

HARD TO STOMACH

**WHEN HYGIENE CRISES TURN BRAND EQUITY FROM SHIELD
TO LIABILITY**

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Bachelor Thesis in Marketing
Stockholm School of Economics
2026



Hard to Stomach: When Hygiene Crises Turn Brand Equity from Shield to Liability

Abstract:

This study investigates whether brand equity buffers a fast-food brand during hygiene crises or whether perceived physical threat overrides accumulated consumer goodwill. Using a between-subjects experimental design (N = 279) varying brand equity level and crisis severity, the findings reveal a theoretically meaningful dissociation. Under mild crisis conditions, the high-equity brand was evaluated more favourably and forgiven more readily; under severe conditions, it suffered a disproportionately steeper evaluative decline consistent with expectancy violation theory. This interaction did not extend to purchase intention, brand trust, or brand forgiveness, where equity produced consistent main effects, but severity eroded all three at equivalent rates. Post-hoc comparisons revealed a further asymmetry: brand evaluation declined at every increment of severity, whereas purchase intention collapsed only at the severe level. Moral outrage was event-driven and equity-insensitive; brand forgiveness was relationship-driven and equity-sensitive, which is a dissociation consistent with dual-process accounts. Mediation analyses identified two structurally distinct pathways: crisis severity suppressed purchase intention through perceived health risk (indirect-only mediation) and degraded brand evaluation through disgust alongside a direct path (complementary mediation). Once perceived physical threat crosses a severity threshold, prior brand relationships govern how consumers feel but not what they intend to do.

Keywords:

Brand Equity, Product-Harm Crisis, Food Safety, Perceived Health Risk, Purchase Intention, Expectancy Violation, Fast-food Industry, Dual Process

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Acknowledgements:

We would like to express our heartfelt gratitude to our supervisor **Ksenia Rundin**, Postdoc Fellow at the Center for Statecraft and Strategic Communication, for her unwavering support and thoughtful engagement with our work from start to finish. Her feedback consistently pushed us to think more carefully and write more precisely, and her encouragement during the more demanding phases of the process meant a great deal to us.

We would also like to thank **Magnus Söderlund**, Professor at the Department of Marketing and Strategy, for the methodological rigour he brings to bachelor thesis work at SSE more broadly.

Finally, we are grateful to all survey respondents who gave their time to complete the study. Without their contributions, the empirical work underlying this thesis would not have been possible.

Jens & Alexis

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1. Introduction

In February 2025, Aftonbladet published an investigation into MAX Burgers, the largest homegrown fast-food chain in Sweden, founded in 1968 and built over decades into a brand synonymous with Swedish quality. Reporters reviewed 99 reports from food safety inspectors and interviewed 25 current and former employees. What they found was food served past expiration, cleaning cloths used interchangeably on toilets and food preparation surfaces, milkshake machines cleaned by pouring contents into waste buckets and back again, and inspection reports noting mould, insect infestations, and rodent droppings at multiple locations.

Their initial response was to call an emergency staff meeting and announce mandatory hygiene training. Within days, however, the CEO reversed course, describing Aftonbladet's reporting as exaggerated and inaccurate, and filed a complaint against Aftonbladet with the Swedish Press Ombudsman.

What this sequence of events illustrates is not only that hygiene crises damage brands, but something more puzzling: a brand with deep accumulated goodwill finds itself pulled in opposite directions at once, because the reputational damage demands corrective action, yet that same goodwill creates pressure to defend and deny. The CEO's pivot from corrective action to denial is a plausible, and arguably predictable response for a brand that has built its reputation on exactly the attributes under scrutiny. The question this study investigates is whether that instinct is justified. Existing research does not clearly show whether the goodwill MAX built can protect it when failure occurs in the very domain on which its brand equity depends.

Two clarifications about scope must be made. First, MAX motivates the research question but is not itself under study, so inferences about MAX are not warranted. The fictional-brand design permits a clean test of the mechanisms that would plausibly operate in cases like MAX's: equity buffering, expectancy violation, and risk-driven suppression of purchase intentions. Second, the puzzle concerns what happens when a crisis strikes the domain in which a brand's equity is anchored.

1.1. Background

Brand equity is the added value a brand name confers beyond a product's functional qualities, that is the accumulated goodwill, trust, and expectation that consumers bring to every brand encounter (Keller, 1993; Aaker, 1991). Its most consequential property, for this study, is its purported insulation effect: when something goes wrong, high-equity brands are thought to recover more quickly and suffer less damage than their unknown competitors.

That buffering claim rests on two mechanisms. First, consumers who are committed to a brand process negative information in a directionally motivated way (Ahluwalia et al., 2000). Secondly, strong corporate ability associations allow consumers to attribute a specific failure to an isolated cause rather than a general incapacity, limiting damage to the firm's broader reputation (Brown & Dacin, 1997).

Hygiene crises are theoretically distinct from financial misconduct and product recalls, though, on which most of this buffering evidence rests. A hygiene failure is simultaneously a competence failure, because the firm could not keep its food safe, and a moral failure, because the firm knew, or should have known, and did not act. This dual implication matters because moral failures tend to weigh more heavily in evaluations than competence failures (Skowronski & Carlston, 1987). A brand implicated in a hygiene crisis is not only considered incompetent; but also irresponsible, and the protective mechanisms that buffer competence failures may not survive that combination.

The biased processing account predicts that committed consumers will protect a trusted brand even in a hygiene crisis (Ahluwalia et al., 2000). The expectancy violation account predicts the opposite: precisely because a high-equity brand has staked its reputation on quality and safety, a hygiene failure constitutes a larger violation for its loyal consumers than for consumers of an unknown brand, leading to a correspondingly larger penalty (Dawar & Pillutla, 2000). These mechanisms predict completely opposite outcomes, and crisis severity may be what determines which one dominates.

This study tests that possibility experimentally, using the fast-food industry as its setting. Habitual consumption patterns and strong brand familiarity make equity

particularly salient in this sector, as food safety is a chronic rather than peripheral concern. Furthermore, risk perception theory suggests that direct physical threat may activate different consumer responses than reputational damage alone (Slovic, 1987), which is a distinction existing literature has not tested in food hygiene contexts.

1.2. Problem Formulation

The buffering hypothesis is well-established, but it has not been tested in hygiene crisis contexts, and the existing literature has not mapped how crisis severity moderates the relationship between brand equity and consumer outcomes. What is missing is a study that brings the competing mechanisms: biased processing (Ahluwalia et al., 2000) and expectancy violation (Dawar & Pillutla, 2000), into direct contact by varying severity. Furthermore, psychological mechanisms driving these outcomes remain underspecified.

1.3. Purpose and Research Questions

The purpose of this study is to investigate whether high brand equity protects firms during hygiene crises, or whether perceived health risk overrides brand loyalty, and to define the boundary conditions under which each mechanism dominates.

To reach the purpose, the following research questions will be answered:

- 1) How does brand equity level affect consumer responses including brand attitude, purchase intention, and brand forgiveness following a hygiene crisis?
- 2) Does crisis severity moderate the effect of brand equity on consumer outcomes such that a high-equity brand will be penalised more severely under high-severity crisis conditions?
- 3) Do perceived health risk and disgust function as mediating mechanisms through which crisis severity shapes purchase intentions and brand evaluations?

