Article

Should Brands Talk about Environmental Sustainability Aspects That "Really Hurt"? Exploring the Consequences of Disclosing Highly Relevant Negative CSR Information

Jonas Müller * , Michael Schade and Christoph Burmann

markstones Institute of Marketing, Branding & Technology, University of Bremen, Max-von-Laue-Straße 1, 28359 Bremen, Germany; mschade@uni-bremen.de (M.S.); burmann@uni-bremen.de (C.B.)
* Correspondence: mueller_jonas@web.de

Abstract: When communicating their CSR (Corporate Social Responsibility) activities many companies predominantly release positive information. However, relying solely on positive information holds potential risks. Brands are consequently confronted with the dilemma of whether to exclusively disclose positive details about their environmental CSR activities (i.e., one-sided messages) or opt for voluntary disclosure of positive and negative information (i.e., two-sided messages). Existing literature distinguishes moderately and highly relevant types of negative information. However, prior research has predominantly overlooked the investigation of highly relevant negative CSR information. Therefore, our primary objective is to explore the impact of two-sided messages encompassing highly relevant negative CSR information in comparison to one-sided messages. We conducted four online experiments in two countries with different brands (study 1 (Germany, Mercedes-Benz, $n = 457$); study 2 (Germany, Porsche, $n = 431$); study 3 (USA, Mercedes-Benz, $n = 468$) and study 4 (USA, Tesla, $n = 465$)). The results reveal that two-sided messages with the disclosure of highly relevant negative CSR information lead to negative effects in comparison to one-sided messages with only positive information. Consequently, brands should exercise caution in communicating highly relevant negative CSR aspects. Our findings offer notable theoretical insights and practical implications.

Keywords: two-sided messages; CSR (Corporate Social Responsibility); message sidedness; attribution theory; online experiment; automotive industry; highly relevant negative CSR information; transparency

1. Introduction

1.1. Practical Relevance

Due to the rising importance of environmental protection [1], sustainability has become an important factor in the purchase decisions of consumers [2]. In response to this, many companies take responsibility for their actions and their impact on society and the environment [3]. This is called CSR (Corporate Social Responsibility [4]). When communicating about CSR activities, many companies follow the same strategy. Various studies show that companies publish mainly positive sustainability information [5–7]. Hereby, they attempt to distract the recipients of the information from their irresponsible behavior [8]. However, there could be a risk in communicating only positive sustainability information [9]. If companies do not keep their promises, consumer attitudes towards the company can be negatively influenced [10].

Volkswagen, for example, promoted the diesel vehicle "Passat TDI" as "clean" [11]. Subsequent investigations revealed that brands such as Volkswagen systematically manipulated the emission values of their diesel vehicles [12]. Behavior like this increased consumer skepticism [3,9,13–15]. Therefore, consumers do not trust in environmental sustainability claims of brands [16]. According to an international survey of 2171 consumers by Futerra [17], 66% of Generation Y and 79% of Generation Z believe that brands are not honest when it comes to the environmental sustainability of their products.

As a result, brands are now expected to be more transparent [18]. We define environmental transparency based on the definitions of Hopp and Fisher [19], Rawlins [20], and Lin et al. [21]. Environmental transparency is the voluntary disclosure of relevant and company-internal environmental information (positive and negative) with the aim of conveying the brand's motives to consumers in an understandable way. Companies thus face the question of whether they should disclose only positive information about their environmental CSR activities or voluntarily disclose negative information.

Message sidedness describes whether a target group perceives a message as one- or two-sided [22]. One-sided messages refer to the exclusive disclosure of only positive information. In contrast, two-sided messages are defined as voluntary disclosures containing both positive and negative information [23,24]. Some brands already use two-sided messages in their CSR communication. For example, the fashion brand Nudie Jeans provides positive and negative information on the supply chain of every product [25].

1.2. State of Research, Research Gaps and Main Research Questions

Due to the high relevance, several studies deal with the effect of message sidedness in general. It is particularly noticeable that the results are mixed. Some authors conclude that two-sided messages can positively affect variables such as trustworthiness [22], attention towards the advertisement [23], perceived fairness [26,27], credibility of the message [23,27,28] and purchase intention [27]. However, other studies indicate adverse effects of two-sided messages. They can lead to unfavorable evaluations of the advertised products [29] or negatively influence the attitude towards the brand and the purchase intention [23,30]. Based on a meta-analysis by Eisend [27], one explanation for the mixed results can be related to the relevance of the disclosed negative attributes. While moderately relevant negative attributes enhance purchase intentions, highly relevant negative attributes diminish them.

Based on the knowledge of the authors, only one study analyzed the effects of message sidedness in the context of CSR communication [24]. Jahn and Brühl [24] investigated the effects of two-sided messages in the context of CSR with one brand (fictitious cosmetics manufacturer) and revealed only moderately relevant negative CSR information. They conclude that the addition of negative CSR information has no positive or negative impact on the outcome variable (CSR perception) [24]. However, the question arises to what extent the disclosure of only moderately relevant negative information is perceived as trustworthy. For example, an automotive brand that discloses negative information about a car's steering wheel could distract from more relevant problems (e.g., battery). Hence, the question arises whether brands should disclose negative information about highly relevant sustainability aspects in their environmental CSR communication. To say it in other words: should they talk about the sustainability aspects that "really hurt"?

Previous research has not yet investigated the effectiveness of highly relevant negative CSR information. Therefore, as the main contribution our paper aims to determine whether brands should disclose negative CSR information with high relevance (e.g., information about the battery of an electric car). Based on this, the main objective of our study is to investigate the effect of two-sided messages including highly relevant negative CSR information on purchase intention considering the mediator perceived environmental friendliness (PEF) of the product aspect.

Furthermore, Jahn and Brühl [24] recommend analyzing in further studies whether the effects of two-sided messages are stronger or weaker for different brands. To increase the robustness of our results, we followed the recommendation of Jahn and Brühl [24] and conducted our study with two different brands in two countries (USA and Germany). This multi-study design is a further contribution of our paper.

2. Conceptual Background

This study refers to the message sidedness research stream, which is primarily based on attribution theory [24,28,30]. Attribution theory explains the processes that an individual goes through to assign causes to behavior or events [27,31–33]. The goal is not to explain what other people are doing, but rather why they are doing it [34]. In marketing research attribution theory is therefore used to explain the behavior of consumers by identifying cause-and-effect relationships [35,36]. For example, attribution theory can be used to explain the responses and efficiencies of advertising measures [37–39]. Attribution theories can thus be used to explain consumer decision-making processes that go beyond objective criteria such as the price [35,40]. Thus, the theory is also frequently used in the context of CSR [41–43].

Heider [44] concludes that people attribute observed actions either to the personal characteristics of the acting person or to environmental conditions and the situation. Thus, an attribution is distinguished by the attribution of internal (personal characteristics) and external (situation and framework condition) reasons [31]. Internal causes are more likely to be attributed when a brand shows an unexpected behavior, like the disclosure of negative information [45]. Therefore, the brand violates existing norms, which is why an intrinsic motivation can be assumed [32]. The consumer therefore assumes an inner conviction and honest intentions, so the brand is telling the truth [46]. This is especially true for voluntary disclosures [32,45]. In the context of CSR, intrinsic motivation pertains to consumers deducting that a company is involved in CSR because of its inherent characteristics [47].

