2.7. Residual plot to detect heteroskedasticity Model 4
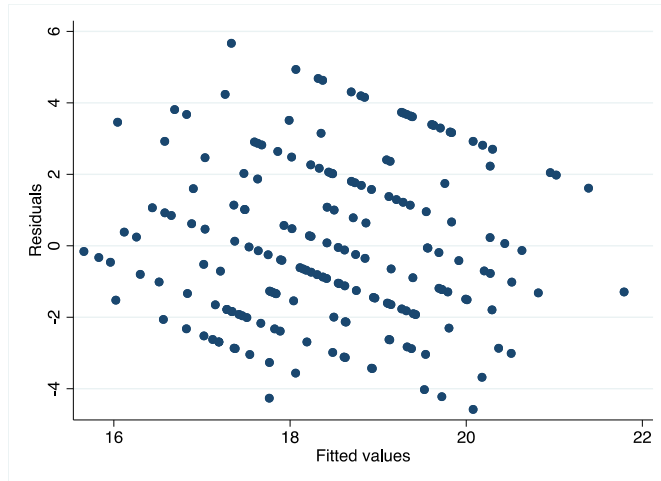
Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
    Ho: Constant variance
    Variables: fitted values of WTP
    chi2(1)   =   0.37
    Prob > chi2 =   0.5441

Table C2.7. VIF Model 4
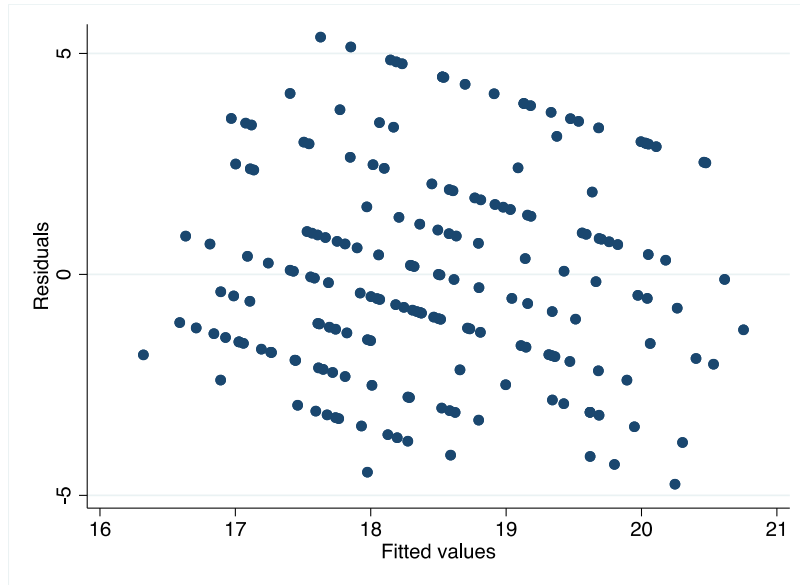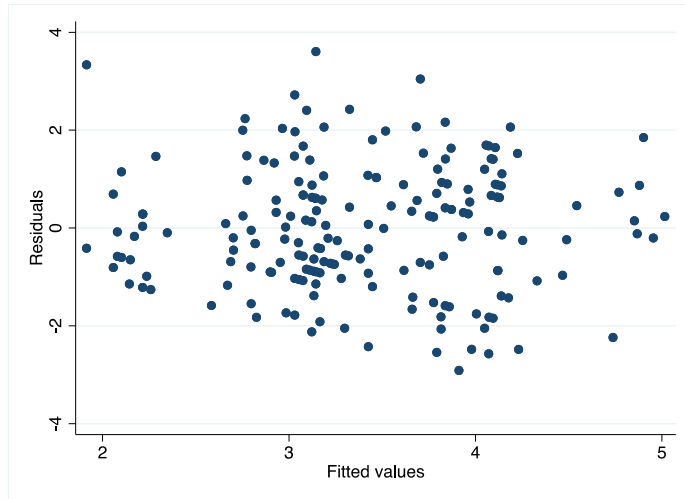
Variance inflation factor

	VIF	1/VIF
2.treatmentgroups	1.76	.568
3.treatmentgroups	1.62	.616
4.treatmentgroups	1.66	.603
5.treatmentgroups	1.84	.543
6.treatmentgroups	1.67	.6
percep iden	1.76	.57
percep cred	1.81	.552
Gender	1.24	.804
Age	2.55	.392
Occupation	2.53	.396
Education	1.11	.905
Mean VIF	1.78	.