1.4. Delimitations

Several delimitations bound the scope of this study. The focus on the fast-food industry means findings are not by default transferable to sectors where food safety is not a

primary consumer concern. The experimental vignette methodology captures stated intentions and self-reported evaluations rather than actual purchase behaviour, and the use of a fictional brand, while necessary for experimental control, limits ecological validity. The sample is drawn exclusively from consumers based in Sweden, restricting generalisability to other cultural and regulatory contexts. Crisis severity was operationalised through two written scenarios varying scope of harm, number of locations affected, and media coverage, which is an approach that captures the construct as theorised by Coombs (2007) but does not exhaust it. Finally, the study captures short-term post-exposure reactions only and says nothing about how consumer responses evolve as a crisis unfolds.

2. Theoretical Framework and Hypotheses

2.1. Brand Equity

Two frameworks have dominated the conceptual development of brand equity. Aaker's (1991) model is asset-based; brand equity is the aggregate of five distinct dimensions: brand loyalty, brand awareness, perceived quality, brand associations, and other proprietary assets. Keller's (1993) Customer-Based Brand Equity (CBBE) framework, by contrast, is cognitive and memory-based. Brand equity arises when knowledge of the brand, defined as awareness and a network of brand associations evaluated for favourability, strength, and uniqueness, modifies consumer response relative to an otherwise identical unbranded product.

A vignette manipulation constructed from a written brand description can credibly manipulate perceived quality cues, awareness-related associations, and the favourability of brand-relevant cognitions, which is the territory Keller's framework occupies. It cannot plausibly replicate Aaker's loyalty dimension, which requires habitual transactional history, nor can it deliver Keller's resonance level, which requires the kind of psychological investment and identity incorporation that arises only through extended brand exposure. What the experimental design operationalises is therefore closer to Keller's conception: brand equity as cognitively accessible associations and quality perceptions, not as the habituated commitment or identity-level attachment that long-term brand relationships produce.

2.2. Brand Evaluation

Brand evaluation, operationalised here as overall brand attitude, captures the consumer's summary affective-cognitive judgment of a brand following information exposure (Keller, 1993; Spears & Singh, 2004). Brand equity precedes a given encounter, while brand evaluation is the post-exposure outcome that equity protects or amplifies.

2.3. Purchase Intention in a Restaurant Context

Purchase intention captures the strength of a consumer's motivation to perform a specific behaviour, in this case, to acquire and consume the brand's product (Ajzen, 1991). It reflects a volitional commitment to act rather than a probability estimate: consumers high in purchase intention have decided, however tentatively, to direct effort toward that behaviour (Ajzen, 1991). Spears and Singh (2004) operationalise this as a multidimensional disposition, encompassing consideration, relative preference, and trial willingness, and it is their conceptualisation this study adopts. In durable goods and packaged food research, the construct maps cleanly onto transactional decisions: a consumer either buys the product or does not. In a fast-food context, the relevant behaviour is less obviously a "purchase" in that sense. Eating at a restaurant involves a decision to visit, to order, and to consume on-premises or in transit, which are behaviours that differ from adding an item to a shopping basket.

The use of purchase intention rather than visit intention or dining intention in this study reflects a deliberate theoretical choice rather than an oversight. In fast-food contexts, the decision to visit and the decision to order are not meaningfully separable, in that a consumer who intends to eat at Nordbit necessarily also intends to pay for food there, and vice versa. Spears and Singh's (2004) operationalisation, which this study adapts, frames intention around general consideration, relative preference, trial willingness, and situational likelihood, which are dimensions that translate intact to a restaurant context, since each item asks about behavioural disposition toward the brand rather than specifying a transactional channel.

2.4. Brand Equity as a Crisis Buffer and its Limits

The crisis-buffering hypothesis rests on a motivated information-processing mechanism. Consumers with strong positive predisposed beliefs about a brand, process negative information directionally: they counterargue, reinterpret, and derogate the source, limiting the extent to which negative events affect their overall brand evaluation (Ahluwalia, Burnkrant, and Unnava, 2000). Furthermore, strong corporate ability associations allow consumers to attribute a specific failure to situational or isolated

causes rather than general organisational incapacity, limiting reputational damage beyond the incident (Brown and Dacin, 1997).

The most influential challenge to the buffering hypothesis is Dawar and Pillutla's (2000) expectancy-violation framework. The framework shows that consumers interpret a firm's crisis response through prior expectations. Thus, the impact on brand equity depends on the interaction between expectations and response. A hygiene failure in the domain on which a brand's equity is built represents a larger expectancy gap for high-equity brands, producing a disproportionately larger evaluative penalty than for low-equity brands. Consumers attribute failure not to circumstance but to character, because the incongruity is too great to be explained by an isolated situational factor. This produces a betrayal effect which is absent or weaker in low-equity brands from which consumers expected less.

H1	Following a hygiene crisis, a brand with high brand equity will receive more favourable brand evaluations, higher purchase intentions, and greater brand forgiveness than a brand with low brand equity.
H2	Greater crisis severity will negatively affect brand evaluation, purchase intention, and brand trust, regardless of brand equity level.
H3	Brand equity will moderate the effect of crisis severity on brand evaluation such that a high-equity brand will experience a disproportionately steeper decline under severe crisis conditions, consistent with an expectancy violation mechanism.
H4	Brand equity will not moderate the effect of crisis severity on purchase intention, as perceived physical health risk overrides brand relationships when a safety threshold is reached.
H5	Brand equity will moderate the effect of crisis severity on perceived health risk, buffering it under mild conditions but losing this capacity under severe crisis conditions.

2.5. Product-Harm Crises and Food Safety

A crisis is distinct from routine organisational failure in both its systemic character and its public dimension. Coombs (2007) defines a crisis as a sudden and unexpected event that threatens stakeholder expectations and has the potential to generate negative outcomes for the organisation, its stakeholders, and wider publics. This separates it from service failure, which is localised, dyadic, and typically resolved through recovery mechanisms within the service encounter itself (Davidow, 2003). The distinction matters theoretically because crisis scholarship is concerned with reputational threat at the level of the brand rather than the transaction: where a service failure challenges a

consumer's experience with a specific interaction, a crisis challenges their beliefs about the organisation's fundamental character and competence (Coombs & Holladay, 2002).

Brand equity has been conceptualised and operationalised across decades of consumer research, yielding well-validated measurement frameworks in both Aaker (1991) and Keller (1993) that this study draws on directly. Crisis severity, by contrast, is treated here as a manipulated stimulus condition rather than a construct requiring independent theoretical elaboration: its dimensionality: scope of harm, number of affected parties, media reach, presence or absence of consumer illness, follows Coombs' (2007) SCCT severity taxonomy and has already been operationalised in the methodology.

Product-harm crises are those in which a firm's products are implicated in causing or risking physical harm to consumers. They differ from financial misconduct or reputational scandals because the threat to consumer wellbeing is direct, and the brand cannot easily cordon off the crisis from its core equity domain. In a fast-food context, food safety is not a peripheral attribute but a foundational one. The degree of physical harm caused to consumers is among the situational factors that heighten the reputational threat an organization faces, intensifying the responsibility stakeholders attribute to it (Coombs, 2007).

