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The Impact of Product-Harm Crisis Response Strategies and
Pre-Crisis Brand Reputation on Consumers' Willingness to Buy
in the Food Industry

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Julius Karl Kriwet B.A.

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Univ.-Prof. Dr. Martin Eisend M.A.

Abstract (English)

Product-harm crises pose a major threat to consumer perception and willingness to buy, especially in the food industry. This thesis investigates how crisis response strategies (apology, trivialization, denial) and pre-crisis brand reputation (good vs. bad) influence consumer willingness to buy, with post-crisis brand perception (trust and authenticity) as a mediator. The research uses a 2x3 experimental design with six different conditions, manipulating the crisis response strategy and pre-crisis reputation. Findings reveal that an apology strategy significantly increases willingness to buy compared to denial, while trivialization showed no significant difference from apology. A good pre-crisis brand reputation led to higher willingness to buy but did not moderate the effectiveness of crisis response strategies. Post-crisis brand perception was a significant mediator for both crisis response strategy and pre-crisis brand reputation. This research contributes to crisis communication theory by demonstrating the mediating role of trust and authenticity in post-crisis consumer evaluations.

Keywords: product-harm crisis, crisis communication, crisis response strategies, pre-crisis brand reputation, post-crisis brand perception, willingness to buy

Abstract (Deutsch)

Produktfehlerkrisen stellen eine erhebliche Bedrohung für die Wahrnehmung der Verbraucher und deren Kaufbereitschaft dar, insbesondere in der Lebensmittelindustrie. Diese Arbeit untersucht, wie Krisenreaktionsstrategien (Entschuldigung, Trivialisierung, Leugnung) und die Markenreputation vor der Krise (gut vs. schlecht) die Kaufbereitschaft der Verbraucher beeinflussen, wobei die Markenwahrnehmung nach der Krise (Vertrauen und Authentizität) als vermittelnder Faktor fungiert. Die Forschung verwendet ein 2x3 experimentelles Design mit sechs verschiedenen Bedingungen, bei denen die Krisenreaktionsstrategie und die Markenreputation vor der Krise manipuliert werden. Die Ergebnisse zeigen, dass eine Entschuldigung im Vergleich zur Leugnung die Kaufbereitschaft signifikant steigert, während zwischen Entschuldigung und Trivialisierung kein signifikanter Unterschied festgestellt wurde. Eine gute Markenreputation vor der Krise führte zu einer höheren Kaufbereitschaft, moderierte jedoch nicht die Effektivität der Krisenreaktionsstrategien. Die Markenwahrnehmung nach der Krise erwies sich als signifikanter vermittelnder Faktor sowohl für die Krisenreaktionsstrategie als auch für die Markenreputation vor der Krise. Diese Forschung trägt zur Krisenkommunikationstheorie bei, indem sie die vermittelnde Rolle von Vertrauen und Authentizität in der Bewertung der Marke nach der Krise demonstriert.

Schlagwörter: Produktfehlerkrise, Krisenkommunikation, Krisenreaktionsstrategien, Markenreputation vor der Krise, Markenwahrnehmung nach der Krise, Kaufbereitschaft

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Introduction

Problem Definition and Relevance

Crises are a major threat to organizations that impact the organization's ability to conduct its operations, affect the financial and reputation of the organization, and influence stakeholders' perceptions and behaviors (Coombs, 2007).

Among different crisis types, product-harm crises are particularly severe, as they involve defective or dangerous products that pose risks to consumer safety and trigger negative media attention. These crises not only damage brand trust but also lead to legal repercussions, declining sales, and increased regulatory scrutiny (Dawar & Pillutla 2000; Dean, 2004; Cleeren et al., 2017).

Considering the significant impact of product-harm crises, their incidence has increased in the past few years due to several factors. Increasingly complex products, increasing governmental and regulatory supervision, globalization of production and increased media coverage have all contributed to making such crises more visible and harder to contain (Cleeren et al., 2013; Liu et al., 2012).

As a result, these crises not only impact consumer trust but also have tangible financial consequences for companies. They can lead to a decline in sales, the ineffectiveness of marketing strategies, and increased consumer concern about the competition, which further harms the position of the company in question in the market (Van Heerde et al., 2007).

One industry where the impact of product-harm crises is particularly vulnerable is the food sector, as it relies heavily on consumer trust and strict safety standards. This is because crisis management in this sector is particularly challenging as companies have to work hard to regain the trust of their consumers (Assiouras et al., 2013).

The analysis of real cases shows that product-harm crises can differ in scope and impact. The 2018 E. coli outbreak that was associated with romaine lettuce in the United States and Canada is a good example of how such crises can escalate to an industry level, leading to widespread recalls of products, advisory from the government on food safety and continued consumer distrust (Spalding et al., 2022). In contrast, the Salmonella contamination of Cadbury's chocolates affected only a single brand as it suffered from financial losses and consumer's skepticism that needed a proper crisis communication plan to rebuild the brand reputation (Carroll, 2009).

Since product-harm crises are so devastating, many studies have been conducted on the way of consumers' responses, such as corporate reputation, crisis communication, and

brand-related factors. However, there is a lacking insight into how these factors interact and under which conditions companies can effectively mitigate negative consumer reactions.

Research Gap

Research on product-harm crises has widely discussed the factors that affect consumer responses, for instance, corporate social responsibility and their effects on brand evaluation, buying intention, and blame attribution, as investigated by Assiouras et al. (2013). Other studies have looked at how negative publicity and blame attribution impact consumer perceptions. Dawar and Lei (2009) investigated whether familiarity with the brand moderates the relationship between crisis relevance and brand evaluation and whether this relationship is mediated by the perceived severity of the crisis. Moreover, Whelan and Dawar (2016) examined whether consumer attachment styles (secure vs. fearful) influence blame attribution through perceptions of crisis controllability and stability.

Though the initial focus was on consumer psychology, some studies have also analyzed how brand-related factors affect crisis responses. Germann et al. (2014) examined the role of brand commitment (low vs. high) as a moderator in consumers' responses to product recalls, and whether its effect differs by recall severity (low vs. high). Cleeren et al. (2008) investigated pre-crisis brand loyalty and brand familiarity as protective factors in product-harm crises and the role they play in shaping the first-purchase decisions after a crisis.

Besides the pre-crisis brand characteristics, the existing literature has reviewed corporate response strategies. Chen et al. (2009) compared proactive and passive recall strategies and evaluated their impact on firm value using stock market reactions. Farhana and Kader Ali (2017) examined the role of, amongst others, blame attribution, perceived crisis responsibility, and responsible recall on consumer purchase intention, with crisis communication as a moderating variable. Nevertheless, these studies focus either on financial outcomes or on communication strategies rather than on the psychological processes underlying consumer decisions.

More broadly, crisis response strategies have been examined in various consumer research contexts. Dutta and Pullig (2011) analyzed how the type of crisis, distinguishing between performance-related and value-related crises, interacts with different response strategies such as denial, reduction of offensiveness, and corrective action to shape post-crisis brand confidence and consumer choice. Their study highlights the need for a context-specific evaluation of crisis communication strategies.

Similarly, Hegner et al. (2016) investigated how crisis response strategies, specifically rebuild and diminish strategies, influence post-crisis consumer trust and purchase intention in different crisis types. They further examined the role of corporate social responsibility (institutional vs. promotional) in moderating these effects and differentiated between three types of trust: benevolence-based, integrity-based, and ability-based trust.

Thus, although previous research has looked at crisis response strategies, pre-crisis brand factors, and post-crisis consumer reactions, these elements have not yet been combined into an integrated framework. Although some studies contain moderators or mediators, none of them have investigated how pre-crisis brand reputation affects the effectiveness of crisis response strategies or how post-crisis brand perception mediates their impact on willingness to buy, specifically in the context of a single crisis type.

Research Objectives and Research Questions

Based on this gap, this study aims to examine the effect of crisis response strategies and pre-crisis brand reputation on consumers' willingness to buy after a product-harm crisis. Furthermore, it looks at post-crisis brand perception, such as trust and authenticity, as a mediator of these effects and pre-crisis brand reputation as a moderator of the effects of different response strategies.

This study is significant because it builds on these factors in a single model to contribute theoretical advancements to crisis management research. Additionally, it provides practical insights into which response strategies are most effective under different brand reputation conditions and how they affect consumer trust and authenticity in the post crisis phase. This knowledge not only helps food companies to mitigate the effects of a crisis but also to improve the effectiveness of their responses to maintain and even enhance consumer willingness to buy. To address these objectives, the study focuses on the following key questions:

- F1.* How do different brand crisis response strategies and different pre-crisis brand reputations affect consumers' willingness to buy, and what are the mediating effects of post-crisis brand perception?
- F2.* How do different pre-crisis brand reputations moderate the effects of different brand crisis response strategies on consumers' willingness to buy?

These research questions are the foundation of the hypotheses developed in Chapter 3 which further refine and operationalize the expected relationships.

Procedure and Structure

This thesis is organized into seven chapters that together provide a comprehensive understanding of the research topic. Chapter 1 introduces the relevance of product-harm crises in the food industry, outlines the central problem, identifies a research gap, and formulates the study's objectives and research questions. Chapter 2 provides the theoretical foundation by reviewing relevant literature on crisis management, crisis response strategies, pre-crisis brand reputation, post-crisis brand perception (trust and authenticity) and willingness to buy. Based on this foundation, Chapter 3 develops the conceptual model and hypotheses, integrating the selected crisis response strategies (apology, denial, trivialization) with brand reputation and post-crisis brand perception. Chapter 4 describes the methodological approach, including the experimental vignette design, data collection procedures, sample characteristics, operationalization of constructs, and the statistical methods used, such as ANOVA, moderation, and mediation analysis. Chapter 5 presents empirical results, including descriptive statistics and hypothesis testing outcomes. Chapter 6 interprets these findings considering existing literature, discusses theoretical and managerial implications, and reflects on the study's strengths and limitations while outlining directions for future research. Finally, Chapter 7 concludes the thesis by summarizing the key findings and emphasizing the contribution of the study to crisis communication and brand management research.

Literature Review

To address the research questions outlined in the previous chapter, this section provides the theoretical foundation of the study. It begins by discussing the nature of crises and introduces the Situational Crisis Communication Theory (SCCT) as a guiding framework for understanding organizational responses. The chapter then examines key constructs relevant to this study, including crisis response strategies, pre-crisis brand reputation, post-crisis brand perception (trust and authenticity), and willingness to buy.

Crisis Management and Crisis Typologies

Crises are unexpected events that can cause lasting reputational damage and undermine consumer trust (Cleeren et al., 2017; Coombs, 2007). The severity of a crisis depends on stakeholder perceptions, media coverage, and corporate response (Coombs, 2007). Organizations that fail to manage crises effectively often experience financial losses, consumer skepticism, and long-term brand erosion (Cornelius et al., 2023).

A widely accepted framework to categorize crises is the SCCT developed by Coombs (2007). SCCT differentiates between three main crisis clusters based on perceived responsibility: victim, accidental, and preventable crises. Victim crises (e.g., natural disasters, rumors) involve minimal responsibility attribution and low reputational threat. Accidental crises (e.g., technical failures, unintentional product defects) involve moderate responsibility and pose a greater reputational risk. Preventable crises (e.g., negligence, misconduct) lead to high responsibility attributions and severe reputational consequences (Coombs, 2007; Coombs & Holladay, 2002).

SCCT posits that organizations should align their crisis response strategies with the perceived level of responsibility to mitigate reputational harm (Coombs, 2007). This framework lays the foundation for understanding the severity of product-harm crises and the strategic communication approaches needed to address them (Coombs, 2007), and has been widely applied in both theoretical and empirical crisis communication research (Coombs, 2016)

Product-Harm Crises as a Specific Crisis Type

A particularly severe type of crisis is a product-harm crisis which stands out due their direct consequences for consumers and the organization involved (Cleeren et al., 2017). According to Dawar and Pillutla (2000), they are “well-publicized occurrences where in products are found to be defective or dangerous” (p. 215) which may lead to significant reputational harm and negative media attention (Dean, 2004).

