

Brand Warmth Elicits Feedback, Not Complaints

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Abstract

Consumers perceive brands on their intended goals that can benefit or harm consumers. These warmth perceptions become consequential when a consumer experiences a product-harm incident. Conventional wisdom suggests that brand warmth may inhibit consumers from reporting such incidents to the brand and/or regulators. However, the authors' analyses of field data show that brand warmth increases the number of reports of harm incidents. Yet consumers' underlying motive is to provide feedback rather than complain. Indeed, using machine learning and regressions, and laboratory experiments, the authors demonstrate that brand warmth boosts the proportion of feedback (vs. complaint) reports. Next, they theorize and show that brand warmth induces consumer benevolence, which drives the consumer toward feedback (vs. complaint). Lastly, the authors demonstrate that if managers of a warm brand acknowledge the consumer's feedback motive in their recovery messages, such acknowledgement enhances consumer satisfaction. The research extends the discipline's knowledge on how a brand's warmth perceptions impact consumers' responses in the aftermath of a product-harm incident and what intervention managers can use in such a context.

Keywords: product-harm crisis, feedback, complaint, brand warmth

Introduction

The brands as intentional agents (BIAF) framework (Kervyn et al., 2012, 2022) reasons that consumers judge a brand on two fundamental dimensions. First is the brand's intended goals and the potential benefits and/or harm the goal may cause to the consumers. Second is the brand's ability to achieve those goals. Brand researchers use the terms *brand warmth* and *brand competence* for the two dimensions, respectively. "Warmth suggests a motivation to be other-focused and behave in line with moral codes, whereas competence suggests the effective capacity to bring about one's intent" (Aaker et al., 2010, p. 225). Brands vary on the extent to which consumers perceive them to be warm and competent. For instance, consumers have rated Ford as higher on warmth compared to Rolls-Royce but rated each brand as relatively high on competence (Kervyn et al., 2022).

The two dimensions are relationship assets that help the brand build relations with consumers and determine how they respond to the brand (Kervyn et al., 2022). Because warmth relates to a consumer's perception of whether the brand's intentions would benefit or harm the consumer, warmth dominates competence—that is, intentions dominate ability—in determining consumer response following a brand failure (Abele & Wojciszke, 2007). These perceptions of brand warmth become particularly relevant following a *product-harm incident*—an incident where "products fail to meet certain safety standards or contain a defect that could cause serious harm to consumers"¹ (Cleeren et al., 2017, p. 593). Such an incident forces the consumer to reevaluate the relationship and the brand itself (Aaker et al., 2004; Gorn et al., 2008; Grégoire et

¹ We prefer the term "product-harm incident" over its closely related term "product failure" (e.g., Folkes 1984) for two reasons. First, product-harm incident clarifies that the product harmed the consumer and thus emphasizes lack of safety in the product (Dunn & Dahl, 2012). Second, it emphasizes the discrete incident rather than the broader term "failure," which suggests stable attribution and negative valence (Darke et al., 2010).

al., 2010; Harmeling et al., 2015; Umashankar et al., 2017).

Whether brand warmth encourages or deters the consumer's reporting of the harm-incident is a priori unclear. On the one hand, reporting the incident may suggest retaliatory complaining. On the other hand, such reporting could be perceived as informational feedback. The everyday prevalence and consequentiality of product-harm incidents and the lack of clarity on whether/how brand warmth² may impact whether a consumer reports a harm incident motivates us to ask: *Following harm incidents involving a brand's products, do consumers' perceptions of the focal brand's warmth increase, decrease, or are not associated with their reporting of the incidents? More importantly, do consumers' perceptions of the brand's warmth impact their motives for such reporting?*

Four studies answer the above question (see Table 1 for a summary of all studies). Study 1 uses observational data about car owners' reports of harm incidents to answer the above two questions. Our analysis suggests² that a one percentage-point increase in a brand's warmth is associated with a 27% increase in the number of harm incident reports a car brand receives. Next, topic modeling followed by regression analysis reports that a one percentage-point increase in the brand's warmth is associated with a 4% increase in the proportion of feedback (vs. complaint) reports. Alternatively stated, brand warmth is positively associated with informational feedback, or negatively associated with retaliatory complaints. Because feedback aims to benefit the brand, such reporting is for a "good" reason. Study 2 replicates these results, but in the context of consumers' reports of harm-incidents involving financial services.

Although Studies 1 and 2 offer ecological validity to our research question and externally

² We clarify that, in our research, brand warmth refers to consumers' perceptions *before* the harm incident.

validate our findings, they fall short of providing causal evidence for the effect of brand warmth and the underlying mechanism (despite our correcting for the endogeneity of brand warmth). We thus resort to a laboratory experiment. Specifically, Study 3 asked participants to write an email describing a product-harm incident. We found that participants in the high-warmth condition used words that provided feedback as opposed to words that complained against the brand. Participants in the low-warmth condition described the incident using words that suggested equal levels of retaliatory complaining and informational feedback.

We next turn to the psychological mechanism that links consumers' perception of brand warmth to their behavior of providing feedback versus complaint. We reason that brand warmth induces *consumer benevolence*, which we define as consumers' sincere concern for a brand's interests and the motivation to do good for the brand³ (Hildebrand & Bergner, 2021; Sirdeshmukh et al., 2002; Xie & Peng, 2009). Study 4—another experiment—provides support for the benevolence mechanism. In addition, it replicates the results of Studies 1, 2, and 3 (using self-reported scales in place of written complaints) and rules out the alternate mechanism of blame attribution.

If our theory—that brand warmth leads a consumer toward providing feedback (rather than complain)—is valid, managers who solicit consumer feedback following a failure incident could elevate consumer satisfaction by acknowledging the consumer's feedback motive. Study 5—an experiment—shows that for a high-warmth cell phone brand, a brand response (to the consumer's harm-incident report) that acknowledges the consumer's feedback motive⁴ enhances consumer satisfaction. Such an acknowledgment, however, has no effect on a low-warmth

³ Adapted from Xie and Peng's [2009] definition of organizational benevolence.

⁴ The control condition is the brand's status quo response that thanks the consumer for their feedback but does not include any acknowledgment of the customer's motive behind reporting the harm incident.

brand—which is consistent with our theory that consumers of this brand report the incident more for complaining than for providing feedback. Because adjusting the framing of the brand’s response is an almost zero-cost effort for companies (Gai & Klesse, 2019; You et al., 2020), this intervention has the potential to redress a product-harm incident. Figure 1 depicts our four studies conceptually and Table 1 summarizes their findings.

[Insert Figure 1 and Table 1 here.]

Our research contributes to two streams of literature. First, the literature on brand warmth (Kervyn et al., 2012, 2022) has documented that consumers reward well-intentioned brands in the wake of harm incidents by attributing the failure to external and unstable causes (Klein & Dawar, 2004). Thus, the extant evidence suggests that brand warmth may lower consumers’ likelihood of reporting a harm-incident. Our research shows the opposite: that brand warmth *increases* the number of reports of harm incidents. However, the “positive” motive of providing the brand feedback as opposed to the negative motive of complaining underlies such reporting. Second, our findings contribute to the literature on the consumer-brand relationship in the context of negative incidents (Aaker et al., 2004; Bolton & Mattila, 2015; Grégoire & Fisher, 2008; Johnson et al., 2011; Umashankar et al., 2017). In theorizing and demonstrating that brand warmth induces consumer benevolence, which drives consumers toward feedback, we offer a nuanced insight into the value of a consumer-brand relational asset (e.g., brand warmth) on consumer behavior (Mittal et al., 2008; Umashankar et al., 2017).

Theory and hypotheses

Brand warmth

When one person interacts with another, the former (i.e., the perceiver) perceives the latter (i.e., the target) according to whether the target’s intended goals will benefit or harm the

source, and how effectively the target can pursue those goals (Wojciszke et al., 1998). These perceptions map to *intent/warmth* and *ability/competence*, respectively (Fiske et al., 2018; Kervyn et al., 2012; Rosenberg et al., 1968). Warmth relates to the perceiver's inference of the target's goal and the potential benefits or harms that goal may cause the perceiver.

The observer's perceptions of the target's warmth translate into perceived traits of friendliness, kindness, trustworthiness, generosity, and sincerity (Aaker, Garbinsky, & Vohs, 2012; Aaker, Vohs, & Mogilner, 2010; Cuddy, Fiske, & Glick, 2008; Kervyn, Fiske, & Malone, 2012). These traits are often associated more strongly with not-for-profit (vs. for-profit) organizations (Aaker, Vohs, & Mogilner, 2010) and small (vs. large) companies (Yang & Aggarwal, 2019). An organization can induce warmth perceptions by demonstrating its responsibility and care toward the broader set of stakeholders (Kervyn et al. 2012; Klein and Dawar 2004) or by depicting smiling salespeople (Wang, Mao, Li, & Liu, 2017) or familial and friendly product-users in their advertisements (Aaker, Stayman, & Hagerty, 1986).

In contrast to warmth, competence relates to the target's perception of how effectively the target can achieve their goals. Because warmth signals the potential for harm or other's ill-intent, people find warmth perception more self-relevant and diagnostic than competence perception (Cuddy et al., 2008; Kubicka-Daab, 1989; Wojciszke et al., 1993). This relative importance of warmth over competence is termed *primacy of warmth* and is defined as the perceiver's "tendency to give more importance to warmth over competence when forming an impression" (Kervyn et al., 2022, p. 53). Warmth primacy is documented in not only interpersonal interactions (Abele & Wojciszke, 2007) but also consumer-brand relations (Andrei et al., 2017).

Reporting behavior

A product-harm incident can cause a consumer to process their knowledge about the

involved brand and decide whether they will take an action in response to the incident. Specifically, after a negative incident, the affected consumer assesses the incident and attempts to make sense of it (Folkes, 1984). The consumer uses their perceived intentions of the involved brand as a cue to cognitively assess the incident and determine their potential response (Khamitov et al., 2020). Moreover, the relevance and salience of the harm incident may remind the consumer that the brand seeks sales and profit from the consumer, leading the consumer to reassess the brand's true intentions.

In addition, because the consumer's safety is threatened, a harm incident is personally relevant to the consumer, and thus reporting it to the brand and/or an authority that monitors the brand's performance—such as the safety regulator—is likely the consumer's natural response.

Brand warmth and reporting behavior

Even though reporting an incident might be a natural consumer response, it not only is effortful for the consumer, but may also seem like a negative action against the brand. We, therefore, foresee the plausibility that when the consumer considers reporting the incident, they are reminded of the brand's *warmth* perceptions when deciding whether to report the incident.

We reason that a consumer's perception of a brand's warmth creates a dilemma on whether to report the harm incident to the brand owner and/or third parties such as a government agency. On the one hand, consumers are known to attribute a warm brand's harm incident to external causes (Klein & Dawar, 2004). Therefore, reporting such an incident may be perceived as *retaliatory complaining*—a consumer's reporting of a brand-specific negative incident to the brand and/or third parties to seek revenge against the firm in lieu of the harm caused by the brand (Bechwati & Morrin, 2003; Grégoire & Fisher, 2008). On the other hand, the report may provide the brand *informational feedback*—a consumer's reporting of a brand-specific negative incident

to the brand and/or third parties so that the focal brand can take corrective action (Mittal et al., 2008; Umashankar et al., 2017).

We reason that consumers are *more* likely to report product-harm incidents of a high-warmth brand relative to a brand that they perceive to be low on warmth. Literature on coping has noted that individuals adopt varying mechanisms to deal with stressful situations such as product-harm incidents (Duhachek, 2005; Folkman et al., 1986; Gelbrich, 2010). For instance, some consumers might adopt active mechanisms such as contacting the brand and trying to improve the situation at hand, whereas others may engage in emotional venting of their feelings (Duhachek, 2005). Further, consumers often report dissatisfactory experiences only when they expect a brand to act on them (Béal et al., 2022; Umashankar et al., 2017). Therefore, we suggest that because a warm brand is associated with characteristics such as being trustworthy and friendly (Aaker, 1997a; Kervyn et al., 2012), consumers will be more likely to report product-harm incidents of high-warmth brands, as they believe that such brands are likely to act on the incident reports.

H₁: *The higher the consumers' perceptions of a brand's warmth, the more likely they are to report a harm incident involving the brand's products.*

While we expect consumers to report product-harm incidents of a warm brand in greater numbers, we next highlight how these reports indicate what motives underlie such reporting.

The two motives behind reporting behavior

A product-harm incident violates the consumer's expectations of the brand (Oliver & Winer, 1987) and makes them perceive their relations with the brand as inequitable (Smith et al., 1999; Tax et al., 1998). Consumers vary on how they respond to restore the perceived inequity in their relationship with the brand following the incident (Adams, 1965). For example, consider

two consumers who experienced the same harm incident. Each perceived that their brand had failed to meet their expectations and thus viewed their relationship with the respective brand to be inequitable. They reported the incident but for different reasons. One consumer reported the incident to *provide feedback* so that the brand could use the incident report and solve the quality problem, thus allowing the brand to restore equity by solving the problem. In contrast, the other consumer reported the incident to the brand and regulatory agencies to “get even” with the brand, thus restoring equity by avenging the situation. These motives manifest as *informational feedback* and *retaliatory complaint*, respectively (hereafter, *feedback* and *complaint*, for parsimony).

Feedback refers to a consumer’s report of a brand-specific negative incident to the brand and/or third parties so that the focal brand can take corrective action. Such reporting aims to maintain the brand relationship by providing the brand with useful information that helps the brand resolve the situation at hand (Chebat et al., 2005; Umashankar et al., 2017), thus restoring equity in the consumer-brand relationships. Simply put, the consumer reports the failure to give the brand an opportunity to compensate for it. In contrast, *complaint* refers to a consumer’s report of a brand-specific negative incident to the brand and/or third parties to seek revenge against the firm in lieu of the inconvenience caused by the brand (Bougie et al., 2003; Grégoire et al., 2010; Grégoire & Fisher, 2008). When retaliation drives consumers to report the harmful incident, they might believe that such complaints would make the marketplace aware of the brand’s failure (Béal et al., 2022; Ward & Ostrom, 2006). By informing other consumers of their negative experiences, the consumer aims to get back at the brand and punish it for the inconvenience caused to the consumer, thus restoring perceived equity in their relationship with the brand. In summary, incident reporting is motivated by consumers’ desire to harm the brand

(Kähr et al., 2016).

Importantly, these two motives for reporting the incident—feedback and complaint—are *not* mutually exclusive. That is, consumers may complain to fulfill both motives simultaneously—help the brand by providing feedback *and* get even with the brand by complaining about it. For instance, following consumer-reported incidents of product harm, brands attempt to solve the focal problem by recalling their unsafe products (Khamitov et al., 2020). Thus, the reporting consumers stand to benefit from providing feedback in this context. Moreover, by not reporting the incident, the consumers risk continuing to use an unsafe product. Instead, they may report the harm incident to the company and third parties (e.g., safety regulator) to seek such a resolution by providing information about the incident (e.g., free repair or product replacement as part of the recall), while simultaneously pursuing complaining to put the brand at a disadvantage and make it look bad in the marketplace.