2.6. Perceived Risk as a Behavioural Mediator

Risk Perception Theory, developed by Slovic (1987), provides the theoretical basis for understanding why physical health threats may qualitatively alter consumer responses to brand crises in ways that brand equity cannot mitigate. Perceived risk is not a simple function of the degree of objective hazard; it is constructed through cognitive and affective processes giving special weight to dread, unknown risk, and personal controllability. Food contamination crises score high on both dread and unknown risk, since consumers cannot determine whether a given product is safe, triggering a self-protective processing mode.

Perceived health risk is modelled as a mediator of the relationship between crisis severity and purchase intention with a rational cognitive appraisal pathway. This causal sequence is grounded in expectancy-value frameworks (Ajzen, 1991), whereby crisis

severity activates risk appraisal, elevated risk then increases the perceived cost of consumption, and this directly suppresses purchase intention.

H6	Perceived health risk will mediate the relationship between crisis severity and purchase intention.
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2.7. Disgust as an Affective Mediator

Alongside the cognitive pathway operating through risk appraisal, a parallel affective pathway operates through disgust. Disgust is an evolutionarily rooted emotion with the primary adaptive function of contamination avoidance (Rozin and Fallon, 1987; Oaten, Stevenson, and Case, 2009). In a food hygiene crisis, descriptions of bacterial contamination, unsanitary conditions, and consumer illness reliably elicit it. Through contamination transfer, disgust generalises to the brand itself (Argo, Dahl, and Morales, 2006).

The mechanism through which this operates on brand evaluation is affect-as-information (Schwarz and Clore, 1983), whereby consumers incorporate their prevailing affective state as a heuristic input when forming evaluative judgements.

Disgust is specified as a mediator of crisis severity on brand evaluation. Although disgust is fundamentally an avoidance emotion, its primary mode of operation is automatic affective processing rather than deliberate cost-benefit reasoning. Consistent with affect-as-information theory, disgust colours the brand itself as a contaminated object, degrading overall evaluation. Purchase intention is not modelled as a downstream target of disgust because its effect is expected to operate indirectly through brand evaluation. Once a brand is affectively devalued, reduced purchase intention follows from that evaluation rather than from disgust independently.

H7	Disgust will mediate the relationship between crisis severity and brand evaluation.
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2.8. Brand Forgiveness and Recovery

Brand forgiveness measures the relational dimension of crisis response: the consumer's willingness to extend a second chance despite a failure (Hegner, Beldad, and Kamphuis op Heghuis, 2014). It differs from brand evaluation, which captures overall attitudinal

standing, and from purchase intention, which captures forward-looking behavioural disposition. The three do not necessarily move in parallel.

The transposition from interpersonal forgiveness theory holds because brand relationships carry structurally similar properties: accumulated investment, reciprocity expectations, identity relevance, that function as a comparable buffer (McCullough et al., 1997).

A potential conceptual overlap is worth acknowledging. Brand equity, operationalised in this study through cognitive associations and quality perceptions (Keller, 1993), and brand forgiveness, share the underlying assumption that prior goodwill moderates crisis response. They are nonetheless distinct. Brand equity is a pre-crisis asset that precedes a failure; brand forgiveness is a post-crisis outcome that reflects whether the consumer is willing to extend a second chance after the failure has occurred. Measuring both within the same design allows the study to test whether equity's protective function operates through forgiveness as a relational mechanism, which is a question the existing literature has posed but not tested experimentally in a hygiene crisis context.

Keller's (1993) resonance construct is the closest branding analogue, where the brand is embedded in habitual decision-making and self-concept in ways that parallel interpersonal investment. The present study's vignette manipulation delivers equity below resonance level, so any observed forgiveness effect reflects cognitive equity rather than deep relational bonds and is likely smaller than would be observed in real brand contexts with habitually reinforced equity.

This prediction is also consistent with Coombs' (2007) SCCT framework, which identifies prior relational reputation as a moderator of crisis recovery, such that organisations with more positive prior relationships are better positioned to draw on accumulated social capital in the recovery phase.

2.9. Industry Spillover and Institutional Trust

When a crisis is attributed specifically to a focal brand rather than the broader category, negative consumer responses are unlikely to generalise to competitors or to regulatory bodies overseeing the industry (Dahlen & Lange, 2006; Roehm & Tybout, 2006).

Industry spillover, which represents the degree to which crisis-induced scepticism extends beyond the offending brand to the fast-food category, is theoretically contingent on whether consumers perceive the brand as representative of the category rather than as an isolated actor. A fictional brand without established market presence lacks the category-representative associations required to trigger spillover effects (Roehm & Tybout, 2006), making a null effect the theoretically warranted prediction here.

H8	Neither crisis severity nor brand equity will significantly affect industry spillover perceptions.
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Institutional trust, operationalised here as confidence in Livsmedelsverket's ability, benevolence, and integrity, is similarly unlikely to be moved by a single experimental exposure. Levi and Stoker (2000) characterise institutional trust as a macro-level orientation shaped by accumulated socialisation and prior experience with institutions rather than discrete events, a position consistent with Siegrist and Cvetkovich's (2000) finding that trust in regulatory bodies is governed by social trust and familiarity rather than crisis-specific information. A single vignette exposure is therefore insufficient to shift what is essentially a stable dispositional orientation.

H9	Neither crisis severity nor brand equity will significantly erode institutional trust in Livsmedelsverket.
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2.10. Hypotheses and Conceptual Framework

The theory reviewed above generates a set of competing and complementary predictions. Buffering literature anticipates that accumulated goodwill insulates high-equity brands from reputational damage, while expectancy violation theory predicts the opposite under sufficiently severe conditions. Risk perception and disgust introduce two psychologically distinct pathways through which crisis severity shapes consumer outcomes, and brand forgiveness situates these dynamics within a relational framework that extends beyond an immediate crisis moment.

H1 through H5 constitute confirmatory tests specified in advance on theoretical grounds. H6 and H7 test a dual mediation structure. H8 and H9 are null predictions in that the study does not expect significant effects, and these hypotheses can only fail to be disconfirmed rather than positively supported in the Neyman-Pearson sense.

The conceptual model situates these relationships as follows: crisis severity and brand equity level are the independent variables; brand evaluation, purchase intention, brand trust, and brand forgiveness are the primary outcomes; perceived health risk mediates the severity-to-purchase-intention path; and disgust mediates the severity-to-brand-evaluation path. Disgust's main effects on brand evaluation are otherwise treated as exploratory. Industry spillover and institutional trust are exploratory outcomes. Moral outrage & blame attribution, and surprise are exploratory constructs examined without a priori predictions. Negative WOM intention was administered as an exploratory instrument item but excluded from all analyses due to inadequate internal consistency ($\alpha = .628$), as reported in Section 3.5.3.

3. Methodology

3.1. Research Approach

This study examines how brand equity and crisis severity shape consumer responses in the fast-food industry through a fictional brand experiment. A deductive approach was used to test theory-driven hypotheses in a novel context, consistent with positivist epistemology. A quantitative experimental design was selected for its ability to support causal inference through manipulation and randomisation, and to enable rigorous theory-testing across a larger sample.