Nevertheless, product-harm crises are different in the level of media coverage they receive, starting from massive scandals affecting the whole industry to more small-scale incidents affecting certain consumer groups (Cleeren et al., 2017). However, the severity of the harm is not the same for all consumers. For instance, the wrong labelling of allergens may not affect most consumers, but it can be dangerous for those with allergies. On this basis, Cleeren et al. (2017) offer a more specific definition of product-harm crises as “a discrete event in which products are found to be defective and therefore dangerous to at least part of the product’s customer base” (p. 594).

Effective crisis management in product-harm scenarios requires rapid response, transparency, and strategic communication. The literature emphasizes that selecting an appropriate response strategy depends on the perceived responsibility of the organization, making product-harm crises a relevant context to investigate the impact of crisis response strategies on consumer behavior (Coombs, 2007).

Crisis Response Strategies

Crisis response strategies vary in their effectiveness depending on how consumers attribute responsibility for the crisis.

Attribution Theory (Weiner, 1985) originally explains how individuals assess whether an actor had control over an event, which in turn shapes their emotional and behavioral responses. This concept can also be applied to crisis situations, where higher perceived responsibility typically triggers stronger negative reactions (Coombs, 2007).

Building on this, SCCT (Coombs, 2007) provides a framework for selecting appropriate crisis response strategies based on perceived responsibility. SCCT categorizes these strategies into Denial, Diminish, and Rebuild strategies (Coombs, 2006), each reflecting different levels of acceptance of responsibility.

Denial strategies seek to distance the organization from the crisis (e.g., denial, scapegoating). Diminish strategies acknowledge the crisis but minimize its impact or the organization's role (e.g., excuse, justification). Rebuild strategies involve accepting responsibility and seeking to restore trust through apology or compensation (Coombs, 2007).

While SCCT advocates for a strategy-reputation fit (Coombs, 2007, empirical studies show mixed results. Some studies support this assumption, finding that matched responses better protect organizational reputation (Coombs & Holladay, 1996; Sheldon & Sallot, 2008). However, other studies report no significant difference between matched and mismatched response strategies in protecting reputation (Grappi & Romani, 2015; Kim & Sung, 2014).

Dutta and Pullig (2011) found that corrective action was most effective in performance-related crises, while reducing offensiveness worked better in value-related crises. Denial consistently performed the worst. In product-harm crises specifically, Hegner et al. (2016) demonstrated that rebuild strategies (e.g., apology, corrective action) positively influenced benevolence- and integrity-based trust but had limited effect on ability-based trust or purchase intention.

These findings suggest that the appropriateness of crisis response strategies depends on the crisis type, perceived responsibility, and consumer expectations. This study isolates a single product-harm crisis context to investigate the direct effects of response strategies on post-crisis brand perception and willingness to buy.

Pre-Crisis Brand Reputation

Brand reputation is highlighted in the literature as being linked to the organization's integrity, or, in other words, as a reaction of stakeholders to the organization's strong, weak, or poor actions. (Camilleri, 2022; Fombrun & Shanely, 1990)

Aaker's (1991) Brand Equity Model provides a useful framework for explaining how brand reputation is formed and maintained, as it directly captures the key factors shaping consumer perceptions of a brand. It identifies five key dimensions: brand awareness (recognition and recall, pp. 61–67), brand associations (mental and emotional brand links, p. 272), perceived quality (judged overall excellence, pp. 85–88), brand loyalty (consumer commitment and repurchase intention, pp. 39–49), and proprietary brand assets (legal protections and competitive advantages, pp. 269–270).

In the context of crisis management, these dimensions of brand equity contribute to what is known as pre-crisis brand reputation. Research suggests that pre-crisis brand reputation influences consumer responses to crises, but its effects are not always protective.

Sohn and Lariscy (2015) found that strong reputations can buffer reputational damage in competence-based crises (e.g., product failures), but may backfire in ethical crises (e.g., CSR violations), where higher stakeholder expectations amplify disappointment. Similarly, Dean (2004) showed that while a strong reputation generally leads to more favorable consumer evaluations, its protective effect is limited when perceived responsibility is high. Notably, poorly regarded firms sometimes experienced slight improvements in consumer regard when responding inadequately, whereas highly regarded firms faced sharper declines when their responses were perceived as insufficient.

These mixed findings underline that pre-crisis reputation is not a cure-all. Previous research has examined its buffering and boomerang effects, particularly in interaction with

perceived crisis responsibility and response strategies. However, less attention has been given to how pre-crisis reputation interacts with crisis response strategies in shaping consumer willingness to buy, a gap this study aims to address.

Post-Crisis Brand Perception: Trust and Authenticity

Trust and authenticity play a fundamental role in consumer decision-making, particularly in crises, where consumers must evaluate whether a brand stays true to its values, communicates transparently, and takes responsibility for its actions to determine whether they can rely on it after the crisis (Webb, 1996, p. 289; Greyser, 2009).

There are many approaches that have been proposed to define trust (Butler, 1991; Cummings & Bromiley, 1996), but one widely recognized definition describes it as “the willingness of a party to be vulnerable to the actions of another party based on expectations that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party” (Mayer et al., 1995, p. 712).

Based on this definition, Mayer et al. (1995) identified three key dimensions of trust: ability (competence and characteristics in a specific domain), benevolence (genuine concern for the trustor’s well-being and interests), and integrity (adherence to shared moral principles, demonstrated through consistent and credible past behavior). Thus, in crisis situations, consumer trust plays a decisive role in post-crisis brand perception, and its recovery depends on demonstrating competence and moral responsibility.

Kim et al. (2004) found that apologies restore trust in competence-based violations, as they signal remorse and improvement, while denials are more effective for integrity-based violations, as admitting fault reinforces negative perceptions. Extending this, Kim et al. (2006) demonstrated that taking responsibility aids trust recovery after competence failures, while external attributions are more effective for integrity violations. Similarly, Hegner et al. (2016) found that in product-harm crises, a rebuild strategy (apology, corrective action) restores benevolence- and integrity-based trust, but has little impact on ability-based trust or purchase intention.

Beyond trust, authenticity also plays a key role in shaping how consumers perceive a brand after a crisis. The concept has been widely discussed, with scholars offering various definitions depending on context and research focus. Although scholars have defined brand authenticity in various ways - ranging from notions of being genuine or true (e.g., Cinelli & LeBoeuf, 2020; Napoli et al., 2014) to multidimensional perspectives (Beverland & Farrelly, 2010), a structured and comprehensive conceptualization is provided by Moulard et al. (2021).

Their Entity-Referent Correspondence (ERC) framework defines authenticity as “the degree to which an entity [...] is perceived to be true to or match up with [...] a referent” (p. 99), and identifies three core dimensions: True-to-Ideal (alignment with societal ideals or values), True-to-Fact (accuracy and transparency in brand communication), and True-to-Self (consistency with the brand’s core values and identity)

Building on this theoretical perspective, empirical research has examined the extent to which authenticity influences consumer responses to crises. Guèvremont and Grohmann (2017) found that brand authenticity can soften negative consumer reactions during a crisis by reducing perceived hypocrisy and fostering emotional attachment—although it does not fully prevent reputational damage. Pittman and Sheehan (2021) showed that authenticity mediates the effect of crisis-related actions on purchase intention, particularly when brand behavior aligns symbolically with societal expectations. The effect was stronger in low-fit crises than in high-fit ones, indicating that authenticity’s protective function is context-dependent.

Together, these studies illustrate that trust and authenticity are key drivers of post-crisis consumer behavior. While prior research has mainly explored their moderating or emotional functions, less is known about their roles as mediators in structured crisis responses. This study addresses this gap by examining how trust and authenticity mediate the effects of crisis response strategies and pre-crisis brand reputation on willingness to buy in product-harm crises.

Willingness to Buy

Willingness to buy is a widely used concept in consumer behavior research and is commonly understood as a consumer’s behavioral intention to purchase a specific product (Donato & Raimondo, 2020). Although not explicitly defined in the Theory of Planned Behavior (TPB), willingness to buy is conceptually grounded in this framework (Ajzen, 1991), as it represents a situational expression of purchase intention, the motivational readiness to engage in specific behavior.

According to TPB, purchase intention, which closely relates to willingness to buy, is shaped by three key factors: attitude toward the behavior (personal evaluation of the behavior), subjective norms (perceived social pressure), and perceived behavioral control (perceived ability to perform the behavior). Together, these determine behavioral intention, which can translate into actual buying behavior when external constraints are low (Ajzen, 1991).

In the context of product-harm crises, willingness to buy reflects not only consumers' general purchase intention but also their evaluation of the brand's credibility and its response to the crisis. Psychological factors such as trust and authenticity, shaped by pre-crisis brand reputation and crisis response strategies, play a crucial role in this process.

Empirical evidence supports this conceptualization. For instance, previous research has linked willingness to buy respectively purchase intention to various crisis-related factors such as Corporate Social Responsibility (CSR) reputation (Assiouras et al., 2013). They found that prior positive CSR information increases consumers' willingness to buy during a product-harm crisis, whereas negative CSR leads to significantly lower purchase intentions. Moreover, this effect was moderated by the perceived importance of CSR, suggesting that CSR functions as an external cue that can shape consumer attitudes in line with TPB.

While these findings confirm the relevance of willingness to buy as a behavioral outcome, few studies have examined how it is jointly influenced by pre-crisis brand reputation and specific crisis response strategies. Moreover, the mediating roles of trust and authenticity remain underexplored. This study addresses these gaps by positioning willingness to buy as the key dependent variable, influenced by both direct and indirect effects of organizational crisis behavior. Given its central role in consumer decision-making, willingness to buy serves as the foundation for the conceptual model and research hypotheses outlined in the following chapter.

Conceptional Framework

On the basis of the above, the current study examines the effect of pre-crisis brand reputation and crisis response strategies during a product-harm crisis in the food industry on post-crisis brand perception and willingness to buy.

The product-harm crisis scenario used in this study falls between the accidental and preventable cluster of SCCT (Coombs, 2007), reflecting moderate to high perceived responsibility. While the exact cause remains under investigation, the severity of consumer harm may lead to elevated attributions of responsibility. Building on SCCT (Coombs, 2007), this study focuses on three key crisis response strategies: Denial, Trivialization, and Apology.

Denial, i.e. a blocking attitude on the part of the company, involves denying the crisis or downplaying its seriousness (Weyler, 2013). Trivialization is based on the apologia approach and serves to restore the damaged legitimacy of the company (Hearit, 1995a). This can be achieved through dissociation, where the brand is isolated from the problem (Hearit, 1995b). Various dissociation approaches can be used, such as separating opinion from fact, individual from group, and action from core values (Coombs et al., 2010; Hearit, 1994). Apology, on contrast, identifies the opening attitude of a company, such as expressions of sympathy, payment of compensation or excuses. (Weyler, 2013).

These strategies were selected because they represent a spectrum of responsibility acceptance, which is crucial for understanding consumer reactions in a product-harm crisis context. They also reflect common corporate crisis communication approaches, making them relevant for both theoretical analysis and practical application.

While previous studies have examined the effects of response strategies in crisis contexts (e.g., Dutta & Pullig, 2011; Hegner et al., 2016), there is limited research directly comparing apology, denial, and trivialization strategies with regard to their impact on willingness to buy, particularly within the specific context of one product-harm crisis in the food industry. Addressing this gap, the following hypothesis is proposed:

- H1.* A strategy of apology has a positive effect on the consumer's willingness to buy compared to a strategy of denial or trivialization.

Several studies suggest that pre-crisis brand reputation can shape how consumers respond to organizational crises. A strong reputation generally leads to more favorable evaluations and can buffer against reputational damage (Dean, 2004; Sohn & Lariscy, 2015), even though its protective effect is not guaranteed in all crisis types.

This study conceptualizes pre-crisis brand reputation based on perceived brand credibility and prior consumer experiences, rather than focusing on internal strategic assets or competitive positioning. It is operationalized as either good (high-quality, ethical, and sustainable brand reputation) or bad (negative reviews, prior quality concerns, and media criticism), as reflected in the experimental conditions.

