

The Impact of Humorous Apology Expression on Consumer Forgiveness and Trust Rebuilding after Trust Violations

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ABSTRACT

In today's competitive market, trust between brands and consumers is vital but fragile. Trust breaches, such as product issues or mismanagement, can lead to consumer disappointment and harm brand reputation, especially in e-commerce settings. While extensive research addresses trust repair, few studies examine the impact of self-deprecating humor in apologies, particularly its role in fostering consumer forgiveness and rebuilding trust. This study addresses this gap, integrating humor theory with trust repair mechanisms. Findings provide insights for brands in crisis communication, highlighting self-deprecating humor as a strategy to mitigate crises and rebuild trust.

Keywords: Self-deprecating humorous apologies, consumer forgiveness, trust rebuilding, trust violation.

INTRODUCTION

In e-commerce, trust is critical. Breaches can lead to consumer dissatisfaction and disrupt transactions, highlighting the importance of effective crisis communication. Self-deprecating humor in PR adds relatability by acknowledging brand faults in a lighthearted way. For instance, SMART uses self-deprecating humor to underscore its urban advantages, and Burger King humorously references its history of kitchen fires, subtly promoting its authentic flame-grilling.

While humor's role in maintaining brand image is well-researched, limited studies differentiate among types of humor in apologies. This study focuses on how self-deprecating humor impacts consumer forgiveness and trust rebuilding after trust violations, filling a gap by analyzing how brands might use humor in crisis situations.

LITERATURE REVIEW

Trust Violation and Trust Rebuilding

McKnight (2002) defines trust as a mental state where individuals hold positive expectations about others' actions and behaviors. Trust perception reflects this state, encompassing qualities like competence, benevolence, and integrity. Dirks and Ferrin (2002) describe trust repair as the restoration process following a breach, achieved through strategies such as apologies or compensation. Lewicki and Bunker (1996) highlight that trust building occurs gradually through positive interactions, while trust violations, as noted by Dirks and Ferrin (2002), can disrupt this process, necessitating effective repair strategies.

Research by Peng Fei (2022) emphasizes that the success of repair strategies depends on context, trust violation type, and cultural setting. Gui Hua (2010) further underscores timing, showing that trust violations at different stages impact perceptions differently, making it essential to adopt suitable apology strategies. McKnight (2002) adds that trust repair aims not only to restore trust but also to create a durable foundation for future interactions.

In e-commerce, Zheng Wei (2019) stresses trust repair as essential since consumer decisions often hinge on perceived fairness in the transaction process, especially without direct product access, making fair practices crucial for trust restoration.

Apology Strategies

Apology, as a common strategy for trust repair, has received widespread attention for its approach and effect. Qin Anlan and Wu Jixia (2023) investigated the effects of different types of apology strategies on the effectiveness of trust repair. The authors found through empirical research that there are significant differences in the effects of different types of apology strategies on trust repair. The study provides an empirical basis for the selection and application of trust repair strategies, which is of guiding significance for individuals' and organizations' apology behaviors after trust damage.

Hajli (2013) applied the attributes of social media to the Technology Acceptance Model (TAM) to create a social e-commerce acceptance model, the SCAM model. The SCAM model suggests that under the social e-commerce model, the interactions between friends and the content of the interactions on social media accounts will affect consumers' e-commerce trust intention,

which will then facilitate the conclusion of the transaction between the consumer and the brand. This model highlights the importance of social interactions in building trust and driving purchase behavior in a social e-commerce environment.

Forgiveness Model

In the apology context, forgiveness is a direct detector for detecting the effectiveness of an apology and is a mixture of affective and cognitive structures. It is now widely recognized that forgiveness formation involves both affective and cognitive pathways. For example, Worthington's (1997) Pressand Coping Model of Forgiveness suggests that individuals engage in emotionally-focused and cognitively-focused coping in response to an apology, which in turn determines forgiveness; and, as studied by Lichtenfeld et al (2015), the process of forgiveness consists of Decisional Forgiveness (DF), which is the most effective form of forgiveness. (Decisional Forgiveness, an inference of responsibility for the offender's behaviour) and Emotional Forgiveness, the offender's empathic response even, an individual's forgiveness of the self is a combination of affective and cognitive responses, Hall et al.'s (2005) Self- Forgiveness Model suggests that self-forgiveness encompasses both blame attribution processes and empathic response processes.