Situational influences are more likely to be attributed to external causes. For example, the disclosure of positive information is not surprising. The consumer's expectations are met and it can be assumed that the brand wants to sell its product in order to survive in the market [45]. The brand therefore primarily wants to increase its profits and reach a greater market share [47,48]. In the context of CSR, this would mean that the brand only implements CSR activities for external reasons [47]. Therefore, the behavior is attributed to external causes [27].

3. Hypotheses

When communicating about CSR activities, many companies publish mainly positive information [5–7]. On the one hand, the disclosure of exclusively positive information would not be surprising. Therefore, the observer's expectations are met [27]. Thus, external causes could be attributed to this behavior.

On the other hand, it might be unexpected when brands disclose voluntarily information about negative sustainability aspects concerning environmental CSR activities. According to attribution theory, this could lead to the attribution of internal causes [45]. Consumers might therefore assume that the brand is telling the truth [27].

Various studies that have generally investigated the effect of two-sided messages identified positive effects. Two-sided messages can for example positively affect the trustworthiness [22], attention towards the advertisement [23] and perceived fairness [26,27]. Due to the attribution of internal causes, various authors conclude that two-sided messages increase the credibility of a message [23,27,28]. According to Eisend [27] this leads to an increase in purchase intention. Various studies confirm this, concluding that an increased credibility leads to an increased purchase intention [49–52]. Thus, we hypothesize:

H1: *Two-sided messages lead to a more positive effect on purchase intention than one-sided messages.*

The single presentation of additional CSR information might not directly affect the purchase intention for a product, especially in the context of real brands. Thus, the question arises to what extent the effect of message sidedness on purchase intention is mediated. As already described, the usage of two-sided messages could lead to the attribution of internal causes. This results in positive effects on many different target variables (as already described, e.g., trustworthiness [22], attention towards the advertisement [23] and

perceived fairness [26,27]). If a brand is perceived as telling the truth [27], this could also positively affect the PEF of the product aspect. Simon-Kucher and partners [2] have shown that sustainability is an important factor in the purchase decision of consumers. If the PEF of the product aspect increased by using two-sided messages, this could lead to a positive effect on the purchase intention. This leads to the following mediation hypothesis:

H2: *Two-sided messages lead to a higher PEF (perceived environmental friendliness) of the product aspect than one-sided messages and the PEF of the product aspect has a positive effect on purchase intention.*

The conceptual model is illustrated in Figure 1.
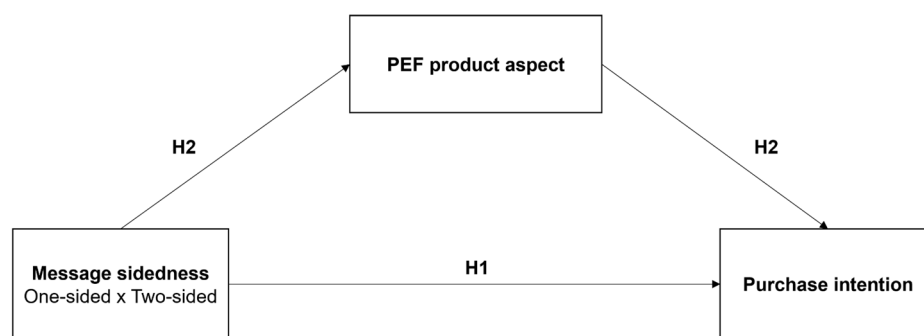
Figure 1. Conceptual model.

4. Materials and Methods

4.1. Experimental Design

This study aims to investigate the relationship between message sidedness (one-sided vs. two-sided), the mediator (PEF product aspect) and the dependent variable purchase intention. Due to the high level of control and therefore high internal validity, an experimental design is well suited for this purpose. Online experiments are relatively inexpensive, and participants remain in their everyday environment. If the stimulus can be presented online in a realistic way, online experiments are recommended [53]. This study uses a mobile e-commerce shop as stimuli, therefore, an online experiment is appropriate.

In the first step, wo conducted two pretests. Pretest 1 was conducted in Germany and the USA and had the aim to identify one highly relevant product aspect in the automotive industry, about which environmental CSR information will be disclosed. Pretest 2 was also conducted in Germany and the USA and had the aim of testing the questionnaire and stimuli as well as the manipulation and realism check.

In the main study a 1×2 between-subject design (one- vs. two-sided messages) was applied. Group one saw only positive environmental CSR information (one-sided message). The second experimental group saw a two-sided message. Thus, both positive and negative information about the product aspect was revealed. The participants were randomly assigned to one of the two groups.

To increase the robustness of our results, we conducted four main studies in two countries with different brands: study 1 (participants from Germany, brand: Mercedes-Benz), study 2 (participants from Germany, brand: Porsche), study 3 (participants from USA, brand: Mercedes-Benz) and study 4 (participants from USA, brand: Tesla). The participants in Germany and the USA were randomly assigned to one of the two brands.

The same study design was used for each of the four main studies. In the next step, we describe the detailed study design in the context of main study 3 (participants from USA, brand: Mercedes-Benz).

To make the experimental survey as comprehensible as possible, a short scenario description was presented to all participants. Here, the participants received some fictional background information on the environmental CSR activities of Mercedes-Benz. They

obtained the information that Mercedes-Benz intends to partner only with suppliers who adhere to international environmental standards. Since cars consist of many parts, checking each supplier is very time-consuming. The testing organization TÜV SÜD first checked the compliance with environmental standards at all battery suppliers (with a view on the entire supply chain including raw materials). Suppliers receive a TÜV-certificate when they produce in an environmentally friendly way (e.g., use of recycled materials and green electricity). Suppliers without a certificate must meet the standards by 2035 at the latest, otherwise, the cooperation will be ended. The brand wants to offer its customers full transparency in their purchasing decisions. Therefore, Mercedes-Benz voluntarily discloses for each vehicle information about the environmental friendliness of the battery.