H₂: *The higher the consumers' perceptions of a brand's warmth, the more likely their reporting of a harm incident is motivated by providing feedback (as opposed to complaining).*

The role of consumer benevolence

We suggest that in the wake of a product-harm incident, a consumer will experience benevolence toward a warm brand. We define consumer benevolence as consumers' sincere concern for a brand's interests and the motivation to do good for the brand (Hildebrand & Bergner, 2021; Sirdeshmukh et al., 2002; Xie & Peng, 2009). We argue that consumers will experience perceptions of benevolence toward a warm brand for two primary reasons.

First, a brand often cultivates perceptions of a warm personality through diverse societal initiatives (Johnson et al., 2019; Kervyn et al., 2022). These initiatives range from ethical manufacturing practices to charitable donations to environmental initiatives (Bolton & Mattila,

2015; Shea & Hawn, 2019). These initiatives are pervasive (Jo & Harjoto, 2011; Withisuphakorn & Jiraporn, 2016) because they improve the quality of the brand's relationships with its consumers (Breivik & Thorbjørnsen, 2008; Palmatier et al., 2006). Building on this extant evidence, we suggest that consumers will experience a desire to do good for the brand in the brand's trying times by providing helpful feedback rather than by complaining about the product-harm incident.

Second, a brand's warm personality will prevent consumers from casting doubt on the brand's true intentions. Situations that involve brand failures lead the consumer to question the transgressor's true intentions, and consumers often exhibit favorable attitudes towards those brands that they perceive to be well-intentioned (Gorn et al., 2008; Grégoire et al., 2010). For instance, using the context of product-harm incident, Gorn et al. (2010) showed that consumers exhibit favorable attitudes toward brands whose chief executive officer they perceive to be well-intentioned. Because warm brands are perceived to be well-intentioned, we suggest that consumers will exhibit good intentions toward the brand in the wake of product-harm incidents.

H₃: *Consumer benevolence mediates the relation between brand warmth and feedback (as opposed to complaint) reporting. That is, brand warmth increases consumer's benevolence, which in turn raises their motivation to report a harm incident to provide feedback (as opposed to complain).*

A warm brand's response to consumer reports

The literature on product-harm incidents and service recovery has relied heavily on product recall, apology, and explanation as recovery mechanisms (Khamitov et al., 2020). Our reading of this literature and letters that firms send to customers suggests that the status quo is not to include any statement on the customer's motive behind reporting the harm incident.

We hypothesize that the brand's acknowledgment (versus no acknowledgment) of the

consumer's feedback motive would enhance the consumer's satisfaction with the brand's response. Such acknowledgement would demonstrate the brand's openness to feedback (Homburg & Fürst, 2005), reassuring the consumer that the brand understands and appreciates the consumer's true motivation (Umashankar et al., 2017). Because consumers who have a deeper relationship with a brand are the ones who report negative incidents (Lariviere & Van den Poel, 2005), such acknowledgment becomes even more meaningful in the case of consumer-brand relationships of warm brands. More specifically, the acknowledgement explicitly credits consumers for their benevolence, triggering in them feelings of satisfaction.

Because consumer reports of failures of a low-warmth brand do not differ significantly in terms of feedback and complaining, we expect the favorable effect of the brand's acknowledgement of the consumer's feedback motivation to exist for only high-warmth brands (and not for brands perceived to be low on brand warmth). In other words, when a brand is perceived as low on warmth, consumers report the incident to provide feedback as well as to complain against the brand. Therefore, an acknowledgment of the consumer's helpful motivation would make no difference to the consumer. Simply put, because consumers of a brand that is perceived to be low on warmth do not intend to be benevolent toward the brand, an acknowledgment of their helpful motivation would lead to no significant increase in their post-reporting satisfaction. That is:

H4: *A high-warmth brand's recovery message that acknowledges (versus does not acknowledge) the consumer's feedback motive (behind reporting the product-harm incident) elicits greater consumer satisfaction with the recovery.*

Overview of Studies

We conduct four studies. Studies 1 and 2 use regression analysis of field data—in the automotive industry and financial services, respectively—to test H₁ and H₂. That is, these studies

test whether consumers' perception of a brand's warmth is associated positively with the number of reports of harm incidents they submit (H_1) and the proportion of feedback (vs. complaint) reports (H_2).

Studies 3, 4, and 5 are lab experiments that complement Studies 1 and 2. Specifically, Study 3 manipulates warmth perceptions of a fictitious car brand and asks participants to write an email, describing a product-harm incident involving a high (versus low) warmth brand. Two research assistants (RAs) rated each email (on a 7-point scale) on how much the email aimed to provide feedback and how much it was motivated by complaining. Study 3 next tests H_2 —that is, whether the mean rating of feedback motive and the mean rating of complaint motive differ in the two experimental conditions. Study 4 replicates H_2 using car brand as product category for participants' self-rated motive (as opposed to motive measured through rating of written reports) and tests the consumer benevolence mechanism (H_3). Study 5 replicates H_4 in a mobile-phone product category and tests H_4 , i.e., whether participants' report greater satisfaction with a recovery message that acknowledges (versus one that does not acknowledge) feedback motive.

In summary, H_1 is tested by Studies 1 and 2. H_2 is tested by Studies 1, 2, 3, and 4. H_3 is tested by Study 4, and H_4 is tested by Study 5.

Study 1: A field study of the association between brand warmth and harm-incident reports in the U.S. automotive industry

Setting

Study 1 aims to test whether brand warmth is positively associated with consumer reporting of product-harm incidents in the real world. Therefore, we need an empirical setting in which such incidents are common and consumers might report harm-incidents to the product safety regulator. One such setting is the reporting of car safety incidents in the United States.

Three reasons (described in Appendix A) underlie our choice of this setting.

We collected the data in three steps. First, we purchased from Young & Rubicam (Y&R) their Brand Asset Valuator (BAV) data (Batra et al., 2017; Datta et al., 2017; Klein et al., 2019; Mizik & Jacobson, 2008). The BAV data includes measures of a brand's five personality traits each year: warmth, excitement, competence, sophistication, and ruggedness (read Klein et al.'s [2019] excellent description of the BAV data). We retained all observations with industry sector equal to "Auto."

Second, we downloaded from the NHTSA's website the data file that provides information on harm-incident reports (https://static.nhtsa.gov/odi/ffdd/cmpl/FLAT_CMPL.zip). After a consumer submits the details of the car (e.g., vehicle identification number) and the incident, the NHTSA and the manufacturer verify the information. Thus, the reports are verified data, indicating the unique value of sourcing data from the regulator as opposed to unverified third parties such as social media platforms and the Better Business Bureau. The NHTSA's harm-incident reports are at a manufacturer-year (and not brand-year) level. Therefore, following Moorman, Sorescu, and Tavassoli (2023) and Tavassoli, Sorescu, and Chandy (2014), we converted the Y&R BAV data to the firm-year level. Specifically, for each firm-year, we computed the brand personality trait value by averaging the values of the focal trait across the brands the focal firm owned. Merging the data from these two sources yielded 1,448 firm-year observations spanning 177 firms across 17 years (2005–2021) and covering a total of 522,155 product-harm incident reports. Firm-year served as our unit of analysis.

Third, we understand that a firm's brand warmth and consumer reaction to harm incidents may correlate with firm characteristics, such as sales, advertising, and R&D. Therefore, a more

valid specification is one that controls for these other correlates.⁵ However, data for these characteristics are available for only public firms. Therefore, we collected from Standard & Poor's Compustat Capital IQ North America Fundamentals Annual the data on the publicly traded firms in our sample. Of the 1,448 firm-year observations in our sample, Compustat data existed for 828 observations pertaining to 127 distinct firms.

Variables

Dependent variable (DV): The number of reports (abbreviated to *Number of reports*) of incidents that (1) involved the focal firm's products, (2) occurred in the focal year, and (3) car owners submitted to the NHTSA.

Dependent variable (DV): *Proportion of feedback reports*. The NHTSA's data file (https://static.nhtsa.gov/odi/ffdd/cmpl/FLAT_CMPL.zip) includes a field named CDESCR and labeled *description of the complaint* (see <https://static.nhtsa.gov/odi/ffdd/cmpl/CMPL.txt>).

Following extant research (Berger et al., 2020; Netzer et al., 2019), we reason that a car owner's motive for reporting the harm incident to the NHTSA is reflected in their choice of words while describing the incident. Therefore, the values of the CDESCR variable can help us understand whether the consumer was motivated by providing feedback or complaining.

We use a semi-supervised guided latent Dirichlet allocation (LDA) model (Toubia et al., 2019) to classify a report—based on the consumer's description of the incident—on whether its dominant topic was feedback or complaint. Table A1 in Appendix A lists the words we used as seeds for training the LDA model. Next, for firm i in year t , we divided the number of reports classified as feedback by the total number of reports and thus calculated the *proportion* of

⁵ We thank an anonymous reviewer for asking us to control for these covariates.

feedback reports for firm i in year t .

Independent variable (IV): Brand warmth: Following Aaker (1997), we consider the following six traits for warmth: down to earth, cares about customers, trustworthy, original, friendly, and helpful. For each brand-year, the BAV provided us with the percentage of surveyed consumers who classified the focal *brand* as personifying the focal trait. Next, we averaged the six percentage variables to obtain the percentage of surveyed consumers who classified the focal *firm* in the focal year as warm.

Control variables: Brand personality research (e.g., Aaker et al., 2004) has shown that consumers' perceptions of a brand's excitement, competence, sophistication, and ruggedness may impact their response. Therefore, we control for these four traits of brand personality. Next, we controlled for four variables related to the harm-incident reports: (1) the number of harm incidents that involve the focal firm's cars in the focal year (because not all incidents lead to reports), (2) the number of deaths summed over these incidents, (3) the average number of days the consumer took between the occurrence of the incident and reporting, and (4) the average sentiment of product-harm reports for a firm in a given year. We also control for six firm-year-level marketing and accounting variables that may affect the number of product-harm incident reports for a firm in a year: (1) sales, (2) profit, (3) liquidity, (4) market share, (5) the firm's stock of advertising expenditures, and (6) stock of R&D expenditures (see Table 2 for variable key). Lastly, firm-fixed effects (FEs) allow us to control for firm-variant, time-invariant characteristics; and year-FEs help us account for time-variant and firm-invariant characteristics that can impact the number of reports.

[Insert Table 2 here.]

The two box plots in Figure A1 in Appendix A depict the average and standard deviation

of the warmth score for all firms and all years in our sample.

Model-free evidence

Tables A2 and A3 in Appendix A list descriptive statistics, and pairwise correlation coefficients for all the variables in our specification. Table A3 reports that the correlation between warmth and the number of reports is .26, thus offering useful model-free evidence for a positive association between the two variables (our H₁). In addition, Figure A3 in Appendix A depicts the relation between warmth and the number of reports at five quantiles of values of the warmth variable. This figure shows that as a firm's brand warmth increases, its number of harm-incident reports increases, offering additional model-free evidence for H₁.

Model specification and estimation

A firm's warmth score and its number of harm-incident reports vary by year. Having 177 firms for which the values of the DV and IV vary by year means that we can structure our data as a panel and use the fixed-effects "within" estimator. We lag the brand personality trait variables and the Compustat control variables by one year to alleviate concerns about reverse causality. Because the DV is a count, we specify and estimate the following fixed-effects negative binomial regression⁶, where i refers to brand and t to year:

$$\begin{aligned}
 \text{Number of reports}_{it} &= \beta_0 + \beta_1 \text{Warmth}_{it-1} + \beta_2 \text{Excitement}_{it-1} + \beta_3 \text{Competence}_{it-1} \\
 &+ \beta_4 \text{Sophistication}_{it-1} + \beta_5 \text{Ruggedness}_{it-1} + \beta_6 \text{Incidents}_{it} + \beta_7 \text{Deaths}_{it} \\
 &+ \beta_8 \text{Delay}_{it} + \beta_9 \text{Sentiment}_{it} + \beta_{10} \text{Sales}_{it-1} + \beta_{11} \text{Profit}_{it-1} + \beta_{12} \text{Liquidity}_{it-1} \\
 &+ \beta_{13} \text{Market share}_{it-1} + \beta_{14} \text{Advertising}_{it-1} + \beta_{15} \text{R\&D}_{it-1} + \text{Firm}_i + \text{Year}_t + \epsilon_{it}
 \end{aligned} \tag{1}$$

Results

The highest variance inflation factor (VIF) across the eight regressors was 7.72, and the mean VIF was 2.48. Because the VIFs were lower than the rule-of-thumb value of 10,

⁶ We chose a negative binomial regression specification because our dependent variable is a count variable with incomparable mean and standard deviation. A likelihood ratio test confirmed the choice of a negative binomial model over Poisson regression ($\text{Loglik}_{nb} = -2741.5$, $X^2(21) = 303.3$, $p < .001$, $\text{Loglik}_{poisson} = -23593.1$, $X^2(21) = 24151.0$, $p < .001$).

multicollinearity is likely not a problem.

Table 3⁷ reports the regression results. We report estimates from three models. Model 1 is our naïve model. It regresses the number of reports on brand personality traits, firm-FEs, and year-FEs. Model 2 is Model 1 plus four control variables on incident reports. This model includes public firms and their private counterparts and thus uses a sample of 539⁸ firm-year observations across 43 firms that had at least one report of product-harm incident during our sample timeframe of 2005-2021. Model 3 is Model 2 plus Compustat variables, and thus it uses for the estimation sample only public firms (220 firm-year observations, covering 21 firms from 2005-2021).

[Insert Table 3 here.]

We find that a one-unit (that is, one percentage-point) increase in a car manufacturer's brand warmth in a year is positively associated with the number of harm-incident reports the manufacturer receives in the following year (Model 1: $b_1 = .24$, $p = .00$; Model 2: $b_1 = .24$, $p = .00$; Model 3: $b_1 = .16$, $p = .00$). More specifically, estimates from Model 1 report that—averaged over *all* firms and all years in our sample—a one-point increase in a car manufacturer's brand warmth in a year is associated with a 27% ($\exp [.24] = 1.27$) increase in the number of harm-incident reports. An average car manufacturer in our sample receives nearly 360 reports in a year. Thus, for this average carmaker in an average year, a one-point increase in brand warmth in a year is associated with an increase of 97 ($= .27 \times 360$) additional reports.

For the subsample of *publicly traded* firms, Model 3 reports that a one-point increase in

⁷ The reported results in Table 3 are robust by including a Gaussian copula term for warmth to correct for the potential endogeneity of brand warmth.

⁸ The fixed effects negative binomial model excludes observations for firms that did not experience any variation in the number of reports over their tenure and are thus estimated with 539 (and not 1,448) observations.

brand warmth in a year is associated with a 17% ($\exp [.16] = 1.17$) increase in the number of reports received in the following year. Because an average U.S. public carmaker receives 1,303 reports in an average year, the 17% association translates into 221 ($= .17 \times 1303$) additional reports.

Thus, we find evidence that in the wake of a product-harm incident, brand warmth increases customer reporting of the incident. That is, the finding supports our H_1 , which posits that the higher a brand's perceived warmth, the more the number of harm-incident reports from consumers.

Next, we turn our attention to our second DV—the proportion of feedback (vs. complaint) reports. Because this variable is a continuous variable bounded between 0 and 1, we follow prior research (Kashmiri et al., 2017; Papke & Wooldridge, 1996) and estimate a generalized linear model (GLM) of binomial family with a logit link. Table 4 reports the results for models without and with Compustat control variables, estimated with 1,448 and 824 observations, respectively.