Types of Brand Crisis

Aiming at brand crisis with similar characteristics, scholars have classified the types of brand crisis from different perspectives, in order to provide different research ideas for the research on brand crisis. In terms of the division of brand crisis types, the more recognized division in previous studies is from the cause of brand crisis, from the functional and ethical perspectives of brand crisis types, specifically: functional brand crisis occurs because of problems in product quality and function, and ethical brand crisis occurs because of problems in the social value and ethics of the enterprise, based on this, scholars classify brand crisis according to this division standard. Dutta and Pullig (2011) classified brand crises according to this classification standard, such as Pullig et al.(2011) believe that brand crises can be divided into functional and value-based brand crises, the former is related to product quality, and the latter is related to morality and social responsibility; Previous research categorizes brand crises into ethical and competence-based crises, focusing on moral violations versus failures in delivering promised quality.

Humorous Language

Zhang Chunping (2005) explains that humorous language, rooted in human cognition, serves as a subtle tool for brands to engage consumers by alleviating tension and fostering relatability. Unlike general humor, which may simply entertain or redirect attention, self-deprecating humor specifically involves a brand acknowledging its own faults in a lighthearted way. This approach not only diffuses defensiveness but also enhances authenticity, creating a sense of humility and transparency.

Martin (2007) categorizes humor into types, noting that self-deprecating humor in particular can be especially effective in apologies, as it makes the brand appear approachable and human. In trust repair contexts, self-deprecating humor allows a brand to address issues directly, acknowledging shortcomings while reducing consumer anger and disappointment. By presenting the brand's errors with a touch of humility, this type of humor reinforces relatability and reduces resistance to forgiveness, setting it apart from other forms of humor in managing consumer expectations and emotional responses.

RESEARCH MODEL AND HYPOTHESES

Research Model

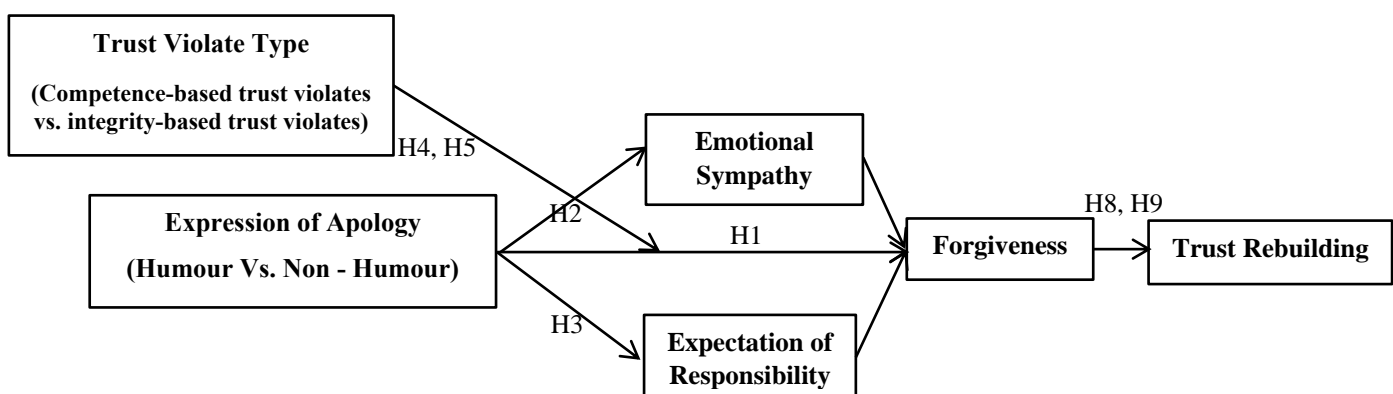


Figure 1: Research Model.

When a brand encounters a trust crisis, often classified as a competence-based or integrity-based trust breach, issuing an apology statement in public media can benefit from the strategic use of self-deprecating humor. Humor, particularly in the form of self-deprecation, has been recognized as an effective tool for emotional regulation and social interaction (McGraw & Warren, 2010; Martin, 2007). This study suggests that self-deprecating humorous apologies can enhance emotional empathy

and foster responsibility expectations, which in turn can encourage consumer forgiveness and facilitate trust rebuilding. Previous research indicates that sincere apologies are key to promoting forgiveness, and the addition of humor may strengthen this effect by alleviating tension and minimizing conflict (Kim, Ferrin, & Rao, 2009).

