

When Sustainability Explains Failure: How Justification Motives Increase Brand Forgiveness

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Abstract

Product failures often damage consumer–brand relationships, and firms struggle to explain these incidents effectively. This study examines how sustainability-based justifications influence brand forgiveness. In a 2×4 experiment (N = 282), participants evaluated a product failure followed by one of four explanations: none, economic, social, or environmental. Social and environmental justifications increased forgiveness, whereas economic justification reduced it. Serial mediation showed that lower regret and cognitive dissonance explained the positive effects of social and environmental motives. Brand type (artisanal vs. industrial) did not moderate results. The findings clarify how consumers interpret failure motives and show that sustainability-based explanations can reduce post-failure discomfort and support recovery efforts.

Keywords: Brand forgiveness, Product failure, Sustainability justifications, Cognitive dissonance, Regret.

Track: Consumer Behavior

1. Introduction

Why do some consumers readily forgive product failure, whereas others react strongly to even minor flaws? Why does the same transgression elicit understanding in one situation but indignation in another? And why do some corporate explanations ease negative reactions while others worsen them? These questions indicate that forgiveness is not a simple response to a failure, but a multifaceted judgment influenced by cognitive and emotional evaluations (Yoruk et al., 2025).

Real cases illustrate this complexity. Persil Power, promoted by Unilever as combining effective cleaning with fabric care, was removed from the market after reports of serious fabric damage. P&G intensified public concern through a widely disseminated warning campaign (BBC, 2017). A similar pattern occurred with early “green” tires, which offered sustainability benefits but lower durability at a higher price (Miragaya, 2013). These examples show how quickly failures escalate and how difficult it is for brands to manage the aftermath.

In contemporary markets, failures are nearly unavoidable. Even small transgressions can erode trust, weaken emotional bonds, and jeopardize consumer–brand relationships because they fall outside consumers’ zones of tolerance (Aaker et al., 2004; Christodoulides et al., 2021). Under such conditions, brand forgiveness becomes essential. Forgiveness involves adjustments in evaluation, affect, and behavioral intention that reduce negative reactions and support relationship continuity (Khamitov et al., 2020; Kim et al., 2023; Yoruk et al., 2025). Yet fostering forgiveness remains difficult, as it depends on attributional judgments, fairness perceptions, and coping responses (Christodoulides et al., 2021; Yoruk et al., 2025).

Prior research shows that corporate social responsibility initiatives can temper negative reactions because prosocial actions may indicate benevolent motives (Jung et al., 2020; Ryoo, 2025). However, little is known about how brands’ explanations for a failure, especially those grounded in sustainability, influence consumers’ psychological discomfort and their willingness to forgive. This study addresses this gap. Drawing on the triple bottom line framework (Elkington, 1997), we examine how environmental, social, and economic justifications influence post-failure responses. We propose that explanations tied to environmental or social concerns are viewed as “noble,” reducing the discomfort produced by the incident, whereas economic explanations may be seen as self-interested and heighten it.

Product failures often evoke cognitive dissonance, a tension that arises when prior beliefs conflict with actual outcomes (Jones & Jones, 2007), as well as regret when performance falls short of expectations (Jones et al., 2025). The intensity of these reactions

depends on the motive attributed to the failure. When consumers believe that the incident stemmed from meaningful environmental or social decisions, dissonance and regret may be lower, increasing their readiness to forgive (Jung et al., 2020; Ryoo, 2025). We propose that failures justified by environmental or social motives reduce psychological discomfort and enhance forgiveness more than failures explained by economic motives. By testing this proposition, the study contributes to research on brand forgiveness, sustainability communication, and consumer reactions to transgressions, offering practical insight for firms facing trade-offs between operational demands and socio-environmental commitments.

2. Theory and hypotheses

2.1 Why Sustainability-Based Justifications Matter for Brand Forgiveness

When a product fails, consumers reassess the brand, reconsider their decision, and experience negative affect that threatens the relationship (Aaker et al., 2004; Gijzenberg et al., 2015). Brand forgiveness then becomes central, as it determines whether consumers move past the incident or retain punitive reactions (Khamitov et al., 2020; Kim et al., 2023). Forgiveness depends on how the incident is interpreted, the motives attributed to the firm, and whether the explanation reduces discomfort (Christodoulides et al., 2021; Yoruk et al., 2025).