[Insert Table 4 here.]

We find that a one percentage-point increase in brand warmth is associated with a 4% ($b_1 = .04, p = .00, \exp [.04] = 1.04$) increase in the odds of a feedback (as opposed to complaint) report. For an average firm in our sample, 23% of all the harm-incident reports are feedback reports. Therefore, a one-point increase in brand warmth increases the odds of a feedback report by .92% ($= .23 \times .04 \times 100$).

For a *publicly traded* firm, 25% of all harm-incident reports are feedback reports, and based on Model 3 estimates, a one-point increase in brand warmth increases the odds of a feedback report for an average public firm by 2.75% ($b_1 = .11, p = .00, .25 \times .11 \times 100 = 2.75$).

These results support H₂ and suggest that the positive association between brand warmth and the number of reports is driven by an increase in the number of feedback (versus complaint) reports.

Discussion

Study 1 aimed to test the ecological validity of the two core hypotheses of our research: H₁ and H₂. The study shows that in the wake of harm incidents involving a brand's products, consumer perception of the brand's warmth is associated positively with the number of incident reports the brand receives. In terms of effect size, a one percentage-point increase in the brand's warmth perception is associated with a 27% increase in the number of incident reports. At first glance, this positive association may be concerning to managers because they may view reporting of incident reports as an unfavorable outcome. However, the core contribution of our research is the theory that brand warmth motivates consumers to provide feedback rather than complain. Study 1 proceeds to test this theory by using guided LDA to classify each complaint—based on the consumer's description of the incident—into feedback versus complaint. We next compute—at firm-year-level—the proportion of incident reports that were motivated by feedback. Our estimate suggests that a one percentage-point increase in the brand's warmth elicits an increase of 4% in the proportion of feedback reports. It is worth noting that although statistically significant, this effect is considered small in terms of economic significance (Chen et al., 2010). Overall, the insight for managers is that brand warmth is a relationship asset that motivates consumers to report harm incidents, but for the “good” reason of providing feedback as opposed to complaining.

While encouraging, the evidence must be interpreted with caution. Consumers who submit incident reports to regulators are likely systematically different from consumers who follow different alternatives, such as (1) not reporting to anyone, (2) reporting to family, friends,

and colleagues, (3) venting on social media platforms, and/or (4) informing retailers and/or manufacturers directly. Therefore, Study 1 findings may not represent the general population. Our lab experiments (Studies 3 and 4) address this limitation. Further, the general discussion section reminds the readers of the limitation of the field data and encourages future research to use field data that include consumer complaints in the broader set of constituents.

Study 2: Replicating the association between brand warmth and the number of product-harm incident reports for financial services

Study 2 aims to replicate the findings from Study 1—and thus test H_1 and H_2 —albeit in a complementary setting of financial services. We chose this industry for the following two reasons. First, while cars are exemplary tangible goods, financial services are classic service offerings. Thus, testing whether our H_1 and H_2 apply to financial services complements our Study 1, which reported that H_1 and H_2 hold in the context of cars. Second, whereas a safety incident involving a car threatens a consumer's *bodily* safety, a safety incident involving a financial institution exposes the consumer to *financial* harm. Thus, Study 2 helps us examine our theory in the broader manifestations of consumer risk.

We constructed our sample in three steps. First, we retained all Y&R BAV observations where sector was equal to “Financial Services, Insurance & Banks.”

Second, we collected the publicly available data provided by the Consumer Financial Protection Bureau (CFPB) on consumer reports of financial product or service issues that led to consumer harm. Like the NHTSA, the CFPB uses the term *complaints* for consumer “submissions that express dissatisfaction with, or communicate suspicion of wrongful conduct by, an identifiable entity related to a consumer’s personal experience with a financial product or service” (CFPB, 2014, p.2), such as bank accounts, credit cards, mortgages, and other types of

consumer credit.

The CFPB forwards each incident report to the involved financial services firm, giving the latter a chance to confirm the relationship with the consumer and respond to the report. The consumer reports are published by the CFPB after the firm responds or after 15 days from the date of submission of the report, whichever is earlier. We use the CFPB data from the year 2015 onward, because 2015 is the year the CFPB started including the textual narrative of the consumer report in the data set. We merged the CFPB data with the BAV data, which resulted in 1,325 firm-year observations spanning 328 firms across 7 years (2015–2021) and covering a total of 178,359 harm-incident reports.

Third, we collected Compustat data for the publicly traded firms in the merged data set. Such data was available for 794 firm-year observations, covering 188 firms.

The DVs, brand personality traits, and the Compustat variables included in the models for Study 2 are the same as those in Study 1. However, in this study, instead of the four variables specific to the car incident report, we control for the following four variables related to the financial incident report: (1) the number of *closed* reports, (2) the number of reports that were *closed with monetary relief* from the firm, (3) the number of reports where the consumer *disputed* the firm's response, and (4) the number of reports that received a *timely* response from the firm (see Table A4 in Appendix A for variable descriptions). We included these covariates because before submitting a report, a consumer may use these variables to estimate the likelihood that the firm will respond to their report (conditional on the consumer's submitting one), the type and timeliness of remedy the firm may offer, and the incidence of reporters disputing the offered remedy. These variables thus correlate with the number of reports the firm may receive in a year. As in Study 1, we also control for the average sentiment of the consumer

reports for firm i in year t .

Tables A5 and A6 in Appendix A list the descriptive statistics and pairwise correlation coefficients for all variables included in our models. Table 5 reports the results from the models with the number of reports as the DV, estimated with a negative binomial fixed-effects⁹ regression.

We find that a one-unit (i.e., one percentage-point) increase in brand warmth is associated with an increase in the log of the number of product-harm reports (Model 1: $b_1 = .13, p = .00$; Model 2: $b_1 = .10, p = .01$; Model 3: $b_1 = .13, p = .03$). Estimates from Model 1 (and Model 3) report that a one-point increase in a financial service firm's brand warmth in a year has a 14% ($\exp [.13] = 1.14$) positive association with the number of harm-incident reports the firm receives in the following year. An average firm in an average year in our sample receives 135 harm-incident reports. For this average firm-year, a one-unit increase in brand warmth results in 19 additional reports ($= .14 \times 135$). On the other hand, an average public U.S. financial services provider in our samples receives 778 harm-incident reports in an average year. Thus, for an average publicly traded financial services provider, a one-unit increase in brand warmth results in 109 additional reports ($= .14 \times 778$).

[Insert Table 5 here.]

Table 6 reports the results for models with the proportion of feedback reports as the DV, estimated via a GLM binomial-logit specification. Model 1 estimates report that a one-unit (i.e., one percentage-point) increase in a financial service firm's brand warmth in a year is associated with a .6% ($b_1 = .10, p = .00, .10 \times .06 \times 100 = .6\%$) increase in the odds of an average firm

⁹ As in Study 1, a likelihood ratio test confirmed the superiority of a negative binomial model over Poisson regression ($Loglik_{nb} = -1094.3, X^2(11) = 44.2, p < .001, Loglik_{Poisson} = -7730.8, X^2(11) = 1176.3, p < .001$).

receiving feedback (as opposed to complaint) report in the following year. Similarly, Model 3 estimates report that for publicly traded financial service firms, a one-unit increase in brand warmth in a year is associated with a 1.38% ($b_1 = .23, p = .00, .23 \times .06 \times 100 = 1.38\%$) increase in the odds of an average public firm receiving feedback report in the following year. That is, the results from Study 1 are replicated in the financial services industry.

[Insert Table 6 here.]

Discussion

Goods and services differ not only in the tangibility of their offering but also in the extent of relationships consumers perceive with them (Aggarwal & Larrick, 2012). Therefore, a potential critique of our Study 1—which tested our H_1 and H_2 in the context of harm incidents involving cars—is that the “favorable” effect of brand warmth may not replicate in services. A similar critique could be that consumers may be more likely to provide feedback when the incident exposes them to physiological/bodily harm as opposed to psychological/financial harm. Study 2 aimed to address these critiques by testing H_1 and H_2 in the context of consumer reports of harm caused by financial service firms. Harm caused by such a firm is financial (as opposed to bodily harm caused by cars). We thus reason that Study 2 taps into a different manifestation of consumer risk.

We find that a 1% increase in consumer perceptions of a brand’s warmth is associated with a 14% rise in the number of harm-incident reports it receives from consumers. This effect size is smaller than that of the 27% Study 1 reported in the context of cars. Next, like Study 1, Study 2 proceeded to test whether most of these reports are motivated by feedback as opposed to complaining. The data and model support the hypothesis. Again, the effect size of .6%—which is statistically significant—achieves low economic value, and lower value relative to that of the 4%

that Study 1 reported in the context of cars.

Study 2 complements Study 1, but also reports interesting differences in the effect sizes. We attribute these differences to the product type in the two studies. After the financial crises at the end of 2008, consumers have generally been wary of financial services' true intent (De Jager, 2017; Murphy, 2018), which could explain their lower motivation to provide financial institutions feedback. That is, relative to car brands, financial institutions elicit lower consumer benevolence, which attenuates consumers' motive to provide feedback (vs. complain). Although Study 2 complements Study 1 by sampling services (as opposed to goods) and financial (as opposed to bodily) harm, it still suffers from the limitation we outlined in Study 1—that of sampling reports to regulators. Our next study—a lab experiment—addresses this limitation.

Study 3: An experiment of whether brand warmth impacts consumers' motive to report a product-harm incident

Aim

Studies 1 and 2 tested our H_1 and H_2 in real-world settings. Study 3 aims to test H_2 —the core hypothesis in our manuscript—in the controlled setting of a laboratory.

Method

We employed a one-factor study in which the IV (warmth: low versus high) was a between-participants condition. 199 participants from Prolific Academic completed the study for a small monetary compensation. Nine participants failed an attention check that required them to recall the name of the brand used in the scenario. Further, five participants had to be excluded for reasons explained later in this section, resulting in a final sample of 185 participants (54.1% females, $M_{\text{age}} = 33$, $SD_{\text{age}} = 12.22$, see Table B1 in Appendix B for our exclusion criteria). We asked all participants to imagine that they owned a vehicle from a fictitious brand named Weston

Motors. At this point, we manipulated the brand's warmth by using a procedure adapted from Kervyn et al. (2012) and Klein and Dawar (2004). Specifically, participants in the high (vs. low) warmth condition were informed that Weston Motors rated high (versus low) on indicators of social and environmental performance. All participants were next asked to imagine that while driving their Weston Motors vehicle, they noticed smoke coming from under the hood (see Appendix B for the exact text of the stimuli). Next, all participants were asked to write an email to government agencies and Weston Motors about the incident. Lastly, all participants completed a manipulation check for warmth, using a two-item scale that included "warm" and "friendly" (1 = "not at all" and 5 = "extremely"; Kervyn et al. [2012]; $\alpha = .98$).

We provided two research assistants (RAs)—who were blind to the research—with the definitions of feedback and complaint. The RAs rated each report on two variables: the extent to which they believed that the incident report aimed to (1) provide informational feedback and (2) retaliate (1 = "not at all" and 7 = "extremely"). Five participants either did not write any text or wrote gibberish. Therefore, the RAs could not rate these participants' responses on the two dimensions (i.e., feedback or complaint), and we therefore excluded these five participants (see Table B1). Because an acceptable interrater reliability score (intraclass correlation coefficient $> .70$) was obtained for the two RAs' average ratings of the two dimensions (Koo & Li, 2016), we averaged the ratings from the two RAs to construct the final measures for informational feedback and retaliatory complaining. Table B2 provides examples of the participants' responses that the RAs coded.

Results

A manipulation check indicated that participants in the high-warmth condition perceived the brand to be significantly warmer than participants in the low-warmth condition ($M_{\text{high-warmth}} =$

3.15, $SD_{\text{high-warmth}} = .90$ vs. $M_{\text{low-warmth}} = 1.32$, $SD_{\text{low-warmth}} = .62$; $t(183) = 16.11$, $p < .001$). Thus, our manipulation was successful.

A repeated-measures ANOVA with warmth as the IV and the two motives for reporting the incident (i.e., feedback minus complaint)¹⁰ as the DVs (i.e., within-subject factor) indicated a significant interaction effect ($F(1, 183) = 37.36$, $p < .001$, $\eta^2 = .17$).¹¹ Next, planned contrasts showed that, on the one hand, in the high-warmth condition, participants' reports were motivated more by feedback than complaint ($M_{\text{high-warmth, feedback}} = 5.73$, $SD = 1.61$ vs. $M_{\text{high-warmth, complaint}} = 2.53$, $SD = 1.86$; $F(1, 183) = 58.94$, $p < .001$, $\eta^2 = .24$). On the other hand, participants in the low-warmth condition did not vary on whether their reports were motivated by feedback or complaint ($M_{\text{low-warmth, feedback}} = 4.06$, $SD = 2.27$ vs. $M_{\text{low-warmth, complaints}} = 4.46$, $SD = 2.29$; $F(1, 183) = .90$, $p > .30$, $\eta^2 = .005$). Figure 2 displays the statistical results. These findings thus support H₂, which posits that brand warmth drives consumers to provide feedback instead of complaint.

[Insert Figure 2 here.]

Discussion

Overall, Study 3 demonstrates experimentally that in the wake of a harm incident involving a high-warmth brand's products, consumers report the incident to provide feedback to the brand rather than retaliate against the brand. However, when the incident involves a product of a low-warmth brand, consumers' reports are motivated by a desire to provide feedback as well

¹⁰ Because we are interested in comparing the two types of consumer reports, we follow extant research (e.g., Han et al., 2014; Yoon 2013) to estimate a repeated measures ANOVA.

¹¹ We chose RA-based coding as the preferred method of coding in this study, because the corpus of text in Study 3 is much smaller compared to Studies 1 and 2 (185 reports versus ~1400 in our observational studies), and thus perhaps too small for training a machine learning model. However, the results of this study are robust to alternate measures of feedback and complaining obtained from the seeded semi-supervised LDA model ($F(1, 183) = 6.36$, $p = .0125$).

as to complain against the brand. The managerial insight is that investments in building and sustaining consumers' perceptions of the brand's warmth pay off when the brand's offerings fail consumers' expectations.

Study 4: An experiment of *why* brand warmth drives consumers toward feedback (vs. complaint)

Aim

Study 3 supported our H₂, showing that brand warmth shifts consumers' reporting toward feedback and away from complaints for high-warmth brands. Study 4 replicates the finding of Study 3 using self-reported scales (in place of written reports of the incident) and tests the mechanism hypothesized in H₃. It also rules out the alternate mechanism of consumer attributions of blame to the brand (Klein & Dawar, 2004).

Method

Like Study 3, Study 4 employed a one-factor study design, where the IV (warmth: low versus high) was a between-participants variable. 200 participants were recruited from Prolific Academic, using Prolific's in-built feature of excluding participants from our previous studies. The stimuli were the same as those in Study 3. 10 participants failed an attention check question that asked them to recall the name of the brand used in the scenario. We excluded these 10 participants and used the resulting sample of 190 participants (52.6% females, $M_{\text{age}} = 39.5$, $SD_{\text{age}} = 13.5$, see Table B1 for our exclusion criteria).