3.2. Experimental Design

Data was collected through a self-administered online survey in Qualtrics. The study employed a 2 (brand equity: high vs. low) $\times$ 2 (crisis severity: mild vs. severe) + 2 control between-subjects design, randomly assigning respondents to one of six conditions. Each condition presented a written vignette describing a fictional fast-food brand, Nordbit, with four experimental conditions varying brand equity and crisis severity, and two control conditions exposing respondents to the brand description without a crisis scenario. Control conditions were included to establish a baseline measure of brand evaluation and purchase intention in the absence of any crisis exposure.

Following exposure, all respondents completed measures of the mediating and outcome variables using 7-point Likert scales. An experimental vignette design was used to control the stimulus while maintaining realism, combining the internal validity of a laboratory experiment with the external validity of a naturalistic setting (Aguinis & Bradley, 2014). The between-subjects design was selected to avoid carry-over effects and demand characteristics (Charness et al., 2012). Respondents were randomly assigned to experimental conditions to control for confounding variables, ensuring that outcome differences could be attributed to the manipulations rather than pre-existing participant characteristics (Söderlund, 2018; Campbell & Stanley, 1963).

All respondents were based in Sweden. The survey was administered in English: Sweden consistently ranks among the top countries globally in English proficiency (EF EPI, 2024), and translating validated Likert-scale items risks construct invalidity through back-translation (Brislin, 1970), as it could alter the semantic nuance of scales originally developed and validated in English-language marketing literature.

3.2.1. Survey Flow

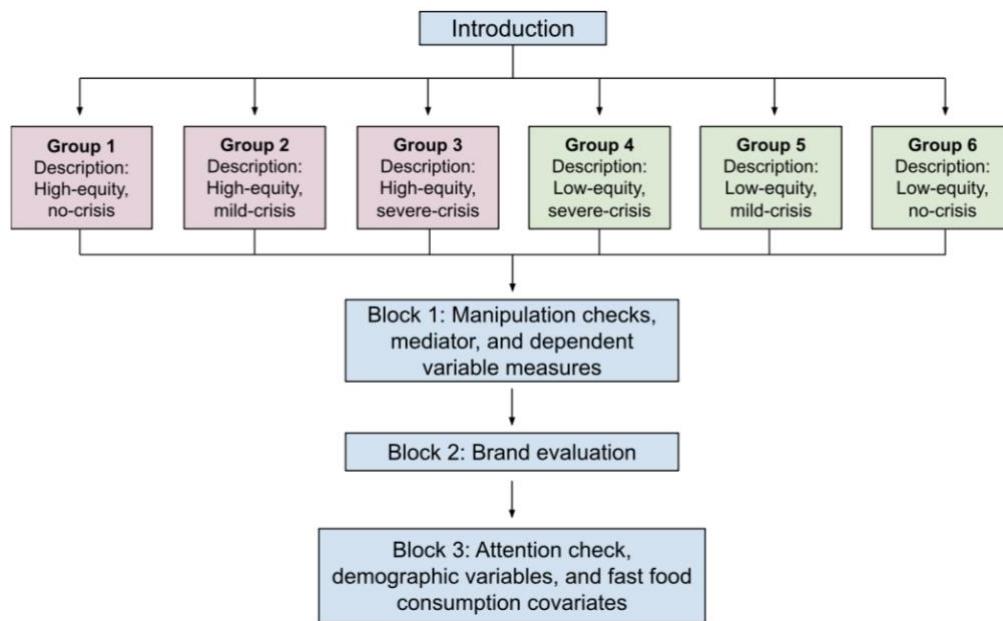


Figure 1: A visualisation of the survey flow across the six experimental conditions

All respondents were presented with an introductory section outlining the study's purpose, estimated completion time, voluntary nature of participation, and anonymity of their responses. Thereafter they were randomly assigned to a group, where they were met with a description and questionnaire.

The manipulation checks were administered prior to the dependent variable measures, which departs from the convention of post-DV placement recommended by Sigall and Mills (1998). This may have introduced minor priming effects and is a limitation.

Respondents were then asked to evaluate the brand in Block 2, before proceeding to Block 3, which consisted of an attention check, demographic questions, and consumption covariates.

It is also worth noting that Block 2 departed from the 7-point Likert scale used elsewhere in the survey, instead employing a semantic differential scale anchored at "extremely negative" and "extremely positive" to measure overall brand attitude. This reflects standard psychometric practice for capturing evaluative brand responses (Spears & Singh, 2004). Additionally, Block 3 extended beyond conventional demographic profiling by including two domain-specific items: fast food purchase frequency and prior personal experience with a food safety issue. These were included as potential covariates, as individual differences in fast food consumption habits and exposure to food safety incidents could moderate participant responses to the crisis vignettes.

Demographic questions and the attention check were also intentionally placed at the end of the survey to minimise priming effects that could bias responses to the experimental stimuli. Preceding the vignette with an attention check may have signaled to respondents that deliberate, effortful processing is expected, artificially inflating engagement beyond naturally occurring conditions.

3.3. Stimulus Conditions

A fictional brand was used to eliminate pre-existing attitudes and ensure experimental control. Brand descriptions were identical within each equity condition, and crisis scenarios were identical within each severity condition, ensuring that response differences were attributable solely to the manipulations.

3.3.1. Group 1, 2 and 3: High Brand Equity

Groups 1, 2, and 3 each represented a distinct crisis condition: no crisis, mild crisis, and severe crisis respectively, but were all presented with an identical high-equity brand description: *"Nordbit is a fast-food chain that has been operating for over 25 years, with more than 3,400 locations nationwide. It is one of the most visited fast-food restaurants in the country, with an estimated 1 in 2 households eating there at least once a month. Nordbit has consistently received high consumer satisfaction ratings and has been recognised multiple times by industry bodies for the quality of its products."*

It is acknowledged that the specific figures used in the high-equity description (over 3,400 locations and 1 in 2 households visiting monthly) exceed what is plausible for a

Swedish fast-food brand. McDonald's, the largest chain operating in Sweden, has approximately 200 locations. These figures were chosen to create a coherent high-equity signal rather than to simulate a realistic Swedish market incumbent. The manipulation check results, reported in Section 4.1, confirm that respondents in the high-equity condition perceived the brand as significantly more established and reputable than those in the low-equity condition, indicating that the manipulation was effective despite the use of stylised figures. A potential concern is that the implausibility of the numbers may have reduced ecological validity or triggered scepticism, which is a limitation of the stimulus design.

This description targets the core dimensions of both Aaker (1991) and Keller (1993): the operational history and national footprint establish brand salience and awareness; monthly household visitation operationalises behavioural loyalty; high satisfaction ratings capture perceived quality; and industry recognition signals external credibility and trustworthiness.