Expressions of Apology and Consumer Forgiveness

Self-deprecating humor is widely viewed as a positive tool for emotional regulation and social interaction. Self-deprecating humorous apologies can effectively trigger consumer forgiveness, as apologies are key to repairing relationships and restoring trust. Previous research shows that sincere apologies promote forgiveness, while self-deprecating humor can capture consumer attention and create a positive emotional impact by easing tension and reducing conflict. This type of humor provides a relaxed communication atmosphere through self-mocking statements and a light-hearted tone, enhancing the understanding and acceptance of the apologizer. By making apologies more personal and approachable, self-deprecating humor fosters consumer empathy and promotes forgiveness. Based on this, the following hypothesis is formulated:

H1: Self-deprecating humorous language apologies have a stronger positive effect on forgiveness relative to non-humorous language apologies.

Expressions of Apology, Emotional Empathy and Expectation of Responsibility

While Ying Ma's (2022) study focused on economic compensation as a functional remediation strategy, this study hypothesizes that verbal apologies, whether humorous or non-humorous, can similarly influence emotional empathy and responsibility expectations, albeit through different mechanisms. Humorous apologies reduce embarrassment and tension, while non-humorous apologies elicit empathy through direct expressions of regret and sincerity. Thus, we hypothesize:

H2: Self-deprecating humorous verbal apologies have a significant positive effect on emotional empathy compared to non-humorous verbal apologies.

H3: Emotional empathy positively influences consumer forgiveness following both self-deprecating self-deprecating humorous and non-humorous verbal apologies.

The Moderating Role of Trust Violation Type

According to the forgiveness model, forgiveness involves both emotional and cognitive elements. Humorous and non-humorous language apologies can significantly impact consumer forgiveness. Humorous apologies use emotion-focused coping by eliciting positive emotions, reducing anger, and creating a light-hearted atmosphere, making it easier for consumers to accept the apology and let go of negative feelings. They also use cognitively focused coping by capturing attention, conveying awareness of the mistake, and showing a commitment to improvement, which fosters understanding and forgiveness. Non-humorous apologies, on the other hand, evoke strong emotional responses such as guilt and empathy through direct expressions of regret and sincerity, reducing anger and increasing forgiveness. They also employ cognitively focused coping by clearly and sincerely conveying responsibility and a commitment to improvement, enhancing consumer understanding and willingness to forgive. Both types of apologies facilitate forgiveness through emotional and cognitive pathways. Based on this, the hypothesis is formulated:

H4: Self-deprecating humorous apologies have a higher significant effect on consumer forgiveness under the integrity-based trust violates.

H5: Non-humorous language apologies have a higher significant effect on consumer forgiveness under the competence-based trust violates compared with integrity-based trust violates.

The Relationship between Forgiveness and the Reconstruction of Consumer Trust

Based on forgiveness theory and related research on trust reconstruction, it is hypothesized that consumer forgiveness positively impacts the rebuilding of trust. When consumers choose to forgive a brand after a trust violation, they may reduce negative feelings, such as suspicion and mistrust, thus fostering conditions that facilitate the restoration of trust. Consumer forgiveness may be seen as offering a "second chance" to the brand, allowing the relationship to be repaired.

Consumer forgiveness, in this context, directly supports trust rebuilding by reducing negative emotions and enhancing positive attitudes toward the brand. This study does not assume a mediating role for forgiveness, focusing instead on its direct contribution to trust reconstruction following an apology. Based on this, the hypothesis is:

H6: Consumer forgiveness positively affects consumer trust rebuilding.

RESEARCH METHODOLOGY AND DATA ANALYSIS

This paper uses the context simulation experimental method to study the core problem of this paper, the context simulation experimental method refers to the situation simulation based on the subjects, let them complete the questionnaire in accordance with the real feelings and perceptions after reading the stimulus material, the experimental method is mainly used in the This experimental method is mainly used in the field of service marketing, which is able to control the non-autonomous variables

well and avoid the memory bias of consumers in the recall process. Since the aim of this study is to understand the mechanism of humorous speech in apologetic expressions to produce forgiveness for consumers, traditional questionnaires may cause memory bias and be interfered by other non-autonomous variables. Therefore, the hypotheses proposed in this paper are tested by using a contextual simulation experiment.