Ramsey RESET test using powers of the fitted values of WTP
    Ho: model has no omitted variables
        F(3, 174) =   0.14
        Prob > F =   0.9359

Appendix B3. Validity

Table B3.1. Factortest

Determinant of the correlation matrix	
Det	0.000

Bartlett test of sphericity	
Chi-square	1550.454
Degrees of freedom	91

P-value	0.000

H0: variables are not intercorrelated

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	
KMO	0.904

Table B3.2. Exploratory Factor Analysis

Factor analysis/correlation   Number of obs   =   187
Method: principal factors   Retained factors =   7
Rotation: (unrotated)   Number of params =   77

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor1	6.322	5.240	0.822	0.822
Factor2	1.082	0.623	0.141	0.963
Factor3	0.459	0.079	0.060	1.023
Factor4	0.380	0.268	0.050	1.072
Factor5	0.112	0.033	0.015	1.087
Factor6	0.079	0.060	0.010	1.097
Factor7	0.019	0.040	0.003	1.100
Factor8	-0.020	0.023	-0.003	1.097
Factor9	-0.043	0.024	-0.006	1.091
Factor10	-0.067	0.048	-0.009	1.083
Factor11	-0.115	0.022	-0.015	1.068
Factor12	-0.137	0.033	-0.018	1.050
Factor13	-0.170	0.043	-0.022	1.028
Factor14	-0.213	.	-0.028	1.000

LR test: independent vs. saturated: chi2(91) = 1540.99 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6	Factor7	Uniqueness
Consumerp~_1	0.771	0.370	-0.072	-0.017	-0.048	0.100	-0.001	0.250
Consumerp~_2	0.705	0.406	-0.083	0.027	0.055	0.011	-0.025	0.328
Consumerp~_3	0.726	0.349	0.120	-0.070	0.107	-0.030	0.046	0.318
Consumerp~_4	0.690	0.387	-0.172	-0.006	-0.022	-0.004	-0.044	0.343
Consumerpe~5	0.820	-0.258	0.021	0.151	0.103	-0.021	-0.028	0.227
Consumerpe~6	0.802	-0.205	0.039	0.158	-0.056	-0.187	-0.004	0.251
Consumerpe~e	0.402	-0.239	-0.019	-0.274	0.170	-0.012	-0.021	0.677
Consumerpe~8	0.815	-0.185	0.208	-0.164	-0.069	0.047	-0.053	0.222
Consumerpe~9	0.727	-0.238	0.120	-0.258	-0.162	0.026	0.014	0.308
Consumerp~10	0.289	0.366	0.352	0.050	-0.043	-0.084	0.025	0.647
Consumerp~11	0.696	-0.159	-0.098	0.046	-0.013	0.073	0.091	0.465
Consumerp~12	0.797	-0.214	-0.212	-0.049	0.062	-0.029	0.029	0.267
Consumerp~13	0.598	-0.199	-0.047	0.366	-0.049	0.080	-0.018	0.458
Consumerp~14	0.030	-0.094	0.403	0.131	0.115	0.100	-0.001	0.788

Factor analysis/correlation   Number of obs   =   187
Method: principal factors   Retained factors =   7
Rotation: orthogonal varimax (Kaiser on)   Number of params =   77

Factor	Variance	Difference	Proportion	Cumulative
Factor1	2.961	0.336	0.385	0.385
Factor2	2.625	0.467	0.341	0.727
Factor3	2.157	1.738	0.281	1.007

Factor4	0.419	0.281	0.054	1.062
Factor5	0.139	0.006	0.018	1.080
Factor6	0.132	0.111	0.017	1.097
Factor7	0.021	.	0.003	1.100

LR test: independent vs. saturated: chi2(91) = 1540.99 Prob>chi2 = 0.0000

Rotated factor loadings (pattern matrix) and unique variances

Variable	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6	Factor7	Uniqueness
Consumerp~_1		0.753		0.250				
Consumerp~_2		0.742		0.328				
Consumerp~_3		0.727		0.318				
Consumerp~_4		0.709		0.343				
Consumerpe~5	0.677		0.461		0.227			
Consumerpe~6	0.664		0.400		0.251			
Consumerpe~e		0.537		0.677				
Consumerpe~8	0.418		0.632		0.222			
Consumerpe~9		0.649		0.308				
Consumerp~10		0.482		0.647				
Consumerp~11		0.533		0.465				
Consumerp~12	0.568		0.541		0.267			
Consumerp~13		0.691		0.458				
Consumerp~14		0.457		0.788				