The experimental stimuli were similar to those of Study 3. Study 3 asked participants to write about the incident and later asked RAs to code the text on feedback and complaint. However, Study 4 uses a seven-point Likert scale (1 = "strongly disagree" and 7 = "strongly

agree”¹²) to ask participants to rate their likelihood of reporting the incident to government agencies and Weston Motors to (1) provide informational feedback and (2) engage in retaliatory complaining against the brand (scale adapted from Grégoire et al. [2010]). We randomized the order of presentation of the two variables. The three-item scale for informational feedback included “to provide them with information about the incident,” “so Weston Motors can take corrective actions,” and “so Weston Motors can find a solution to the problem” ($\alpha = .93$). The three-item scale for retaliatory complaining included “to make Weston Motors pay for its poor quality of cars,” “to give a hard time to Weston Motors,” and “to be unpleasant to Weston Motors” ($\alpha = .90$).

Further, using a scale adapted from Hildebrand and Bergner (2021), we asked participants to indicate if their reporting of the incident was driven by perceptions of consumer benevolence toward the brand. The four items for this measure asked the participants to indicate the extent to which they would report this incident to government agencies and Weston Motors because “I am concerned about Weston Motors’ welfare,” “I want to help Weston Motors,” “I want to look out for Weston Motors,” and “I have Weston Motors’ best interests in mind” ($\alpha = .95$).

Because research has reported that after a product-harm incident, consumers are less likely to blame a warm brand (Klein & Dawar, 2004), one might argue that consumers provide feedback (vs. complain) to the warm brand as they attribute the failure to external and unstable causes. Therefore, we measured consumers’ perceptions of blame using a scale adapted from Kein and Dawar (2004). The three items for this scale included “Weston Motors was responsible

¹² Unless otherwise stated, all items were measured on a seven-point Likert scale where 1 = “strongly disagree” and 7 = “strongly agree”.

for the problem with my car,” “Weston Motors should be held accountable for the problems with my car,” and “The incident is the fault of Weston Motors” ($\alpha = .94$). Lastly, the participants completed the same manipulation check as in Study 3 (five-point scale; $\alpha = .97$).

Results

A manipulation check indicated that participants in the high-warmth condition perceived the brand to be significantly warmer than participants in the low-warmth condition ($M_{\text{high-warmth}} = 3.08$, $SD_{\text{high-warmth}} = .98$ vs. $M_{\text{low-warmth}} = 1.47$, $SD_{\text{low-warmth}} = .68$; $t(188) = 13.15$, $p < .001$). Thus, our manipulation was successful.

A repeated-measures ANOVA with warmth as the IV and the two motives for reporting the incident (i.e., feedback and complaint) as the repeated measures (i.e., within-participant factor) indicated a significant interaction effect ($F(1, 188) = 47.52$, $p < .001$, $\eta^2 = .20$). Planned contrasts showed that, on the one hand, participants in the high-warmth condition reported significantly higher feedback motive than complaint motive ($M_{\text{high-warmth, feedback}} = 5.63$, $SD = 1.41$ versus $M_{\text{high-warmth, complaint}} = 2.28$, $SD = 1.24$; $F(1, 188) = 299.96$, $p < .001$, $\eta^2 = .61$). On the other hand, for the low-warmth condition, the difference between the two motives for reporting the harm incident was significant but lower in magnitude ($M_{\text{low-warmth, feedback}} = 5.50$, $SD = 1.58$ versus $M_{\text{low-warmth, complaint}} = 4.04$, $SD = 1.62$; $F(1, 188) = 57.31$, $p < .001$, $\eta^2 = .23$).

Next, we measured the indirect effect of warmth (0 = low, 1 = high) on *net* motive, that is, $\Delta \text{motive} = \text{feedback} - \text{complaint}$.¹³ Thus, higher values indicate the extent to which the feedback motive dominates the complaint motive. We used the mediator of consumer

¹³ Mathematically, conducting a one-way ANOVA with the difference between the two motives (i.e., $\Delta \text{motive} = \text{feedback} - \text{complaint}$) as the DV is the same as conducting a repeated-measures ANOVA with the two motives. This sameness can also be seen in our one-way ANOVA results, where feedback was significantly higher than complaint ($M_{\text{high-warmth}} = 3.35$ vs. $M_{\text{low-warmth}} = 1.46$, $F(1, 188) = 47.52$, $p < .001$) for the warmer brand. These results mirror the Study 4's finding, which used repeated-measures ANOVA. Therefore, we used a difference score as the DV.

benevolence in a PROCESS model (Model 4, with 10,000 bootstrap samples; Hayes 2017).

The results showed that brand warmth increased consumer benevolence ($\beta = 1.09, t = 5.19, p = .000, 95\% \text{ CI } [.68; 1.51]$). Further, upon controlling warmth perception, consumer benevolence led the motive toward feedback and away from complaining ($\beta = .37, t = 4.11, p = .000; 95\% \text{ CI } [.19; .55]$). The indirect effect of warmth on the net feedback motive via consumer benevolence was significant ($\beta_{\text{indirect}} = .41, \text{ SE} = .12, 95\% \text{ CI} = [.19; .67]$). In addition, the direct effect of warmth on the two motives for reporting the incident was also significant, indicating a partial mediation ($\beta_{\text{direct}} = 1.48, \text{ SE} = .28, 95\% \text{ CI} = [.92; 2.03]$). Figure 3 displays these results. Lastly, we also tested whether blame attribution to the brand mediated the effect of brand warmth on the two motives for reporting the incident (Model 4, with 10,000 bootstrap samples; Hayes 2017). The results show that the indirect effect of brand warmth on the two motives was not significant ($\beta_{\text{indirect}} = .10, \text{ SE} = .11, 95\% \text{ CI} = [-.09; .35]$), ruling out this alternative explanation.

[Insert Figure 3 here.]

Discussion

Study 4 shows that consumer reports of product-harm incidents involving a high-warmth brand's products are motivated by providing feedback rather than complaint. Also, because the two motives are not mutually exclusive, and consumers benefit from providing feedback (as feedback may facilitate corrective action), it is not surprising that the results of Study 4 showed that even for a low-warmth brand, the magnitude for feedback was greater than for complaining. However, the difference between the two motives was significantly higher for a warm brand. Further, this reporting is driven by increased benevolence. Study 4 thus supports H₃.

Study 5: An experiment on how warm brands should respond to a consumer's report of a harm-incident

Aim

Study 5 aims to use findings from Studies 1 through 4 to offer an actionable insight for managers. Simply stated, we test whether managers' mere acknowledgment of consumers' feedback motive—in response to a consumer report—can facilitate redressal of the situation.

Method

We recruited 604 participants from Prolific Academic, using Prolific's in-built feature of excluding participants from our previous studies. However, one participant entered two responses and we thus excluded this participant (i.e., their two responses). Further, 15 participants were excluded because they failed an attention check that required all the participants to report the name of the brand in the scenario text (see Table B1 for exclusion criteria). Thus, the final sample consisted of 588 participants (49% females, $M_{\text{age}} = 37$, $SD_{\text{age}} = 13.16$).

We employed a 2 (warmth: low versus high) \times 2 (brand's response: control versus acknowledgment of consumer's feedback motive) between-participants design. In all conditions, we asked participants to imagine that they owned a cellular phone from a fictitious brand named Nozti Mobile. At this point, we manipulated brand warmth using procedures adapted from Studies 3 and 4. Specifically, we informed participants in the high (versus low) warmth condition that Nozti Mobile had rated high (versus low) on indicators of social and environmental responsibility. All participants were then asked to imagine that one day, when they were working from home, their phone overheated and burst into flames. Participants were further asked to imagine that they immediately poured water over the phone, preventing any major harm to

themselves. Next, they were asked to *imagine* that they informed government agencies and Nozti Mobile about this incident. That is, unlike Study 3 but like Study 4, Study 5 asks participants to imagine rather than write about the incident.

Lastly, the brand's response to the consumer's incident report was manipulated as follows. Participants in the control condition were told that Nozti Mobile emailed and thanked them for their effort. On the other hand, participants in the experimental condition were told that Nozti Mobile emailed and thanked them for their effort to *provide feedback, which would help Nozti Mobile determine the root cause of the problem and solve it* (see Appendix B for detailed manipulations).

All participants next rated their satisfaction with the brand's response, using a 4-item scale adapted from You et al. (2020). These items included "I feel very positive about Nozti Mobile's response," "I am content with Nozti Mobile's response," "Overall, I feel good about how Nozti Mobile handled the situation," and "I am satisfied with Nozti Mobile's response" ($\alpha = .97$). Lastly, using the same five-point scale that was used in Studies 3 and 4, all participants completed a manipulation check for brand warmth ($\alpha = .95$).

Results

A manipulation check indicated that participants in the high-warmth condition perceived the brand to be significantly warmer than participants in the low-warmth condition ($M_{\text{high-warmth}} = 2.05$, $SD_{\text{high-warmth}} = .90$ vs. $M_{\text{low-warmth}} = 1.51$, $SD_{\text{low-warmth}} = .76$; $t(586) = 7.92$, $p < .001$). Thus, our manipulation for brand warmth was successful.

A two-way ANOVA with warmth and brand response as the IVs and satisfaction with the brand's response as the DV indicated a significant main effect of brand warmth ($M_{\text{low-warmth}} = 1.74$ vs. $M_{\text{high-warmth}} = 2.35$, $F(1, 584) = 34.74$, $p < .001$), where participants indicated more

satisfaction with the warm brand on an average. Similarly, the main effect of the brand's response was also significant, where participants were more satisfied when the brand acknowledged their helpful feedback motive ($M_{\text{control}} = 1.85$ vs. $M_{\text{acknowledgement}} = 2.24$, $F(1, 584) = 14.19$, $p < .001$). More importantly, the interaction effect between the brand's warmth and its response was significant as well ($F(1, 584) = 4.90$, $p = .03$, $\eta^2 = .01$).

Planned contrasts showed that for the high-warmth condition, a brand response that acknowledged the consumer's feedback motive led to significantly higher satisfaction ($M_{\text{control}} = 2.04$, $SD = 1.25$ vs. $M_{\text{acknowledgement}} = 2.65$, $SD = 1.46$; $F(1, 584) = 17.63$, $p < .001$, $\eta^2 = .03$). On the other hand, for the low-warmth condition, the consumer satisfaction did not differ significantly by whether the brand response acknowledged the consumer's motive ($M_{\text{control}} = 1.66$, $SD = 1.09$ vs. $M_{\text{acknowledgement}} = 1.82$, $SD = 1.13$; $F(1, 584) = .25$, $p > .25$, $\eta^2 = .002$). Figure 4 displays these results. These findings thus support H₃, which posits that a high-warmth brand benefits more from a managerial response that acknowledges the consumer's feedback motive (versus the status-quo response that does not acknowledge any motive).

[Insert Figure 4 here.]

Discussion

Study 5 demonstrates that for a high-warmth brand, consumers are more satisfied with a response that acknowledges consumers' feedback motive. However, such managerial acknowledgment does not impact consumer satisfaction when consumers perceive the brand to be *low* on warmth.

General discussion

What determines whether—following a harm incident involving a brand's product—a

consumer reports the incident to government agencies and the brand owner? Is this reporting necessarily “bad?” How can managers redress this unfortunate situation? These practical questions motivate our research.

A review of interdisciplinary literature on consumer-brand relationships and consumer complaining guided us to the social perception theory (Cuddy et al., 2008) and brand as intentional agents (BIAF) framework (Kervyn et al., 2012, 2022). The theory and framework suggest that consumers use their perception of the brand’s intentions to decide whether to report a product-harm incident. Our Studies 1 and 2 show that a brand’s warmth is associated positively with (H₁) the number of reports of product-harm incidents the brand receives and (H₂) the proportion of feedback (as opposed to complaint) reports. Study 3—a scenario-based, psychological experiment—confirms H₂ in a laboratory setting. Study 4 replicates H₂ and offers evidence of the psychological mechanism of consumer benevolence. Lastly, Study 5 shows managers can leverage the consumer’s motive of providing feedback. This mere acknowledgement mitigates consumer dissatisfaction following the harm incident.

In what follows, we discuss the implications of our findings for theory and practice.

Implications for theory

By investigating the effect of a brand’s warmth perceptions (Kervyn et al., 2012; 2022) on consumer reports of a product-harm incident, our research makes important contributions to the literature on brand warmth and consumer-brand relationship (Khamitov et al., 2019) in the face of negative incidents (Aggarwal & Larrick, 2012; Harmeling et al., 2015). Prior research in this context has shown that a brand’s warmth perceptions can influence consumers to attribute harm incidents to external causes (Klein & Dawar, 2004). Per this theory, one would expect brand warmth to associate negatively with consumers’ reports of harm incidents. Our evidence—

both observational data and their experimental counterpart—reports the opposite. Specifically, our research documents that consumers use their perceived brand warmth to decide whether to report a product-harm incident.

More importantly—and as our primary contribution—such reporting is motivated by consumers' desire to provide feedback as opposed to complaining against the brand. Further, warmth elicits the consumer's benevolence, which drives them toward providing feedback and away from complaining. These findings also contribute to the theory of social perception from the base discipline of social psychology (Aaker et al., 2010; Aaker et al., 2012; Cuddy et al., 2008; Fiske et al., 2018) and the brands as intentional agents framework (BAIF) (Kervyn et al., 2012, 2022).

Implications for managers

First, in the absence of our findings, managers may wonder whether their investments in cultivating a warm brand personality help or hurt the brand outcomes in the wake of a failure (such as a product-harm incident). In demonstrating that warmth increases consumer reporting of product-harm incidents, we help managers understand the impact on investments in brand personality. Our most insightful finding, however, is that consumers complain not to retaliate but to provide feedback. This finding offers insight into how managers' investments in developing a warm brand personality are helping the brand gain helpful feedback about the negative situation at hand. On the contrary, brands that do not invest in cultivating a warm brand personality suffer after a negative incident, as consumers of such brands intend to punish the brand by complaining against such brands.

Second, in the wake of a product failure, managers solicit consumer feedback about the negative incident. Our Study 5 suggests a zero-cost strategy that can help managers redress the

situation: by acknowledging the consumer's intent to provide feedback. This mere acknowledgment by a warm brand (versus no acknowledgment) can boost consumer satisfaction.

Managers make investments to cultivate a brand's overall personality, which has three key dimensions of warmth, excitement, and competence. Although not the focus of our research, Studies 1 and 2 reveal how the other two key dimensions of a brand's personality—excitement and competence—impact the consumer's propensity to report the harm incident. Specifically, the studies show that a brand's excitement lowers the consumer's propensity to report a harm incident. This finding is consistent with Aaker, Fournier, and Brasel's (2004) finding that in the wake of a brand's failure, its warmth perception weakens consumer-brand relationship, whereas excitement perception strengthens the relationship. The insight is that consumers have come to expect surprise from an exciting brand and may tolerate a harm incident in that spirit (Sundar & Noseworthy, 2016). Equally interesting is the finding that competence is unrelated to the consumer's odds of reporting the product-harm incident (Yang et al., 2020). This finding might appear counterintuitive because competence perceptions should become salient when the brand has failed in the related domain of safety. However, the insignificant association reminds managers of the value of the theory that in the wake of a harm incident, consumers' perceptions of the involved brand's intentions trump their perceptions of the brand's ability.