Variables and Measurement

The measurement instruments utilized in this study were adapted from established academic sources and verified for reliability and validity, confirming their appropriateness for this investigation. These scales, originally developed in English, were translated into Chinese using a back-translation method to ensure cultural and linguistic suitability.

Given that the independent variable, trust violation type, is divided into two categories, the study included two experimental scenarios to establish clear distinctions between them. Referring to Perry Ma's (2022) framework, the manipulation test includes one question to gauge participants' comprehension: Competence-based Trust Violation refers to a breach of trust due to operational deficiencies, such as failing to deliver on time because of stock shortages. Integrity-based Trust Violation refers to breaches caused by ethical lapses, like sending counterfeit gifts.

To assess the perception of humor in brand apologies within these trust violation contexts, this study used a humor perception scale adapted from Chattopadhyay and Basu (1990). Participants' empathetic responses to humorous apologies were measured using a scale based on Verhaert et al. (2014). For responsibility expectations regarding the brand's future actions, the study used a scale adapted from Ran Yaxuan et al. (2017). To evaluate consumer forgiveness following trust violations, we employed a scale by S. Y. Chen et al. (2020). Lastly, perceived trust changes pre- and post-apology were measured using De Cremer et al.'s (2010) trust scale.

The contextual design, adapted from Ying Ma (2022), uses food brand A as the subject of trust violations and investigates two types of breaches. Integrity-based Trust Violation: Participants learned that brand A had deliberately shipped near-expiry products using substandard packaging to reduce costs and clear inventory, resulting in damaged goods and declining product quality. Competence-based Trust Violation: Participants were informed that brand A, faced with overwhelming demand and limited manpower, unintentionally shipped near-expiry products. The rush to meet demand led to handling errors and damaged goods, exposing logistical inefficiencies and declining quality control.

Pretest

The pretest aimed to determine if subjects could accurately distinguish between 'self-deprecating humorous' and 'non-humorous' expressions, focusing specifically on self-deprecating humor to ensure this characteristic was clearly perceived in the brand's communication during the formal experiment.

Following Xu Lan's (2023) design, the pre-experiment presented subjects with two contrasting text scenarios: one designed with self-deprecating humor and the other with a serious tone, omitting situational stimuli to prevent subjective bias. The humorous text used playful, exaggerated language that gently mocked the brand's own mistakes, resulting in 75.44% of participants identifying it as humorous and 57.89% as confessional. In contrast, the non-humorous text, a straightforward apology expressing regret and promising compensation, led 68.42% to identify it as serious and 59.65% as expressing anger. Other descriptors like 'denial,' 'defence,' and 'anger' were selected by less than 12.28% for the humorous text and less than 8.77% for the serious text. These results confirmed that subjects could effectively differentiate between self-deprecating humorous and non-humorous apologies, supporting the pretest's goal of validating humor perception specifically tied to self-deprecation."

Table 1: Variables and Measurements

Variable	Measurements	Source
Humour Knowledge (CH)	CH1: Brands posting apologies like this will humour other consumers.	Chattopadhyay and Basu (1990)
	CH2: Brand releases apology like this trying to humour consumers.	
	CH3: I would have laughed at myself if the brand had said that.	
	CH4: This is how brands issue apologies using humorous language.	
	CH5: I feel humoured as a consumer when brands issue apologies like this.	
Emotional empathy (SY)	SY1: I can imagine the situation on the brand's side.	Verhaert et al. (2014)
	SY2: I can relate to the brand's sentiment.	
	SY3: I feel sorry for the brand name side.	
Responsibility Expectations (RE)	RE1: The brand will assume its responsibilities in the future.	Ran Yaxuan (2017)
	RE2: The brand will fulfil its promises in the future.	

Consumer Forgiveness (CF)	RE3: The brand will be a responsible business in the future.	Chen, S. Y. et al. (2020)
	CF1: I would still buy this brand in the future.	
	CF2: I choose to forgive the brand.	
	CF3: I will continue to trust the brand.	
	CF4: I would condemn the brand.	
Trust Sense (TS)	CF5: I oppose (or do not support) the brand.	De Cremer et al (2010)
	TS1: I think the brand is credible.	
	TS2: I think the brand is only thinking about its own interests.	
	TS3: I think I'm going to continue to believe in this brand name.	