(blanks represent abs(loading)<.4)

Factor rotation matrix

	Factor1	Factor2	Factor3	Factor4	Factor5	Factor6	Factor7
Factor1	0.600	0.599	0.526	0.020	0.051	0.035	0.006
Factor2	0.795	-0.400	-0.444	-0.102	-0.023	-0.006	-0.000
Factor3	0.067	-0.206	0.086	0.898	0.172	0.330	-0.032
Factor4	-0.034	0.652	-0.698	0.250	-0.150	-0.008	-0.034
Factor5	0.046	-0.112	0.174	0.263	-0.857	-0.387	0.044
Factor6	0.023	-0.005	-0.019	0.228	0.458	-0.850	0.119
Factor7	-0.007	0.018	-0.030	-0.002	-0.017	0.129	0.991

Appendix C4. Validation tests

Table C4.1 MWU test validation test - Age

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

TreatmentCSR	obs	ranksum	expected
0	23	1926	2196.5
1	167	16219	15948.5
combined	190	18145	18145

unadjusted variance   61135.92

adjustment for ties   -879.07

adjusted variance   60256.85

Ho: Age(correc~n==0) = Age(correc~n==1)

$$z = -1.102$$

Prob > z   0.2705

Exact Prob   0.2728

Table C4.2 MWU test validation - Education

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

TreatmentCSR	obs	ranksum	expected
0	23	2287.5	2196.5
1	167	15857.5	15948.5
combined	190	18145	18145

unadjusted variance   61135.92

adjustment for ties   -6387.87

adjusted variance   54748.05

Ho: Educat~n(correc~n==0) = Educat~n(correc~n==1)

$$z = -0.389$$

Prob > z   0.6973

Exact Prob   0.6957

Table C4.3 MWU test validation - Occupation

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

TreatmentCSR	obs	ranksum	expected
0	23	2338	2196.5
1	167	15807	15948.5
combined	190	18145	18145

unadjusted variance   61135.92

adjustment for ties   -26975.45

adjusted variance   34260.43

Ho: Occupa~n(correc~n==0) = Occupa~n(correc~n==1)

$$z = 0.764$$

Prob > z   0.4446

Exact Prob   0.3940

Table C4.4 MWU test validation - Environmental Concern

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

TreatmentCSR	obs	ranksum	expected
0	23	2087	2185
1	166	15868	15770
combined	189	17955	17955

unadjusted variance   60451.67

adjustment for ties   -4191.50
adjusted variance   56260.16

Ho: env_co~n(correc~n==0) = env_co~n(correc~n==1)

$$z = -0.413$$

Prob > z   0.6795
Exact Prob   0.6840

Appendix D. Results

Appendix D1. Mann-Whitney U tests

Table D1.1 Hypothesis 1a - Perceived Identification MWU

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

TreatmentCSR	obs	ranksum	expected
0	95	8785	9167.5
1	97	9743	9360.5
combined	192	18528	18528

unadjusted variance   148207.92

adjustment for ties   -488.49
adjusted variance   147719.43

Ho: perce~en(treatm~R==0) = perce~en(treatm~R==1)

$$z = -0.995$$

Prob > z   0.3196
Exact Prob   0.3207

Table D1.2 Hypothesis 1b - Perceived Credibility MWU

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

TreatmentCSR	obs	ranksum	expected
0	95	9251.5	9024
1	97	9084.5	9312
combined	192	18336	18336

unadjusted variance   145888.00
adjustment for ties   -1043.71
adjusted variance   144844.29

  Ho: perce~en(treatm~R==0) = perce~en(treatm~R==1)

z = 0.598

  Prob > |z| 0.5500
  Exact Prob   0.5513

Table D1.3 Hypothesis 2b - WTP MWU

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

TreatmentCSR	obs	ranksum	expected
0	95	8635.5	9167.5
1	97	9892.5	9360.5
combined	192	18528	18528

unadjusted variance   148207.92
adjustment for ties   -2473.87
adjusted variance   145734.05