In the second step, we presented a realistic screenshot of a mobile e-commerce shop as a first stimulus. The screenshot showed a picture of the vehicle, its name, the price, important vehicle data, and a "transparency" button. After the first stimuli, participants were asked to imagine they had clicked on the transparency button. In the third step, participants of the first experimental group saw a one-sided message. They saw a fictional diagram showing that 100% of the battery suppliers had been inspected by TÜV and certified as environmentally friendly. Participants of the second experimental group saw a two-sided message. They saw a fictional diagram in which 60% of the suppliers are environmentally friendly and 40% of the suppliers are not environmentally friendly (checked, but no certificate received). Furthermore, a "Read Report" button indicated that interested persons would receive more in-depth information on the TÜV report (see Figure 2).
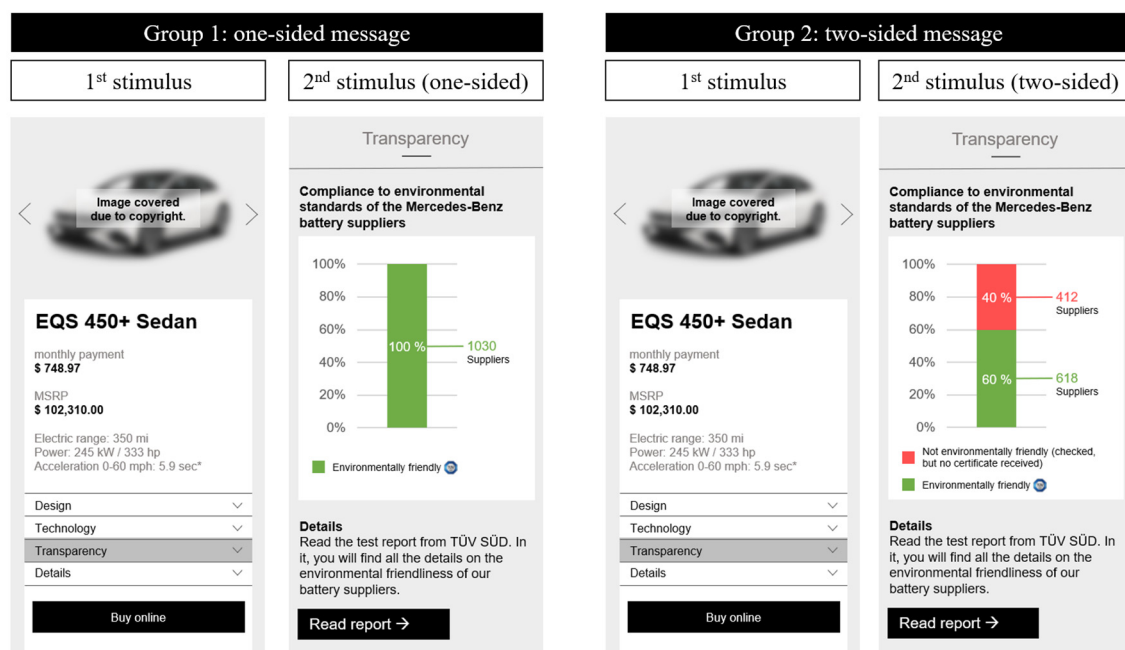
Figure 2. First and second stimuli showing the experimental manipulation of messages sidedness in group 1 and 2 (Note: the number of environmentally friendly/not environmentally friendly suppliers is fictional.).

4.2. Measures

After exposure to the stimulus material, respondents completed the survey. Unless otherwise mentioned, all variables were measured on a 7-point scale (1 = strongly disagree; 7 = strongly agree). The dependent variable was purchase intention. It was measured by an adapted scale from Grewal et al. [54] (1 = very low, 7 = very high). The mediator PEF of the product aspect was measured on an adapted scale from Chen et al. [55] ("The vehicle [Model] from [Brand] contains an environmentally friendly battery"). The manipulation

check for message sidedness relied on an adapted scale from Veirman and Hudders [56] ("With reference to the [Model] as seen in the online store shown; [Brand] disclose positive as well as negative information about the environmental friendliness of their battery suppliers."). The realism check was based on an adapted scale from Karande et al. [57] (1 = not at all realistic, 7 = very realistic).

In addition, various covariates were included. To measure brand familiarity, we adapted the scale from Simonin and Ruth [58] ("Please indicate how familiar you are with the brand [Brand]; 1 = unfamiliar, 7 = familiar). Product involvement was measured by the scale of Simonin and Ruth [58] ("I think electric cars are important."). Our measurement of attitude towards electric mobility was also adapted by the scale of Simonin and Ruth [58] ("My attitude towards electric mobility is good."). The measurement of environmental concerns was based on three items, adapted from the scales of Abdul-Muhmin [59] and Bohlen et al. [60] ("Issues relating to the environment are very important to me."; "The increasing destruction of the environment is a serious problem."; "We are not doing enough in this country to protect the environment."). Message comprehensibility was measured by an adaption of the scale of Yang and Battocchio [61] ("The online shop of [Brand] confused me, when I viewed it." (reverse coded)). The variable liking of the online shop was measured by an adapted scale of Mitchell et al. [62] ("The online shop shown:"; 1 = I dislike it very much, 7 = I like it very much). Frequency of online shopping was measured by the item "During the last year, how often did you shop online on a scale from 1 (very rarely) to 7 (very often)?". The measurement for the liking of the product was adapted from Mitchell et al. [62] ("The product shown:"; 1 = I dislike it very much, 7 = I like it very much). Adequacy of price was measured by the single-item "The price of the [Model] is adequate." and brand trust of TÜV was measured by an adapted scale from Chaudhuri and Holbrook [63] ("I trust this brand.").

To ensure that we disclose information about a highly relevant product aspect, we additionally measured the perceived relevance of the environmental impact of the product aspects "battery", "tires", "steering wheel", "painting" and "display". The participants had to allocate a total of 100 points to the different aspects. More points should be allocated to aspects with a more relevant environmental impact for them.

4.3. Participants

The participants of the two pretests and four main studies were recruited with the support of an online panel provider. To survey a suitable target group, we only interviewed participants with a driver's license and the intention to buy a car within the next five years in all studies. All subjects answered the questionnaire on their own mobile devices. The survey on mobile devices was fitting, as the mobile screenshots shown were as close to reality as possible.

The final sample (after screen-outs) for pretest 1 contained 105 participants (Germany: n = 49, USA: n = 56). For pretest 2, the final sample contained 162 participants (Germany: n = 76, USA: n = 86). After data cleansing, the final sample of the four main studies contained: study 1 (Germany, Mercedes-Benz, one-sided: n = 229, two-sided: n = 228); study 2 (Germany, Porsche, one-sided: n = 219, two-sided: n = 212); study 3 (USA, Mercedes-Benz, one-sided: n = 231, two-sided n = 237) and study 4 (USA, Tesla, one-sided: n = 237, two-sided: n = 228). Table 1 shows the average age, percentage of female participants and percentage of people with an annual gross household income of more than 40,001 Euro/USD for the four main studies.

Table 1. Average age, percentage of female participants and percentage of people with an annual gross household income of more than 40,001 Euro/USD in study 1, 2, 3 and 4.

Study	Average Age	Percentage of Female Participants (%)	Percentage of People with an Annual Gross Household Income of More Than 40,001 Euro/USD (%)
Study 1 (Germany, Mercedes-Benz)	41.16	49.9	88.2
Study 2 (Germany, Porsche)	41.94	48.0	85.2
Study 3 (USA, Mercedes-Benz)	45.94	63.7	89.7
Study 4 (USA, Tesla)	42.93	65.1	84.3

5. Results

5.1. Pretest Results

The main objective of our study is to explore the impact of two-sided messages encompassing highly relevant negative CSR information. We therefore conducted pretest 1 to identify one highly relevant product aspect, about which environmental CSR information will be disclosed. The results showed that the participants perceived the environmental impact of the battery to be highly relevant ($M_{Germany}$ = 43.63, SD = 27.566; M_{USA} = 36.95, SD = 24.305). In both countries, the relevance of the battery differs significantly from the other product aspects ($p < 0.007$).