3.3.2. Group 4, 5, and 6: Low Brand Equity

Groups 4, 5, and 6 shared an identical low-equity brand description, constructed to represent the opposing end of the equity continuum: *"Nordbit is a relatively unknown fast-food chain that has been operating for just under 3 years, with 12 locations in mid-sized Swedish cities. It remains largely unknown to most consumers and has received no notable industry recognition or awards. Nordbit has struggled to differentiate itself in a competitive market, and customer reviews frequently cite inconsistent food quality and unremarkable service. The brand is rarely top-of-mind when Swedish consumers consider their fast-food options."*

Three years of operation signals minimal salience; the absence of recognition removes external credibility; inconsistent quality operationalises low perceived quality (Aaker, 1991); and failure to differentiate captures the absence of unique associations.

3.3.3. Group 2 and 5: Mild Crisis

Groups 2 and 5 were presented with the following mild crisis scenario: *"Recently, a hygiene concern has been raised about Nordbit. During a routine inspection at one*

location, health officials observed that some staff members had not been consistently wearing protective gloves during food preparation. The location was temporarily closed, and staff underwent a full retraining on hygiene protocols before reopening. Health authorities have confirmed that no illnesses have been linked to the incident. The matter has been covered by some local news outlets."

This scenario represents a mild crisis per Coombs' (2007) SCCT framework: a single-location procedural lapse, no consumer harm, swift corrective action, and local media coverage only.

3.3.4. Group 3 and 6: Severe Crisis

Groups 3 and 6 were presented with the following severe crisis scenario: "Recently, Nordbit has been at the centre of a major food safety crisis. Health authorities discovered dangerous bacteria - including E. coli and Salmonella - in food produced at several Nordbit restaurants across the country. Over 200 customers have fallen ill, and a number have been hospitalised. A nationwide recall has been issued and several Nordbit locations have been forced to close. The story has made national headlines, and many customers are now questioning whether Nordbit's food is safe to eat."

The severe scenario escalates every SCCT dimension: dangerous pathogens at multiple locations, 200+ illnesses with hospitalisations, a nationwide recall, and national media coverage, constituting a public health emergency rather than a reputational incident.

3.4. Two-Phase Experimental Design

3.4.1. Pilot Study

A pilot study was conducted between the 10-15th March 2026 with 20 respondents using a think-aloud protocol, which exposes comprehension difficulties and unintended response patterns (Willis, 2005; Tourangeau et al., 2000). Two key refinements resulted: removal of crisis-related questions from the control group and elimination of inadvertently duplicated items.

3.4.2. Main Study

Building on the insights gained from the pilot study, the main study was conducted on a larger scale with the independent variables: brand equity level and crisis severity. The dependent variables included brand evaluation, purchase intention, brand trust, and brand forgiveness, with additional exploratory constructs covering moral outrage & blame attribution, disgust, surprise, industry spillover, and institutional trust. Negative WOM intention was included as an exploratory instrument item given its theoretical relevance to crisis response (Hennig-Thurau et al., 2004) but was excluded from confirmatory analysis due to inadequate internal consistency ($\alpha = .628$), as reported in Section 3.5.3.

In addition to the dependent variable measures described below, the survey included manipulation check items to verify that the brand equity and crisis severity manipulations were perceived as intended. Brand equity perception was measured using three items adapted from established brand perception scales. Crisis severity perception was measured using two items administered to treatment-exposed respondents only. All manipulation check items used the same 7-point Likert scale as the dependent variable measures. The results of these checks are reported in Section 4.1.

All dependent variables were measured using 7-point balanced Likert scales anchored at 1 (Strongly Disagree) and 7 (Strongly Agree), except brand evaluation which used a semantic differential scale. Composite index means were calculated for each construct to increase construct reliability and reduce measurement error (Hair et al., 2019).

All questions from the main study are included in Appendix I.

Brand Evaluation

Brand Evaluation captures overall consumer sentiment as a proximal indicator of attitude formation following brand and crisis exposure (Keller, 1993). All respondents responded to: "My overall attitude towards this brand is..." with responses ranging from 1 (Extremely negative) to 7 (Extremely positive). This single-item approach follows Bergkvist and Rossiter (2007), who demonstrate that single-item measures are psychometrically appropriate for concrete, unidimensional constructs. It should be noted that Spears and Singh (2004), cited in this study for purchase intention measurement,

advocate a multi-item brand attitude scale. So, the single item operationalisation used here is a deliberate trade-off between parsimony and construct breadth and is acknowledged as a limitation in section 6.3.1.

Purchase Intention

Purchase Intention was operationalised using four items: general consideration, relative preference, trial willingness, and situational purchase likelihood, following Spears and Singh (2004) and grounded in the attitudinal component of Ajzen's (1991) Theory of Planned Behaviour.

Negative WOM Intention

Negative WOM Intention captures consumers' propensity to disseminate unfavourable information, representing a distinct punitive response from passive disengagement. It is particularly consequential in fast-food contexts where social transmission of crisis information can amplify reputational damage well beyond the initial incident (Hennig-Thurau et al., 2004).

Brand Forgiveness / Recovery

Brand Forgiveness measures consumers' willingness to restore their brand relationship following a crisis, operationalised across four dimensions: second-chance willingness, perceived recoverability, affective forgiveness, and conditional trust restoration (Hegner et al., 2014).

Moral Outrage & Blame Attribution

Moral Outrage and Blame Attribution jointly capture the normative and causal dimensions of consumer crisis response. Higher attributed responsibility predicts more severe reputational damage and stronger retaliatory intentions per SCCT (Coombs, 2007).

Disgust

Disgust is a discrete, evolutionarily rooted emotion particularly relevant in the fast-food context where hygiene crises directly implicate the physical act of consumption (Rozin

& Fallon, 1987). It is modelled as a mediator of the relationship between crisis severity and brand evaluation.

Surprise

Surprise was included as an indicator of expectancy violation: consumers hold stronger prior schemas for a high-equity brand, so an equivalent crisis should produce greater incongruity and amplify downstream emotional and evaluative responses (Mandler, 1982).

Industry Spillover

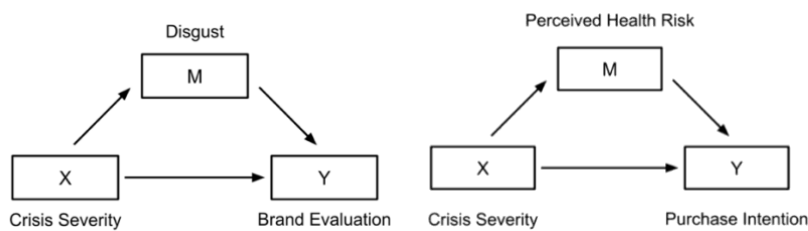
Industry Spillover captures whether negative responses generalise beyond the focal brand to the broader fast-food category, and is grounded in associative network theory (Anderson, 1983).

Institutional Trust

Institutional Trust measures confidence in Livsmedelsverket across ability, benevolence, and integrity dimensions (Mayer et al., 1995), enabling assessment of whether crisis exposure erodes regulatory trust independently of brand-specific effects.

Mediation Analysis

Two mediators were examined: perceived health risk (cognitive pathway, predicting purchase intention) and disgust (affective pathway, predicting brand evaluation), as theorised in sections 2.4 and 2.5.



Two domain-specific covariates were included: fast-food purchase frequency as a proxy for category involvement (Petty & Cacioppo, 1986), and prior personal experience with a food safety issue, which has been shown to heighten risk sensitivity and reduce institutional trust (Slovic, 1987).

