

Consumer Forgiveness in Brand Crises: The Moderating Role of Brand Loyalty and Attribution Dynamics

Guangcheng Zhu^a

Carey Business School, Johns Hopkins University, 100 International Drive, Baltimore, U.S.A.

Keywords: Consumer Forgiveness, Consumer Attribution, Brand Loyalty.

Abstract: This study investigates the dynamic influence mechanisms of consumer attributions and brand loyalty based on forgiveness intentions following brand scandals, grounded in attribution theory. Through quantitative analysis of 121 valid questionnaires, the findings reveal that: (1) Consumers' attribution levels toward scandals significantly inhibit forgiveness intentions. (2) Brand loyalty demonstrates a notable moderating role, with highly loyal consumers mitigating the negative impact of attributions. The research proposes a dual-path strategy for brand crisis management: For high-attribution responsibility scandals, priority should be given to activating emotional bonds with loyal customers through value system realignment and exclusive care initiatives. It recommends establishing a big data-driven loyalty tiered response mechanism that enhances emotional restoration via historical narratives and founder endorsements. While addressing the research gap regarding moderating mechanisms of attribution theory in brand crisis contexts, this study acknowledges limitations in cross-sectional data and self-report methodologies. Future investigations could enrich experimental approaches by incorporating scenario-based experiments and grouped analyses, employing neuroscientific experiments to track forgiveness dynamic processes, and exploring the digital distortion effects of social media public sentiment on attribution judgments.

1 INTRODUCTION

1.1 Background and Significance

Based on the advent of the deep digital era brought about by modern social media, the dissemination speed and destructive power of brand scandals have grown exponentially. Existing research indicates that consumer forgiveness is crucial for the restoration of brand reputation, and its effectiveness highly depends on consumers' attribution judgments of scandal events. However, academic debates persist regarding the boundary conditions of attribution mechanisms: some studies emphasize that consumers' attribution of scandals to internal sources inhibits forgiveness (Moon & Rhee, 2012), while others find that despite consumer' reluctance to forgive and rebuild trust after brand transgressions, they tend to maintain loyalty (Andersson & Lindgren, 2022). This contradiction underscores the necessity of exploring dynamic moderating mechanisms.

1.2 Objectives and Content

The primary objective of this investigation is to employ regression models to validate the differential effects of consumer attributions (internal-source vs. external-source) on consumer forgiveness and to examine the dynamic moderating mechanism of brand loyalty in the attribution-forgiveness pathway.

2 LITERATURE REVIEW

2.1 Consumer Attribution

Consumer Attribution refers to the causal reasoning process through which consumers interpret the outcomes of their own or others' behaviors, focusing on explaining the underlying drivers of such behaviors and categorizing them as either internal or external causes (Weiner, 1985). Rooted in attribution theory from social psychology, originally proposed

^a <https://orcid.org/0009-0003-5656-0197>

by Heider and Kelley, this concept has been extensively applied in consumer behavior research, particularly in analyzing brand crises, product satisfaction, and loyalty dynamics. The primary classifications of consumer attribution include:

(1) Internal vs. External Attribution: Internal attribution assigns behavioral outcomes to personal factors (e.g., brand intent or capability), while external attribution attributes result to contextual or environmental factors (e.g., market conditions or situational constraints).

(2) Stable vs. Unstable Attribution: Stable attribution posits that causes are enduring and immutable (e.g., inherent brand traits), whereas unstable attribution links outcomes to sporadic or temporary factors (e.g., accidental errors).

(3) Controllable vs. Uncontrollable Attribution: Controllable attribution assumes behavioral outcomes are subject to modification through individual or brand effort (e.g., corrective actions), while uncontrollable attribution ascribes results to unalterable forces (e.g., regulatory changes or natural disasters).