Based on this, the second hypothesis is formulated:

H2. A good pre-crisis brand reputation has a positive effect on consumer's willingness to buy compared to a bad pre-crisis brand reputation.

The interplay between brand reputation and response strategy has also been discussed in the literature. While a strong reputation can reduce negative reactions, it may also backfire if the response is perceived as inadequate (Dean, 2004; Sohn & Lariscy, 2015). These findings suggest an interaction effect:

H3. A good pre-crisis brand reputation strengthens the positive effect of an apology strategy and mitigates the negative effects of denial and trivialization strategies on consumer's willingness to buy. Conversely, a bad pre-crisis brand reputation weakens the positive effect of an apology strategy and worsens the negative effects of denial and trivialization strategies on consumer's willingness to buy.

Post-crisis brand perception, particularly in terms of trust and authenticity, has been linked to crisis response strategies such as apology (Hegner et al., 2016; Guèvremont & Grohmann, 2017). While most studies focus on emotional or attitudinal outcomes, there is growing evidence that authenticity also affects behavioral intentions (Pittman & Sheehan, 2021). Based on this, the following hypotheses are proposed:

H4. Compared to a strategy of denial or trivialization, a strategy of apology has a positive effect on the consumer's post-crisis brand perception (H4a), which in turn has a positive effect on the consumer's willingness to buy (H4b).

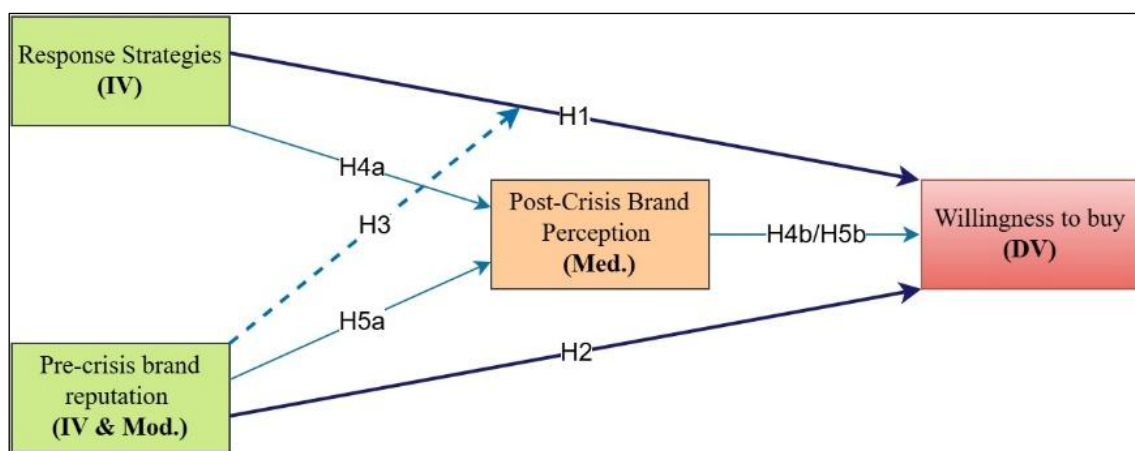
Likewise, a strong brand reputation may lead to higher levels of post-crisis trust and authenticity (Dean, 2004; Pittman & Sheehan, 2021), which may indirectly shape consumer evaluations through enhanced post-crisis trust and authenticity. Therefore:

H5. Compared to a bad pre-crisis brand reputation, a good pre-crisis brand reputation has a positive effect on the consumer's post-crisis brand perception (H5a), which in turn has a positive effect on the consumer's willingness to buy (H5b).

The relationships between these variables are illustrated in Figure 1, which provides a conceptual overview of the research model.

Figure 1

Research Model



Methodology

Research Design

The study employed a between-subjects 2x3 experimental vignette design (Atzmüller & Steiner, 2010; Charness et al., 2012; Edmonds & Kennedy, 2017, pp. 35–50), where all participants were assigned the same product-harm crisis scenario. The vignettes were used to manipulate two independent variables: pre-crisis brand reputation (good, bad) and crisis response strategies (apology, trivialization, denial), allowing for a controlled and standardized experimental setting (Atzmüller & Steiner, 2010). The fictitious food industry company FreshCo was introduced, with its reputation varied to represent both good and bad pre-crisis brand reputations.

A between-subjects design was chosen so that each participant was only exposed to one specific combination of the manipulated independent variables (pre-crisis brand reputation and crisis response strategy) and therefore would not have a biased perception due to direct comparisons. This approach not only mirrors real-world consumer experiences but also ensures a clear comparison between groups, making it easier to isolate the effects of brand reputation and crisis response strategies on post-crisis brand perception and willingness to buy (Atzmüller & Steiner, 2010; Charness et al., 2012; Edmonds & Kennedy, 2017, pp. 35–50).

Participants were randomly assigned to one of the six experimental conditions, ensuring that each participant only saw one scenario. This randomization minimized potential bias and enabled a clear analysis of how the manipulated variables influenced post-crisis brand perception and willingness to buy (Aguinis & Bradley, 2014).

Scenario Description and Manipulation of Variables

Participants were given a scenario that described a product-harm crisis which happened at a fictitious food company called FreshCo. The crisis scenario was the same across all the conditions and explained how FreshCo's frozen pizza product, the Veggie Delight, was contaminated and how customers became sick from it, two of them requiring admission to the hospital for extended periods. The scenario was presented in a quite serious way but without any emotional involvement and in a neutral language.

However, the cause of the contamination is currently under investigation, meaning that the level of the company's responsibility remains uncertain. This ambiguity allows for an examination of how consumers react to different crisis response strategies when blame attribution is not explicitly clear.

Six experimental conditions were formed by manipulating pre-crisis brand reputation (good, bad) and crisis response strategy (apology, trivialization, denial).

In the good reputation condition, FreshCo was portrayed as a leading brand, highly acclaimed for its high quality, sustainable products and strong ethical standards. In the bad reputation condition, FreshCo was depicted as a brand with numerous complaints about its quality and negligent approach to production. Depending on the condition, FreshCo denied, minimized, or apologized for the incident. In the apology condition, FreshCo apologized, admitted guilt, and offered to refund the money and provide vouchers. In the trivialization condition, FreshCo sought to minimize the consequences of the incident and presented it as an atypical and not very important phenomenon in the industry. Finally, in the denial condition, FreshCo denied responsibility for the incident, arguing that there was no evidence of that effect and that the company adheres to high standards of safety.

Each vignette was presented in the same manner to ensure that the study was consistent (Atzmüller & Steiner, 2010). It began with the brand description which included the brand logo and the brand reputation (good or bad) and then moved to the crisis description and ended with the crisis response strategy (apology, trivialization, or denial). The vignettes were short, each of them approximately 150–200 words in length. To make sure that all the participants have enough time to think about the scenario, a 45-second wait time was implemented so that participants could not click the “Next” button until the time was up.

The manipulations made it possible to explore the effect of pre-crisis brand reputation and crisis response strategies on post-crisis brand perception and consumers' willingness to buy. The scenario described was designed to mimic actual product-harm crises to increase external validity while maintaining control over the experimental manipulations. Appendix A presents the crisis scenario and the experimental manipulations as well as the brand logo used.

Sample and Data Collection

The target group for this study included a broad population of consumers, regardless of demographic factors such as age, gender, education level, or place of residence. This diverse sample was chosen to improve representativeness and ensure that the results are applicable to a wider audience. Participants were recruited through online platforms (SurveyCircle and SurveySwap) and social media (WhatsApp, Instagram, LinkedIn, and Xing).

Before the main study, a pre-test with 30 participants was conducted to check that the vignettes and questionnaire items were clear and effective. The feedback from the pre-test was reviewed before proceeding with the main study. For the main study, the planned sample size was set at a minimum of 180 participants to have enough statistical power to determine the assumed effects (Cohen, 1988, pp. 7–8).

Participants were randomly assigned to one of six experimental conditions using SoSci Survey, ensuring unbiased distribution and randomization.

After data collection, participants with incomplete responses or those who failed the attention check were excluded from the final dataset. The exact number of excluded cases and the final sample size are reported in Chapter 4.

Participation was voluntary, and informed consent was obtained prior to the study to ensure ethical compliance. All data was collected anonymously.

Operationalization of the Variables

The variables in this study were measured using a standardized questionnaire, which consisted of several sections. First, participants were introduced to the study, provided with general information, and asked to give their informed consent. They were then presented with one of the six vignettes, which described the fictitious brand "FreshCo," its reputation (good or bad), a product-harm crisis scenario, and one of the three response strategies: denial, trivialization, or apology.

To measure the mediator variable, post-crisis brand perception, this construct was assessed based on two dimensions: trust and authenticity. Both were measured using established and validated scales from prior research. The authenticity scale was adapted from Park et al. (2021), and the trust scale was adapted from Chaudhuri and Holbrook (2001). In addition, a reverse-coded item ("manipulative") from Kirmani et al. (2017) was included. This improves the robustness of the trust measurement as it reduces response bias and ensures a more reliable measurement of the construct (Weijters et al., 2009). All three constructs were measured using 7-point Likert scales ranging from 1 (strongly disagree) to 7 (strongly agree). Manipulation checks were conducted to verify the success of the experimental manipulations. Specifically, participants were asked to evaluate the brand's pre-crisis reputation on a 7-point Likert scale ranging from 1 (very bad) to 7 (very good). In addition, participants were asked to identify the response strategy presented in the vignette using a nominal scale.

The covariate was limited to participants' prior experience with food crises, which was measured using a binary (yes/no) nominal scale. Additionally, an attention check

question was included to ensure participants paid attention to the vignette content. This question asked for specific details about the crisis scenario presented. Although demographic information, such as age, gender, education level, and place of residence, was collected, these were not used as control variables but rather to describe the sample characteristics.

The full list of questionnaire items is provided in Appendix B, which gives an overview of all measurement scales used in the study.

Evaluation Methods

Data analysis was conducted in IBM SPSS (v29), with mediation and moderation analyses performed using the PROCESS v4.2 (Hayes, 2025).

Manipulation Check for Pre-Test and Main Study

To verify the success of the experimental manipulations, two statistical tests were conducted for both the pre-test and the main study. First, an independent samples t-test (Field, 2018, p. 445) was performed to confirm that participants perceived the good reputation condition significantly more positively than the bad reputation condition.

Additionally, Cohen's d was calculated to determine the effect size of the manipulation. According to Cohen (1992), an effect size of $d = 0.2$ represents a small effect, $d = 0.5$ a medium effect, and $d = 0.8$ or higher a large effect, indicating a strong experimental manipulation.

Second, a chi-square test with post hoc (Field, 2018, p. 551) was applied to ensure that participants correctly identified the assigned crisis response strategy in the vignette. For the post hoc analysis, the contingency table was exported from SPSS to Excel, where the p-values were manually calculated using squared adjusted residuals and the CHISQ.DIST.RT function. To account for multiple comparisons and reduce the risk of Type I errors, the Bonferroni correction was applied. As Field (2018, pp. 83–84) explains, multiple pairwise tests inflate the familywise error rate, increasing the likelihood of false positives. To control this, the significance threshold was adjusted to $\alpha_{\text{adj}} = .006$ ($\alpha = .05/9$), reflecting the nine pairwise comparisons conducted across the three response strategies.

Descriptive Statistics

Descriptive statistics were calculated to provide an overview of the sample characteristics and key study variables. This included valid and invalid cases, as well as demographic characteristics. Additionally, descriptive statistics (mean, standard deviation) for the dependent variable (willingness to buy) and mediators (authenticity and trust) were analyzed.

Data Preparation

The raw data were exported from SoSci Survey and structured in Excel before being imported into SPSS. Variables were recoded as necessary to meet the requirements of the statistical analyses.