3.5. Data Collection and Quality

3.5.1. Data Collection

Data was collected via a self-administered online questionnaire hosted on Qualtrics, open from 17 March to 3 April 2026, during which 417 responses were recorded. The online format was selected to facilitate random assignment of condition and to enable geographic distribution of the survey beyond the researchers' immediate networks. Following exclusion of respondents who failed attention checks and quality screening, a sample of $N = 279$ was retained, with cell sizes ranging from $n = 39$ to $n = 59$.

Prior to data collection, an a-priori power analysis was conducted to determine the minimum sample size required to detect effects of the anticipated magnitude. Based on a medium effect size ($f = 0.25$), a desired power level of 0.80, and an alpha of .05, the analysis indicated a minimum sample size of 200 to ensure adequate model structure. The retained sample of $N = 279$ exceeds this threshold, providing sufficient statistical power to detect effects across all hypothesis tests.

Distribution extended beyond the researchers' immediate networks: respondents were recruited in person at the KTH library, T-Centralen, several workplaces, at a local high school, Facebook groups oriented around students and fast-food consumption, and broader social media channels. This multi-venue approach was intended to increase sample heterogeneity and reduce reliance on a purely convenience-based sample.

That said, the sample retains characteristics of a convenience sample. While convenience sampling is widely accepted in experimental marketing research, particularly when the primary goal is theory testing rather than population estimation (Calder, Phillips, & Tybout, 1981), it carries inherent limitations with respect to external validity. Geographic concentration in Stockholm, whose demographic profile skews relatively young, educated, and urban, limits the generalisability of findings to broader Swedish or international populations.

Of the 279 valid responses: gender was majority male (159), followed by female (109), non-binary (4), and prefer not to say (7). Education skewed toward undergraduate degree holders (127), followed by secondary education (98) and postgraduate (46). Age

skewed heavily young: the 18-24 group constituted 68.5% of the sample, with under-18 at 12.5% and 25-34 at 11.5%. Older age groups were sparsely represented.

3.5.2. Data Analysis

Data was exported from Qualtrics to SPSS. Manipulation checks were carried out using one-way ANOVA. Reporting F-values for brand equity conditions and crisis severity levels. Where significant main effects of crisis severity were found, post-hoc Tukey HSD tests were applied to identify which severity levels drove observed differences. Tukey HSD controls the familywise error rate while maintaining acceptable statistical power with approximately equal group sizes (Field, 2018).

The primary hypotheses H1-H4 were tested using analysis of variance (ANOVA), with analysis of covariance (ANCOVA) reported alongside as a robustness check. For each primary outcome, the dependent variable was modelled as a function of the fixed factors brand equity (high/low) and crisis severity (control/mild/severe) together with their interaction (equity*severity). Every model produced three results of interest. The brand equity main effect tests H1, showing whether the high-equity brand was rated more favourably. The severity main effect tests H2, showing whether ratings declined as crisis severity increased. The interaction tests H3 and H4, showing whether the effect of crisis severity differs by equity level. The ANCOVA models repeat each analysis while controlling for two covariates, fast-food purchase frequency (Q22) and prior experience with a food-safety incident (Q21). Both covariates are reported alongside the ANOVA to show whether these influence the experimental effects. Several outcomes (brand forgiveness, disgust, surprise, moral outrage, and blame attribution) were measured only after a crisis scenario and were therefore analyzed on the smaller crisis-exposed sample.

An alpha level of .05 was applied as the threshold for statistical significance across all tests. Given the number of dependent variables examined; four primary outcomes, five exploratory constructs, and two mediators across six conditions, the probability of at least one spurious significant result is non-trivial. Pre-specified hypothesis tests were treated separately from exploratory analyses of secondary constructs, in that results for exploratory constructs should be interpreted with appropriate caution and treated as hypothesis-generating rather than hypothesis-confirming, pending replication. The

primary hypotheses H1-H5 and the null predictions H8-H9 were specified a priori on theoretical grounds before data collection. However, the study was not formally pre-registered on a public registry, thus the terms confirmatory and a priori are used in the thesis.

Mediation analyses were conducted using Hayes' (2022) PROCESS macro (Model 4) with 5,000 bootstrap resamples and bias-corrected confidence intervals. Both analyses were restricted to crisis-exposed respondents, as the mediation pathways are theoretically contingent on crisis exposure. An indirect effect is considered significant when the 95% bootstrapped confidence interval excludes zero.

Crisis severity was entered into the PROCESS macro as a binary predictor coded 0 for mild crisis and 1 for severe crisis, restricting the analysis to treatment-exposed respondents only. This binary coding was necessary because PROCESS Model 4 requires a single continuous or dichotomous predictor; the three-level severity factor used in the main ANOVA models was therefore collapsed to a two-level variable for the mediation analyses, with control-group respondents excluded on theoretical grounds as the mediation pathways are contingent on crisis exposure.

3.5.3. Reliability and Validity

Internal consistency was assessed using Cronbach's alpha (threshold $\alpha \geq .70$; Nunnally, 1978), confirming that composite index means were psychometrically justified. All scales exceeded the conventional threshold of $\alpha \geq .70$ (Nunnally, 1978) with one exception. Negative WOM Intention (NWOM) returned $\alpha = .628$, falling below the acceptable threshold and was therefore excluded from all analyses prior to hypothesis testing. Its removal means that the punitive, reputation-damaging dimension of consumer crisis response, actively discouraging others from the brand, is not tested in the confirmatory analyses. This represents a limitation of the measurement instrument rather than the construct, and future work should replicate the study using a more internally consistent NWOM scale.

Cronbach's alpha coefficients for all scales are reported in Table 2 in Appendix III.

Content validity was ensured by operationalising each construct with established scales from peer-reviewed marketing literature, preserving semantic integrity where items

were adapted to the fast-food crisis context (Malhotra, 2010). Construct validity was confirmed with successful manipulation checks (Perdue & Summers, 1986). Internal validity was strengthened by the between-subjects design, eliminating carry-over and demand effects, alongside random assignment and attention checks. External validity is the primary limitation: the convenience sample and use of a fictional brand reduce generalisability and may attenuate the intensity of effects relative to real brand encounters (Aguinis & Bradley, 2014; Shadish et al., 2002).

3.6. Ethical Considerations

The study was conducted in compliance with ethical standards at the Stockholm School of Economics. Since authentic consumer reactions required respondents to believe the Nordbit crisis scenarios were factual, a verbal debriefing was presented immediately following the final survey block, explicitly clarifying that Nordbit is a fictional brand and that all depicted crises were hypothetical. The severe crisis condition was designed to minimise duration of exposure to distressing stimuli.

4. Results

The following section presents the empirical findings of the study, structured in accordance with the analytical procedure outlined in the methodology. Results are reported sequentially: reliability assessment and manipulation checks, followed by hypothesis tests using two-way ANOVA and ANCOVA, and concluding with mediation analyses conducted using Hayes' (2022) PROCESS macro. Due to listwise deletion of cases with missing item responses, effective sample size varies marginally across analyses. Full-sample analyses (Hypotheses 1-4, H9) use $N = 275$ to 279 . Analyses restricted to treatment-exposed respondents (Hypotheses 5, H1-forgiveness, H2-trust, exploratory constructs) use $n = 171$ to 193 . Missingness was distributed across conditions in a manner consistent with random attrition.