2.1.1 Cross-Research on Consumer Attributions and Forgiveness of Service Failures

Research on service failures originated in traditional interpersonal service scenarios. According to the viewpoints of scholars such as Hess et al. (2003), the inevitability of service failure can also be extended to the field of robot services. When service failures occur, consumers will initiate an attribution cognitive process (Weiner, 1985), attributing the failure to internal or external causes. In robot service contexts, the attribution pattern shows particularity: Leo and Huh (2020) found that consumers' attributions of responsibility to robots were significantly lower than those to human service providers, but they are more likely to attribute failures to the enterprise's system design. This difference stems from consumers' dual cognition of robots' capabilities - expecting them to provide human-like services while subconsciously denying their human intelligence (Nass & Moon, 2000). Fan et al. (2020)'s empirical research indicates that highly anthropomorphic robots may trigger internal attributions of service failures, such as believing that robots should have human empathy by enhancing social presence, thereby reducing the willingness to forgive. This finding echoes According to the research results of scholars such as Delbaere et al. (2011), product anthropomorphism may intensify negative evaluations, which indicates that in the

context of service failure, anthropomorphism may have a dual effect on the attribution of responsibility.

2.2 Consumer Forgiveness

Consumer forgiveness refers to the decision-making mechanism where consumers, after perceiving the faults of enterprises or brands, through a psychological adjustment process, voluntarily abandon negative emotions and retaliatory behaviors, and instead generate the willingness for understanding and reconciliation. McCullough proposed a forgiveness motivation model in 2000, suggesting that forgiveness is a dynamic balance process where the motivation for retaliation decreases and the motivation for reconciliation increases (McCullough et al., 2000). This model has been directly applied to the research on consumers' responses to brand faults.

2.2.1 The Development History of Consumer Forgiveness Theory

The theory of consumer forgiveness is rooted in the research on interpersonal forgiveness in psychology and ethics. After this concept was gradually introduced into the marketing field, Fournier's brand relationship theory (1998) provided a theoretical basis for the emotional connection between consumers and brands. Scholars began to pay attention to the repair mechanisms after the relationship between consumers and brands breakdown. Beverland et al. (2009) first systematically demonstrated the applicability of consumer forgiveness in brand management, pointing out that brand relationships have anthropomorphic characteristics and consumers may experience psychological processes similar to interpersonal forgiveness.

Contemporary investigations prioritize elucidating the motivational underpinnings of forgiveness. Tsarenko and Tojib (2012) found that emotional intelligence affects forgiveness decisions through emotion regulation; Chung and Beverland (2006) revealed that self-oriented consumers pay more attention to compensation plans, while other-oriented consumers were more value relationship repair. Studies on service failure scenarios show that employee empathy (Roschk & Kaiser, 2013) significantly influences the willingness to forgive.

These studies provide a multi-dimensional perspective for understanding consumer forgiveness, but they mostly focus on service scenarios and still

lack sufficient exploration of value-based brand crises.

2.3 Brand Loyalty

Brand loyalty refers to the consumers' persistent preference for a brand. Brand loyalty was conceptualized by Oliver as consumers' unwavering propensity to maintain future patronage toward a specific brand, demonstrating resilience against situational variables and promotional inducements. He classified loyalty into four progressive stages: cognitive loyalty, affective loyalty, conative loyalty and action loyalty (Oliver, 1999).

2.4 Hypothesis and Modeling

2.4.1 The Influence of Consumer Attributions on Consumer Forgiveness

Based on attribution theory and related research on consumer forgiveness, the attribution orientation and responsibility assessment of consumers toward corporate transgression significantly influence their forgiveness willingness. According to Weiner's three-dimensional attribution model, the locus of causality dimension, stability dimension, and controllability dimension serve as core criteria for judgment, when consumers attribute corporate errors to internal, controllable, and stable factors within the organization, they develop a strong psychological inclination to assign blame, perceiving the company as bearing primary responsibility, thereby diminishing forgiveness intentions (Weiner, 1985).

This relation can be explained through the following pathway: First, responsibility attribution triggers negative emotions in consumers, and the intensity of such emotions may directly influence the extent of consumer forgiveness. Consequently, this study proposes Hypothesis 1.