Attribution Theory holds that consumers judge failures based on perceived intent and controllability; different causes therefore elicit different responses (Yoruk et al., 2025). Justice Theory emphasizes the need for explanations that restore fairness. When an explanation appears credible and benevolent, negative emotions decrease and forgiveness becomes more likely.

Sustainability motives bring an important nuance. Prosocial explanations, rooted in environmental protection or social welfare, signal benevolence and can soften reactions to failures (Jung et al., 2020; Ryoo, 2025). Yet sustainability claims may also trigger skepticism or expectations of functional compromise (Acuti et al., 2022). Importantly, no work compares how different motives from the Triple Bottom Line framework (Elkington, 1997) influence forgiveness after failure.

We argue that environmental and social justifications are viewed as “higher order” motives that advance collective interests. Consumers may therefore see failure as an unfortunate side effect of a meaningful decision, which reduces discomfort. Economic justifications, by contrast, may appear self-serving and intensify negative reactions. So, we propose the following: *H1. Failures justified by environmental or social motives will elicit higher brand forgiveness than failures justified by economic motives.*

2.2 The Role of Regret in the Forgiveness Process

Product failures frequently evoke regret, a negative emotion arising when outcomes fall below expectations and consumers question their initial choice (Jones et al., 2025). Regret heightens discomfort and complicates forgiveness. Within Coping Theory, regret reflects a threatening appraisal that increases the desire to distance oneself from the brand (Yoruk et al., 2025).

Sustainability-based justifications may reduce regret by reframing the incident. If the failure resulted from decisions intended to advance environmental or social goals, the consumer's choice appears more understandable and less flawed. Prior work shows that benevolent motives soften negative reactions to failures (Jung et al., 2020; Ryoo, 2025). Reduced regret should therefore enhance forgiveness. So, we propose the following: *H2. The effect of sustainability-based justifications on brand forgiveness will be mediated by a reduction in consumer regret.*

2.3 Could Brand Type Affect Consumer Forgiveness?

Consumers evaluate failures differently depending on brand identity, prominence, and perceived closeness (Yoruk et al., 2025). Artisanal brands often signal authenticity and personal effort, which may reduce perceived blame; industrial brands are more easily associated with efficiency goals and avoidable errors. Attribution Theory suggests that failures from artisanal brands may be interpreted as unintentional or resource-constrained, whereas failures from industrial brands may seem more controllable. These perceptions should influence willingness to forgive. We propose the following: *H3. Artisanal products will elicit higher levels of brand forgiveness than industrially manufactured products.*

2.4 Cognitive Dissonance as a Mechanism Driving Forgiveness

Product failures create a conflict between prior expectations and actual outcomes, producing cognitive dissonance and psychological discomfort (Festinger, 1957; Sweeney et al., 2000). Recent evidence links dissonance with negative emotions such as regret (Jones et al., 2025). Consumers therefore seek ways to reduce this tension, often through reinterpretation or rationalization (Cairns et al., 2022). Forgiveness provides a coping route that helps restore coherence (Yoruk et al., 2025).

Sustainability-based justifications can reduce dissonance by offering a meaningful rationale for the failure. If the incident reflects environmentally or socially motivated decisions, consumers may view it as a necessary compromise for a broader benefit, reducing

the tension produced by the inconsistency. So, we propose that: *H4. The effect of sustainability-based justifications on brand forgiveness will be mediated by a reduction in cognitive dissonance.* Building on these arguments, the next section describes the empirical approach used to examine how sustainability motives, regret, dissonance, and brand type influence consumer forgiveness following a product failure.

3. Method

To examine the proposed hypotheses, we conducted a between-subjects experiment using a 2 (Brand Type: artisanal vs. industrial) $\times$ 4 (Justification: control vs. economic vs. social vs. environmental) design. Participants were randomly assigned to one of the eight conditions through the Qualtrics XM platform. Prior to data collection, the study received approval from the *Ethical Compliance Committee for Research Involving Human Subjects at University*, and a series of pretests was conducted to verify the clarity and effectiveness of the manipulations.