To assess internal consistency and indicate overall reliability of the questionnaire, Cronbach's α was computed for the mediator and dependent variables. A value around 0.80 or higher is generally considered good (Field, 2018, p. 829). More specifically, George and Mallery (2003) provide the following classification: "> .9 – Excellent, > .8 – Good, > .7 – Acceptable, > .6 – Questionable, > .5 – Poor, and < .5 – Unacceptable" (p. 231).

To ensure that all items contributed meaningfully to their respective constructs, corrected item-total correlations were examined. According to Field (2018), items with values above .30 are considered acceptable, with higher values indicating stronger alignment with the scale (p. 826).

Additionally, reliability was assessed by testing whether the removal of any item would substantially increase Cronbach's α . According to Field (2018), "the Cronbach's Alpha if Item Deleted column tells you whether removing an item will improve the overall reliability: values greater than the overall reliability indicate that removing that item will improve the overall reliability of the scale" (p. 829).

To evaluate whether the assumption of normality was met for the dependent variable willingness to buy, a Shapiro-Wilk test was conducted. Since the Shapiro-Wilk test is highly sensitive, even minor deviations from normality can result in significant p-values (Field, 2018, p. 249). Therefore, graphical methods such as a histogram with a normal distribution curve and Q-Q plots were also examined to assess the practical relevance of deviations from normality. (Field, 2018, p. 253)

Covariate Analysis

To examine whether prior experience with food crises influenced the dependent variable (willingness to buy) or the mediator (post-crisis brand perception), simple linear regressions were conducted. In each regression, experience with food crises served as the independent variable, while willingness to buy and post-crisis brand perception were tested separately as dependent variables.

If the results indicated no significant impact, the covariate was excluded from further hypothesis testing to avoid unnecessary complexity in the model.

Hypothesis Testing

To test the hypotheses, a series of statistical analyses were conducted.

A two-way analysis of variance (ANOVA) was performed to examine H1 and H2, investigating the main effects of crisis response strategies and pre-crisis brand reputation on willingness to buy. Effect sizes were assessed using η^2 (eta squared), which is interpreted as small ($\eta^2 = .01$), medium ($\eta^2 = .06$), and large ($\eta^2 = .14$) according to Cohen (1988, p. 368).

Levene's test was included to check for homogeneity of variances (Levene, 1960; Field, 2018, p. 242). Additionally, post hoc tests (Tukey HSD and Bonferroni) were conducted to further explore differences between crisis response strategies in H1. Given the approximately equal group sizes (36–40 participants per condition) and the assumption of homogeneity of variances, Tukey HSD was primarily used for interpretation, as Field (2018, p. 550) notes that it maintains Type I error control while offering greater statistical power than Bonferroni when testing multiple means.

Given slight concerns regarding normality, non-parametric tests were also performed for robustness, following the recommendations of Okoye and Hosseini (2024, pp. 225–246) and Field (2018, pp. 284–285). Specifically, a Kruskal-Wallis test was conducted for H1 as a non-parametric alternative to ANOVA, and Mann-Whitney U tests were used for H2 for pairwise comparisons. For each significant pairwise comparison, effect sizes were calculated following Rosenthal (1991, p. 15) using the formula $r = z/\sqrt{N}$, where z represents the value of the standardized test statistic (provided by SPSS), and N denotes the size of the study, that is the number of total observations on which z is based. According to Cohen (1988, p. 115), effect sizes can be interpreted as follows: $r = .10$ indicates a small effect, $r = .30$ a medium effect, and $r = .50$ a large effect. These thresholds serve as a benchmark for evaluating the practical significance of the results. Since each participant contributed three responses to the dependent variable, the total number of observations reflects this data structure.

To test H3, a moderation analysis was performed using PROCESS Model 1 (Hayes, 2022, pp. 233–236) in IBM SPSS Statistics 29.0.0.00. The independent variable (IV) was crisis response strategy, while pre-crisis brand reputation served as the moderator.

Prior to analysis, the pre-crisis brand reputation variable was contrast-coded ($-0.5 = \text{bad}$, $0.5 = \text{good}$) to facilitate interpretation in the regression model and ensure that the comparisons directly reflect the hypothesized differences rather than relying on a baseline reference category (Field, 2018, pp. 538–541).

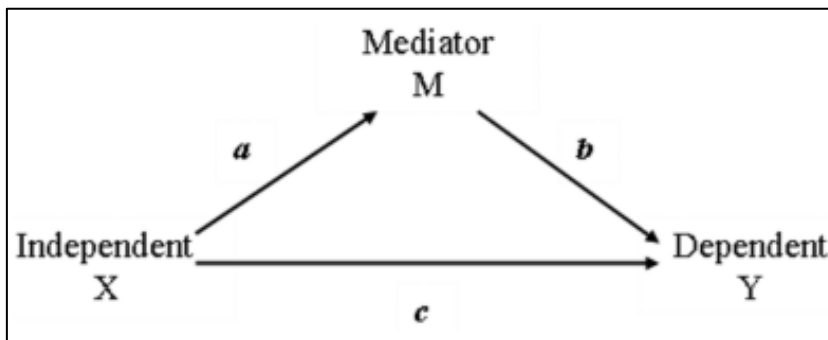
The model was estimated using 5000 bootstrap samples, a 95% confidence interval, and a significance level of $p < .05$. Heteroscedasticity-consistent standard errors (HC3) were applied to account for potential heteroscedasticity (MacKinnon & White, 1985).

For H4 and H5, a mediation analysis was conducted using PROCESS Model 4 (Hayes, 2022, pp. 79–80) to examine whether post-crisis brand perception mediates the effects of crisis response strategies (H4) and pre-crisis brand reputation (H5) on willingness to buy.

Figure 2 shows the relevant mediation paths that were examined, based on Zhao et al. (2010), who refer to the recommendations of Baron and Kenny (1986).

Figure 2

A Three-Variable Nonrecursive Causal Model



Source: Zhao et al., 2010, p. 198

As crisis response strategy is a categorical independent variable with more than two categories, it was dummy-coded using apology as the reference category, allowing for comparisons between each strategy and the baseline (Field, 2018, pp. 509–510).

The mediation model followed the same bootstrap settings as the moderation model (5000 bootstrap samples, 95% confidence interval, $p < .05$). Bootstrapping with 5000 resamples was used to obtain robust confidence intervals, as it does not assume normality and provides more reliable indirect effect estimates (Field 2018, p. 502).

Results

Pre-Tests

Crisis Response Strategies

To assess whether participants correctly perceived the assigned crisis response strategies (apology, trivialization, denial), a Pearson's chi-square test was conducted ($\chi^2(4) = 25.16, p < .001$). The significant association between assigned and perceived strategies indicates effective differentiation.

As shown in Table 1, most participants correctly identified their assigned strategy, while incorrect selections were systematically avoided. Post hoc tests with Bonferroni correction ($\alpha_{adj} = .006$) further support these findings, as all correctly identified strategies deviated significantly ($p < .006$) from expected frequencies.

Table 1

Recognition of Assigned Crisis Response Strategies in Pre-Test (Chi-Square Test Results)

Group		Selected Crisis Response Strategy			Total
		Apology	Trivialization	Denial	
Apology	Observed	7	3	1	11
	Expected	3	5	3	11
	Corrected Residual	2.86	-1.16	-1.66	
	p	.004	.245	.097	
Trivialization	Observed	2	11	1	14
	Expected	4	6	4	14
	Corrected Residual	-1.69	3.58	-2.21	
	p	.091	< .001	.027	
Denial	Observed	2	1	8	11
	Expected	3	5	3	11
	Corrected Residual	-1.07	-2.63	3.99	
	p	.285	.009	< .001	

Note. $N = 36$

The significant differences in perceived crisis response strategies between groups suggest that the manipulation was effective. Therefore, the experimental manipulation was retained for the main study.

Pre-Crisis Brand Reputation

To evaluate the effectiveness of the pre-crisis brand reputation manipulation, an independent samples *t*-test was conducted. Participants in the good pre-crisis brand reputation condition rated the brand significantly more positively than those in the bad reputation condition, $t(25.4) = 3.19$, $p = .004$, $d = 1.60$. The 95% confidence interval for the mean difference [0.62, 2.87] confirms the robustness of this effect. Given this clear differentiation, the pre-crisis brand reputation variable was successfully manipulated and is suitable for use in subsequent analyses. Table 2 provides an overview of the means, standard deviations, and test results.

Table 2

Effect of Pre-Crisis Brand Reputation on Willingness to Buy (Pre-Test)

	Good ^a		Bad ^b		<i>t</i> (25.4)	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Willingness to Buy ^c	4.49	1.97	2.84	1.17	3.19**	1.60

Note. $N = 36$; M = mean; SD = standard deviation. ^a $n = 17$; ^b $n = 19$; ^c *Welch's t*-test was used due to violation of the equal variance assumption ($F(1, 34) = 9.10$, $p = .005$). ** $p < .01$

As shown in Table 2, the good pre-crisis brand reputation condition resulted in significantly higher willingness to buy compared to the bad condition.

Descriptive Statistics

Sample Characteristics

Of the 247 participants, 22 failed attention checks and were excluded, leaving 225 valid cases for analysis. Participants were randomly assigned to one of the six experimental conditions (good reputation – apology ($n = 38$), good reputation – trivialization ($n = 40$), good reputation – denial ($n = 36$), bad reputation – apology ($n = 37$), bad reputation – trivialization ($n = 36$), and bad reputation – denial ($n = 38$)), ensuring a balanced assignment across conditions.

Most participants identified as female (57.78%), followed by male (41.78%) and non-binary (0.44%). Most respondents were between 16 and 29 years old (64.89%), followed by those aged 50+ (18.22%), 30-39 years old (13.33%), and 40-49 years old

(3.65%). Regarding education, 66.22% of participants had a university degree, 25.78% had a high school diploma, and 8.00% had completed vocational training. Most participants were from Germany (51.78%), followed by Austria (18.67%) and a smaller proportion from other countries. The sample primarily consisted of young and well-educated individuals, with a high proportion from German-speaking countries, reflecting the recruitment channels used in this study. A detailed visualization of the sample characteristics is provided in Appendix C.1.

Key Variables

To provide an overview of the central study variables, this section presents descriptive statistics for willingness to buy (DV) and post-crisis brand perception (mediator) across experimental conditions. Table 3 reports the mean values and standard deviations for all six conditions, showing the effects of crisis response strategies and pre-crisis brand reputation.