H1: The more consumers attribute to the enterprise, consumers are less willing to forgive.

2.4.2 The Moderating Effect of Brand Loyalty

Based on brand relationship theory and cognitive dissonance theory, brand loyalty may regulate the impact of consumer attribution on forgiveness through emotional buffering mechanisms and attribution rationalization pathways. Highly loyal consumers exhibit selective attention in processing negative brand information, tending to actively seek

external attribution cues, thereby reducing the certainty of internal attributions. Consequently, between emotional responses and forgiveness, a psychological rationalization pathway mediated by brand loyalty levels may exist to regulate the influence of attribution on forgiveness. Therefore, this study proposes Hypothesis 2.

H2: Brand loyalty negatively moderates the effect of consumer attributions on consumer forgiveness.

In summary, this paper positions consumer attributions as the independent variable, consumer forgiveness as the dependent variable, and brand loyalty as the moderating variable to investigate the causal pathways through which consumer attributions influence consumer forgiveness. Additionally, it tests whether brand loyalty exerts a moderating effect. The theoretical model is ultimately constructed as illustrated in Figure 1.

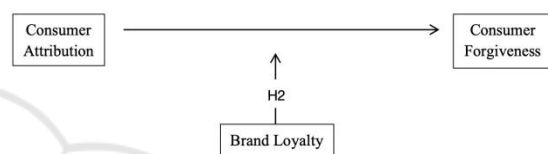


Figure 1 : Loyalty Buffer Model

3 DESIGN AND METHODS

This study employs quantitative research methods, integrating survey questionnaires and statistical analysis, to delineate the causal pathways through which consumer attributions shape forgiveness responses, while mapping the moderation of brand loyalty within this cognitive-affective interface.

3.1 Design of Questionnaire Scale

This study conducted data collection through Questionnaire Star and performed statistical analyses using SPSS. The psychometric instrument incorporated a bipolar Likert-type continuum spanning seven gradations, with polar anchors denoting extreme attitudinal disagreement (1) and agreement (7), comprising three variables with a total of 16 items. To ensure reliability and validity, data cleaning was performed post-collection, including the removal of invalid responses (e.g., incomplete or patterned answers) and handling of missing values. Out of 137 collected questionnaires, 121 valid responses were retained after cleaning, yielding an effective response rate of 88.32%. The investigatory survey was spread nationwide to complete via online networking platforms.

The measurement of consumer attributions was grounded in Weiner's three-dimensional model (locus of causality, stability, and controllability dimensions; Weiner, 1985), operationalized using a 7-point Likert scale. The Likert scale, first proposed in 1932 as a tool for attitude measurement, originally recommended a 5-point symmetric format (Likert, 1932). However, Dawes (2008) demonstrated that 7-point scales offer higher discriminative power and sensitivity, particularly in capturing complex attitudinal constructs while reducing ambiguity in neutral responses. The experimental design mandated strict adherence to a seven-tiered evaluative spectrum, with psychometric continuity ensured through standardized scalar implementation.

The forgiveness scale was adapted from McCullough's Transgression-Related Interpersonal Motivations (TRIM) framework (McCullough et al., 1998), originally designed to measure forgiveness motivations in interpersonal harm contexts. The modified scale replaces interpersonal offenders with brands, retaining the three core dimensions: avoidance motivation, revenge motivation, and reconciliation motivation, and aligns with Likert scale.

Drawing upon Oliver's loyalty developmental taxonomy, the measurement protocol implemented a seven-point symmetrical gradient, with polar extremities demarcating absolute repudiation (1) and unreserved concurrence (7).