  Ho: perce~en(treatm~R==0) = perce~en(treatm~R==1)

z = -1.394

  Prob > |z| 0.1634
  Exact Prob   0.1640

Table D1.4 Hypothesis 3a – identification - comparing positive reputation groups based on communication

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

TreatmentCSR	obs	ranksum	expected
0	27	752	769.5
1	29	844	826.5
combined	56	1596	1596

unadjusted variance   3719.25

adjustment for ties   -22.24
adjusted variance   3697.01

Ho: perce~en(CSR_po~n==0) = perce~en(CSR_po~n==1)

$$z = -0.288$$

Prob > |z| 0.7735
Exact Prob   0.7784

Table D1.5 Hypothesis 3a – identification - comparing negative reputation groups based on communication

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

TreatmentCSR	obs	ranksum	expected
0	33	1106	1155
1	36	1309	1260
combined	69	2415	2415

unadjusted variance   6930.00
adjustment for ties   -36.33
adjusted variance   6893.67

Ho: perce~en(CSR_ne~n==0) = perce~en(CSR_ne~n==1)

$$z = -0.590$$

Prob > |z| 0.5551
Exact Prob   0.5594

Table D1.6 Hypothesis 3b – credibility - positive reputation

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

TreatmentCSR	obs	ranksum	expected
0	27	872	769.5
1	29	724	826.5
combined	56	1596	1596

unadjusted variance   3719.25
adjustment for ties   -42.33
adjusted variance   3676.92

Ho: perce~en(CSR_po~n==0) = perce~en(CSR_po~n==1)

$$z = 1.690$$

Prob > |z| 0.0910
Exact Prob   0.0919

Table D1.7 Hypothesis 3b – credibility - negative reputation

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

TreatmentCSR	obs	ranksum	expected
0	33	1149	1155
1	36	1266	1260
combined	69	2415	2415

unadjusted variance   6930.00

adjustment for ties   -49.63
adjusted variance   68880.37

Ho: perce~en(CSR_ne~n==0) = perce~en(CSR_ne~n==1)

$$z = -0.072$$

Prob > |z| 0.9423
Exact Prob   0.9451

Table D1.8 Hypothesis 4 – WTP - positive reputation

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

TreatmentCSR	obs	ranksum	expected
0	27	715.5	769.5
1	29	880.5	826.5
combined	56	1596	1596

unadjusted variance   3719.25

adjustment for ties   -83.89
adjusted variance   3635.36

Ho: perce~en(CSR_po~n==0) = perce~en(CSR_po~n==1)

$$z = -0.896$$

Prob > |z| 0.3705
Exact Prob   0.3761

Table D1.9 Hypothesis 4 – WTP - negative reputation

Two-sample Wilcoxon rank-sum (Mann-Whitney) test

TreatmentCSR	obs	ranksum	expected

0	32	962.5	1088
1	35	1315.5	1190
combined	67	2278	2278

unadjusted variance   6346.67
adjustment for ties   -121.07
adjusted variance   6225.60

Ho: perce~en(CSR_ne~n==0) = perce~en(CSR_ne~n==1)

z = -1.591

Prob > |z| 0.1117
Exact Prob   0.1129

Appendix D2. Kruskal Wallis results

Table D2.1. Hypothesis 3a – Identification – communication and reputation
Kruskal-Wallis equality-of-populations rank test

treatments	Obs	Rank Sum
NC_NOR	35	3570.500
NC_NEGR	33	2361.500
NC_POSR	27	2853.000
C_NOR	32	3719.000
C_NEGR	36	2882.000
C_POSR	29	3142.000

chi-squared =   16.226 with 5 d.f.
probability =   0.0062

chi-squared with ties =   16.279 with 5 d.f.
probability =   0.0061

Table D2.2. Hypothesis 3b – Credibility – communication and reputation
Kruskal-Wallis equality-of-populations rank test

treatments	Obs	Rank Sum
NC_NOR	34	3627.50
NC_NEGR	33	2038.50
NC_POSR	27	3585.50
C_NOR	32	3616.50
C_NEGR	36	3616.50
C_POSR	29	2256.50