Implications for regulatory agencies

The NHTSA asks car owners to “report a safety problem,” but frames this report as a complaint. Importantly, the NHTSA motivates owners by stating the following: “Complaints like yours help us investigate possible defects, which could lead to a safety recall. By reporting your problem, you're helping to keep vehicles—and ultimately our roads—safe”

(<https://www.nhtsa.gov/report-a-safety-problem#index>). Similarly, the CFPB aims to “protect

consumers from unfair, deceptive, or abusive practices and take action against companies that break the law” (<https://www.consumerfinance.gov/about-us/the-bureau/>). The CFPB solicits consumers to report incidents in which they believe a financial product/service provider has violated the law. Like the NHTSA, the CFPB labels such reports complaints. Lastly, the U.S. Consumer Product Safety Commission (CPSC) asks consumers to “Protect your family and your fellow Americans by reporting unsafe products to CPSC. Your report could help save lives” (<https://www.saferproducts.gov/IncidentReporting>). Unlike the NHTSA and the CFPB, the CPSC does not label a consumer’s report as a complaint. Lastly, the Canadian Food Inspection Agency (CFIA) uses the words “complaint” and “concern” (<https://inspection.canada.ca/food-safety-for-consumers/where-to-report-a-complaint/eng/1364500149016/1364500195684>).

Our research suggests that the CPSC is being wise in not ascribing the negative connotation of complaint to consumer’s reporting of the incident. Our finding suggests that the NHTSA, the CFPB, and the CFIA would be better off labeling such reporting as feedback. The positive connotation may encourage more consumers to report incidents that they believe have exposed them to bodily/financial risk.

Limitations and future research

Four limitations of our research are salient to us. We mention each next and offer suggestions on how future research can address them.

First, our Studies 1 and 2 sample incidents that translated into reports. That is, the NHTSA and the CFPB data sets do not include incidents consumers did not report to the agencies. The data sets also exclude consumers who may complain to parties other than the regulators. Unsurprisingly, consumers who submit reports to regulators are likely systematically

different from those who do not report to anyone and those who inform other parties.¹⁴ Such systematic differences include reporters knowing about the legal authority of safety regulators and the process by which an individual submits incident reports. In contrast, the non-reporters may shirk exerting effort and instead report the incident on a social media platform or just avoid any such reporting lest it make them relive negative experiences. Future research may consider testing our H₁ and H₂ on samples that include incidents that did not translate into a report and/or reports submitted to other ombudsman organizations.

Second, by design, we focused on competence failures and not their ethical counterparts. Two reasons drove our choice. We believe consumers are more likely to report incidents when something—such as personal safety—is at stake. Such salience occurs more frequently with competence failures than with ethical failures, which are less directly relevant to consumers—failures such as employee layoff (Hassey, 2019), tax evasion (Kim et al., 2019), or child labor (Kim et al., 2019). From a pragmatic perspective, we could not find data on consumer reporting in the wake of ethical failures. Future research can test our theory in the context of ethical failures, such as transgressions while selling refurbished or remanufactured products (Abbey et al., 2017; Abbey & Guide Jr, 2018).

Third, to keep our research uncomplicated, we do not consider other managerial interventions to recover from the failure. These interventions could be communication devices or resolution strategies (e.g., apology or compensation) (Resnik & Harmon, 1983; Smith et al., 1999; You et al., 2020). Future research may theorize a broader set of managerial interventions and examine which is more beneficial in recovering from what type of failure (Brock et al.,

¹⁴ We thank an anonymous reviewer for reminding us of this limitation of our observational data studies.

2013; Kanuri & Andrews, 2019).

Fourth, our studies focus on consumer goods and financial services; and thus, the findings may not generalize to other types of failure. For example, future research can test our theory in a complementary context of data breaches. A data breach risks consumers' identity—that is, psychological (as opposed to physiological) harm—and is unrelated to a firm's core offering, unlike safety failure or financial harm.

In summary, we believe our findings are nonobvious, useful for managers, and novel to the literature on brand perception and consumer-brand relationship. At the same time, they offer avenues for future research to build on.

Conflict of interest statement

The authors declare that they have no conflicts of interest.

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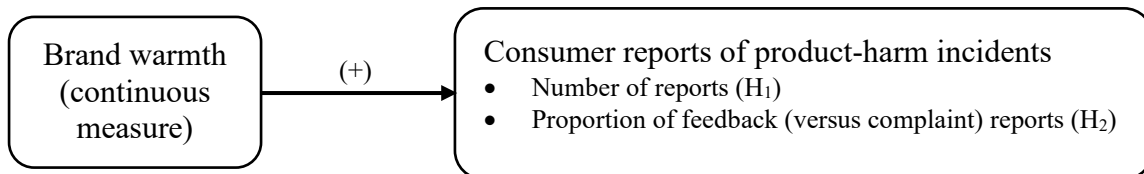
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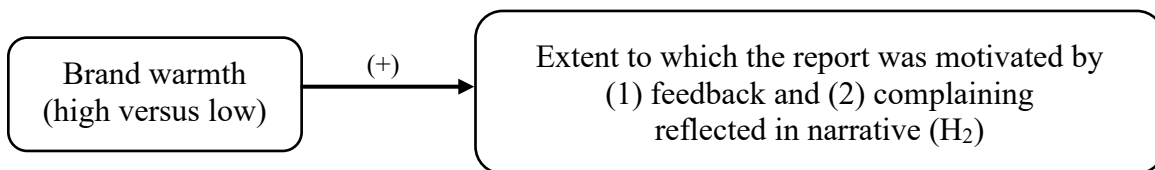
Figure 1: Conceptual framework

Note: Warmth refers to consumers’ perceptions of the brand’s warmth *before* the harm incident.

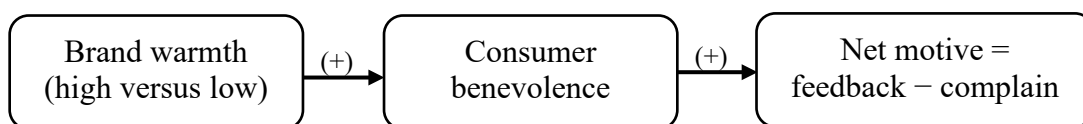
Studies 1 and 2: Field Studies of NHTSA and CFPB Data Sets



Study 3: Lab Experiment



Study 4: Lab Experiment



Study 5: Lab Experiment

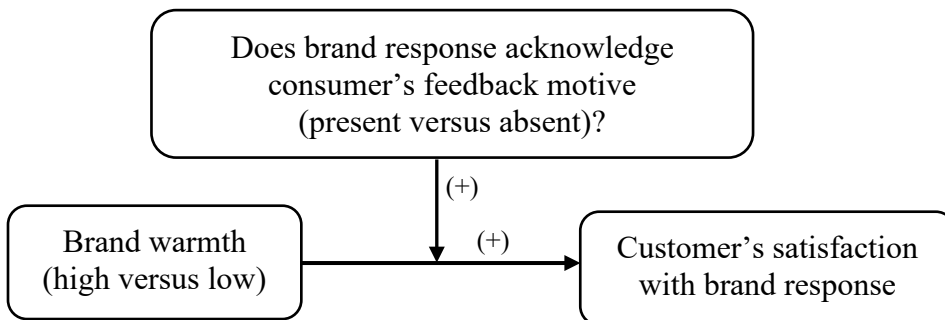


Table 1: Summary of results

Study 1: Effect of brand warmth on consumer reports of product-harm incidents (incidents in the automotive industry; number of firm-year observations = 1,448, covering 177 firms, 2005-2021; consumer reports to NHTSA)		
	DV: Number of harm-incident reports	DV: Proportion of feedback (vs complaint) reports
<i>IV: Brand warmth</i>	A one percentage-point increase in a car manufacturer's brand warmth in a year is associated with a 27% increase in the number of product-harm reports the manufacturer receives in the following year.	A one percentage-point increase in a car manufacturer's brand warmth in a year is associated with a 4% increase in the odds of the manufacturer receiving a feedback (vs. a complaint) report.
<i>Key Finding:</i> The higher the consumers' perceptions of a brand's warmth, (1) the higher the number the harm-incident reports the brand receives in the following year, and (2) the higher the proportion of these reports that are classified as feedback (as opposed to complaint).		
Study 2: Effect of brand warmth on consumer reports of product-harm incidents (incidents in financial services; number of firm-year observations = 1,325, covering 328 firms, 2015-2021; consumer reports to CFPB)		
	DV: Number of harm-incident reports	DV: Proportion of feedback (vs complaint) reports
<i>IV: Brand warmth</i>	A one percentage-point increase in a financial service provider's brand warmth in a year is associated with a 14% increase in the number of product-harm reports the manufacturer receives in the following year.	A one percentage-point increase in a financial service provider's brand warmth in a year is associated with a .6% increase in the odds of the manufacturer receiving a feedback (vs. a complaint) report.
<i>Key Finding:</i> The higher the consumers' perceptions of a brand's warmth, (1) the higher the number the number of harm-incident reports the brand receives and (2) the higher the proportion of these reports that are classified as feedback (as opposed to complaint).		
Study 3: Replication with analysis of emails written to the regulator and the focal brand (Car-safety incident; N = 185; Prolific Academic)		
DV: Motive behind reporting harm incident		
<i>IV: Brand warmth</i>	<i>Feedback</i>	<i>Complaint</i>
High-brand warmth (N = 92)	Mean (SD) of DV = 5.73 (1.61)	Mean (SD) of DV = 2.53 (1.86)
Low-brand warmth (N = 93)	Mean (SD) of DV = 4.06 (2.27)	Mean (SD) of DV = 4.46 (2.29)
<i>Key Finding:</i> Relative to participants in the low-warmth condition, those in the high-warmth condition wrote emails that were motivated (1) more by providing feedback and (2) less by complaining.		
Study 4: Mechanism of consumer benevolence		

(Car-safety incident; N = 190; Prolific Academic)			
	DV: Motive behind reporting harm incident		Mediator: Consumer benevolence
IV: Brand warmth	Feedback	Complaint	
High-brand warmth (N = 95)	Mean (SD) of DV = 5.63 (1.41)	Mean (SD) of DV = 2.28 (1.24)	Mean (SD) of Mechanism Variable = 3.83 (1.56)
Low-brand warmth (N = 95)	Mean (SD) of DV = 5.50 (1.58)	Mean (SD) of DV = 4.04 (1.62)	Mean (SD) of Mechanism Variable = 2.73 (1.33)
<i>Key Finding:</i> Consumer benevolence is the psychological mechanism that underlies the effect of brand warmth on the motive behind a consumer's reporting of a harm incident. That is, brand warmth evokes consumer benevolence, which motivates consumer to report for feedback and not complaining.			
Study 5: Brand response to consumer reports of product-harm incident (Cellular phone incident; N = 588; Prolific Academic)			
DV: Consumer satisfaction with the brand response			
IV: Brand Warmth	Brand Response: Control (N = 291)		Brand response: Acknowledgment of feedback motive (N = 297)
High-brand warmth (N = 290)	Mean (SD) of DV = 2.04 (1.25)		Mean (SD) of DV = 2.65 (1.46)
Low-brand warmth (N = 298)	Mean (SD) of DV = 1.66 (1.09)		Mean (SD) of DV = 1.82 (1.13)
<i>Key finding:</i> For a warm brand, an acknowledgment of the consumers' motives to help the brand increases consumer satisfaction			

Table 2: Study 1: Variable key

Note: Subscript i refers to the firm that owns the focal brand and t the year in which we observe the firm and the brand. Subscript j refers to firm i 's industry (defined by the four-digit SIC code) in year t . J is the number of firms in our sample for industry j .

Variable (Role)	Formula	Data source
Number of reports _{i,t} (Outcome variable)	Number of reports submitted by owners of firm i 's cars in year t , in the wake of product harm incidents that threatened the owner's or an observer's safety.	NHTSA
Proportion of feedback reports _{i,t} (Outcome variable)	Calculated in four steps: <ol style="list-style-type: none"> 1. We created two lists of words that owners are likely to be use while (a) providing informational feedback or (b) engage in retaliatory complaining about the incident. 2. We used the above lists as seeds in training a semi-supervised (i.e., guided) latent Dirichlet allocation (LDA) model and thus extracted two topics (feedback and complaint). 3. According to the dominant topic, we classified each report into either a feedback report or a complaint report. 4. We calculated the proportion of informational reports for brand i in year t by dividing the number of reports classified as feedback by the total number of reports brand i received in year t. 	
Warmth _{$i,t-1$} (Independent variable)	Average of the following six brand traits for brands owned by firm i in year $t - 1$: down to earth, cares about customers, trustworthy, original, friendly, and helpful (Aaker 1997).	
Excitement _{$i,t-1$} (Control)	Average of the following six brand traits for brands owned by firm i in year $t - 1$: daring, trendy, energetic, unique, up to date, and independent (Aaker 1997).	Young & Rubicam's Brand Asset Valuator
Competence _{$i,t-1$} (Control)	Average of the following five brand traits for brands owned by firm i in year $t - 1$: reliable, intelligent, high performance, prestigious, and leader (Aaker 1997).	
Sophistication _{$i,t-1$} (Control)	Average of the following five brand traits for brands owned by firm i in year $t - 1$: upper class, glamorous, sensuous, stylish, and charming (Aaker 1997).	
Ruggedness _{$i,t-1$} (Control)	Average of the ruggedness trait for brands owned by firm i in year $t - 1$ (Aaker 1997).	
Incidents _{i,t} (Control)	The number of occurrences of product-harm incidents that involved firm i 's cars in year t .	NHTSA
Deaths _{i,t} (Control)	The number of people who died in incidents involving firm i 's vehicles in year t .	
Delay _{i,t} (Control)	The average number of days between incident occurrence and incident reporting.	
Average report sentiment _{i,t} (Control)	The average of the compound sentiment score of the reports filed for firm i in year t . The sentiment scores are computed using the VADER dictionary, and the compound score is the standardized score taking values between -1 and 1 ,	

	with -1 indicating an all-negative report, 1 indicating an all-positive report, and 0 indicating a neutral report.	
Sales _{<i>i,t-1</i>} (Control)	The dollar value of firm <i>i</i> 's sales revenue (SALE) in year <i>t-1</i> . We log-transform the values to lower skewness.	Compustat Fundamentals Annual
Profit _{<i>i,t-1</i>} (Control)	Firm <i>i</i> 's earnings before interest, taxes, depreciation, and amortization (EBIDTA) in year <i>t-1</i> , divided by its sales revenue (SALE) in year <i>t-1</i> .	
Liquidity _{<i>i,t-1</i>} (Control)	Firm <i>i</i> 's dollar value of current assets (ACT) in year <i>t-1</i> , divided by its current liabilities (LCT) in year <i>t-1</i> .	
Market share _{<i>i,t-1</i>} (Control)	Firm <i>i</i> 's sales revenue (SALE) in year <i>t-1</i> , divided by the sum of sales revenue from all firms operating in the same industry (four-digit SIC) in year <i>t-1</i> : $-1: \frac{I}{\sum_{j=1}^J SALE_{j,t-1}}$	
Advertising assets _{<i>i,t-1</i>} (Control)	Calculated in two steps: 1. We measure firm <i>i</i> 's advertising stock in year <i>t-1</i> , ADSTOCK _{<i>i,t-1</i>} , as a Koyck-type (i.e., geometric) distributed lag function of annual advertising expenditure (XAD) with a decay parameter of .6. 2. We divide ADSTOCK _{<i>i,t-1</i>} by dollar value of <i>i</i> 's total assets (AT) in year <i>t-1</i> .	
R&D assets _{<i>i,t-1</i>} (Control)	Calculated in two steps: 1. We measure firm <i>i</i> 's R&D stock in year <i>t-1</i> , RDSTOCK _{<i>i,t-1</i>} , as a Koyck-type (i.e., geometric) distributed lag function of annual R&D expenditure (XRD) with a decay parameter of .6. 2. We divide RDSTOCK _{<i>i,t-1</i>} by the dollar value of <i>i</i> 's total assets (AT) in year <i>t-1</i> .	