3.2 Reliability Test

First, this study conducted reliability tests using IBM SPSS Statistics. The initial Cronbach's α coefficient for the independent variable, consumer attribution, was 0.740. After observing the Scale if Item Deleted metric in SPSS, it was found that deleting Item 4 (I believe the brand had the capability to prevent this incident) increased the Cronbach's α of the independent variable to 0.804. Thus, Item 4 was removed. Similarly, reliability tests for the dependent and moderating variables were performed, the Cronbach's α coefficient for brand loyalty was 0.908. For consumer forgiveness, the initial Cronbach's α was 0.914, and deleting Item 5 would marginally increase it to 0.915. However, due to its negligible contribution to the study's validity, no adjustment was made. Data diagnostics conclusively attest to the psychometric tool's precision in both reliability coefficients and validity indices.

3.3 Exploratory Factor Analysis Test

As shown in Table 1, after excluding Item 4 from the independent variable (consumer attributions), the adequacy value reaches to 0.865, with a significance level of $p < 0.0001$, indicating extremely significant results. The empirical validation outcomes substantiate the data's compatibility with factor analytic requirements.

Table 1: KMO and Bartlett's Test of Sphericity.

KMO Measure of Sampling Adequacy		0.865
Bartlett's Test of Sphericity	Approximate Chi-squared Value	1189.834
	Degree of Freedom	105
	Significance	0.000

Table 2 presents the outcomes of the factor analysis validation, demonstrating clear demarcation across variable factors, with standardized factor loadings for all items exceeding 0.6.

Furthermore, Table 3 reveals that the cumulative variance explained by the first three components reached 71.464%, surpassing the threshold of 50%.

Collectively, these results indicate that the factor analysis validation for this study demonstrates robust effectiveness.

Table 2: Varimax-Rotated Component Matrix^a.

	Components		
	Brand Loyalty	Consumer Forgiveness	Consumer Attribution
Even when alternatives are available, I would prioritize choosing Nike.	0.855	0.131	-0.080
I consider Nike to be one of the best options among sports brands.	0.79	0.164	0.057
Over the past year, I have purchased Nike products on multiple occasions.	0.806	0.106	0.094
I accept acquire NIKE products at premium pricing tiers.	0.792	0.293	-0.142
Purchasing Nike products makes me feel proud and satisfied.	0.762	0.398	-0.081
I frequently follow updates on Nike's new product releases and promotional activities.	0.775	0.232	-0.027
I believe the brand bears primary responsibility for this incident.	-0.07	0.045	0.837
I perceive this incident as resulting from internal management issues within the brand.	-0.005	0.129	0.846
I anticipate that similar incidents may recur in the future.	-0.102	-0.268	0.739
This incident reflects the brand's consistent conduct.	0.097	-0.315	0.739
Even if the brand makes mistakes, I am still willing to forgive it.	0.150	0.872	-0.071
I am willing to give the brand another chance.	0.238	0.903	-0.074
I may consider repurchasing the brand's products in the future.	0.294	0.822	-0.129
I'm willing to recommend the brand's products to my friends	0.464	0.699	-0.176
My negative emotions toward the brand will gradually diminish.	0.186	0.756	0.002
Extraction method: Principal Component Analysis (PCA) Rotation method: Kaiser-normalized Varimax rotation Rotation converged after 5 iterations			

Table 3: Total Variance Explained by Extracted Components.

Component	Sum of Squared Loadings (Extraction)		
	Total	***% of Variance**	Cumulative %
1	6.301	42.008	42.008
2	2.587	17.246	59.254
3	1.832	12.211	71.464
4			

3.4 Regression Hypothesis Testing

In this model, consumer attribution is operationalized as the dependent variable, consumer forgiveness as the independent variable, and brand loyalty as the moderating variable. The interaction term brand loyalty*consumer attribution represents the multiplicative effect between the moderating variable and the independent variable. The specified

coefficients are β_0 , β_1 , β_2 , β_3 . The two regression equations constructed are as follows:

As illustrated in Table 5, the regression coefficient of consumer attributions (independent variable) on consumer forgiveness (dependent variable) is $\beta = -0.299$ ($p < 0.01$), indicating that consumer attributions exert a significant negative influence on consumer forgiveness. This result validates Hypothesis 1.

$$\text{Consumer Attribution} = \beta_0 + \beta_1 * \text{Consumer Forgiveness} + \beta_2 * \text{Brand Loyalty} + \mu \quad (1)$$

$$\text{Consumer Attribution} = \beta_0 + \beta_1 * \text{Consumer Forgiveness} + \beta_2 * \text{Brand Loyalty} + \beta_3 * (\text{Consumer Forgiveness} * \text{Brand Loyalty}) + \mu \quad (2)$$

Table 4: Model Summary^c.