Table 3

Descriptive Statistics (Willingness to Buy)

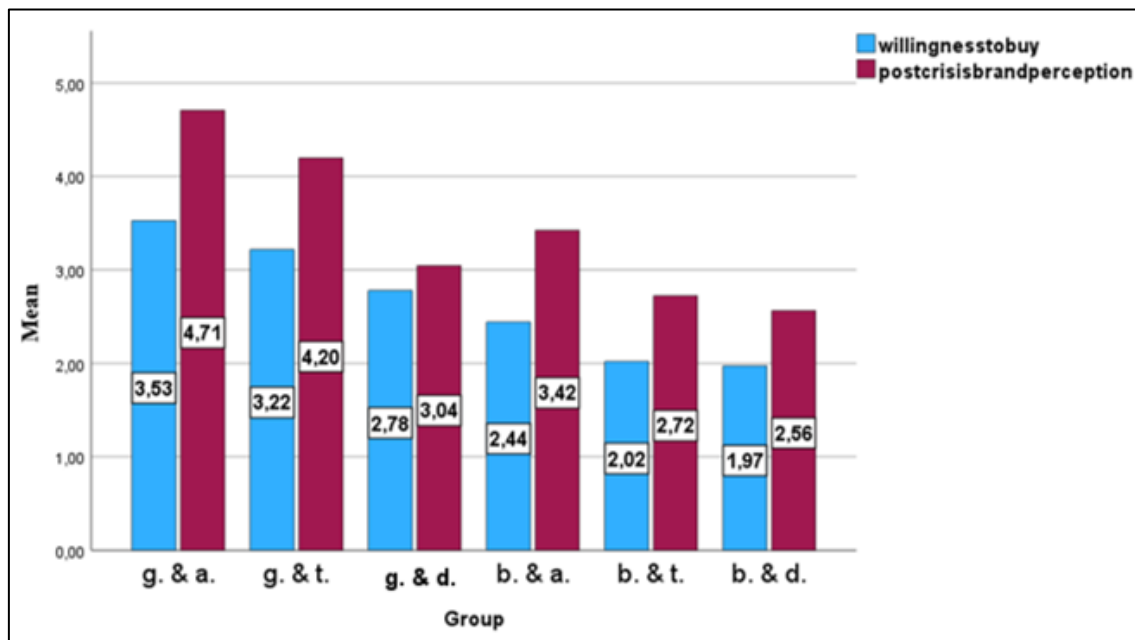
Response Strategy	Pre-Crisis Brand Reputation	n	Willingness to Buy		Post-Crisis Brand Perception	
			<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Apology	Good	38	3.53	1.65	4.71	1.28
	Bad	37	2.44	1.29	3.42	0.95
	Total	75	2.99	1.57	4.07	1.29
Trivialization	Good	40	3.22	1.47	4.20	1.07
	Bad	36	2.02	1.23	2.72	1.06
	Total	76	2.65	1.48	3.50	1.29
Denial	Good	36	2.78	1.55	3.04	1.13
	Bad	38	1.97	1.14	2.56	1.12
	Total	74	2.36	1.40	2.80	1.14
Total	Good	114	3.18	1.57	4.00	1.34
	Bad	111	2.14	1.23	2.90	1.10
	Total	225	2.67	1.50	3.46	1.34

Note. M = mean; n = sample size; SD = standard deviation

The results indicate that willingness to buy is highest after an apology ($M = 2.99$), followed by trivialization ($M = 2.65$) and denial ($M = 2.36$). A similar pattern emerges for post-crisis brand perception, with the highest value for apology ($M = 4.07$), followed by trivialization ($M = 3.50$) and denial ($M = 2.80$). Additionally, a good pre-crisis reputation is associated with higher values for both willingness to buy ($M = 3.18$ vs. 2.14) and post-crisis brand perception ($M = 4.00$ vs. 2.90). To further illustrate the results (also given in Table 3), the mean values for all six conditions are visualized in Figure 3.

Figure 3

Mean Willingness to Buy & Post-Crisis Brand Perception by Crisis Response Strategy and Pre-Crisis Brand Reputation



Note. g. = good; b. = bad; a. = apology; t. = trivialization; d. = denial

Across both variables, higher mean values are observed for brands with a good pre-crisis reputation compared to those with a bad one. Within each reputation condition, apology yields the highest scores, followed by trivialization, while denial results in the lowest, forming a nearly linear pattern. An exception to this trend is observed in post-crisis brand perception, where a bad-reputation brand issuing an apology is rated slightly higher than a good-reputation brand using denial.

Assumption Testing

Reliability Analysis

To assess the internal consistency of the measurement scales, Cronbach's α was calculated for willingness to buy (DV), post-crisis brand perception (mediator), and its

subcomponents trust and authenticity. The results indicate high reliability for all constructs, with Cronbach's α ranging from .86 to .92.

The willingness to buy scale, consisting of three items, showed good internal consistency ($\alpha = .88$). Similarly, the post-crisis brand perception scale, which combines trust and authenticity, exhibited excellent reliability ($\alpha = .92$). When analyzed separately, trust ($\alpha = .86$) and authenticity ($\alpha = .89$) also demonstrated high internal consistency.

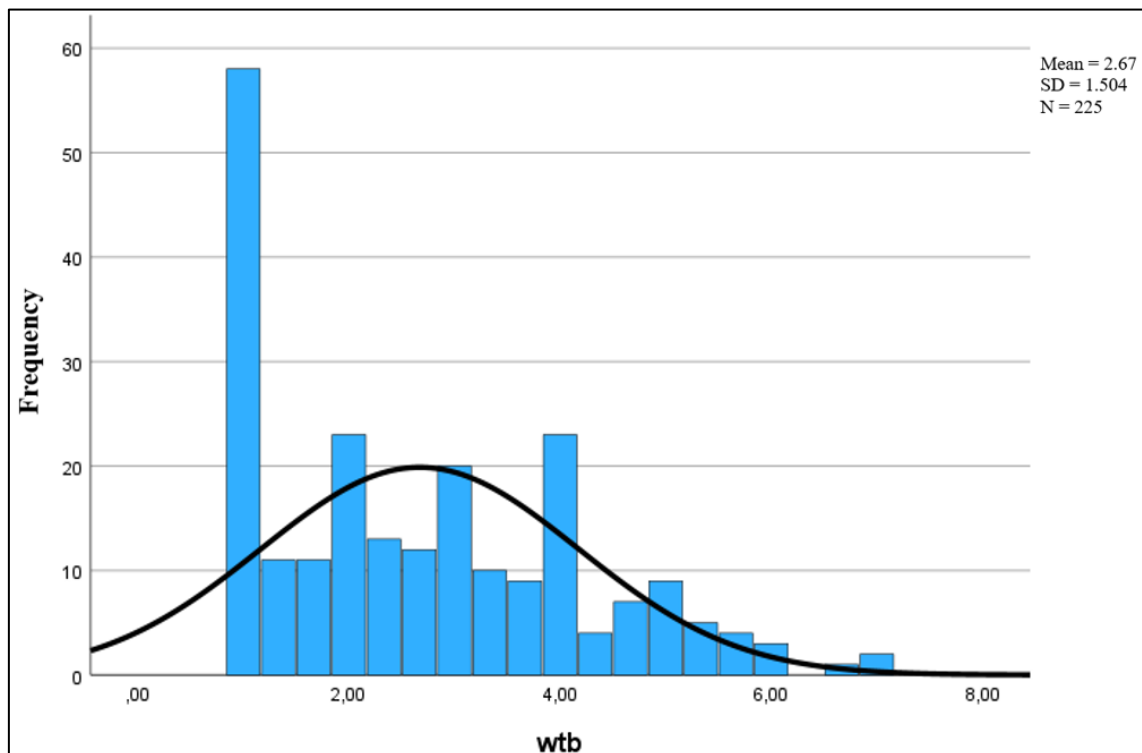
Corrected item-total correlations were consistently above .55, supporting the contribution of each item to its respective construct. Across all scales, removing any item did not meaningfully improve reliability, justifying the retention of all original items. Detailed reliability analyses are provided in Appendix C.2.

Overall, these findings confirm the high internal consistency of the willingness to buy and post-crisis brand perception measures, supporting the use of trust and authenticity as a combined mediator in subsequent analyses. Given the consistently strong reliability, all original scales were retained for hypothesis testing.

Normality Testing

Since normality is an assumption for parametric tests such as ANOVA, which is particularly relevant for testing H1 and H2, the distribution of willingness to buy was examined. The Shapiro-Wilk test yielded a statistically significant result, $W(225) = 0.91$, $p < .001$, indicating a deviation from normality. However, due to the test's sensitivity, graphical methods were used to assess the practical relevance of this deviation.

Figure 4 presents the histogram of willingness to buy, showing that while it is not perfectly symmetrical, extreme skewness is not observed.

Figure 4:*Histogram of Willingness to Buy with Normal Distribution Curve**Note: Own illustration (created with SPSS)*

A clear peak appears at the lowest response category (1.00), along with a slight positive skew (*Skewness* = 0.64) (see Appendix C.3.1 for the frequency table). The kurtosis value of -0.44 suggests a slightly flatter distribution with lighter tails and a broader peak.

The 95% confidence interval for the mean ranges from 2.47 to 2.87, and the median (2.33) is slightly lower than the mean (2.67), reflecting the right-skewed distribution. Responses range from 1.00 to 7.00, with a standard deviation of 1.50, indicating moderate variability. The Q-Q plot (see Appendix C.3.2)) further supports these observations, as most data points align reasonably well with the expected normal distribution, though slight deviations appear in the tails.

Despite the statistically significant Shapiro-Wilk result, the overall distribution remains approximately bell-shaped. Given the large sample size and the robustness of ANOVA to moderate violations of normality, parametric tests remain appropriate for hypothesis testing, while slight violations of normality were considered.

Homogeneity of Variance

To ensure that the assumption of homogeneity of variances was met for H1 and H2, Levene's test was conducted for the dependent variable willingness to buy across all experimental groups. Homogeneity of variance is a crucial assumption for ANOVA, as

violations can affect the validity of the results. The test assesses whether the error variances of the dependent variable are equal across groups. The results of Levene's test, based on the mean, were not statistically significant ($F(5, 219) = 2.05, p = .073$), indicating that the assumption of homogeneity of variances was not violated.

Since the test result was not significant, the variance of willingness to buy can be considered approximately equal across all experimental conditions. This confirms that the assumption of homogeneity of variance is met, supporting the validity of the ANOVA results in subsequent analyses.

Manipulation Checks

Crisis Response Strategy

To assess whether the experimental crisis response strategies (apology, trivialization, denial) were correctly perceived, a Pearson's chi-square test was conducted ($\chi^2(4) = 166.67, p < .001$). The significant association between the experimental condition and the perceived strategy confirms the effectiveness of the manipulation.

As shown in Table 4, the majority of participants correctly identified their assigned strategy, while incorrect selections were systematically avoided. Post hoc tests with Bonferroni correction ($\alpha_{adj} = .006$) further support these findings ($p < .001$ for all conditions). Recognition rates were highest for the denial condition (48 out of 74 participants correctly identified their assigned strategy), while the lowest recognition occurred in the apology condition (59 out of 75).

Table 4*Recognition of Assigned Crisis Response Strategies (Chi-Square Test Results)*

Group		Selected Crisis Response Strategy			Total
		Apology	Trivialization	Denial	
Apology	Observed	59	14	2	75
	Expected	28	29	18	75
	Corrected Residual	9.18	-4.36	-5.37	
	<i>p</i>	< .001	< .001	< .001	
Trivialization	Observed	14	57	5	76
	Expected	28	29	19	76
	Corrected Residual	-4.10	7.99	-4.45	
	<i>p</i>	< .001	< .001	< .001	
Denial	Observed	10	16	48	74
	Expected	27	29	18	74
	Corrected Residual	-5.09	-3.68	9.88	
	<i>p</i>	< .001	< .001	< .001	

Note. *N* = 225

These results demonstrate a clear differentiation between crisis response strategies, validating the manipulation and justifying its retention for the main study.

Pre-Crisis Brand Reputation

To assess whether the manipulation of pre-crisis brand reputation was successful, an independent samples *t*-test was conducted. As shown in Table 5, participants in the good pre-crisis brand reputation condition perceived the brand significantly more favorably than those in the bad reputation condition ($p < .001$, $d = 1.47$, 95% CI [1.80, 2.57]), confirming that the manipulation influenced perception as intended. Table 5 provides an overview of the means, standard deviations, and test results.

Table 5*Effect of Pre-Crisis Brand Reputation on Willingness to Buy*

	Good ^a		Bad ^b		<i>t</i> (211.07)	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Willingness to Buy ^c	5.50	1.31	3.32	1.62	11.13***	1.47

Note. N = 225. Note. *M* = mean; *SD* = standard deviation ^a*n* = 114; ^b*n* = 111; ^cWelch's *t*-test was used due to violation of the equal variance assumption ($F(1, 223) = 7.60, p = .006$).*** $p > .001$

As shown in Table 5, the pre-crisis brand reputation manipulation was effective and will be retained for further analyses.

Covariate analysis

To assess the potential influence of prior experience with food crises, simple linear regressions were conducted for both post-crisis brand perception and willingness to buy. The results indicate that prior experience with food crises did not significantly predict post-crisis brand perception ($F(1, 224) = 0.83, p = .363, R^2 = .004$) or willingness to buy ($F(1, 224) = 1.24, p = .267, R^2 = .006$). Participants with and without food crisis experience rated the brand similarly ($M = 3.52$ vs. $M = 3.35$ for brand perception; $M = 2.75$ vs. $M = 2.52$ for willingness to buy), suggesting that prior exposure to food crises did not meaningfully alter evaluations of the brand or willingness to buy. Table 6 provides an overview of the regression results, including key coefficients and explained variance.