Experiment I

The purpose of Experiment 1 was to examine the effect of brand apology expressions on consumers' forgiveness and rebuilding of trust in the offending brand after a brand trust violation. To examine this effect, experiment 1 compared the differences in consumer attitudes towards the brand after a brand mistake between a group offering self-deprecating humorous verbal expressions of the brand and a group offering non-humorous verbal expressions. Experiment 1 aimed at providing different apologetic expressions (self-deprecating humorous/non-humorous verbal) and exploring their effect on consumer forgiveness as well as trust rebuilding. On this basis, the mediating effects of emotional empathy and responsibility expectation, which is the main effect test of this study, were verified.

Experimental Design

The study used a 2 (apology expression: non-humorous speech, humorous speech) x 2 (type of trust violation: integrity violation, competence violation) between-subjects design. Since the independent variable apology expression is divided into two dimensions, it is necessary to design two different experimental contexts to manipulate the independent variable in Experiment 1. In order to enhance the external validity of the experiment, experiment 1 used the online purchase of e-commerce food during the Double 11 period as the background, selected the logistics and food safety hazard events with high social public perception as the stimuli, and designed the name of the company as a dummy Company A in order to exclude the interference generated by irrelevant variables.

The dependent variable in this study was the degree of trust repair: the value of the difference in the perceived level of trust measured by the questionnaire, i.e., the amount of growth in the perceived level of trust, was used as an indicator of the dependent variable. In the study, we measured the perceived level of trust once before the expression of apology after the trust violation (pre-test), with the aim of measuring the initial level of trust of the subjects after the trust violation, and then again after the reception of a different expression of apology (post-test) (De Cremer et al., 2010), with the aim of measuring the level of trust of the consumer after the use of apologetic speech. De Cremer's (2010) scale was used, including (1) I think this person is credible. (2) I think this person has only his own interests in mind (reverse scale). (3) I think I will continue to trust this person. The scale presented high reliability and validity over the course of its study. The scale entries were partially adapted to fit the research context of this study: (1) I think the brand is credible. (2) I think the brand has only his own interests in mind (reverse rating). (3) I think I will continue to trust this brand party. Follow-up study two also used this as a dependent variable indicator. The internal consistency coefficients of the measurement items were analyzed in Experiment 1 using the SPSSAU platform, and Cronbach's $\alpha = 0.90$, indicating very good internal consistency. This result indicates that the measurement instrument we used in this study has good reliability and can be used as our measurement indicator.

Descriptive Analyses

This experiment is based on the online questionnaire distributed on wjx.cn, and adopts the snowball distribution method, mainly inviting undergraduates from university. A total of 272 subjects participated. In terms of gender, of whom 48.9 per cent were male and 51.1 per cent were female. In terms of age, the subjects were distributed as follows: 5 (1.8%) were under 18 years old, 77 (28.3%) were between 18-25 years old, 46 (16.9%) were between 26-30 years old, 46 (16.9%) were between 31-40 years old, 62 (22.8%) were between 41-50 years old, 22 (8.1%) were between 51-60 years old, and 60 years old and above (5.1 per cent). In terms of educational qualifications, the subjects were distributed as follows: 15 (5.5 per cent) with junior high school education or below, 43 (15.8 per cent) with high school/secondary education, 67 (24.6 per cent) with university college education, 131 (48.2 per cent) with undergraduate education, and 16 (5.9 per cent) with postgraduate education or above.

Measurement Model

The reliability analysis indicated high internal consistency across the four variables. Overall, the Cronbach's alpha of all variables is above 0.7, indicating a high level of reliability. The overall Cronbach's alpha for the survey was 0.935, further confirming the stability and consistency of the measurement tool. The Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity were conducted to assess the suitability of the data for factor analysis. The test yielded an approximate chi-square

value of 2303.912, with 91 degrees of freedom and a p-value of 0.000. Since the p-value is less than 0.05, it indicates that the data are correlated and appropriate for factor analysis.