4.1. Manipulation Checks

Manipulation Check: Brand Equity

Respondents in the high brand equity condition rated the brand significantly higher on the perception scale ($M = 5.26$, $SD = 1.61$) than those in the low condition ($M = 2.28$, $SD = 1.15$), $F(1, 277) = 317.18$, $p < .001$. The manipulation was successful.

Manipulation Check: Crisis Severity

Perceived severity increased systematically across conditions: control ($M = 3.68$, $SD = 1.69$), mild crisis ($M = 5.60$, $SD = 1.25$), and severe crisis ($M = 6.31$, $SD = 0.77$). A one-way ANOVA confirmed that these differences were statistically significant, $F(2, 275) = 99.47$, $p < .001$. Post-hoc Tukey HSD tests confirmed that all three levels were perceived as meaningfully distinct. Both manipulations can therefore be considered successful.

4.2. Covariate Variables

The distribution of the two domain-specific covariates is as follows. For fast-food purchase frequency, the most common response was 1-3 times per month ($n = 108$,

38.7%), followed by more than once a week ($n = 66$, 23.7%), less than once a month ($n = 57$, 20.4%), and once a week ($n = 47$, 16.8%). For prior personal experience with a food safety crisis, 53.8% reported no prior experience ($n = 150$), 24.7% reported having been personally affected ($n = 69$), and 20.8% were unsure ($n = 58$).

Neither covariate approached significance for seven of the ten outcomes, and F-values for the experimental effects were essentially unchanged relative to the ANOVA models, confirming that randomisation successfully equated groups on these individual differences.

Significant covariate effects emerged for three outcomes. For blame attribution, prior fast-food purchase frequency (Q22) was significant, $F(1, 185) = 5.852$, $p = .017$, $\eta^2 = .031$, indicating that individual differences in category involvement were associated with higher blame attribution independently of the experimental conditions. For industry spillover, prior experience with a food safety crisis (Q21) was significant, $F(1, 183) = 6.251$, $p = .013$, $\eta^2 = .033$. For institutional trust, Q21 was also significant, $F(1, 266) = 9.713$, $p = .002$, $\eta^2 = .035$. In all three cases, the direction and significance of the experimental effects were not reversed by the inclusion of covariates: for blame attribution, crisis severity remained significant, and equity remained non-significant; for industry spillover and institutional trust, neither the equity nor severity effects were significant in either model. Notably, for industry spillover and institutional trust, prior personal experience with food safety crises accounted for more variance than the experimental manipulations themselves, suggesting that real-world exposure to food safety incidents may be a more consequential driver of category-level and regulatory scepticism than single-exposure experimental scenarios can produce.

4.3. Hypothesis Testing

Each primary hypothesis was tested with the brand equity and crisis severity 2x3 factorial ANOVA/ANCOVA described in section 3.5.2. The equity main effect addresses H1, the severity main effect addresses H2, and the interaction addresses H3/H4.

Unless otherwise noted, neither domain-specific covariate (fast-food purchase frequency, Q22; prior food safety experience, Q21) reached significance for the primary outcomes, and their inclusion did not alter the direction or significance of experimental effects; per-hypothesis covariate p-values are therefore omitted below, and the full values are available in Appendix IV.

4.3.1. Primary Hypotheses

H1: Following a hygiene crisis, a brand with high brand equity will receive more favourable brand evaluations, higher purchase intentions, and greater brand forgiveness than a brand with low brand equity.

Brand Evaluation

The overall ANCOVA model was significant, $F(7, 266) = 14.511$, $p < .001$, $R^2 = .276$. Brand equity produced a significant main effect, $F(1, 266) = 31.667$, $p < .001$, $\eta^2 = .106$, with the high-equity brand receiving consistently higher evaluations than the low-equity brand across all crisis conditions. The high-equity brand was evaluated more favourably than the low-equity brand at every severity level (High: $M = 4.48, 3.93, 2.80$ at control, mild, severe; Low: $M = 3.14, 3.21, 2.43$ at control, mild, severe).

Purchase Intention

The overall ANCOVA model was significant, $F(7, 266) = 12.075$, $p < .001$, $R^2 = .241$. Brand equity had a significant main effect, $F(1, 266) = 32.160$, $p < .001$, $\eta^2 = .108$, with higher purchase intentions in the high-equity condition across all severity levels (High: $M = 4.39, 4.09, 3.02$; Low: $M = 3.25, 3.27, 2.49$ at control, mild, severe respectively).

Brand Forgiveness

Measured in treatment conditions only ($n = 190$). The overall ANCOVA model was significant, $F(6, 183) = 3.661$, $p = .002$, $R^2 = .107$. Brand equity had a significant main effect, $F(1, 183) = 7.495$, $p = .007$, $\eta^2 = .039$, with the high-equity brand more readily forgiven than its low counterpart (High total: $M = 4.95$; Low total: $M = 4.44$). The interaction was not significant, $F(1, 183) = .191$, $p = .663$, $\eta^2 = .001$, indicating that the equity advantage in forgiveness held consistently across both severity levels rather than being confined to one.

H1 is supported across all three outcomes.

H2: Greater crisis severity will negatively affect brand evaluation, purchase intention, and brand trust, regardless of brand equity level.

Crisis severity produced significant main effects across all three outcomes. For brand evaluation: $F(2, 266) = 25.358, p < .001, \eta^2 = .160$. For purchase intention: $F(2, 266) = 20.955, p < .001, \eta^2 = .136$. For brand trust, the ANCOVA model yielded $F(2, 268) = 24.038, p < .001, \eta^2 = .152$; the equity-by-severity interaction was not significant ($p = .474$), indicating that trust eroded at a statistically equivalent rate across both equity conditions. Descriptive means for brand trust confirm the pattern: High-equity (Control: $M = 4.29$, Mild: $M = 4.06$, Severe: $M = 2.92$); Low-equity (Control: $M = 3.46$, Mild: $M = 3.29$, Severe: $M = 2.49$).

H2 is supported across all three outcomes.

4.3.2. Interaction Hypotheses

H3: Brand equity will moderate the effect of crisis severity on brand evaluation such that a high-equity brand will experience a disproportionately steeper decline under severe crisis conditions, consistent with an expectancy violation mechanism.

The equity-by-severity interaction on brand evaluation was statistically significant in the ANCOVA model, $F(2, 266) = 4.060, p = .018, \eta^2 = .030$. In the control condition, the high-equity brand was evaluated considerably more favourably ($M = 4.48$) than the low-equity brand ($M = 3.14$), a gap of 1.34 scale points. As crisis severity increased, the high-equity brand experienced a steep evaluative decline, converging toward the low-equity brand by the severe condition (High: $M = 2.80$ vs. Low: $M = 2.43$), a gap of only 0.37 scale points. The low-equity brand, by contrast, showed a comparatively flatter trajectory across the severity conditions, consistent with consumers who expected less and therefore experienced less of a violation.

H3 is supported. The pattern is consistent with the expectancy violation mechanism described by Dawar and Pillutla (2000).