Table 6*Linear Regression Results for Prior Food Crisis Experience as a Predictor of Post-Crisis Brand Perception and Willingness to Buy*

Variables	Model 1			Model 2		
	<i>B</i>	SE	β	<i>B</i>	SE	β
Constant	3.52***	0.11		2.75***	0.12	
Prior experience with food crises	-0.17	0.19	-.06	-0.24	0.21	-.07
<i>R</i> ²	.004			.006		

Note. N = 225. *B* = unstandardized regression coefficient; SE = standard error; β = standardized regression coefficient; R^2 = coefficient of determination. In Model 1, the effect on post-crisis brand perception was examined. In Model 2, the effect on willingness to buy was examined. *** $p < .001$

As Table 6 illustrates, prior experience with food crises had no meaningful impact on brand perception or willingness to buy and was therefore excluded as a covariate in further hypothesis testing.

Main effects

ANOVA and Post Hoc Analysis

To assess the direct effects of crisis response strategy and pre-crisis brand reputation on willingness to buy, a two-way ANOVA was conducted. The results indicate a strong main effect of pre-crisis brand reputation ($F(1, 219) = 30.26, p < .001, \eta^2 = .12$), confirming that a good pre-crisis reputation significantly increases willingness to buy compared to a bad reputation. These findings support H2.

Additionally, a significant main effect of crisis response strategy was observed ($F(2, 219) = 3.55, p = .031, \eta^2 = .03$), suggesting that different response strategies influence consumers' willingness to buy after a crisis. Table 7 presents an overview of the ANOVA results.

Table 7

Effects of Crisis Response Strategy and Pre-Crisis Brand Reputation on Willingness to Buy (Two-Way ANOVA Results)

Variable	ANOVA				
	<i>M</i>	<i>SD</i>	<i>F</i>	<i>df</i>	η^2
RS			3.55*	2, 219	.03
Apology	2.99	1.57			
Trivialization	2.65	1.48			
Denial	2.37	1.40			
BR			30.26***	1, 219	.12
Good	3.18	1.57			
Bad	2.14	1.23			
RS x BR			0.39	2, 219	< .01

Note. N = 225. *M* = mean; *SD* = standard deviation; *F* = F-ratio from ANOVA; *df* = degrees of freedom; η^2 = eta squared (effect size); RS = Crisis Response Strategy; BR = Pre-Crisis Brand Reputation.

* $p < 0.05$, *** $p < .001$

As shown in Table 7, the effect size for crisis response strategy ($\eta^2 = .03$) was relatively small compared to pre-crisis brand reputation ($\eta^2 = .12$). This suggests that while crisis response strategy had an overall effect on willingness to buy, its impact may be driven by specific differences between individual strategies.

To further examine these differences, Tukey HSD post hoc tests were conducted. The results indicate that apology was significantly more effective than denial ($p = .019$).

However, no significant difference was found between apology and trivialization ($p = .294$) or between trivialization and denial ($p = .430$). These results provide partial support for H1, as apology was associated with a statistically significant higher willingness to buy than denial.

The interaction effect between crisis response strategy and pre-crisis brand reputation was tested, but it was not significant ($F(2, 219) = 0.39, p = .677, \eta^2 < .01$). This suggests that the effect of crisis response strategy on willingness to buy does not depend on pre-crisis reputation. As a result, H3 is likely not supported. Nevertheless, to further explore this relationship, a moderation analysis was conducted, which will be presented in Chapter 4.7.

Non-Parametric Analysis for Robustness

Given minor deviations from normality, non-parametric tests were conducted to verify the robustness of the ANOVA results. A Kruskal-Wallis test confirmed a significant effect of crisis response strategy on willingness to buy ($H(2) = 15.56, p < .001$ (see Appendix C.4.1 for ranks), rejecting the null hypothesis of identical distributions across strategies.

Post hoc comparisons with Bonferroni-adjusted significance levels showed that apology led to significantly higher willingness to buy than denial ($p < .001$, test statistic = 70.32). However, the difference between apology and trivialization was not significant ($p = .175$), and trivialization did not significantly differ from denial ($p = .115$). The effect size for the significant comparison between apology and denial was $r = .32$ (see Appendix C.4.2), indicating a moderate effect.

To assess the differences in willingness to buy based on pre-crisis brand reputation, a Mann-Whitney U test was conducted. The results indicated a significant effect ($U = 40,890.50, z = -6.56, p < .001$) (see Appendix C.4.3 for ranks), confirming that the willingness to buy was significantly higher for good pre-crisis reputation compared to a bad reputation. The effect size for the significant comparison between a good and bad pre-crisis brand reputation was $r = .25$ (see Appendix C.4.4), indicating a small to moderate effect.

Since all non-parametric results align with the ANOVA findings, the conclusions regarding H1 and H2 remain unchanged.

Moderation effects

To investigate whether pre-crisis brand reputation moderates the effect of crisis response strategy on willingness to buy, a moderation analysis was conducted. The overall model was significant ($R^2 = .15, F(5, 219) = 7.57, p < .001$), but the interaction terms did not

explain additional variance ($\Delta R^2 = .003$, $F(2, 219) = 0.40$, $p = .670$), indicating that adding the interaction terms did not improve the predictive power of the model.

Neither interaction term was statistically significant. The interaction term for apology versus trivialization (Int_1) was $B = 0.11$ ($p = .809$, 95% CI [-0.81, 1.03]), and the interaction term for apology versus denial (Int_2) was $B = -0.28$ ($p = .553$, 95% CI [-1.21, 0.65]). Since both confidence intervals included zero, this indicates that pre-crisis brand reputation does not moderate the effect of crisis response strategy on willingness to buy. Table 8 presents the results of the moderation analysis.

Table 8

Moderation Analysis of Pre-Crisis Brand Reputation on Crisis Response Strategy Effects

Effect	<i>B</i>	<i>p</i>	95% CI (LLCI, ULCI)
Int_1	0.11	.809	[-0.81, 1.03]
Int_2	-0.28	.553	[-1.21, 0.65]

Note. $N = 225$. *B* = unstandardized regression coefficient; CI = confidence interval, LLCI = lower limit, ULCI = upper limit; Int_1 = Interaction term for apology versus trivialization $\times$ pre-crisis brand reputation, Int_2 = Interaction term for apology versus denial $\times$ pre-crisis brand reputation.

As shown in Table 8, the interaction effects were non-significant. A graphical representation of this interaction can be found in Appendix C.5. These findings indicate that the impact of crisis response strategy on willingness to buy does not depend on pre-crisis brand reputation. Consequently, H3 is not supported, aligning with the results of the two-way ANOVA.

Mediation effects

To examine whether post-crisis brand perception mediates the relationship between crisis response strategy and willingness to buy (H4), as well as the relationship between pre-crisis brand reputation and willingness to buy (H5), a mediation analysis was conducted. As previously shown, post-crisis brand perception was rated highest for apology, followed by trivialization and lowest for denial. Similarly, a good pre-crisis brand reputation led to higher post-crisis brand perception than a bad reputation.

The overall model fit was significant for both mediation models ($R^2 = .15$, $F(2, 222) = 20.44$, $p < .001$ for crisis response strategy, indicating that 15% of the variance in willingness to buy is explained by the predictors, and $R^2 = .17$, $F(1, 223) = 45.06$, $p < .001$ for pre-crisis brand reputation, meaning that 17% of the variance in willingness to buy is explained by the predictor.

For path *a*, crisis response strategy significantly influenced post-crisis brand perception, with $B = -0.57$, $p = .007$ for apology versus trivialization and $B = -1.28$, $p < .001$ for apology versus denial. Similarly, pre-crisis brand reputation had a significant effect on post-crisis brand perception ($B = 1.11$, $p < .001$). For path *b*, post-crisis brand perception significantly predicted willingness to buy in both models ($B = 0.83$, $p < .001$ for crisis response strategy and $B = 0.75$, $p < .001$ for pre-crisis brand reputation).

For the direct effect (*c*), apology versus trivialization showed no significant direct effect on willingness to buy ($B = 0.13$, $p = .465$), whereas apology versus denial had a significant direct effect ($B = 0.43$, $p = .029$). These results suggest that post-crisis brand perception absorbs the negative impact of trivialization and denial, making the direct effects appear positive. For the pre-crisis brand reputation, the direct effect was not significant ($B = 0.20$, $p = .202$). An overview of these mediation results is presented in Table 9.

Table 9

Mediation Analysis of Post-Crisis Brand Perception on Willingness to Buy

Antecedent			M (BP)			Y (WB)			
			<i>B</i>	SE	95% CI (LLCI, ULCI)	<i>B</i>	SE	95% CI (LLCI, ULCI)	
X1 (RS)	H4	<i>a</i>	-0.57**	0.21	[-0.99, -0.16]	<i>c</i>	0.13	0.18	[-0.23, 0.49]
X2 (RS)	H4	<i>a</i>	-1.28***	0.20	[-1.67, -0.88]	<i>c</i>	0.43*	0.19	[0.04, 0.81]
M (BP)	H4					<i>b</i>	0.83***	0.06	[0.71, 0.94]
X (BR)	H5	<i>a</i>	1.11***	0.16	[0.78, 1.43]	<i>c</i>	0.20	0.16	[-0.11, 0.52]
M (BP)	H5					<i>b</i>	0.75***	0.06	[0.63, 0.88]

Note. N = 225. *B* = unstandardized regression coefficient; SE = standard error (HC3 robust standard errors used); CI = confidence interval; LLCI = lower limit confidence interval; ULCI = upper limit confidence interval. X1 = trivialization vs. apology; X2 = denial vs. apology. RS = crisis response strategy; BR = pre-crisis brand reputation; BP = post-crisis brand perception; WB = willingness to buy. The table presents mediation results for RS and BR on WB via BP. *a* = path from independent variable to mediator; *b* = path from mediator to dependent variable; *c* = direct effect. * $p < .05$, ** $p < .01$, *** $p < .001$

The total effect (*c'*) of crisis response strategy on willingness to buy was not significant for apology versus trivialization ($B = -0.34$, 95% CI [-0.84, 0.16], $p = .173$), but significant for apology versus denial ($B = -0.63$, 95% CI [-1.11, -0.14], $p = .012$). The total effect of pre-crisis brand reputation on willingness to buy was significant ($B = 1.04$, 95% CI [0.67, 1.41], $p < .001$).

The indirect effect ($a \times b$) confirmed the mediating role of post-crisis brand perception. For crisis response strategy, the indirect effect was significant for both

comparisons ($B = -0.48$, $\text{BootSE} = 0.18$, $\text{BootLLCI} = -0.83$, $\text{BootULCI} = -1.13$ for apology vs. trivialization; $B = -1.06$, $\text{BootSE} = 0.17$, $\text{BootLLCI} = -1.39$, $\text{BootULCI} = -0.72$ for apology vs. denial), supporting the role of post-crisis brand perception as a key mediator. Similarly, for pre-crisis brand reputation, the indirect effect was significant ($B = 0.83$, $\text{BootSE} = 0.14$, $\text{BootLLCI} = 0.57$, $\text{BootULCI} = 1.13$), further reinforcing its mediating role in the relationship between pre-crisis brand reputation and willingness to buy. An overview of these indirect effects is presented in Table 10.

Table 10

Indirect Effects of Post-Crisis Brand Perception on Willingness to Buy

Antecedent			B	BootSE	BootLLCI	BootULCI
X1 (RS)	H4	$a \times b$	-0.48	0.18	-0.83	-1.13
X2 (RS)	H4	$a \times b$	-1.06	0.17	-1.39	-0.72
X (BR)	H5	$a \times b$	0.83	0.14	0.57	1.13

Note. $N = 225$. B = unstandardized regression coefficient; BootSE = bootstrapped standard error; BootLLCI = lower limit confidence interval; BootULCI = upper limit confidence interval. The table presents indirect effects ($a \times b$) for RS and BR on WB via BP. RS = crisis response strategy; BR = pre-crisis brand reputation; BP = post-crisis brand perception; WB = willingness to buy.