Model	R	R-squared	Adjusted R-squared	Standard Error of the Estimate	Change Statistics					Durbin-Watson
					R-squared Change	F Change	Degrees of Freedom 1	Degrees of Freedom 2	Sig. F Change	
1	.247 ^a	0.061	0.053	1.47430	0.061	7.737	1	119	0.006	
2	.911 ^b	0.830	0.825	0.63314	0.769	264.116	2	117	0.000	2.33

a. Predictor variables: (Constant), Consumer Attribution

b. Predictors: (Constant), Consumer Attribution, Brand Loyalty, Interaction Term

c. Dependent Variable: Consumer Forgiveness

Table 4 demonstrates that after introducing the interaction term (brand loyalty * consumer attributions, representing the moderating effect), the adjusted R^2 increased significantly by 0.769, with the F-change statistic reaching a significance level of $p < 0.0001$. This confirms the statistical significance of the moderating effect of brand loyalty on the relationship between consumer attributions and consumer forgiveness.

Further, Table 5 reveals that the regression coefficient of the interaction term (brand loyalty * consumer attributions) is $\beta = 0.217$ ($p < 0.0001$), signifying that brand loyalty significantly attenuates

the negative impact of consumer attributions on consumer forgiveness. Specifically, higher levels of brand loyalty weaken the strength of the negative association between consumer attributions and forgiveness. Thus, Hypothesis 2 is empirically supported.

Table 5: Coefficients^a.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Significance
		B	Std. Error	Beta		
1	(Constant)	5.61	0.571		9.823	0.000
	Consumer Attribution	-.0299	0.107	-0.247	-2.782	0.006
2	(Constant)	4.377	0.294		14.906	0.000
	Consumer Attribution	-.0079	0.047	-0.065	-1.672	0.097
	Brand Loyalty	-.0934	0.086	-0.986	-10.869	0.000
	Interaction Term	0.217	0.012	1.685	18.407	0.000

a. Dependent Variable: Consumer Forgiveness

4 CONCLUSION

4.1 Summaries and Suggestions

The validation of both hypotheses suggests that consumer forgiveness is not solely determined by rational judgments of attribution but is dynamically moderated by brand loyalty. Based on this theoretical framework, enterprises can implement the following managerial improvements:

Targeted Strategies for High-Loyalty Consumers: In cases of scandals with significant consumer attributions to the enterprise (e.g., morality-related scandals), firms should prioritize appeasing highly loyal consumers by reinforcing emotional bonds. Tactics include exclusive member benefits and reaffirmation of brand values, leveraging their emotional buffering effect to mitigate long-term reputational damage.

Layered Loyalty-Based Response Mechanisms: Establish a data-driven system to segment consumers by loyalty levels. For instance, utilize big data analytics to identify high-loyalty users and deliver targeted emotional recovery content (e.g., brand heritage narratives, personalized apology letters from executives) rather than purely factual clarifications.

4.2 Limitations

Study Design: The study focuses on the cross-sectional relationship between short-term attributions and forgiveness, neglecting dynamic shifts in forgiveness intentions (e.g., temporal decay effects or cumulative impacts of secondary scandals).

Measurement: The moderating pathway of brand loyalty relies on self-reported data, lacking neuroscientific or physiological validation (e.g., galvanic skin response) to corroborate the biological mechanisms underlying emotional buffering.

4.3 Future Research Directions

Scenario-Based Experiments: Design controlled experiments comparing consumer attributions, emotional trust, and forgiveness intentions across two contexts: internally sourced scandals (e.g., corporate misconduct) versus externally sourced scandals (e.g., supply chain failures). Participants will be grouped according to their levels of loyalty to analyze different attribution paths.