Pretest 2 had the aim of testing the questionnaire and stimuli as well as the manipulation and realism check. Regarding the manipulation check, we could not identify significant differences between the one-sided and two-sided groups. This was the case in Germany ($p_{Mercedes-Benz}$ = 0.143, $p_{Porsche}$ = 0.713) and in the USA ($p_{Mercedes-Benz}$ = 0.346, p_{Tesla} = 0.151). Thus, the manipulation check was not successful. Therefore, the stimuli were adjusted (simplified and negative information more clearly emphasized) and the manipulation check was formulated more precisely. Regarding the realism check, the mean scores were significantly above the scale midpoint ($p < 0.001$) in Germany ($M_{Mercedes-Benz}$ = 5.30, SD = 1.183; $M_{Porsche}$ = 5.23, SD = 1.198) and the USA ($M_{Mercedes-Benz}$ = 5.66, SD = 1.504; M_{Tesla} = 5.30, SD = 1.549). Beyond that, the relevance of the environmental impact of the product aspect was tested again. Here, the significant differences to the other aspects identified in pretest 1 were confirmed ($p < 0.001$). Therefore, the environmental impact of the battery is highly relevant.

5.2. Realism and Manipulation Checks

The participants perceived the scenario in all four main studies as realistic as the mean scores are significantly higher than the scale midpoint: study 1 (Germany, Mercedes-Benz, M = 5.07, SD = 1.442, t = 15.918, $p < 0.001$), study 2 (Germany, Porsche, M = 5.08, SD = 1.411, t = 15.758, $p < 0.001$), study 3 (USA, Mercedes-Benz, M = 5.33, SD = 1.430, t = 20.111, $p < 0.001$) and study 4 (USA, Tesla, M = 5.44, SD =1.425, t = 21.708, $p < 0.001$).

Our manipulation of message sidedness (one- vs. two-sided) was successful. The manipulation check confirms our manipulation due to significant differences between one- and two-sided messages: study 1 (Germany, Mercedes-Benz, $M_{one-sided}$ = 4.33, SD = 1.877; $M_{two-sided}$ = 5.48, SD = 1.427; t = −7.245, $p < 0.001$), study 2 (Germany, Porsche, $M_{one-sided}$ = 4.44, SD = 1.775; $M_{two-sided}$ = 5.75, SD = 1.370; t = −8.421, $p < 0.001$), study 3 (USA, Mercedes-Benz, $M_{one-sided}$ = 5.26, SD = 1.404; $M_{two-sided}$ = 5.60, SD = 1.331; t = −2.667, $p = 0.008$) and study 4 (USA, Tesla, $M_{one-sided}$ = 5.20, SD = 1.491; $M_{two-sided}$ = 5.67, SD = 1.497; t = −3.333, $p < 0.001$). This shows that our adaptions after the second pretest were effective. As in pretest 1 and 2, the relevance of the product aspect was tested again. We found significant differences ($p < 0.001$) between the battery and the other product aspects in the four main studies. The environmental impact of the battery is therefore highly relevant.

5.3. Hypotheses Tests

For the analysis of the four main studies, we conducted a mediation analysis using Model 4 in Hayes' [64] PROCESS macro (5000 bootstrap samples, 95% confidence interval). Message sidedness was entered as an independent variable. In the data, one-sided messages were coded as 1 and two-sided messages as 2. We entered purchase intention as a dependent variable and the PEF of the product aspect as a mediator. Additionally, brand familiarity, environmental concern, product involvement, message comprehensibility, liking of the online shop, frequency of online shopping and brand trust TÜV were added as covariates in the four main studies. Furthermore, in main study 1 and 2 the covariates "attitude towards electric mobility" and "adequacy of price" were also included. These two covariates were not considered in study 3 and 4 due to significant differences between the two brands in the USA (attitude towards electric mobility ($p = 0.014$) and adequacy of price ($p = 0.010$)). In study 3 and 4, the covariate "liking of the product" was also included. This covariate was not considered in study 1 and 2 due to significant differences between the two brands in Germany ($p = 0.007$).

In the first step, we tested for the existence of multicollinearity in all four main studies. Since the VIF is below 5 for all integrated control variables, multicollinearity is not present [65].

In the second step, we tested for non-presence of heteroskedasticity. According to Hayes [64] heteroscedasticity can affect the validity of the results, which is why homoscedasticity is an important assumption. The results of the Levene-test reveal that homoscedasticity is given in all four main studies: study 1 (Germany, Mercedes-Benz, $p_{\text{PEF product aspect}} = 0.087$, $p_{\text{purchase intention}} = 0.454$), study 2 (Germany, Porsche, $p_{\text{PEF product aspect}} = 0.370$, $p_{\text{purchase intention}} = 0.080$), study 3 (USA, Mercedes-Benz, $p_{\text{PEF product aspect}} = 0.973$, $p_{\text{purchase intention}} = 0.080$) and study 4 (USA, Tesla, $p_{\text{PEF product aspect}} = 0.469$, $p_{\text{purchase intention}} = 0.663$).

Furthermore, the results of the mediation analysis reveal that the overall model is significant in all four main studies: study 1 (Germany, Mercedes-Benz, $F(11, 411) = 42.03$, $p = 0.0000$), study 2 (Germany, Porsche, $F(11, 361) = 25.04$, $p = 0.0000$), study 3 (USA, Mercedes-Benz, $F(10, 418) = 42.33$, $p = 0.0000$) and study 4 (USA, Tesla, $F(10,404) = 45.43$, $p = 0.0000$). Additionally, the R^2 for the dependent variable purchase intention is acceptable in all four main studies: study 1 (Germany, Mercedes-Benz, $R^2 = 0.5294$), study 2 (Germany, Porsche, $R^2 = 0.4328$), study 3 (USA, Mercedes-Benz, $R^2 = 0.5031$) and study 4 (USA, Tesla, $R^2 = 0.5293$).

The mediation analysis shows a significant indirect negative effect on purchase intention through the PEF of the product aspect in study 1 (Germany, Mercedes-Benz, effect $= -0.0628$, 95%-CI $[-0.1459, -0.0028]$) and study 2 (Germany, Porsche, effect $= -0.0837$, 95%-CI $[-0.1604, -0.0244]$). These effects are statistically different from zero since the 95% bootstrap confidence interval is below zero in both studies. The negative effect is caused by the coding of the variable message sidedness (1 = one-sided, 2 = two-sided). Therefore, a high value of message sidedness leads to a lower PEF of the product aspect. The relationship of message sidedness and purchase intention is fully mediated because the direct effect is not significant in study 1 (Germany, Mercedes-Benz, $c' = -0.0803$, $p = 0.5714$) and study 2 (Germany, Porsche, $c' = 0.0413$, $p = 0.7919$) (see Figure 3 and Table 2). Therefore, H1 and H2 are not supported in study 1 and 2.