The mediation analysis confirmed that emotional empathy significantly mediates the effect of humorous apologies on consumer forgiveness ($\beta = 0.23$, $p < 0.05$), showing that increased empathy leads to greater forgiveness. Responsibility expectation also emerged as a significant mediator ($\beta = 0.19$, $p < 0.05$), indicating that perceived brand responsibility enhances forgiveness. Together, these mediators account for a substantial portion of the total effect of humorous apologies on forgiveness (total effect: $\beta = 0.42$, $p < 0.01$), highlighting their key roles in trust repair.

The factor analysis revealed high levels of emotional empathy, responsibility expectation, and consumer forgiveness among participants, as indicated by high values in Component 1 for most related variables. For emotional empathy (A, B, C), Component 1 values were 0.787, 0.822, and 0.689 respectively, showing a strong empathetic response. Responsibility expectation values for Component 1 were 0.805, 0.734, and 0.692, indicating high expectations for responsibility. Consumer forgiveness values in Component 1 were also high (A: 0.742, B: 0.759, C: 0.697), though lower in specific cases (D: -0.601, E: 0.016), suggesting some variability in forgiveness levels. Trust perception showed high levels in A and B (Component 1: 0.677 and 0.713), but lower in C (Component 1: 0.469).

Table 2: Results of factor analysis KMO and Bartlett's test

norm	in the end
Kaiser-Meyer-Olkin metric of sampling adequacy	0.957
Bartlett's test of sphericity approximates chi-square	2303.912
df	91.000
P-value	0.000

Correlation analysis indicated low correlations between gender and other variables, except for a slight positive correlation with age ($r = 0.015$). Age and education were negatively correlated ($r = -0.073$), suggesting that older participants tended to have lower education levels. Education showed significant negative correlations with humorous language ($r = -0.139$), emoticon use ($r = -0.180$), and responsibility expectations ($r = -0.010$). Humorous language (referring to self-deprecating humor in this study) and emoticon use were positively correlated ($r = 0.445$), implying that individuals comfortable with humor in apologies also tended to use emoticons frequently. Life satisfaction positively correlated with emotional empathy, responsibility expectations, and consumer forgiveness, indicating that participants with higher life satisfaction also showed higher levels of these traits. Emotional empathy was positively correlated with responsibility expectations and consumer forgiveness, suggesting that empathetic individuals also had higher expectations for responsibility and forgiveness levels. Lastly, trust reconstruction had low correlations with other variables, except for weak positive correlations with life satisfaction and responsibility expectations, indicating a minimal impact on other factors.

These findings suggest that factors such as age, education, humorous language (self-deprecating humor), emoticon use, life satisfaction, emotional empathy, responsibility expectations, and consumer forgiveness potentially influence participants' behaviors and attitudes. Further experimental design and data analysis are needed to draw more definitive conclusions.

Manipulation Check

To test Hypothesis 1 (H1), which posits that humorous language apologies have a stronger positive effect on consumer forgiveness compared to non-humorous language apologies, a one-way ANOVA was conducted and the results are shown in Tables 4-10. The analysis revealed that the average forgiveness score for the humorous language group was 3.66 ($SD = 1.06$), significantly higher than the non-humorous language group's average score of 2.13 ($SD = 0.99$). The F-value for this analysis was 111.594, with a p-value of 0.000, indicating a statistically significant difference between the two groups.

These results provide strong support for H1, confirming that humorous apologies are indeed more effective in eliciting consumer forgiveness than non-humorous apologies.

Table 3: One-way ANOVA for Manipulated Variables

Variable	Apology Expression	N	Average Value	Standard Deviation	F	P-value
Apology Expression	Humorous Language	103	3.66	1.06	111.594	0.000
	Non-humorous Language	100	2.13	0.99		

Note: The dependent variable is humour speech perception

The Analysis of Apology Expression for Emotional Empathy

In this paper, one-way ANOVA was used to test the role of apologetic verbal expressions in influencing emotional empathy, and the results are shown in the table.

Table 4: One-way ANOVA on the effect of Apology Expression on Emotional Empathy

Variable	Apology Expression	N	Average Value	Standard Deviation	F	P-value
Apology Expression	Non-humorous Language	103	3.62	1.11	1.90	0.169
	Humorous Language	100	3.83	1.01		

Note: The dependent variable is emotional empathy

In experiment 1, the dependent variable is emotional empathy and, in the table, the mean value of the humorous language group is 3.62 and the mean value of the non-humorous language group is 3.83. the F-value is 1.90 and the p-value is 0.169. it can be seen that the difference between the two groups in this experiment is not significant, and the p-value is greater than 0.05, which means that this difference is not statistically significant.