Participants and Design: We recruited 282 UK-based participants through Prolific in October 2025. Eligibility criteria included current residence in the United Kingdom and a minimum approval rate of 95%. Participants were randomly allocated to one of the experimental conditions. All evaluated the same focal product category—a backpack—allowing us to isolate the effects of brand type and justification on the psychological outcomes of interest. Demographic information such as age and gender was collected at the end of the study, and informed consent was obtained at the outset. Randomization was handled automatically by Qualtrics.

Procedure: Participants began by reading a scenario in which they imagined purchasing a backpack. Depending on their condition, the backpack was described either as artisanal, emphasizing handcrafted small-batch production, or as industrial, highlighting mass production through automated processes. Immediately afterward, all participants were informed that the backpack presented a defect: a noticeable stain on its surface. This failure served as the standardized negative marketing event across conditions. Participants were then exposed to one of four justification messages. To enhance realism, each justification was presented in the form of commentary from a mock YouTube product reviewer. In the control condition, no additional information beyond the failure was provided. In the economic justification condition, the reviewer explained that the defect resulted from the company's decision to reduce production costs by using lower-grade raw materials. In the social justification condition, participants were told that the backpack had been produced as part of

an initiative to provide employment for single mothers. In the environmental justification condition, the reviewer explained that the backpack had been manufactured using materials reclaimed from ocean plastics. Following the scenario, participants completed the dependent and mediator measures.

Measures: Regret was assessed using items adapted from Inman, Dyer and Jia (1997) and Tsiros and Mittal (2000), which demonstrated strong internal consistency ($\alpha = .898$). Brand forgiveness was measured with the scale developed by Xie and Peng (2009) ($\alpha = .892$). Cognitive dissonance was captured using the instrument proposed by Koller and Salzberger (2007) ($\alpha = .892$). All measures used seven-point Likert-type scales anchored at 1 (“strongly disagree”) and 7 (“strongly agree”). Manipulation checks confirmed that participants accurately perceived both the type of brand (artisanal vs. industrial) and the nature of the justification (economic, social, environmental, or none), with all tests yielding $p < .001$. We now report the results of the experiment and the tests of our hypotheses.

4. Results

The final sample consisted of 282 UK participants ($M_{age} = 46.36$ years; 50.88% female). We tested the hypotheses using a series of regression-based analyses and a serial mediation model. The experimental design included the three sustainability-based justifications, Economic, Social, and Environmental, as the independent variables and Brand Forgiveness as the dependent variable. Regret and Cognitive Dissonance, two psychological reactions commonly associated with post-purchase discomfort (Shahim & Esfidani, 2014; Jones et al., 2025), were examined as mediators. Brand type (artisanal vs. industrial) was included as a moderator, but its effect on forgiveness was nonsignificant; therefore, H3 was not supported.

Direct Effects: We first examined the direct effects of the justification conditions relative to the control group. As predicted, Social and Environmental justifications produced significantly higher levels of brand forgiveness compared with the control condition, indicating that explanations grounded in prosocial or environmental motives reduced negative reactions to the failure. In contrast, the Economic justification decreased forgiveness relative to the control. These findings provide support for H1.

Mediation Analysis: To test the proposed mediating mechanisms, we conducted a serial mediation analysis using PROCESS macro version 5.0 (Model 6). Regret and Cognitive Dissonance were allowed to operate sequentially, consistent with the theorized process. The two constructs were strongly correlated ($r = .805$), which is consistent with prior research showing that dissonance is closely tied to negative affective reactions such as regret. The

mediation model revealed that Social and Environmental justifications reduced both regret and cognitive dissonance following the failure, and these reductions subsequently increased brand forgiveness (figure 1). The indirect effects for both conditions were statistically significant, confirming that the influence of sustainability-based justifications on forgiveness operates through these emotional–cognitive adjustments. In contrast, the Economic justification did not produce significant indirect effects through the mediators, although its direct effect remained negative.