The mediation analysis in study 3 and 4 (USA) shows different results. In study 3 and 4, message sidedness does not lead to a significant indirect effect on purchase intention through the PEF of the product aspect for study 3 (USA, Mercedes-Benz, effect $= -0.0048$, 95%-CI $[-0.0454, 0.0284]$) and study 4 (USA, Tesla, effect $= -0.0098$, 95%-CI $[-0.0564, 0.0206]$). One-sided messages lead to an increase in PEF of the product aspect compared to two-sided messages, but this does not lead to an increase in purchase intention. Beyond that, the direct effect of message sidedness on purchase intention was also not significant in study 3 (USA, Mercedes-Benz, $c' = -0.1398$, $p = 0.3151$) and study 4 (USA, Tesla, $c' = -0.0098$, $p = 0.9407$; see Figure 3 and Table 2). Therefore, H1 and H2 are not supported in study 3 and 4.
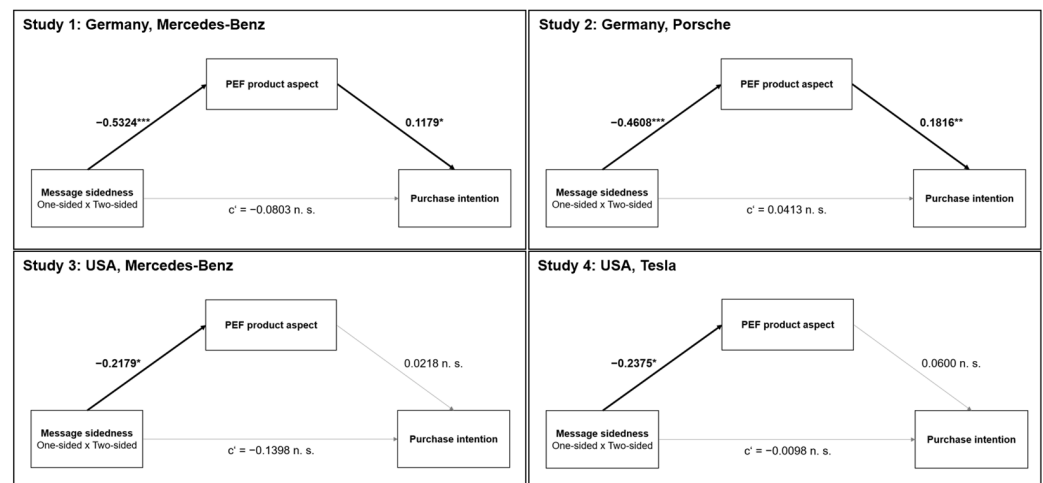
Figure 3. Regression coefficients for the relationship between message sidedness and purchase intention, mediated by PEF product aspect. (* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$).

Table 2. Indirect and total effects for a mediation analysis with message sidedness as an independent variable, PEF of the product aspect as a mediator and purchase intention as a dependent variable.

	Study 1 (Germany, Mercedes-Benz)	**Effect**	**SE**	**LLCI**	**ULCI**
Indirect effect	Message sidedness → PEF of product aspect → Purchase intention	−0.0628	0.0374	−0.1459	−0.0028
Total effect	Message Sidedness → Purchase intention	0.0803	0.1417	−0.1913	0.3589
	Study 2 (Germany, Porsche)	**Effect**	**SE**	**LLCI**	**ULCI**
Indirect effect	Message sidedness → PEF of product aspect → Purchase intention	−0.0837	0.0350	−0.1604	−0.0244
Total effect	Message Sidedness → Purchase intention	0.0413	0.1565	−0.2665	0.3492
	Study 3 (USA, Mercedes-Benz)	**Effect**	**SE**	**LLCI**	**ULCI**
Indirect effect	Message sidedness → PEF of product aspect → Purchase intention	−0.0048	0.0178	−0.0454	0.0284
Total effect	Message Sidedness → Purchase intention	−0.1398	0.1390	−0.4131	0.1334
	Study 4 (USA, Tesla)	**Effect**	**SE**	**LLCI**	**ULCI**
Indirect effect	Message sidedness → PEF of product aspect → Purchase intention	−0.0143	0.0189	−0.0564	0.0206
Total effect	Message Sidedness → Purchase intention	−0.0098	0.1309	−0.2671	0.2476

Note: LLCI = lower limit confidence interval, ULCI = upper limit confidence interval, confidence interval = 95%. The effects are calculated by applying Hayes Model 4. We used message sidedness as an independent variable, PEF of the product aspect as a mediator and purchase intention as a dependent variable.

6. Discussion and Implications

6.1. Discussion and Theoretical Implications

This study extends the scarce literature investigating the effect of two-sided messages in the context of CSR and provides several contributions. The main goal and contribution of our study was to investigate the effect of two-sided messages including highly relevant negative CSR information. First, in our study, one-sided messages lead to a significantly higher PEF of the product aspect compared to two-sided messages. To conclude, the disclosure of highly relevant negative CSR information leads to negative effects in comparison to one-sided messages with only positive information. Brands should therefore not talk about the sustainability aspects that "really hurt".

This can be explained by the several phases of the attribution process [66,67]. In the first phase, automatically generated attributions tend to lead to the attribution of internal reasons. Through the attribution of internal reasons, a positive effect on credibility arises [66–68]. In the second phase, contextual information is also used. For example, consumers process the negative information in more detail. However, this requires a higher cognitive effort [66–68]. People will only make this effort if their involvement is high. If the recipients enter the second phase, highly relevant negative information could equal or even outweigh the positive credibility effect of the first phase [30].

In our study, we disclosed information about cars, which are high-involvement products due to their high prices. This is also reflected in the covariate "Product involvement". For this variable, the mean values are significantly above the midpoint of the scale (4) in all of the four main studies: study 1 (Germany, Mercedes-Benz, M = 4.53, SD = 2.002; t = 5.614, $p < 0.001$), study 2 (Germany, Porsche, M = 4.60, SD = 1.996; t = 6.201, $p < 0.001$), study 3 (USA, Mercedes-Benz M = 5.02, SD = 1.937; t = 11.339, $p < 0.001$) and study 4 (USA, Tesla, M = 5.20, SD = 1.820; t = 14.191, $p < 0.001$). Overall, it can therefore be assumed that the participants' involvement was high. Thus, they may have entered the second phase and processed the negative information in detail. The positive credibility effect of the two-sided message was outweighed by highly relevant negative information [30]. This leads in our study to a negative effect on the PEF of the product aspect for two-sided messages compared to one-sided messages in all four main studies.

In relation to prior research, our study confirms the results of the meta-analysis of Eisend [27] in the context of CSR communication. The disclosure of highly relevant negative information has a negative impact on outcome variables like the PEF of the product aspect. Consequently, the effect of two-sided messages does not differ between CSR communication and other contexts.