Table 3: Study 1: Brand warmth and the number of reports of product-harm incidents

Note: The effect of interest is highlighted in gray. Estimator: Negative binomial fixed effects regression

Outcome variable: Number of reports	Coefficie	SE	<i>p</i> -value	Coefficie	SE	<i>p</i> -value	Coefficie	SE	<i>p</i> -value
	nt II	III	IV	nt V	VI	VII	nt VIII	IX	X
Warmth	.24***	.02	.00	.24***	.02	.00	.16***	.02	.00
Excitement	-.19***	.03	.00	-.19***	.03	.00	-.22***	.05	.00
Competence	-.00	.01	.71	-.00	.01	.78	-.02*	.01	.08
Sophistication	.09***	.02	.00	.08***	.02	.00	.10***	.03	.00
Ruggedness	.03**	.01	.01	.03**	.01	.02	.05***	.02	.00
Incidents				-.00	.00	.88	.00	.00	.10
Deaths				.00	.00	.85	-.00	.00	.78
Delay				-.00	.00	.61	-.00***	.00	.00
Average report sentiment				-.55***	.18	.00	-.83***	.27	.00
Sales ¹⁵							.26***	.07	.00
Profit							1.15	.78	.14
Liquidity							-.00**	.00	.03
Market share							.06	.32	.86
Advertising							3.27	2.03	.11
RD							.55	.46	.23
Constant	-1.04***	.31	.00	-1.19***	.32	.00	-2.00**	.91	.03
Observations		539			539			220	
Number of firms		43			43			21	
Firm-FE		YES			YES			YES	
Year-FE		YES			YES			YES	

*** $p < .01$, ** $p < .05$, * $p < .1$

¹⁵ The variable *Sales* is highly correlated with the firm's *Size* (number of employees) and firm's *Assets*. So, we include only *Sales* as a control in our models. All reported results are robust to replacing *Sales* with *Size* or *Assets*.

Table 4: Study 1: Brand warmth and the proportion of feedback (vs. complaint) reports

Note: The effect of interest is highlighted in gray. Estimator: Generalized linear model (GLM) of binomial family with a logit link

Outcome variable: Proportion of feedback reports	Coefficie	SE	<i>p</i> -value	Coefficie	SE	<i>p</i> -value	Coefficient	SE	<i>p</i> -value
	nt II	III	IV	nt V	VI	VII	VIII	IX	X
Warmth	.04***	.02	.01	.03**	.02	.02	.11***	.03	.00
Excitement	.19***	.02	.00	.02	.03	.51	-.17***	.05	.00
Competence	.01	.01	.30	.01	.01	.12	.07***	.02	.00
Sophistication	.03*	.02	.07	-.01	.02	.76	.06***	.02	.00
Ruggedness	-.02**	.01	.01	-.01	.01	.16	.02*	.01	.09
Incidents				.00**	.00	.01	.00	.00	.89
Deaths				.01***	.00	.00	.00**	.00	.03
Delay				.00***	.00	.00	.00***	.00	.00
Average report sentiment				-4.61***	.22	.00	-5.86***	.49	.00
Sales							.05	.08	.55
Profit							1.06	1.44	.46
Liquidity							-.00***	.00	.00
Market share							-.49	.39	.21
Advertising							-5.88***	2.21	.01
RD							1.11	.70	.11
Constant	-5.27***	.36	.00	-4.98***	.28	.00	-7.97***	1.16	.00
Observations		1,448			1,448			828	
Number of firms		177			177			124	
Year-FE		YES			YES			YES	

*** $p < .01$, ** $p < .05$, * $p < .1$

Table 5: Study 2: Effect of brand warmth on the number of harm-incident reports

Note: The effect of interest is highlighted in gray. Estimator: Negative binomial fixed effects regression

Outcome variable: Number of reports	Coefficie	SE	<i>p</i> -value	Coefficie	SE	<i>p</i> -value	Coefficie	SE	<i>p</i> -value
	nt II	III	IV	nt V	VI	VII	nt VIII	IX	X
Warmth	.13***	.04	.00	.10**	.04	.01	.13**	.06	.03
Excitement	-.33***	.06	.00	-.31***	.06	.00	-.27**	.11	.01
Competence	-.02	.02	.19	-.02	.01	.30	-.01	.02	.58
Sophistication	-.04	.09	.68	-.03	.08	.75	-.06	.15	.69
Ruggedness	.08*	.05	.08	.07	.05	.12	.05	.06	.41
Closed				.00	.00	.10	.00	.00	.33
Closed with monetary relief				.00***	.00	.00	.00***	.00	.00
Disputes				-.00	.00	.33	-.00	.00	.24
Timely				.00**	.00	.02	.00**	.00	.04
Average report sentiment				-.93***	.36	.01	-2.24***	.61	.00
Sales							-.02	.19	.89
Profit							-.02	.74	.98
Liquidity							-.96**	.42	.02
Market share							-.07	.36	.84
Advertising							2.94	8.06	.72
RD							-1.26	4.11	.76
Constant	2.40***	.62	.00	2.37***	.62	.00	2.51	1.84	.17
Observations		276			276			171	
Number of firms		51			51			31	
Firm-FE		YES			YES			YES	
Year-FE		YES			YES			YES	

*** $p < .01$, ** $p < .05$, * $p < .1$

Table 6: Study 2: Effect of brand warmth on the proportion of feedback (vs. complaint) reports

Note: The effect of interest is highlighted in gray. Estimator: Generalized linear model (GLM) of binomial family with a logit link

Outcome variable: Proportion of feedback reports	Coefficie	SE	<i>p</i> -value	Coefficie	SE	<i>p</i> -value	Coefficient	SE	<i>p</i> -value
	nt II	III	IV	nt V	VI	VII	VIII	IX	X
Warmth	.10***	.03	.00	.13***	.04	.00	.23***	.05	.00
Excitement	-.17**	.08	.02	-.17**	.08	.03	-.21*	.12	.08
Competence	.02	.02	.17	-.01	.01	.40	-.03	.02	.22
Sophistication	-.13	.12	.30	.09	.09	.33	.18	.15	.21
Ruggedness	.00	.06	.99	-.01	.06	.81	-.13	.08	.11
Closed				-.00	.01	.71	-.00	.01	.87
Closed with monetary relief				.00***	.00	.00	.00***	.00	.00
Disputes				.00***	.00	.00	.00***	.00	.01
Timely				.00***	.00	.00	.00***	.00	.00
Average report sentiment				.96	1.63	.55	-.03	1.09	.98
Sales							-.29***	.07	.00
Profit							3.94***	.63	.00
Liquidity							-.79***	.25	.00
Market share							.17	.35	.62
Advertising							-1.72***	3.38	.00
RD							2.77	1.76	.12
Constant	-4.48***	.61	.00	-5.99***	.66	.00	-5.11***	1.17	.00
Observations		1,325			1,325			794	
Number of firms		328			328			188	
Year-FE		YES			YES			YES	

*** $p < .01$, ** $p < .05$, * $p < .1$

Figure 2: Study 3: The effect of brand warmth on consumer motives for reporting harm incidents

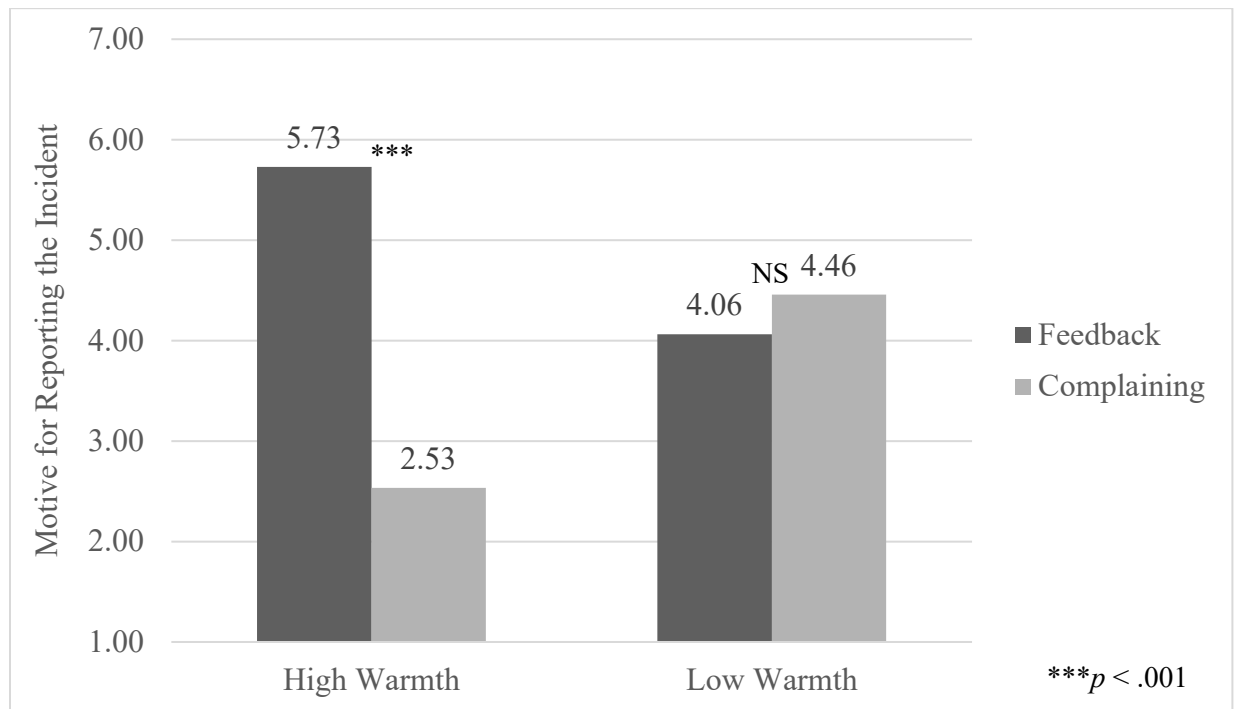


Figure 3: Study 4: The underlying mechanism

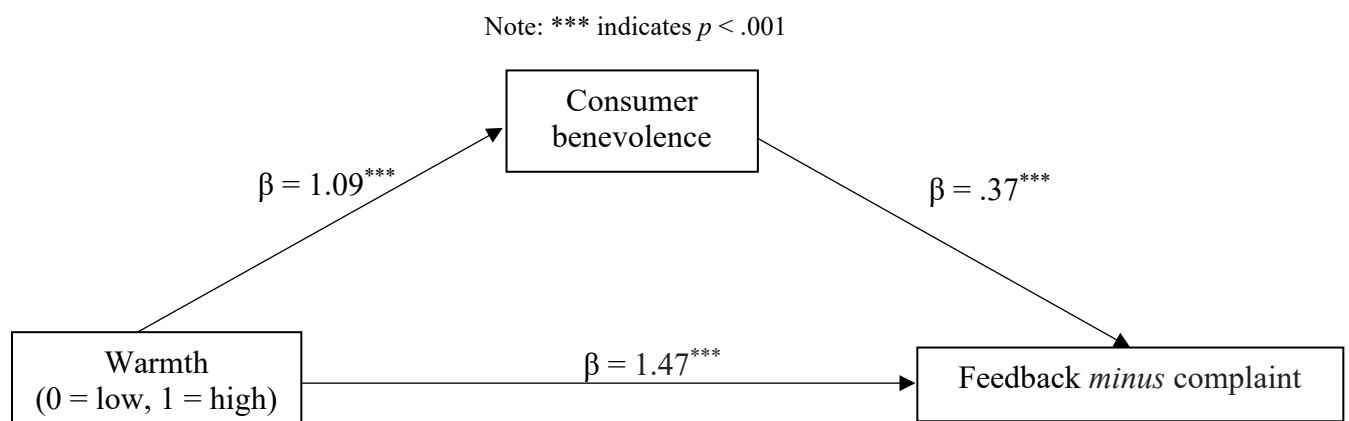
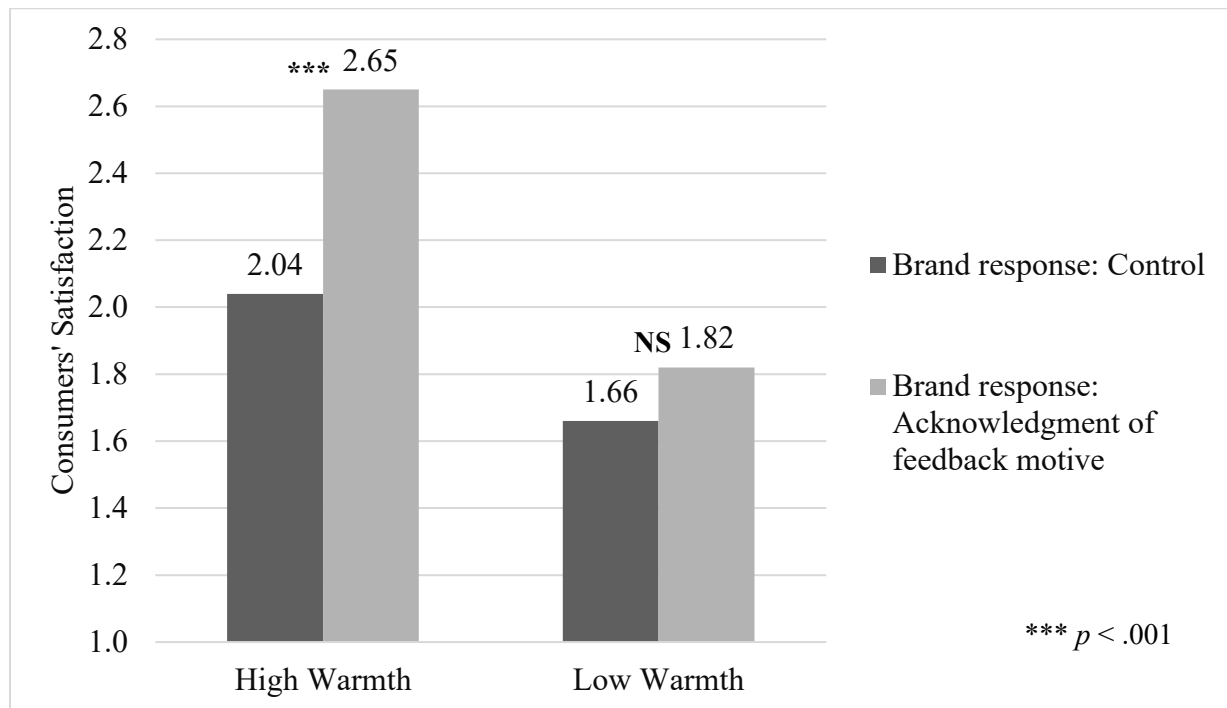


Figure 4: Study 5: Impact on brand response on consumer's satisfaction with the brand response



Brand Warmth Elicits Feedback, Not Complaints

Appendix A: Studies 1 & 2

Reasons for choosing car safety incidents as the context for Study 1

First, when a car owner in the United States is involved in an incident that makes them believe that the car may have a safety defect, they may report the incident to the National Highway Traffic Safety Administration (NHTSA). The NHTSA's website asks vehicle owners to "report a safety problem" (<https://www.nhtsa.gov/report-a-safety-problem#index>). Automobile-specific news platforms and magazines (e.g., Consumer Reports, Motor Biscuit, and Car and Driver) spread awareness about how car owners can submit these reports.¹⁶ Further, car buyers are known to refer to safety reports¹⁷ before considering buying a car.