Digital and Platform-Driven Extensions: The future research will investigate how digitalized attribution processes (e.g., social media amplification distorting causal inferences) and platform-based loyalty (e.g., loyalty specificity within super-app ecosystems) challenge traditional models.

This framework aims to advance both theoretical granularity and practical relevance in crisis management and consumer relationship governance.

REFERENCES

- Andersson, G., & Lindgren, O. (2022). *From Green to Blacklisted: How Brand Forgiveness influences Brand Loyalty*. DIVA.
- Beverland, M. B., Chung, E., & Kates, S. M. (2009). *Exploring consumers' conflict styles: Grudges and forgiveness following marketer failure*. *Advances in Consumer Research*, 36, 438–443.
- Chung, E., & Beverland, M. (2006). *An exploration of consumer forgiveness following marketer transgressions*. *Advances in Consumer Research*, 33, 98.
- Dawes, J. (2008). Do Data Characteristics Change According to the Number of Scale Points Used? An Experiment Using 5-Point, 7-Point and 10-Point Scales. *International Journal of Market Research*, 50(1), 61–104.
- Delbaere, M., McQuarrie, E. F., & Phillips, B. J. (2011). *Personification in advertising*. *Journal of Advertising*, 40(1), 121–130.

- Fournier, S. (1998). Consumers and their brands: Developing relationship theory in consumer research. *Journal of Consumer Research*, 24(4), 343–353. doi:10.1086/209515
- Fan, A., Wu, L., Miao, L., & Mattila, A. S. (2020). When does technology anthropomorphism help alleviate customer dissatisfaction after a service failure? The moderating role of consumer technology self-efficacy and interdependent self-construal. *Journal of Hospitality Marketing & Management*, 29(3), 269–290.
- Heider, F. (1958). *The Psychology of Interpersonal Relations*. Wiley.
- Hess, R. L., Ganesan, S., & Klein, N. M. (2003). Service failure and recovery: The impact of relationship factors on customer satisfaction. *Journal of the Academy of Marketing Science*, 31(2), 127–145.
- Kelley, H. H. (1967). Attribution theory in social psychology. *Nebraska Symposium on Motivation*, 15, 192–238.
- Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology*, 22 140, 55.
- Leo, X., & Huh, Y. E. (2020). Who gets the blame for service failures? Attribution of responsibility toward robot versus human service providers and service firms. *Computers in Human Behavior*, 113, 106520.
- Moon, B. B., & Rhee, Y. (2012). Message Strategies and Forgiveness during Crises: Effects of Causal Attributions and Apology Appeal Types on Forgiveness. *Journalism & Mass Communication Quarterly*, 89(4), 677–694.
- McCullough, M. E., Rachal, K. C., Sandage, S. J., Worthington, E. L., Brown, S. W., & Hight, T. L. (1998). Transgression-Related Interpersonal Motivations Inventory. *PsycTESTS Dataset*.
- McCullough, M. E., Pargament, K. I., & Thoresen, C. E. (2000). *Forgiveness: Theory, research, and practice*. In Guilford Press eBooks. Guilford Press.
- Nass, C., & Moon, Y. (2000). Machines and mindlessness: Social responses to computers. *Journal of Social Issues*, 56(1), 81–103.
- Oliver, R. L. (1999). Whence Consumer Loyalty? *Journal of Marketing*, 63(4), 33–44.
- Roschk, H., & Kaiser, S. (2013). The nature of an apology: An experimental study on how to apologize after a service failure. *Marketing Letters*, 24(3), 293–309. doi:10.1007/s11002-012-9218-x
- Tsarenko, Y., & Tojib, D. (2012). The role of personality characteristics and service failure severity in consumer forgiveness and service outcomes. *Journal of Marketing Management*, 28(9–10), 1217–1239. doi:10.1080/0267257X.2011.619150
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92(4), 548–573.