Moreover, our findings extend those of Jahn and Brühl [24]. We were unable to validate a positive effect of two-sided messages within the context of disclosing highly relevant negative CSR information. This discrepancy could be explained by the distinction that Jahn and Brühl [24] only disclosed moderately relevant negative information, while our study disclosed highly relevant negative information.

Our second contribution and goal was to increase the robustness of the results by using a multi-study design with two different brands in two countries (USA and Germany). On the one hand, two-sided messages lead in all four main studies to a significant negative effect on the PEF of the product aspect. Thus, we can affirm the robustness of this relationship. On the other hand, the PEF of the product aspect only has a significant positive effect on purchase intention in study 1 and 2 (Germany). One reason for this could be the higher relevance of the environmental impact of the product aspect in Germany. Our results show that the German participants attribute a significantly higher relevance to the environmental impact of the battery than the American participants ($M_{Germany}$ = 60.334, SD = 22.459; M_{USA} = 54.82, SD = 20.946; t = −5.423, $p < 0.001$). A study by Deloitte [69] shows similar results. According to their results, Germans are more concerned about the environmental friendliness of an electric vehicle compared to Americans. Beyond that, the main factors for acquiring an electric vehicle differ. For Germans, the main factor are concerns about climate change and reduced emissions. For Americans, lower fuel costs are the main factor [69].

6.2. Practical Implications

6.2.1. Managerial Implications

Based on our results, several implications can be derived. If a brand has already achieved 100% of its environmental sustainability goals, it is advisable to voluntarily disclose highly relevant information. This increases the involvement of the recipients, which leads them to process the information in detail. If this information is presented understandably, the PEF of the product aspect can be increased. This is particularly recommended for managers in Germany, as it also has an indirect positive effect on purchase

intention. Disclosing environmental sustainability information thus also offers an economic advantage. This is why brands should achieve their environmental sustainability targets as quickly as possible.

If a brand has only achieved 60% of its environmental sustainability targets, the brand should be careful with two-sided messages. The voluntary disclosure of highly relevant information shows a negative effect compared to one-sided messages. The research of other authors shows that two-sided messages can perform better than one-sided messages when brands use moderately relevant information [27]. If the brand therefore wants to talk about negative aspects, it is recommended to use information with moderate importance. Consumer involvement should be kept as low as possible. Therefore, the positive effect of credibility could outweigh the negative content of the message.

6.2.2. Political Implications

Our findings might motivate brands to make advancements regarding environmental sustainability. If they succeed in achieving their goals at 100%, they can openly demonstrate their success to customers, thereby generating a positive impact on the PEF of the product aspect (USA and Germany) and purchase intention (Germany). However, if a brand has not yet achieved its sustainability goals, there is probably no motivation to disclose negative information about environmental sustainability aspects that "really hurt".

To ensure that consumers still receive a realistic impression of a brand's true progress, policymakers should create the necessary legal framework to "force" companies to disclose negative information. This approach would also reward companies that have already made significant progress (e.g., 100% environmentally sustainable battery suppliers). At the same time, it would punish companies that have made less progress (e.g., only 60% environmentally sustainable battery suppliers) due to various reasons (e.g., exclusive focus on profit maximization). However, the development of the legal framework could be relatively challenging. It needs to be defined for which product aspects brands must disclose negative environmental sustainability information.

Furthermore, in line with the environmental transparency definition of this paper, it is crucial to ensure that brands are required to disclose information in their communications with customers, and not only in detailed sustainability reports. The disclosure of additional information should always have the aim of conveying the brand's motives to consumers in an understandable way. Environmental sustainability information should therefore always be presented in an easy-to-understand format.

In addition, previous research has shown that the disclosure of moderately important negative information can lead to positive effects on important target variables [24,27]. However, this is only the case for voluntary disclosures. When a brand is forced to disclose negative information (e.g., due to legal reasons), it is not likely to be attributed to the brand's credibility [32,45]. If policymakers choose to make disclosures mandatory, brands might no longer benefit from such disclosures.

6.3. Limitations and Future Research

First, our results show that two-sided messages lead to a significant negative effect on the PEF of the product aspect in comparison to one-sided messages. Since we conducted our main studies in two countries with two brands, we can affirm the robustness of this relationship. Nevertheless, the PEF of the product aspect only has a significant positive effect on purchase intention in Germany. It would therefore be interesting to investigate to what extent further differences exist between other countries. Especially a comparison with the growing Chinese market [70] would be interesting.

Second, we investigated the effect of two-sided messages containing highly relevant negative information within the context of environmental CSR. To increase generalizability, future studies could investigate the effect of highly relevant negative CSR information in other CSR contexts. For example, highly relevant negative information about social CSR activities (e.g., compliance with human rights, avoidance of child labor) could be disclosed.

Third, we used a high-involvement product (car), to explore the impact of two-sided messages containing highly relevant negative CSR information. Due to their high involvement, the participants may have entered the second attribution phase and processed the negative information in detail. Therefore, the positive credibility effect of the two-sided message was outweighed [30]. For future research, it would be interesting to investigate whether a negative effect of two-sided messages containing highly relevant negative information can also be found in the context of low-involvement products.

References

1. IPCC. Chapter 11: Weather and Climate Extreme Events in a Changing Climate. Available online: https://www.ipcc.ch/report/ar6/wg1/chapter/chapter-11/ (accessed on 4 August 2023).
2. Simon-Kucher & Partners. 2022 Global Sustainability Study: The Growth Potential of Environmental Change. Available online: https://www.simon-kucher.com/en/insights/2022-global-sustainability-study-growth-potential-environmental-change (accessed on 21 July 2023).
3. Afzali, H.; Kim, S.S. Consumers' Responses to Corporate Social Responsibility: The Mediating Role of CSR Authenticity. *Sustainability* **2021**, *13*, 2224. [CrossRef]
4. Commission of the European Communities. GREEN PAPER: Promoting a European Framework for Corporate Social Responsibility. Available online: https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2001:0366:FIN:en:PDF (accessed on 18 August 2023).
5. Hackston, D.; Milne, M.J. Some determinants of social and environmental disclosures in New Zealand companies. *Account. Audit. Account. J.* **1996**, *9*, 77–108. [CrossRef]
6. Holder-Webb, L.; Cohen, J.R.; Nath, L.; Wood, D. The Supply of Corporate Social Responsibility Disclosures among U.S. Firms. *J. Bus. Ethics* **2009**, *84*, 497–527. [CrossRef]
7. Scalet, S.; Kelly, T.F. CSR Rating Agencies: What is Their Global Impact? *J. Bus. Ethics* **2009**, *94*, 69–88. [CrossRef]
8. Perks, K.J.; Farache, F.; Shukla, P.; Berry, A. Communicating responsibility-practicing irresponsibility in CSR advertisements. *J. Bus. Res.* **2013**, *66*, 1881–1888. [CrossRef]
9. Nguyen, T.T.H.; Yang, Z.; Nguyen, N.; Johnson, L.W.; Cao, T.K. Greenwash and Green Purchase Intention: The Mediating Role of Green Skepticism. *Sustainability* **2019**, *11*, 2653. [CrossRef]
10. Wagner, T.; Lutz, R.J.; Weitz, B.A. Corporate Hypocrisy: Overcoming the Threat of Inconsistent Corporate Social Responsibility Perceptions. *J. Mark.* **2009**, *73*, 77–91. [CrossRef]
11. Dörner, A. Ärger um Clean-Diesel-Werbung. Available online: https://www.handelsblatt.com/unternehmen/industrie/volkswagen-in-den-usa-aerger-um-clean-diesel-werbung/13378548.html (accessed on 3 August 2023).
12. ADAC. Abgasskandal: Diese Rechte Haben Diesel-Besitzer. Available online: https://www.adac.de/rund-ums-fahrzeug/auto-kaufen-verkaufen/abgasskandal-rechte/rechte-verbraucher/ (accessed on 3 August 2023).
13. Kim, S.-B.; Kim, D.-Y. Antecedents of Corporate Reputation in the Hotel Industry: The Moderating Role of Transparency. *Sustainability* **2017**, *9*, 951. [CrossRef]
14. Urbański, M.; ul Haque, A. Are You Environmentally Conscious Enough to Differentiate between Greenwashed and Sustainable Items? A Global Consumers Perspective. *Sustainability* **2020**, *12*, 1786. [CrossRef]
15. Liu, H.; Jung, J.-S. The Effect of CSR Attributes on CSR Authenticity: Focusing on Mediating Effects of Digital Transformation. *Sustainability* **2021**, *13*, 7206. [CrossRef]
16. Avcilar, M.Y.; Demirgünes, B.K. Developing Perceived Greenwash Index and Its Effect on Green Brand Equity: A Research on Gas Station Companies in Turkey. *Int. Bus. Res.* **2017**, *10*, 222–239. [CrossRef]
17. Futerra. Consumer Research. Available online: https://www.wearefuterra.com/wp-content/uploads/2019/06/Futerra-Honest-Product-V5-1.pdf (accessed on 25 June 2021).