Second, car brands are a relevant category for brand warmth as well. Practitioner articles and data suggest that consumers perceive some car brands as high on warmth and others as less so (Hiebert, 2016; Hirsch et al., 2003). For example, among Mercedes, Porsche, and Rolls-Royce, consumers perceive Mercedes to be the warmest, and Rolls-Royce to be the "coldest" (Kervyn et al., 2022).

Third, unlike other manufacturing companies that produce products in multiple categories (e.g., Procter & Gamble), car manufacturers produce only cars, and thus consumers' perceptions of a car manufacturer's brands can be unambiguously mapped to products in only one category. Therefore, we use consumer reports of harm incidents involving car brands¹⁸ in the United States as the empirical context to test our hypotheses.

¹⁶ <https://www.consumerreports.org/car-safety/how-to-write-a-car-safety-complaint-to-nhtsa/> and <https://www.motorbiscuit.com/report-car-problems-nhtsa/>

¹⁷ <https://www.carcomplaints.com>

¹⁸ We use the word "brand" to refer to what the automobile industry calls "makes" (e.g., Toyota, Lexus, Nissan, Infiniti).

Table A1: List of seed words for training the guided LDA model used for calculating the proportion of feedback reports

Topic	List of words
Feedback	Inform, notify, report, informing, alert, investigate, let know, look into, notification, information, aware, awareness, data, info, reporting, share, sharing, document, attention, understand, recognize, discover, learn, uncover, determine, realize, discern, establish, reason, diagnose, diagnostic, warn, update, help, concern, remedy, warning, inspect, prevent, understanding, knowing, illuminate, advise, urge, caution, attention, solution, resolve, announce, communicate, declare, disclose, reveal
Complaint	Disappoint, disappointed, tired, unhappy, unacceptable, unbelievable, bother, bothered, dissatisfied, trouble, inconvenience, inconvenient, annoyed, annoying, fault, irritate, irritated, difficulty, difficult, unpleasant, ruined, upset, terrible, awful, horrible, careless, negligent, negligence, distressing, distressed, stress, mad, scared, scary, complaint, complain, sue, charge, furious, cost, money, expense, expensive, purchase, buy, pay, annoy, worried, worry, late, satisfaction, satisfied, dissatisfied, trust, displeased, unfortunate, unsatisfied, adverse, unfavorable, distrust, wary, doubt, angry

The variation in brand warmth across the years and brands in our data

The two line graphs in Figure A2 illustrate the average and standard deviation of the warmth score across all firms by year. The figures suggest significant temporal and cross-sectional variation in the warmth score across the firms and years in our sample. For instance, Harley-Davidson—a firm with a low standard deviation of warmth score across the years (SD = .54)—has a minimum warmth score of 14.7 in 2013, and the maximum warmth score of 17.0 in 2005. In comparison, Subaru—a firm with a high standard deviation of warmth across its tenure (SD = 1.68)—has a minimum warmth score is 11.3 in 2007, and the maximum warmth score of 16.1 in 2021. Similarly, in 2019—a year with a lower standard deviation of warmth score across firms (SD = 2.80)—the lowest warmth score is 7.7 for Alfa Romeo, and the highest warmth score is 20.4 for Chevrolet. However, the year 2006 has a higher standard deviation of warmth

across firms (SD = 4.07). The lowest warmth score is 5.7 for Alfa Romeo, whereas the highest warmth score is 27.1 for AAA.

Figure A1: Study 1: Variation in brand warmth for firms across their tenure

The box plot on the left depicts the distribution of the average brand warmth for the firms in our sample, across their tenure (i.e., time-average). The plot on the right shows the standard deviation in the time-averages of brand warmth for firms across their tenures.

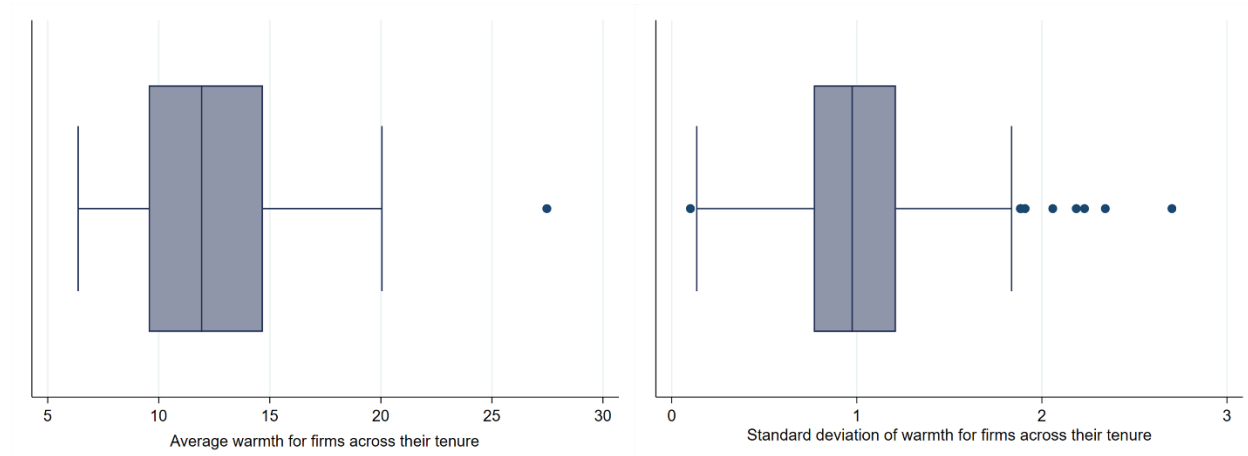


Figure A2: Study 1: Variation in brand warmth in each year, across time

The line graph on the left depicts the distribution of the average brand warmth in each year, across time. The graph on the right shows the standard deviation in the average brand warmth in each year, across time.

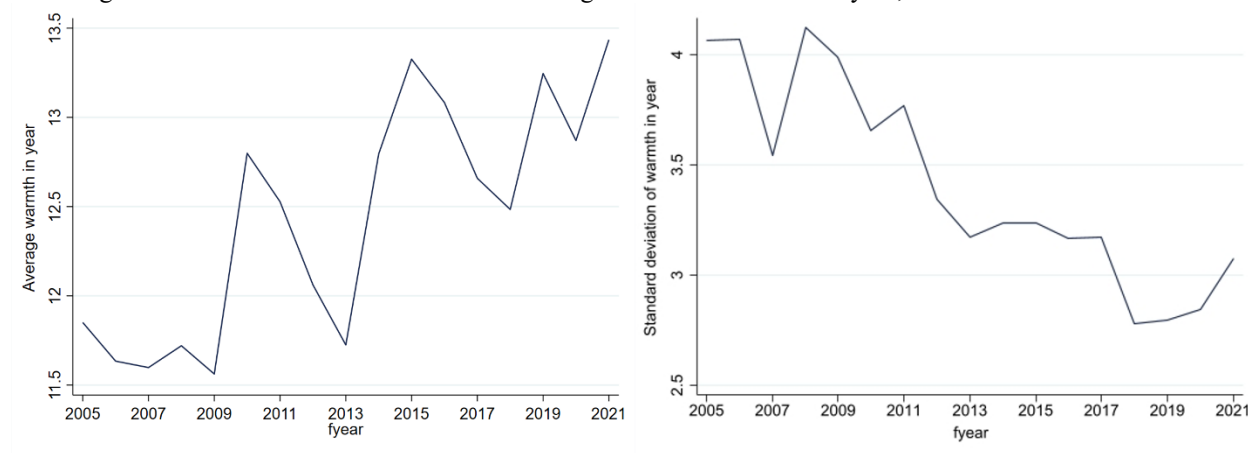


Table A2: Study 1: Descriptive statistics of variables

	Mean	SD	p25	Median	p75
Number of reports	360.6	939.93	0	0	27
Proportion of feedback reports	.08	.12	0	0	.18
Warmth	12.43	3.49	9.76	11.94	14.83
Excitement	9.65	2.09	8.26	9.54	10.96
Competence	23.69	7.23	17.97	24.21	29.76
Sophistication	8.29	4.68	5.15	6.84	9.72
Ruggedness	11.23	5.95	6.58	9.6	14.35
Incidents	2085.54	17685.16	0	0	3
Deaths	1.53	8.7	0	0	0
Delay	92.7	273.36	0	0	124.7
Average report sentiment	-.18	.26	-.44	0	0
Sales	10.93	1.58	9.56	11.95	12.06
Profit	.12	.1	.08	.12	.14
Liquidity	314.05	3784.66	0	0	1.13
Market share	.21	.33	.02	.04	.33
Advertising	.05	.06	.01	.04	.05
RD	.07	.12	.02	.07	.09

Table A3: Study 1: Pairwise correlation coefficients

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
(1) Number of reports																
(2) Proportion of feedback reports	.56															
(3) Warmth	.26	-.01														
(4) Excitement	.10	.27	-.13													
(5) Competence	.11	.21	-.15	.50												
(6) Sophistication	-.01	.21	-.49	.48	.72											
(7) Ruggedness	-.06	-.04	.22	.14	.04	-.28										
(8) Incidents	.29	.18	.11	.01	.10	-.01	.01									
(9) Deaths	.48	.25	.16	.04	.10	-.02	.00	.21								
(10) Delay	.25	.47	-.07	.13	.16	.16	-.05	.21	.15							
(11) Average report sentiment	-.44	-.80	.07	-.33	-.22	-.24	.03	-.15	-.20	-.46						
(12) Sales	.21	.00	-.12	.06	.24	.25	-.02	.10	.11	.06	.07					
(13) Profit	.00	-.05	.07	.00	-.04	-.03	-.02	.01	-.02	.00	.12	-.06				
(14) Liquidity	-.03	-.02	-.11	.04	.04	.10	-.05	-.01	-.01	-.02	.02	.00	-.03			
(15) Market share	-.18	-.14	.21	-.11	-.32	-.36	.03	-.07	-.11	-.11	.11	-.55	.28	-.07		
(16) Advertising	-.03	-.10	.24	-.19	-.09	-.19	.05	.01	-.01	-.02	.07	-.07	-.20	-.09	-.01	
(17) RD	.07	.12	-.16	.27	.23	.20	.00	.01	.04	.05	-.17	-.03	-.48	-.01	-.18	.11

Figure A3: Study 1: The association between brand warmth and number of reports of product-harm incidents

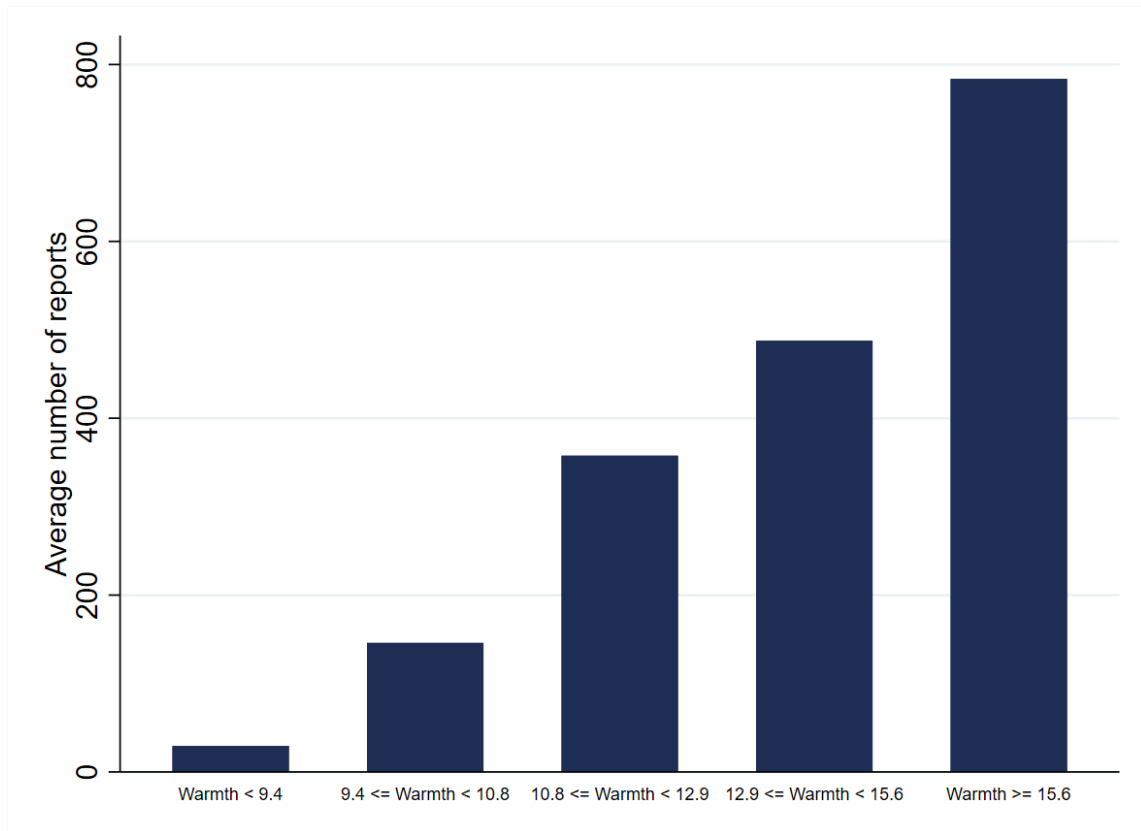


Table A4: Study 2: Variable key

Note: Subscript i refers to the firm that owns the focal brand and t the year in which we observe the firm and the brand. Subscript j refers to firm i 's industry (defined by the four-digit SIC code) in year t . J is the number of firms in our sample for industry j .