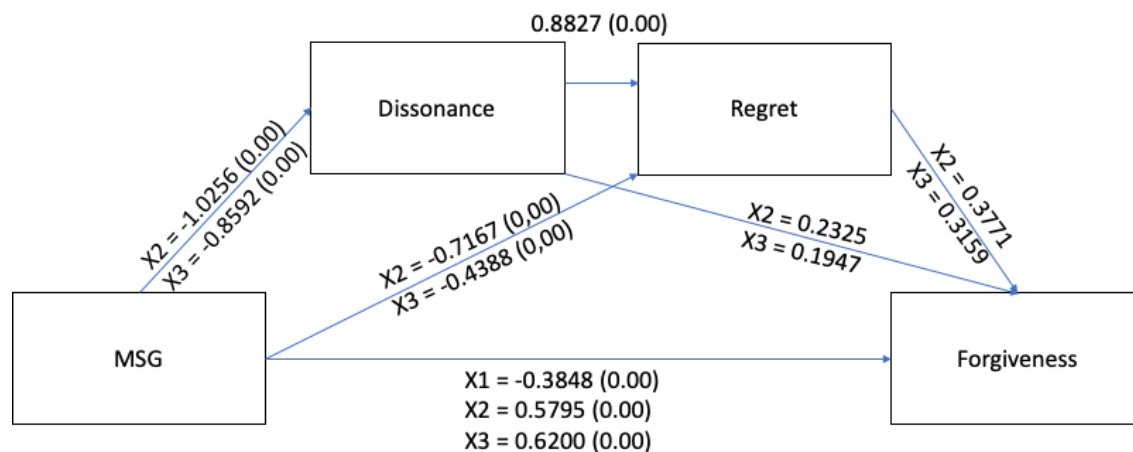


Figure 1 - Effects and their significance.

These results support H2 and H4, demonstrating that regret and cognitive dissonance explain why sustainability-based justifications influence post-failure forgiveness.

5. Discussion

Product failures disrupt consumer expectations and threaten the stability of brand relationships. This study examined how different types of sustainability-based justifications influence consumers' willingness to forgive a product failure. Consistent with our reasoning, the results showed that justifications grounded in social or environmental motives produced higher levels of forgiveness than those grounded in economic motives or than providing no justification. These findings indicate that forgiveness depends not only on the failure itself but on how consumers interpret the motives behind it.

The mediation analyses further clarified this process. Social and environmental justifications reduced both regret and cognitive dissonance, two forms of psychological discomfort central to post-failure coping. When consumers perceived the failure as linked to a meaningful social initiative or an environmentally responsible decision, they reported lower tension and less self-blame regarding their choice, which increased forgiveness. Economic justifications, in contrast, intensified negative reactions and reduced forgiveness. Brand type did not moderate these effects, suggesting that the communicated motive for the failure

carried more weight than whether the product was artisanal or industrial. Across conditions, consumers responded primarily to the perceived purpose underlying the failure, not to the identity of the brand.

The findings show that sustainability-based explanations, when credible and aligned with broader societal goals, can reduce the emotional discomfort associated with a failure and increase the likelihood that consumers forgive the brand.

6. Conclusion

Forgiving a product failure depends on consumers' cognitive and emotional reactions, yet firms often struggle to explain failures in ways that preserve trust. This study shows that the motive attributed to failure plays a central role in how consumers interpret and react to it, particularly through changes in regret and cognitive dissonance.

Theoretical Contributions. The research contributes in three ways. First, it brings the Triple Bottom Line into the forgiveness literature, demonstrating that social and environmental justifications ease post-failure discomfort more effectively than economic explanations. Second, it clarifies that regret and cognitive dissonance are the psychological mechanisms through which these justifications influence forgiveness, refining coping and attribution perspectives. Third, it shows that brand type does not moderate these effects, indicating that the rationale provided for the failure is more influential than whether the product is artisanal or industrial.

Managerial Implications. The findings suggest that firms should: (1) communicate social or environmental motives clearly and immediately when they genuinely underlie a failure, as doing so reduces negative reactions; (2) avoid economic explanations, which risk appearing self-interested; and (3) embed these principles into crisis-response protocols, ensuring that spokespersons understand how to contextualize failures responsibly and accurately.

Limitations and Future Research. The experiment relied on one product category and a standardized failure, so additional work should test whether effects persist across higher-stakes categories, more severe failures, or safety-related incidents. Future research may also examine consumer traits, such as sustainability involvement or moral sensitivity, that could alter how justifications are received. Extending the framework to service failures, where interpersonal dynamics are stronger, and studying the temporal durability of forgiveness would further enrich understanding of recovery processes.

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