18. Hahn, R.; Lülfs, R. Legitimizing Negative Aspects in GRI-Oriented Sustainability Reporting: A Qualitative Analysis of Corporate Disclosure Strategies. *J. Bus. Ethics* **2014**, *123*, 401–420. [CrossRef]

19. Hopp, T.; Fisher, J. A psychological model of transparent communication effectiveness. *Corp. Commun. Int. J.* **2020**, *26*, 403–419. [CrossRef]

20. Rawlins, B. Give the Emperor a Mirror: Toward Developing a Stakeholder Measurement of Organizational Transparency. *J. Public Relat. Res.* **2009**, *21*, 71–99. [CrossRef]

21. Lin, J.; Lobo, A.; Leckie, C. The role of benefits and transparency in shaping consumers' green perceived value, self-brand connection and brand loyalty. *J. Retail. Consum. Serv.* **2017**, *35*, 133–141. [CrossRef]

22. Browning, N.; Lee, E.; Lee, S.H.; Yang, S.-U. We're All in This Together: Legitimacy and Coronavirus-Oriented CSR Messaging. *Sustainability* **2022**, *14*, 2534. [CrossRef]

23. Crowley, A.E.; Hoyer, W.D. An Integrative Framework for Understanding Two-sided Persuasion. *J. Consum. Res.* **1994**, *20*, 561–574. [CrossRef]

24. Jahn, J.; Brühl, R. Can bad news be good? On the positive and negative effects of including moderately negative information in CSR disclosures. *J. Bus. Res.* **2019**, *97*, 117–128. [CrossRef]

25. Nudie Jeans. Lofty Lo Vintage Black. Available online: https://www.nudiejeans.com/de/product/lofty-lo-vintage-black (accessed on 5 April 2023).

26. Ellen, P.S.; Webb, D.J.; Mohr, L.A. Building Corporate Associations: Consumer Attributions for Corporate Socially Responsible Programs. *J. Acad. Mark. Sci.* **2006**, *34*, 147–157. [CrossRef]

27. Eisend, M. Two-sided advertising: A meta-analysis. *Int. J. Res. Mark.* **2006**, *23*, 187–198. [CrossRef]

28. Settle, R.B.; Golden, L.L. Attribution Theory and Advertiser Credibility. *J. Mark. Res.* **1974**, *11*, 181–185. [CrossRef]

29. Golden, L.L.; Alpert, M.I. Comparative Analysis of the Relative Effectiveness of One- and Two- Sided Communication for Contrasting Products. *J. Advert.* **1987**, *16*, 18–68. [CrossRef]

30. Eisend, M. Explaining the joint effect of source credibility and negativity of information in two-sided messages. *Psychol. Mark.* **2010**, *27*, 1032–1049. [CrossRef]

31. Heider, F. *The Psychology of Interpersonal Relations*; Martino Publishing: Mansfield, CT, USA, 1958; ISBN 978-1614277958.

32. Jones, E.E.; Davis, K.E. From Acts to Dispositions: The Attribution Process in Person Perception. In *Advances in Experimental Social Psychology*, 2nd ed.; Berkowitz, L., Ed.; Academic Press: New York, NY, USA, 1965; pp. 219–266.

33. Kelley, H.H. The processes of causal attribution. *Am. Psychol.* **1973**, *28*, 107–128. [CrossRef]

34. Gilbert, D.T.; Malone, P.S. The correspondence bias. *Psychol. Bull.* **1995**, *117*, 21–38. [CrossRef]

35. Folkes, V.S. Recent Attribution Research in Consumer Behavior: A Review and New Directions. *J. Consum. Res.* **1988**, *14*, 548–565. [CrossRef]

36. Orth, U.R.; Stöckl, A.; Veale, R.; Brouard, J.; Cavicchi, A.; Faraoni, M.; Larreina, M.; Lecat, B.; Olsen, J.; Rodriguez-Santos, C.; et al. Using attribution theory to explain tourists' attachments to place-based brands. *J. Bus. Res.* **2012**, *65*, 1321–1327. [CrossRef]

37. Samu, S.; Wymer, W. Cause marketing communications: Consumer inference on attitudes towards brand and cause. *Eur. J. Mark.* **2014**, *48*, 1333–1353. [CrossRef]

38. Su, L.; Gong, Q.; Huang, Y. How do destination social responsibility strategies affect tourists' intention to visit? An attribution theory perspective. *J. Retail. Consum. Serv.* **2020**, *54*, 102023. [CrossRef]

39. Di Domenico, G.; Premazzi, K.; Cugini, A. "I will pay you more, as long as you are transparent!": An investigation of the pick-your-price participative pricing mechanism. *J. Bus. Res.* **2022**, *147*, 403–419. [CrossRef]

40. Klein, J.; Dawar, N. Corporate social responsibility and consumers' attributions and brand evaluations in a product–harm crisis. *Int. J. Res. Mark.* **2004**, *21*, 203–217. [CrossRef]

41. Ahmed, I.; Nazir, M.S.; Ali, I.; Khalid, A.; Shaukat, M.Z.; Anwar, F. "Do Good, Have Good": A Serial Mediation Analysis of CSR with Customers' Outcomes. *Front. Psychol.* **2020**, *11*, 598. [CrossRef] [PubMed]

42. Lee, J.S.; Kwak, D.H.; Bagozzi, R.P. Cultural cognition and endorser scandal: Impact of consumer information processing mode on moral judgment in the endorsement context. *J. Bus. Res.* **2021**, *132*, 906–917. [CrossRef]

43. Kaur, P.; Talwar, S.; Madanaguli, A.; Srivastava, S.; Dhir, A. Corporate social responsibility (CSR) and hospitality sector: Charting new frontiers for restaurant businesses. *J. Bus. Res.* **2022**, *144*, 1234–1248. [CrossRef]

44. Heider, F. *Psychologie der Interpersonalen Beziehungen*, 1st ed.; Klett: Stuttgart, Germany, 1977; ISBN 9783129234105.