Taking the above analysis together, it can be concluded that apologetic verbal expressions did not have a significant effect on emotional empathy in this experiment. This is an important finding for researchers to help them better understand consumers' responses and attitudes towards service remediation strategies. At the same time, it suggests that using humorous language in real life may not be an effective service remedy strategy, validating H2.

The Analysis of Apologizing Expressions on Expectations of Responsibility

In this experiment, the dependent variable is responsibility expectation. From the table, it can be seen that in the humorous language group, the mean value is 3.59 with a standard deviation of 1.15, and in the non-humorous language group, the mean value is 3.84 with a standard deviation of 1.05. The results of the one-way ANOVA show that the F-value is 2.57, and the p-value is 0.110. This means that the difference between the humorous language group and the non-humorous language group is not significant in this experiment. Also, the p-value is greater than 0.05, which means that this difference is not statistically significant.

In summary, the use of humorous or non-humorous language in service remediation strategies does not have a significant effect on liability expectations, verifying Hypothesis H3. this suggests that the choice of service remediation strategies may not have a significant effect on consumers' liability expectations in real life. This finding is instructive for companies in formulating service remediation strategies, which can help them better understand consumers' needs and attitudes so that they can better meet their needs.

The Analysis of the Moderating Role of Trust Violation Type

Table 5: Results of the Moderating Role of Trust Violation Type

Variables	square sum (e.g. equation of squares)	df	Mean Square	F	P-value
Apology Expression	0.005	1	0.005	0.024	0.878
Trust Violation Types	0.809	1	0.809	3.980	0.047
Apology Expression * Types of trust violations	3.177	1	3.177	15.639	0.000
inaccuracies	40.427	199	0.203		
(grand) total	2133.440	203			

Note: The dependent variable is consumer forgiveness.

This study examined the effects of apology expressions and types of trust violations on consumer forgiveness using multifactor ANOVA. The independent variables were apologetic verbal expression and trust violation type, while the dependent variable was consumer forgiveness. Apologetic Verbal Expression: F-value of 0.024, p-value of 0.878. Type of Trust Violation: F-value of 3.980, p-value of 0.047. Interaction Effect: F-value of 15.639, p-value of 0.000. Individually, neither apologetic verbal expression nor trust violation type significantly affected consumer forgiveness (p-values > 0.05). However, their interaction had a significant effect on consumer forgiveness (p-value = 0.000), indicating that the combination of these factors influences consumer forgiveness.

In conclusions, the interaction between verbal expressions of apology and types of trust violation plays a critical role in consumer forgiveness. Companies should consider both factors when issuing apologies to maintain consumer relationships and brand reputation. The study's findings suggest that tailored apology expressions based on the type of trust violation can enhance consumer forgiveness, thereby supporting the sustainable development of enterprises.

Table 6: ANOVA on the effect of Apology Expressions on Consumer Forgiveness under Different Trust Violation Type

Types of breach of trust	Apology speech	N	average value	standard deviation	F	P-value
Integrity-based	Humorous Language	52	3.40	0.63	6.444	0.013
	Non-humorous Language	50	3.14	0.37		
Competency-based	Humorous Language	51	3.02	0.37	10.56	0.002
	Non-humorous Language	50	3.26	0.37		

The study used ANOVA to analyze the effect of apologetic verbal expressions (humorous vs. non-humorous) on consumer forgiveness under different types of trust violations (integrity vs. competence). Integrity-based Trust Violation: Humorous Language: Mean forgiveness = 3.40, F-value = 6.444, p-value = 0.013. Humorous apologies significantly affect consumer forgiveness. Non-Humorous Language: Mean forgiveness = 3.14, slightly lower than humorous. Competence-based Trust Violation: Humorous Language: Mean forgiveness = 3.02, F-value = 10.56, p-value = 0.002. Humorous apologies significantly affect consumer forgiveness. Non-Humorous Language: Mean forgiveness = 3.26, slightly higher than humorous. Both humorous and non-humorous language significantly impact consumer forgiveness, with variations depending on the type of trust violation. These findings verify hypotheses H4 and H5, indicating that tailored apologetic expressions are effective in enhancing consumer forgiveness.