These results indicate full mediation of post-crisis brand perception for the effect of trivialization on willingness to buy and partial mediation for the effect of denial. Similarly, full mediation was observed for pre-crisis brand reputation.

Thus, the findings support H4a, H4b, H5a, and H5b, confirming that post-crisis brand perception mediates both relationships.

Discussion

Interpretation of Key Findings

The aim of this study was to investigate how different crisis response strategies and pre-crisis brand reputation affect consumers' willingness to buy after a product-harm crisis, particularly in the food industry. Furthermore, it examined whether post-crisis brand perception, in terms of trust and authenticity, mediates these effects, and whether pre-crisis brand reputation moderates the effect of response strategies on willingness to buy.

The results partially supported H1, as an apology led to significantly higher willingness to buy than denial, while no significant difference was found between apology and trivialization. This confirms that denial is particularly ineffective in encouraging willingness to buy, a finding consistent with previous research (Dutta & Pullig, 2011). In contrast, trivialization may not necessarily be perceived as completely dismissive. A possible explanation is that trivialization in this study involved dissociation rather than minimization, which might have been seen as a strategic form of distancing rather than irresponsibility. This highlights the nuanced way in which consumers interpret corporate communication that attempts to downplay responsibility.

H2 was fully supported: a good pre-crisis brand reputation significantly increased willingness to buy. This aligns with previous research emphasizing the buffering role of strong reputations (Dean, 2004; Sohn & Lariscy, 2015), though the degree of this effect may vary across contexts. This suggests that reputation serves as a stabilizing force, helping to maintain consumer confidence during crises. In ambiguous or uncertain situations, consumers may rely on previous positive brand experiences as cognitive shortcuts, which supports the idea of reputation as a heuristic cue in crisis evaluations.

In contrast, H3 was not supported. The expected interaction between pre-crisis brand reputation and crisis response strategy on willingness to buy did not reach significance. These findings challenge assumptions that a strong reputation always moderates the effectiveness of crisis responses. A similar pattern was found in the study by Dean (2004), who also reported no significant interaction between reputation and response quality in shaping corporate evaluations. One possible reason in the present study could be the nature of the crisis: the scenario described a situation with ambiguous responsibility. This uncertainty might have led consumers to form their own subjective attributions, thereby reducing the impact of brand history. These findings also underline that brand reputation alone cannot serve as a protective shield when consumers are uncertain about who is responsible for the crisis.

H4 and H5 were fully supported. Post-crisis brand perception significantly mediated the effects of both crisis response strategy and pre-crisis brand reputation on willingness to buy. These results underscore the critical role of post-crisis evaluations, indicating that trust and authenticity serve as cognitive and emotional filters through which consumers assess brand actions.

This aligns with previous research showing that brand authenticity mediates the effect of crisis-related actions on willingness to buy (Pittman & Sheehan, 2021). While Hegner et al. (2016) did not test mediation directly, their findings suggest that apology-based strategies enhance integrity- and benevolence-based trust, key elements of post-crisis brand perception.

The study thereby provides empirical support for integrating psychological constructs such as trust and authenticity into existing models of crisis communication.

Unexpected and Noteworthy Results

One of the most surprising findings was that trivialization did not significantly differ from apology in its effect on willingness to buy. While diminish strategies like trivialization are often considered less effective (Hegner et al., 2016), the present results indicate that this may depend on the crisis framing and perceived severity. Since the scenario did not involve fatalities or malicious intent, consumers may not have required full responsibility-taking and could have accepted softer forms of dissociation.

Another unexpected result was the absence of a moderation effect by pre-crisis brand reputation. Although reputation had a strong main effect, it did not significantly influence how consumers evaluated the response strategy. This contradicts assumptions drawn from the SCCT framework (Coombs, 2007) but is consistent with empirical findings by Dean (2004) and Sohn & Lariscy (2015), who both reported strong main effects of reputation but no significant interaction with crisis response or crisis type. A potential explanation could be that in product-harm crises, response strategies are evaluated based on perceived adequacy rather than historical brand image. This also highlights the value of experimental research, as it enables researchers to question implicit theoretical assumptions and generate new hypotheses.

Additionally, the strong indirect effects of post-crisis brand perception offer new insights: the mediating role was particularly evident in cases where the direct effect on willingness to buy was non-significant, such as for pre-crisis brand reputation. This suggests that willingness to buy may be more strongly influenced by post-crisis brand perception,

especially in terms of trust and authenticity, than by the initial response strategy or pre-crisis reputation alone.

Theoretical Contributions

This study makes four key contributions to the theoretical literature. It first draws attention to the mediating role of post-crisis brand perception, specifically trust and authenticity, which has been largely overlooked in prior models that emphasized direct effects of crisis response strategies (Dutta & Pullig, 2011).

In addition, it challenges the widely assumed buffering effect of pre-crisis brand reputation. Although the SCCT framework suggests that a strong reputation can mitigate the negative effects of a crisis response (Coombs, 2007), this study found no such effect. This adds to a growing body of evidence suggesting that the assumed buffering role of brand reputation in SCCT may not generalize across all crisis types. By confirming the consistent absence of interaction effects observed by Dean (2004) and Sohn & Lariscy (2015), it raises the need for refining existing theory to account for context-specific boundary conditions.

The study also enriches current understanding of how different response strategies are perceived by consumers. In showing that trivialization can perform comparably to apology when framed appropriately, the findings introduce valuable nuance to the conventional categorization of crisis responses.

Lastly, the results suggest a fruitful path for extending SCCT by integrating psychological constructs such as authenticity and trust. These dimensions may provide a more comprehensive explanation of consumer reactions in the aftermath of brand crises.

Practical Contributions

From a managerial perspective, the findings yield several actionable insights that can inform strategic crisis communication, particularly in the food industry. First, the results highlight that issuing an apology remains the most effective strategy, especially when consumer harm is evident. Compared to denial, apology led to significantly higher willingness to buy. Denial, by contrast, consistently underperformed and should be avoided due to its detrimental effects on consumer trust.

Interestingly, the comparable performance of trivialization and apology suggests that, in certain contexts, such as crises with ambiguous responsibility, strategically framed trivialization may serve as a viable alternative. However, it is crucial that such messages are rooted in factual dissociation rather than emotional detachment to avoid being perceived as dismissive or irresponsible.

Moreover, while a strong pre-crisis brand reputation positively influences consumer responses, it cannot compensate for an inadequate crisis response. Managers should therefore avoid relying solely on their brand's historical credibility and instead prioritize timely, clear, and credible communication in the moment of crisis.

The study also underscores the long-term value of cultivating trust and authenticity. These psychological attributes were shown to significantly mediate post-crisis consumer behavior, suggesting that transparent and value-based brand communication not only builds resilience but also supports recovery in the aftermath of a crisis.

Lastly, although prior experience with food-related crises did not significantly affect consumer responses in this study, real-world audiences may still vary in their reactions depending on individual characteristics such as personal involvement, general trust in the food industry, or crisis fatigue. Crisis communication strategies should therefore consider consumer segmentation and tailor messaging to different audience profiles. This may also inform the development of more differentiated crisis playbooks or empathy-oriented communication training within organizations.

Strengths and Limitations

One strength of this study lies in its experimental vignette design, which allowed for high internal validity and controlled comparisons of different response strategies and reputation conditions. The use of validated scales and robust statistical methods, including bootstrapped mediation models, adds further credibility to the findings and ensures methodological rigor.

Nevertheless, several limitations must be acknowledged. First, the sample consisted predominantly of young, highly educated participants. While this demographic group is often relevant for brand-related consumer research, the limited age and education variance reduces the generalizability of the results to broader, more heterogeneous consumer populations.

At the same time, the homogeneity of the sample enabled a focused theory test under controlled conditions, which enhances the internal validity of the study. Future research should therefore aim to replicate the findings using more diverse and demographically heterogeneous samples to ensure broader external validity.

Second, the study was conducted within a single-industry context, namely, the food sector. Although this choice reflects a particularly vulnerable industry in terms of consumer trust and safety concerns, the findings may not be directly transferable to other sectors.

Industries such as pharmaceuticals, automotive, or technology may involve different types of risks and stakeholder expectations, potentially leading to different consumer responses.

Third, the crisis scenario used in the experiment reflected a moderate level of severity. While this aligns with many real-world product-harm crises, it is possible that more extreme or life-threatening scenarios could evoke stronger emotional responses and alter the effectiveness of various crisis response strategies. Therefore, caution is warranted in generalizing the findings to crises of significantly greater severity.

Finally, the study relied on self-reported willingness to buy as the primary dependent variable. Although willingness to buy is a well-established proxy in consumer research, it remains a stated intention and does not necessarily predict actual purchasing behavior in real-world settings.

This limitation underscores the need for future studies to explore alternative or complementary measures of consumer behavior.

Future Research Directions

Building on these limitations and findings, future research should investigate whether the observed relationships hold in crises of varying severity, for example, by comparing consumer reactions in mild versus extreme product-harm scenarios. Moreover, applying the model to other industries, such as pharmaceuticals, automotive, or technology, could test the generalizability of the findings beyond the food sector.

Future research could also incorporate behavioral measures and longitudinal designs to validate and expand the current findings. This would allow researchers to assess how trust, authenticity, and willingness to buy develop over time and whether initial intentions translate into actual consumer behavior.

Additionally, future studies could explore further psychological mediators, such as perceived sincerity, emotional responses, or moral judgments, that might explain how consumers process crisis communication.

It would also be worthwhile to measure pre-crisis reputation not only as a binary construct (good vs. bad) but as a multidimensional one (e.g., ethical vs. competence-based) to capture more differentiated interaction effects.

Finally, expanding the range of tested crisis response strategies to include hybrid or emerging formats, such as transparency-driven responses, compensation, or proactive recall initiatives, would offer a more comprehensive understanding of strategic crisis communication.

Conclusion

This study set out to examine how different crisis response strategies and pre-crisis brand reputation influence consumers' willingness to buy following a product-harm crisis in the food industry. By integrating the mediating role of post-crisis brand perception—trust and authenticity—it also aimed to refine existing models of crisis communication.

The findings emphasize that not all response strategies are equally effective: while apology outperformed denial, trivialization achieved comparable effects to apology under certain conditions. Moreover, although a good brand reputation positively influenced consumer responses, it did not moderate the effectiveness of crisis strategies. This challenges common assumptions and highlights the need to reconsider reputation's buffering role in ambiguous crises.

The results further underscore the importance of trust and authenticity in post-crisis consumer evaluations. These constructs mediated the effects of both reputation and strategy on willingness to buy, offering valuable theoretical and practical implications for crisis communication.

Overall, this research contributes to a more nuanced understanding of consumer reactions in product-harm crises. It extends current frameworks by highlighting the role of psychological mechanisms and context sensitivity. While the study offers important insights, future research is needed to explore its boundaries across industries, crisis types, and consumer groups. Strategic communication that is timely, transparent, and trust-building remains key to navigating crises in the food industry and beyond. In a product-harm crisis, it's not just about what a brand says or the reputation it built before the crisis, but how it's perceived afterward that ultimately determines consumers' willingness to buy.

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Appendix A: Experimental Materials

Appendix A.1: Crisis Scenario

However, recently it was revealed that a popular FreshCo frozen pizza, FreshCo Veggie Delight, was contaminated with a dangerous bacteria in several batches. Consumption of these products led to serious stomach and intestinal complaints in several customers, and in two cases extended hospitalisation was required. The exact cause of the contamination is currently being investigated.

Appendix A.2: Pre-Crisis Brand Reputation (Good)

FreshCo is a leading brand in the food industry, recognised for its high-quality, natural ingredients and commitment to sustainable products. The company is highly praised for its strong ethical values and dedication to customer satisfaction.

Appendix A.3: Pre-Crisis Brand Reputation (Bad)

FreshCo is a brand in the food industry that is repeatedly confronted with quality problems and negative customer reviews. The company is often criticised for insufficient care in production and has repeatedly made negative headlines.