45. Smith, R.E.; Hunt, S.D. Attributional Processes and Effects in Promotional Situations. *J. Consum. Res.* **1978**, *5*, 149. [CrossRef]

46. Eisend, M. Understanding two-sided persuasion: An empirical assessment of theoretical approaches. *Psychol. Mark.* **2007**, *24*, 615–640. [CrossRef]

47. Ginder, W.; Kwon, W.-S.; Byun, S.-E. Effects of Internal–External Congruence-Based CSR Positioning: An Attribution Theory Approach. *J. Bus. Ethics* **2021**, *169*, 355–369. [CrossRef]

48. Vlachos, P.A.; Panagopoulos, N.G.; Rapp, A.A. Feeling Good by Doing Good: Employee CSR-Induced Attributions, Job Satisfaction, and the Role of Charismatic Leadership. *J. Bus. Ethics* **2013**, *118*, 577–588. [CrossRef]

49. Thomas, M.-J.; Wirtz, B.W.; Weyerer, J.C. Determinants of online review credibility and its impact on con-sumers' purchase intention. *J. Electron. Commer. Res.* **2019**, *20*, 1–20.

50. Lafferty, B.A.; Goldsmith, R.E. Corporate Credibility's Role in Consumers' Attitudes and Purchase Intentions When a High versus a Low Credibility Endorser Is Used in the Ad. *J. Bus. Res.* **1999**, *44*, 109–116. [CrossRef]

51. Kavanoor, S.; Grewal, D.; Blodgett, J. Ads promoting OTC medications: The effect of ad format and credibility on beliefs, attitudes, and purchase intentions. *J. Bus. Res.* **1997**, *40*, 219–227. [CrossRef]

52. Wang, X.; Yang, Z. The Effect of Brand Credibility on Consumers' Brand Purchase Intention in Emerging Economies: The Moderating Role of Brand Awareness and Brand Image. *J. Glob. Mark.* **2010**, *23*, 177–188. [CrossRef]

53. Koschate-Fischer, N.; Schandelmeier, S. A guideline for designing experimental studies in marketing research and a critical discussion of selected problem areas. *J. Bus. Econ.* **2014**, *84*, 793–826. [CrossRef]

54. Grewal, D.; Monroe, K.B.; Krishnan, R. The Effects of Price-Comparison Advertising on Buyers' Perceptions of Acquisition Value, Transaction Value, and Behavioral Intentions. *J. Mark.* **1998**, *62*, 46–59. [CrossRef]

55. Chen, Y.-S.; Lin, C.-Y.; Weng, C.-S. The Influence of Environmental Friendliness on Green Trust: The Mediation Effects of Green Satisfaction and Green Perceived Quality. *Sustainability* **2015**, *7*, 10135–10152. [CrossRef]

56. de Veirman, M.; Hudders, L. Disclosing sponsored Instagram posts: The role of material connection with the brand and message-sidedness when disclosing covert advertising. *Int. J. Advert.* **2020**, *39*, 94–130. [CrossRef]

57. Karande, K.; Magnini, V.P.; Tam, L. Recovery Voice and Satisfaction After Service Failure. *J. Serv. Res.* **2007**, *10*, 187–203. [CrossRef]

58. Simonin, B.L.; Ruth, J.A. Is a Company Known by the Company It Keeps? Assessing the Spillover Effects of Brand Alliances on Consumer Brand Attitudes. *J. Mark. Res.* **1998**, *35*, 30. [CrossRef]

59. Abdul-Muhmin, A.G. Explaining consumers' willingness to be environmentally friendly. *Int. J. Consum. Stud.* **2007**, *31*, 237–247. [CrossRef]

60. Bohlen, G.; Schlegelmilch, B.B.; Diamantopoulos, A. Measuring ecological concern: A multi-construct perspective. *J. Mark. Manag.* **1993**, *9*, 415–430. [CrossRef]

61. Yang, J.; Battocchio, A.F. Effects of transparent brand communication on perceived brand authenticity and consumer responses. *J. Prod. Brand Manag.* **2021**, *30*, 1176–1193. [CrossRef]

62. Mitchell, A.A.; Olson, J.C. Are Product Attribute Beliefs the Only Mediator of Advertising Effects on Brand Attitude? *J. Mark. Res.* **1981**, *18*, 318. [CrossRef]

63. Chaudhuri, A.; Holbrook, M.B. The Chain of Effects from Brand Trust and Brand Affect to Brand Performance: The Role of Brand Loyalty. *J. Mark.* **2001**, *65*, 81–93. [CrossRef]

64. Hayes, A.F. *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*, 3rd ed.; The Guilford Press: New York, NY, USA, 2022; ISBN 9781462549030.

65. Akinwande, M.O.; Dikko, H.G.; Samson, A. Variance Inflation Factor: As a Condition for the Inclusion of Suppressor Variable(s) in Regression Analysis. *Open J. Stat.* **2015**, *5*, 754–767. [CrossRef]

66. Gilbert, D.T. Attribution and interpersonal perception. In *Advanced Social Psychology*; Tesser, A., Ed.; McGraw-Hill: Boston, MA, USA, 1995; pp. 99–147.

67. Gilbert, D.T. Inferential Correction. In *Heuristics and Biases: The Psychology of Intuitive Judgment*; Gilovich, T., Griffin, D., Kahneman, D., Eds.; Cambridge University Press: Cambridge, UK, 2012; pp. 167–184, ISBN 9780521792608.

68. Gilbert, D.T.; Pelham, B.W.; Krull, D.S. On cognitive busyness: When person perceivers meet persons perceived. *J. Pers. Soc. Psychol.* **1988**, *54*, 733–740. [CrossRef]

69. Deloitte. Global Automotive Consumer Study: Key Findings: Global Focus Countries. Available online: https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Consumer-Business/us-2022-global-automotive-consumer-study-global-focus-final.pdf (accessed on 18 August 2023).

70. PwC. Mainland China and HK Luxury Market Insights: "Retrieve Customer Values for Growth and Sustainability". Available online: https://www.pwccn.com/en/retail-and-consumer/china-hk-luxury-market-insights-feb2023.pdf (accessed on 18 August 2023).