chi-squared =   44.057 with 5 d.f.
probability =   0.0001

chi-squared with ties =   44.374 with 5 d.f.
probability =   0.0061

Table D2.3. Hypothesis 4 – WTP – communication and reputation
Kruskal-Wallis equality-of-populations rank test

treatments	Obs	Rank Sum
NC_NOR	35	3430.50
NC_NEGR	32	2053.00
NC_POSR	27	2962.00
C_NOR	32	3173.00
C_NEGR	35	2948.50
C_POSR	29	3577.50

chi-squared =   21.312 with 5 d.f.
probability =   0.0007

chi-squared with ties =   21.685 with 5 d.f.
probability =   0.0006

Appendix D3. Ordered logit regressions

Table D1. Hypothesis 1.
The results of the ordered logit model investigating the effect of the extent of CSR communication on the dependent variables identification perception and credibility perception.

VARIABLES	(1) percep_iden	(2) percep_cred
treatmentCSR	0.168	-0.183
	(0.259)	(0.261)
Gender	1.042***	0.100
	(0.267)	(0.266)
Age	0.0314*	0.00370
	(0.0161)	(0.0154)
Occupation	0.0526	0.134
	(0.388)	(0.375)
Education	-0.0627	0.0910
	(0.0905)	(0.0958)
Observations	190	189

Standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table D2. Hypothesis 3a and 3b.

The results of the ordered logit model investigating the effect of the combinations of reputation and communication on the dependent variables identification perception and credibility perception.

VARIABLES	(1) percep_iden	(2) percep_cred
NC_NEGR	-0.884**	-1.608***
	(0.431)	(0.453)
NC_POSR	0.607	0.979**
	(0.436)	(0.395)
C_NOR	0.683	0.208
	(0.429)	(0.381)
C_NEGR	-0.854**	-1.679***
	(0.422)	(0.472)
C_POSR	0.555	0.228
	(0.435)	(0.437)
Gender	1.302***	0.237
	(0.276)	(0.276)
Age	0.0286*	0.00217
	(0.0162)	(0.0127)
Occupation	0.223	0.346
	(0.381)	(0.284)
Education	-0.0965	0.0717
	(0.0930)	(0.110)
Observations	190	189

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Table Notes. NC_NEGR= sample receiving no extensive CSR communication and a negative reputation description. NC_POSR= sample receiving no extensive CSR communication and a positive reputation description. C_NOR= sample receiving extensive CSR communication and no reputation description. C_NEGR= sample receiving extensive CSR communication and a negative reputation description. C_POSR= sample receiving extensive CSR communication and a positive reputation description.

Table D3. Manipulation ordered logit regression.
The results of the ordered logit regression of (1) testing whether reputation significantly affects the perceived reputation and (2) testing whether the treatment significantly affects the perceived informativeness of the brand.

VARIABLES	(1) percep_reputation	(2) percep_inform
treatmentCSR		0.484*
		(0.261)
Gender	0.421	0.252
	(0.264)	(0.266)
Age	0.0195	-0.00637
	(0.0155)	(0.0159)

Education	0.187*	0.0929
	(0.0970)	(0.0919)
Occupation	0.389	0.819**
	(0.365)	(0.384)
/cut1	-1.908**	-1.237*
	(0.763)	(0.681)
/cut2	-1.526**	-0.727
	(0.736)	(0.654)
/cut3	-1.000	-0.368
	(0.710)	(0.642)
/cut4	-0.468	-0.0837
	(0.693)	(0.636)
/cut5	0.0988	0.298
	(0.685)	(0.633)
/cut6	0.742	0.521
	(0.682)	(0.633)
/cut7	1.139*	1.131*
	(0.684)	(0.638)
/cut8	1.504**	1.457**
	(0.688)	(0.643)
/cut9	2.427***	1.971***
	(0.704)	(0.653)
/cut10	3.018***	2.432***
	(0.717)	(0.659)
/cut11	3.810***	2.967***
	(0.736)	(0.666)
/cut12	4.653***	3.416***
	(0.770)	(0.676)
/cut13		4.054***
		(0.698)
/cut14		4.414***
		(0.715)
/cut15		5.073***
		(0.761)
/cut16		5.946***
		(0.878)
NEG reputation	-1.415***	
	(0.323)	
POS reputation	0.119	
	(0.322)	
Observations	189	189

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Robust standard errors are reported in parentheses