Appendix A.4: Crisis Response Strategy (Apology)

FreshCo responded immediately and issued a public statement: *'We deeply regret this incident and would like to sincerely apologise to our customers. The safety and health of our customers is our top priority and we take full responsibility. We have immediately withdrawn the affected products from sale and are working hard to optimise our production processes to avoid such incidents in the future.'*

In addition, FreshCo is offering all affected customers a refund and a shopping voucher for any product from its range.

Appendix A.5: Crisis Response Strategy (Trivialization)

FreshCo responded immediately and issued a public statement: *'Food-related incidents are not uncommon in the industry and affect numerous brands each year. We are working hard to determine the cause but believe that only a very small number of products were affected. The majority of our products are safe and of high quality.'*

Appendix A.6: Crisis Response Strategy (Denial)

FreshCo responded immediately and issued a public statement: *'There is no clear evidence that the products we produce caused the reported incidents. We strictly adhere to all hygiene and safety regulations and stand behind the quality of our products. Such allegations may damage our reputation, but are unfounded.'*

Appendix A.7: Logo (FreshCo)



Appendix B: Measurement Scales and Questionnaire Items

Appendix B.1: Post-Crisis Brand Perception (Trust & Authenticity)

1. Based on FreshCo's response to the crisis, how would you evaluate the trustworthiness of the brand?							
	strongly disagree		neutral				strongly agree
I trust the brand FreshCo.	☐	☐	☐	☐	☐	☐	☐
I rely on the brand FreshCo.	☐	☐	☐	☐	☐	☐	☐
The brand FreshCo is honest.	☐	☐	☐	☐	☐	☐	☐
The brand FreshCo is manipulative.	☐	☐	☐	☐	☐	☐	☐
The brand FreshCo is safe.	☐	☐	☐	☐	☐	☐	☐

2. In light of FreshCo's crisis response, how would you assess the brand's authenticity?							
	strongly disagree		neutral				strongly agree
The brand FreshCo is genuine.	☐	☐	☐	☐	☐	☐	☐
The brand FreshCo is authentic.	☐	☐	☐	☐	☐	☐	☐
The brand FreshCo is true to its values.	☐	☐	☐	☐	☐	☐	☐

Appendix B.2: Dependent Variable (Willingness to Buy)

3. How has FreshCo's crisis response influenced your willingness to purchase its products?							
	strongly disagree		neutral				strongly agree
I would like to try FreshCo's products.	☐	☐	☐	☐	☐	☐	☐
I would buy FreshCo's products if I happened to see them.	☐	☐	☐	☐	☐	☐	☐
I would actively seek out FreshCo's products in a store in order to purchase them.	☐	☐	☐	☐	☐	☐	☐

Appendix B.3: Manipulation Check

4. How would you rate FreshCo's reputation before the crisis based on the description provided?							
☐	☐	☐	☐	☐	☐	☐	☐
very bad	bad	somewhat bad	neutral	somewhat good	good	very good	

5. How did you perceive the description of the brand's crisis response strategy?	
FreshCo has...	☐ apologized for the crisis. ☐ downplayed the crisis. ☐ denied the crisis.

Appendix B.4: Control Question & Covariate (Experience with Food Crises)

6. What was the problem with the product that was causing the crisis?	
☐ It was mislabeled with incorrect nutritional information. ☐ It was contaminated with dangerous bacteria in several batches. ☐ It contained harmful allergens not listed on the packaging. ☐ It was recalled due to a production defect.	
7. Have you personally experienced a crisis in the food industry, such as a product recall or a food scandal?	
☐ Yes, I have. ☐ No, I haven't.	

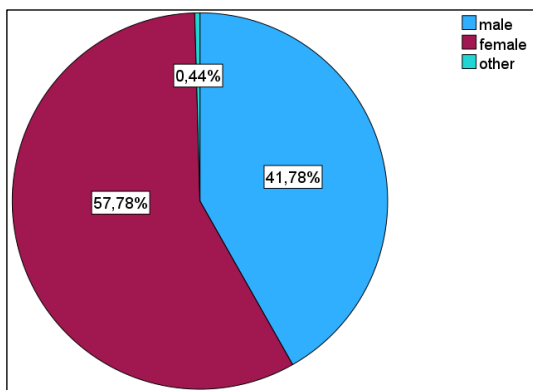
Appendix B.5: Demographics

Finally, I would like to ask you for some personal details.	
You are...	[Please select]
How old are you?	years old.
8. Where do you live?	
[Please choose]	
What is your highest educational qualification?	
Please select an option.	
☐ High school diploma (Abitur / Matura) ☐ Vocational training (Berufsausbildung) ☐ University degree (Bachelor, Master, Diploma or similar)	

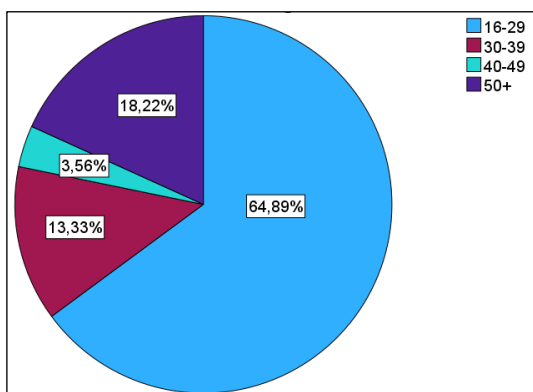
Appendix C: Statistical Results

Appendix C.1: Demographic Overview

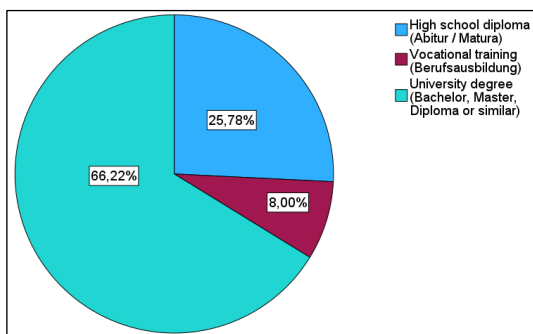
Appendix C.1.1: Gender



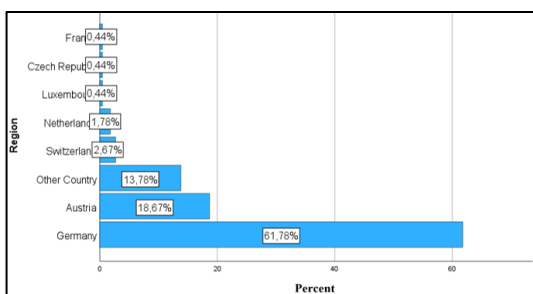
Appendix C.1.2: Age



Appendix C.1.3: Education Level



Appendix C.1.4: Region



Appendix C.2: Reliability Testing

Appendix C.2.1: Item Scale Statistics (Willingness to Buy)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
wtb1	5,1956	8,756	,803	,805
wtb2	5,1689	8,686	,857	,752
wtb3	5,6533	11,290	,671	,916

Appendix C.2.2: Item Scale Statistics (Post-Crisis Brand Perception)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
authen1	24,0444	90,168	,764	,908
authen2	23,8711	87,479	,794	,905
authen3	24,0267	86,973	,800	,904
trust1	24,6578	88,753	,752	,908
trust2	24,6933	90,892	,679	,914
trust3	23,8933	83,819	,815	,903
trust4	23,6311	95,457	,599	,920
trust5	24,7244	92,924	,665	,915

Appendix C.2.3: Item Scale Statistics (Trust)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
trust1	13,6533	28,504	,790	,806
trust2	13,6889	29,805	,704	,829
trust3	12,8889	27,760	,718	,826
trust4	12,6267	33,681	,546	,866
trust5	13,7200	31,453	,664	,839

Appendix C.2.4: Item Scale Statistics (Authenticity)

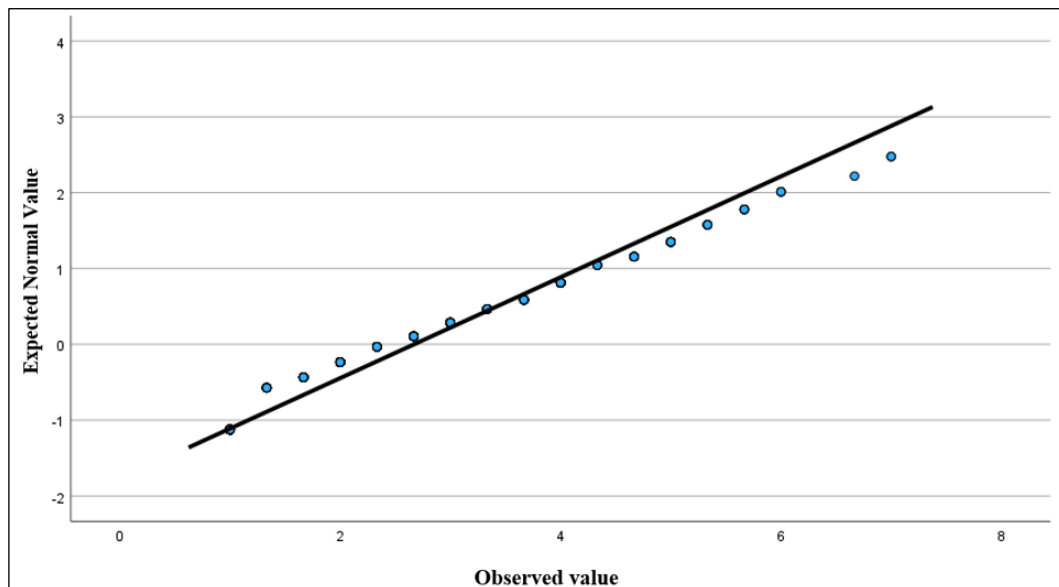
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
authen1	7,4000	10,420	,766	,874
authen2	7,2267	9,239	,833	,814
authen3	7,3822	9,469	,784	,858

Appendix C.3: Normality Testing

Appendix C.3.1: Frequency Table

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1,00	58	25,8	25,8	25,8
	1,33	11	4,9	4,9	30,7
	1,67	11	4,9	4,9	35,6
	2,00	23	10,2	10,2	45,8
	2,33	13	5,8	5,8	51,6
	2,67	12	5,3	5,3	56,9
	3,00	20	8,9	8,9	65,8
	3,33	10	4,4	4,4	70,2
	3,67	9	4,0	4,0	74,2
	4,00	23	10,2	10,2	84,4
	4,33	4	1,8	1,8	86,2
	4,67	7	3,1	3,1	89,3
	5,00	9	4,0	4,0	93,3
	5,33	5	2,2	2,2	95,6
	5,67	4	1,8	1,8	97,3
	6,00	3	1,3	1,3	98,7
	6,67	1	,4	,4	99,1
	7,00	2	,9	,9	100,0
	Total	225	100,0	100,0	

Appendix C.3.2: QQ-Plot



Appendix C.4: Non-Parametric Analysis for Robustness

Appendix C.4.1: Ranks (Crisis Response Strategy)

	crisisresponsestrategy	N	Mean Rank
wtb	apology	225	372,45
	trivialization	228	338,93
	denial	222	302,13
	Total	675	

Appendix C.4.2: Effect Size (Crisis Response Strategy)

Std. Test Statistic	z	3,94
Sum of the Group Sizes	n	149
	$\sqrt{n}$	12,21
Effect Size	r	0,32

Appendix C.4.3: Ranks (Pre-Crisis Brand Reputation)

	PreCrisisBrandReputation	N	Mean Rank	Sum of Ranks
willingnesstobuy	good	342	384,94	131648,50
	bad	333	289,79	96501,50
	Total	675		

Appendix C.4.4: Effect Size (Pre-Crisis Brand Reputation)

Std. Test Statistic	z	6,56
Sum of the Group Sizes	n	675
	Wurzel n	25,98
Effect Size	r	0,25

Appendix C.5: Moderation Analysis (Visual Illustration)