The Effect of Consumer Forgiveness on Trust Reconstruction

The analysis revealed that apologetic verbal expressions significantly impact trust rebuilding through consumer forgiveness. The total effect of apology expression on trust rebuilding was 0.3101 ($t = 2.199$, $p < 0.05$), indicating that effective verbal apologies contribute positively to rebuilding consumer trust by enhancing forgiveness. This supports Hypothesis 6, which posits that consumer forgiveness directly influences trust reconstruction.

However, correlation analysis further supported these findings, showing a non-significant negative correlation between consumer forgiveness and trust rebuilding ($r = -0.09$, $p > 0.05$). This was consistent with regression analysis results, where consumer forgiveness did not exhibit a significant direct effect on trust reconstruction ($\beta = -0.09$, $t = -1.278$, $p > 0.05$). Although consumer forgiveness plays a role in trust reconstruction, the direct effect alone does not fully explain the relationship.

The combined influence of apologetic verbal expression and trust violation type enhances the model's predictive power, showing that context-specific factors play a crucial role in determining the success of apology strategies. This suggests that other contextual factors (e.g., trust violation type) must be considered to fully understand the dynamics between apology and trust rebuilding.

In conclusion, the findings suggest that while consumer forgiveness is critical in rebuilding trust, additional context-specific variables are essential to understand the complete interaction between apology and trust rebuilding. This integrated analysis provides a more nuanced view, offering insights into the complexities of crisis communication and trust recovery strategies.

DISCUSSION

Key Findings and Implications

This study presents several key findings that highlight the effectiveness of self-deprecating humorous apologies in crisis management and trust rebuilding. First, self-deprecating humor in apology expressions demonstrated a stronger positive impact on consumer forgiveness than non-humorous approaches, especially in cases of integrity-based trust violations. The relaxed, empathetic environment fostered by self-deprecating humor encourages consumers to forgive the brand more readily by humanizing the brand and easing negative emotions. Additionally, self-deprecating humor was particularly successful in trust reconstruction, where a brand's light-hearted yet sincere acknowledgment of its fault was perceived as authentic and relatable, restoring consumer trust more effectively than traditional, non-humorous approaches.

The study also revealed nuances in consumer responses to emojis, which reduced forgiveness in integrity violations, likely due to perceptions of insincerity, yet had no significant effect in competence-based trust violations. This finding highlights the importance of aligning communication tone with the type of trust breach and strategically incorporating self-deprecating humor to maintain consumer trust.

These findings suggest that companies facing integrity-based crises should consider using self-deprecating humor as an alternative to traditional apologies. Self-deprecating humor has the potential to foster positive emotional responses from consumers, facilitating trust restoration more efficiently. Incorporating humor with a genuine admission of fault allows brands to minimize negative perceptions, creating an empathetic connection that traditional, serious apologies may lack.

Limitations and Future Research

Despite its contributions, this study has several limitations that present opportunities for future research. Firstly, while the research establishes the effectiveness of self-deprecating humor, it does not explore other types of humor, such as sarcasm or playful humor, which may elicit different consumer responses. Future studies should investigate these humor types to better understand their effects on consumer forgiveness and trust rebuilding in crisis contexts.

Another limitation concerns the cultural context. This study did not account for how cultural differences might influence responses to self-deprecating humor. As humor perceptions vary across cultures, the effectiveness of self-deprecating humor in rebuilding trust may differ accordingly. Future research should consider cultural factors, especially in global brands aiming to reach diverse consumer markets.

Additionally, the study primarily focuses on consumer perceptions and attitudes. It does not account for the reactions of other stakeholders, such as employees, investors, or business partners, who may also be affected by trust violations and the subsequent crisis communication strategies. Future research could address the broader implications of self-deprecating humor on these groups to provide a more holistic understanding of crisis communication strategies.

Lastly, more research is needed to explore the integration of self-deprecating humor within long-term brand-building efforts and other marketing strategies. A deeper investigation into how humorous PR strategies interact with a brand's overall reputation and customer loyalty could provide insights into their long-term impact, offering practical guidance for brands aiming to strengthen their equity through trust repair mechanisms.

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