Variable (Role)	Formula	Data source
Number of reports _{i,t} (Outcome variable)	Number of reports submitted by customers of firm i 's financial products or services in year t , in the wake of incidents that brought financial harm to the consumer.	CFPB
Proportion of feedback reports _{i,t} (Outcome variable)	Calculated in four steps: 5. We created two lists of words that owners are likely to be use while (a) providing informational feedback or (b) engage in retaliatory complaining about the incident. 6. We used the above lists as seeds in training a guided latent LDA model to extract two topics (feedback and complaint). 7. According to the dominant topic, we classified each report into either a feedback report or complaint report. 8. We calculated the proportion of informational reports for brand i in year t by dividing the number of reports classified as feedback by the total number of reports brand i received in year t .	
Warmth _{$i,t-1$} (Independent variable)	Average of the following six brand traits for brands owned by firm i in year $t - 1$: down to earth, cares about customers, trustworthy, original, friendly, and helpful (Aaker 1997).	
Excitement _{$i,t-1$} (Control)	Average of the following six brand traits for brands owned by firm i in year $t - 1$: daring, trendy, energetic, unique, up to date, and independent (Aaker 1997).	Young & Rubicam's Brand Asset Valuator
Competence _{$i,t-1$} (Control)	Average of the following five brand traits for brands owned by firm i in year $t - 1$: reliable, intelligent, high performance, prestigious, and leader (Aaker 1997).	
Sophistication _{$i,t-1$} (Control)	Average of the following five brand traits for brands owned by firm i in year $t - 1$: upper class, glamorous, sensuous, stylish, and charming (Aaker 1997).	
Ruggedness _{$i,t-1$} (Control)	Average of the ruggedness trait for brands owned by firm i in year $t - 1$ (Aaker 1997).	
Closed _{i,t} (Control)	The number of product-harm reports that received a response from firm i in year t , and were closed.	CFPB
Closed with monetary relief _{i,t} (Control)	The number of product-harm reports that received a response from firm i in year t , and were closed after the firm provided the consumer with monetary relief.	
Disputes _{i,t} (Control)	The number of product-harm reports where the consumer disputed the firm's response, for firm i in year t .	
Timely _{i,t} (Control)	The number of product-harm reports where the firm responded to the consumer's report in a timely manner, for firm i in year t .	
Average report	The average of the compound sentiment score of the reports filed for firm i in	

sentiment _{i,t} (Control)	year t . The sentiment scores are computed using the VADER dictionary, and the compound score is the standardized score taking values between -1 and 1 , with -1 indicating an all-negative report, 1 indicating an all-positive report, and 0 indicating a neutral report.	
Sales _{i,t-1} (Control)	The dollar value of firm i 's sales revenue (SALE) in year $t-1$. We log-transform the values to lower skewness.	Compustat Fundamentals Annual
Profit _{i,t-1} (Control)	Firm i 's earnings before interest, taxes, depreciation, and amortization (EBIDTA) in year $t-1$, divided by its sales revenue (SALE) in year $t-1$.	
Liquidity _{i,t-1} (Control)	Firm i 's dollar value of current assets (ACT) in year $t-1$, divided by its current liabilities (LCT) in year $t-1$.	
Market share _{i,t-1} (Control)	Firm i 's sales revenue (SALE) in year $t-1$, divided by the sum of sales revenue from all firms operating in the same industry (four-digit SIC) in year $t-1$: $-1: \frac{I}{\sum_{j=1}^J SALE_{j,t-1}}$	
Advertising assets _{i,t-1} (Control)	Calculated in two steps 3. We measure firm i 's advertising stock in year $t-1$, ADSTOCK _{i,t-1} , as a Koyck-type (i.e., geometric) distributed lag function of annual advertising expenditure (XAD) with a decay parameter of .6. 4. We divide ADSTOCK _{i,t-1} by dollar value of i 's total assets (AT) in year $t-1$.	
R&D assets _{i,t-1} (Control)	Calculated in two steps 3. We measure firm i 's R&D stock in year $t-1$, RDSTOCK _{i,t-1} , as a Koyck-type (i.e., geometric) distributed lag function of annual R&D expenditure (XRD) with a decay parameter of .6. 4. We divide RDSTOCK _{i,t-1} by the dollar value of i 's total assets (AT) in year $t-1$.	

Table A5: Study 2: Descriptive statistics of variables

	Mean	SD	p25	Median	p75
Number of reports	134.61	407.93	0	0	0
Proportion of feedback reports	.01	.03	0	0	0
Warmth	12.84	2.25	11.31	12.46	14.02
Excitement	9.17	1.55	8.03	8.93	10.14
Competence	21.36	5.42	17.6	21.89	25.38
Sophistication	5.89	1.44	4.83	5.59	6.73
Ruggedness	5.69	1.65	4.55	5.35	6.48
Closed	.69	8.88	0	0	0
Closed with monetary relief	37.19	209.33	0	0	0
Disputes	17.13	160.11	0	0	0
Timely	880.32	6666.9	0	0	0
Average report sentiment	-.01	.09	0	0	0
Sales	9.88	1.45	8.8	10.02	11.03
Profit	.28	.17	.13	.29	.41
Liquidity	.34	.83	0	0	0
Market share	.24	.31	.04	.11	.27
Advertising	.02	.08	0	0	.01
RD	.02	.08	0	0	0

Table A6: Study 2: Pairwise correlation coefficients

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
(1) Number of reports																	
(2) Proportion of feedback reports	.81																
(3) Warmth	.03	.06															
(4) Excitement	-.13	-.11	.23														
(5) Competence	-.04	-.02	-.05	.15													
(6) Sophistication	-.15	-.13	-.20	.55	.49												
(7) Ruggedness	-.10	-.09	-.01	.57	.25	.60											
(8) Closed	.21	.09	.00	-.03	-.01	-.04	-.03										
(9) Closed with monetary relief	.62	.49	.02	-.11	.05	-.09	-.08	.15									
(10) Disputes	.37	.24	.01	-.09	-.01	-.08	-.05	.40	.29								
(11) Timely	.47	.42	.00	-.06	-.03	-.11	-.06	.05	.18	.15							
(12) Average report sentiment	-.05	.01	.02	.04	-.02	.00	-.05	-.05	-.03	.06	.05						
(13) Sales	-.02	-.01	-.11	-.26	.01	-.11	-.17	.05	.18	.00	-.08	.06					
(14) Profit	.19	.24	-.18	-.07	.31	.12	-.05	.06	.12	.07	.06	-.01	-.04				
(15) Liquidity	-.07	-.09	.18	.20	-.09	-.05	-.04	-.03	-.07	.00	.03	.04	-.27	-.16			
(16) Market share	-.02	-.01	.29	.18	-.21	-.11	-.04	-.05	-.10	.00	.08	.07	-.09	-.16	.26		
(17) Advertising	-.08	-.07	.21	.06	-.09	-.15	-.09	-.03	-.06	-.03	-.02	.03	-.24	.03	.31	.11	
(18) RD	-.08	-.05	.20	.34	-.06	-.01	.08	-.03	-.06	-.04	-.04	.07	-.21	-.10	.37	.20	.21

Appendix B: Studies 3, 4, and 5

High-warmth condition stimulus for Studies 3 and 4

Please imagine that you own a vehicle from Weston Motors, a well-known car manufacturer. As a brand, **Weston Motors has acted consistently *WITH* the public's best interests in mind and *HAS GOOD* intentions toward ordinary people.** For instance, Weston Motors has ***ALWAYS RANKED*** among the ***TOP*** companies that have contributed toward societal and environmental initiatives.

Imagine that this morning, you were driving your car when you noticed some smoke coming from under the hood of the car. Keeping this unfortunate event in mind, please answer the questions on the next pages.



Low-warmth condition stimulus for Studies 3 and 4

Please imagine that you own a vehicle from Weston Motors, a well-known car manufacturer. As a brand, **Weston Motors has acted consistently *WITHOUT* the public's best interests in mind and does *NOT HAVE GOOD* intentions toward ordinary people.** For instance, Weston Motors has ***ALWAYS RANKED*** among the ***BOTTOM*** companies that have contributed toward societal and environmental initiatives.

Imagine that this morning, you were driving your car when you noticed some smoke coming from under the hood of the car. Keeping this unfortunate event in mind, please answer the questions on the next pages.



Table B1: Exclusion criteria for Studies 3, 4 and 5

Study	#Responses	Exclude participants that provided multiple responses	Exclude participants failing the attention check question	Study-specific exclusion	Final #responses
Study 3	199	0	9	5 responses because the text response was either empty or meaningless.	185
Study 4	200	0	10	None	190
Study 5	605	One participant provided two responses. So, we dropped this participant's two responses.	15	None	588

Table B2: Study 3: Examples of emails written by participants to government agencies and Weston Motors to inform them about the harm incident

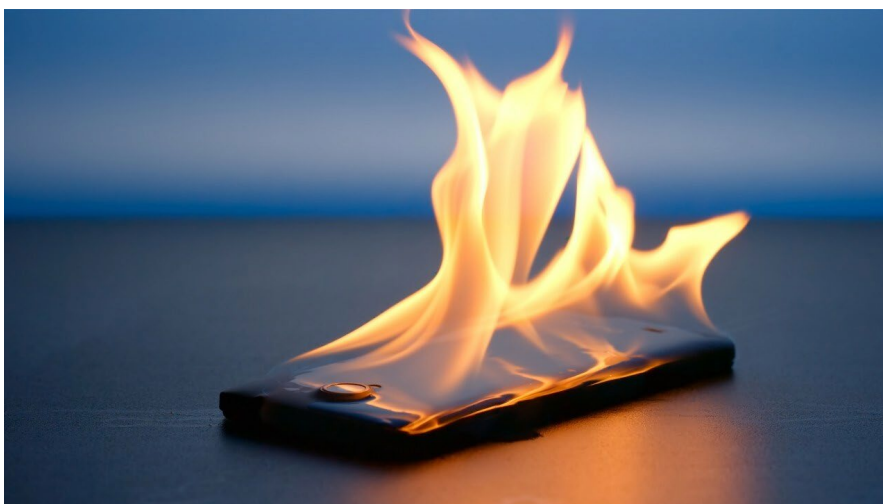
Email	Average rating for	
	Informational feedback	Retaliatory complaining
I am writing to report an incident that occurred with my vehicle recently. On [insert date], while driving my [make and model of the vehicle], I noticed smoke coming from the motor compartment. As a safety precaution, I immediately pulled over and turned off the engine. Upon inspection, I noticed that smoke was coming from the engine compartment and there was a strong burning smell. I immediately contacted a mechanic who inspected the vehicle and found that there was a faulty component in the engine that had caused the smoke emission. I am extremely concerned about this incident and would like to bring it to your attention. As a responsible citizen, I feel it is my duty to report this incident in order to ensure the safety of others who may be driving similar vehicles. I would appreciate it if you could investigate this incident and take the necessary action to ensure that such incidents do not occur in the future. I would also like to request that you keep me informed of any findings or actions that are taken. Thank you for your attention to this matter.	7	1
Hello, unfortunately during my trip to my parents I noticed smoking under my hood. I had to pull over and I deemed the car undriveable for the remainder of the trip. Is there someone I can discuss this with further?	7	1
I am writing to bring to your attention a serious incident that occurred this morning involving my Weston Motors vehicle. While driving on the highway, smoke began to billow from under the hood of my car. Within minutes, the vehicle caught fire and was completely destroyed. Fortunately, I was able to safely exit the car and no one was injured. As a concerned citizen and loyal customer of Weston Motors, I feel compelled to report this incident to you in the hopes that you can take appropriate action to prevent similar incidents from occurring in the future. I urge you to investigate this matter immediately and take all necessary steps to ensure the safety of Weston Motors vehicles on the road. I also request that you keep me informed of your findings and any actions taken to address this issue. Thank you for your attention to this matter.	7	1
My car started smoking while I was driving today. This indicates the poor quality and unreliability of the vehicle. In addition, Weston Motors is only interested in profit and not caring for the earth we all must share.	1.5	7
My car has been having issues that need to be addressed by the company. They have refused to acknowledge their fault in the manufacturing of the vehicle. Whom can I talk with to get this issue solved?	1	7

<p>Hi, my car is smoking and this car sucks. You guys are a poor company that doesn't care about the wellbeing of its employees and customers. This problem with my car needs to be resolved. How can we do that? thanks!</p>	2.5	6
<p>Hello, Weston Motors has provided a low tier, minimalist car that does not keep the consumer as the focal. They are only interested in their own profits and not the well-being of the consumer or the environment. I would like to bring this to your attention as their lack of awareness has left me stranded on the side of the road multiple times. Please look into this incident, as well as the many other incidents that consumers have brought up over the course of Weston Motors' terrible track record. Thank you</p>	1.5	7

High-warmth condition stimulus for Study 5

Please imagine that you own a cell phone from Nozti Mobile, a well-known mobile phone manufacturer. As a brand, **Nozti Mobile has acted consistently WITH the public's best interests in mind and HAS GOOD intentions toward ordinary people.** For instance, Nozti Mobile has **ALWAYS RANKED** among the **TOP** companies that have **contributed toward societal and environmental initiatives.**

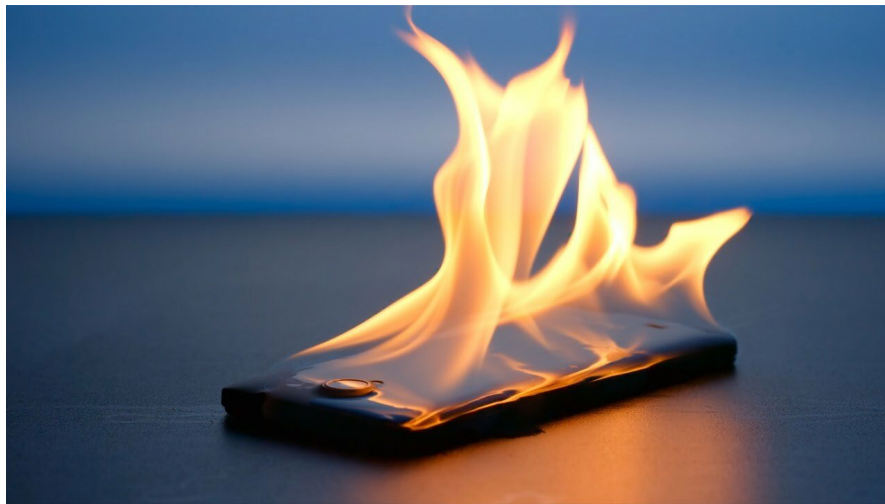
Imagine that this morning, you were working from home and suddenly noticed that your **phone overheated and burst into flames.** You immediately poured water on it, preventing it from causing any major harm to you. Later, you got to know that many other customers of Nozti Mobile had faced similar issues, wherein their phones exploded due to issues with the phone's battery.



Low-warmth condition stimulus for Study 5

Please imagine that you own a cell phone from Nozti Mobile, a well-known mobile phone manufacturer. As a brand, **Nozti Mobile has acted consistently WITHOUT the public's best interests in mind and does NOT HAVE GOOD intentions toward ordinary people.** For instance, Nozti Mobile has **ALWAYS RANKED** among the **BOTTOM** companies that have **contributed toward societal and environmental initiatives.**

Imagine that this morning, you were working from home and suddenly noticed that your **phone overheated and burst into flames.** You immediately poured water on it, preventing it from causing any major harm to you. Later, you got to know that many other customers of Nozti Mobile had faced similar issues, wherein their phones exploded due to issues with the phone's battery.



Control condition stimulus for Study 5

After the incident with your cell phone, you informed government agencies and Nozti Mobile about this incident. After a few days, you received the following email from Nozti Mobile:

Dear Customer, thank you for your valuable feedback. We are sorry to hear about the issue that you experienced with your Nozti Mobile device. **We appreciate your effort and thank you for undertaking it.**

Brand response stimulus for Study 5

After the incident with your cell phone, you informed government agencies and Nozti Mobile about this incident. After a few days, you received the following email from Nozti Mobile:

Dear Customer, thank you for your valuable feedback. We are sorry to hear about the issue that you experienced with your Nozti Mobile device. **We appreciate your effort to help solve the problem and thank you for undertaking it. Your feedback will help us identify the root cause of the problem and solve it.**