H4: Brand equity will not moderate the effect of crisis severity on purchase intention, as perceived physical health risk overrides brand relationships when a safety threshold is reached.

The equity-by-severity interaction on purchase intention was not statistically significant in the ANCOVA model, $F(2, 266) = 1.386$, $p = .252$, $\eta^2 = .010$, nor in the primary ANOVA model, $F(2, 269) = 1.49$, $p = .227$. Both equity conditions were affected by crisis severity to a statistically equivalent degree. The null interaction, taken alongside the significant interaction for brand evaluation, reveals a theoretically important dissociation: consumers assessed a high-equity brand more favourably following a crisis, yet reported equivalently lower purchase intentions.

H4 is supported.

H5: Brand equity will moderate the effect of crisis severity on perceived health risk, buffering it under mild conditions but losing this capacity under severe crisis conditions.

Perceived health risk was measured across all conditions ($N = 278$). The full-sample ANCOVA model was significant, $F(7, 269) = 17.560$, $p < .001$, $R^2 = .314$. Severity produced the dominant effect, $F(2, 269) = 60.428$, $p < .001$, $\eta^2 = .310$. The equity main effect was not significant in this full model, $F(1, 269) = 1.815$, $p = .179$. The equity-by-severity interaction was also not significant in the full model, $F(2, 269) = .182$, $p = .834$.

The mediation analysis model (restricted to crisis-exposed respondents, $n = 182$) yielded a different pattern: brand equity significantly reduced perceived health risk, $F(1, 178) = 8.11$, $p = .005$, $\eta^2 = .044$, and the interaction was significant, $F(1, 178) = 12.33$, $p < .001$, $\eta^2 = .065$. Under mild crisis conditions, high-equity functioned as a partial buffer, where descriptive means show perceived health risk of 4.66 for high-equity and 4.52 for low-equity under mild crisis. Under severe conditions, this buffering capacity was extinguished: perceived health risk rose sharply and equivalently for both equity conditions (High severe: $M = 6.06$; Low severe: $M = 5.87$), consistent with the prediction that a sufficiently severe health breach eliminates the buffering advantage once a threshold is crossed. The ANCOVA model restricted to crisis-exposed respondents and incorporating covariates (Q22, Q21) produced: equity effect $F(1, 178)$

= 8.11, $p = .005$, $\eta^2 = .044$; severity $F(1, 178) = 12.44$, $p < .001$; interaction $F(1, 178) = 12.33$, $p < .001$, $\eta^2 = .065$. This model is not reproduced in the appendix as it constitutes an intermediate step in the mediation analysis rather than a primary hypothesis test.

H5 is supported in the crisis-exposed mediation subsample. The full-sample ANCOVA returns non-significant equity ($p = .179$) and interaction ($p = .834$) effects on perceived health risk, while the treatment-restricted model returns significant effects for both (equity: $p = .005$; interaction: $p < .001$). This discrepancy requires explicit justification rather than dismissal. Control-group respondents were exposed to a brand description without any crisis scenario; asking them to rate perceived health risk produces responses that are theoretically unanchored, since there is no crisis event to appraise. Including these responses in the full-sample model introduces noise that attenuates the equity and interaction effects. This is not a post-hoc rationalisation for a failed analysis: the mediation hypotheses were specified as applying to crisis-exposed respondents from the outset (Section 3.5.2), and the treatment-restricted model is the theoretically appropriate test. The full-sample result is reported for transparency; the treatment-restricted result is the substantively interpretable one.

4.3.3. Post-Hoc Comparisons: Severity Gradations

Because the Severity factor has three levels (control, mild, severe), a significant ANOVA F-value establishes only that something differs across conditions, not which pairwise comparisons are responsible. Tukey HSD post-hoc tests were applied to all significant severity effects to identify the specific pattern of differences. These comparisons reveal an important asymmetry between attitudes and intentions.

For brand evaluation, all three pairwise comparisons were significant: control versus mild (mean difference = .44, $p = .027$), control versus severe (mean difference = 1.33, $p < .001$), and mild versus severe (mean difference = .89, $p < .001$). Estimated marginal means were $M = 3.81, 3.57, 2.61$ for control, mild, and severe respectively. This constitutes a clean linear decline in which every increase in crisis severity produced a meaningfully lower evaluation. Brand evaluation is therefore sensitive to all gradations of crisis severity, including relatively minor procedural lapses.

For purchase intention, the pattern differed substantially. The severe condition was significantly lower than both the control (mean difference = 1.17, $p < .001$) and the mild condition (mean difference = .85, $p < .001$), but the control and mild conditions did not differ significantly from one another (mean difference = .33, $p = .134$; marginal means $M = 3.93, 3.60, 2.75$ for control, mild, severe). This threshold pattern indicates that purchase intention was largely unresponsive to mild crisis severity but dropped substantially once the crisis was classified as severe.

Brand trust showed an identical threshold pattern: the severe condition was significantly lower than both control (mean difference = 1.25, $p < .001$) and mild (mean difference = .89, $p < .001$), while control and mild did not differ significantly (mean difference = .36, $p = .093$; marginal means $M = 3.87, 3.68, 2.71$).

Perceived health risk showed a fully linear, three-way pattern with all pairwise comparisons significant: control versus mild (mean difference = -.78, $p < .001$), mild versus severe (mean difference = -1.39, $p < .001$), and control versus severe (mean difference = -2.17, $p < .001$; marginal means $M = 3.80, 4.58, 5.97$). This contrasts with the threshold pattern observed for purchase intention and raises the question of why continuously increasing health risk does not produce a proportionally continuous decline in purchase intention.

Brand forgiveness showed a partial threshold pattern: the mild versus severe comparison was significant (mean difference = .65, $p = .004$; marginal means $M = 4.90$ control, 5.01 mild, 4.36 severe), while neither control-mild ($p = .935$) nor control-severe ($p = .248$) comparisons reached significance, indicating that forgiveness declined primarily at the severe crisis level.

For surprise and disgust, only the mild versus severe comparison was significant (shock: mean difference = .97, $p < .001$; disgust: mean difference = .61, $p = .001$). Control did not differ significantly from either crisis condition on these variables, partly reflecting reduced statistical power associated with the small control group cell on these treatment-restricted measures ($n = 19$), as disgust and surprise items were only administered to respondents in the treatment-restricted block, leaving a small subset of control-group respondents who completed those items.

4.3.4. Exploratory Hypotheses

H8: Crisis severity and brand equity will not significantly affect industry spillover, as consumers attribute fault to the focal brand rather than the broader fast-food category.

The overall ANCOVA model for industry spillover was non-significant, $F(6, 183) = 1.697$, $p = .124$. Neither brand equity ($p = .460$) nor crisis severity ($p = .867$) nor their interaction ($p = .774$) approached significance in the ANOVA model. In the ANCOVA model, prior experience with food safety crises (Q21) emerged as a significant predictor, $F(1, 183) = 6.251$, $p = .013$, $\eta^2 = .033$, while the experimental effects remained non-significant. Descriptive means for industry spillover were flat across all conditions (range: 3.36-3.60), with no meaningful pattern across equity or severity cells.

H8 is not disconfirmed. Consumers appeared to isolate fault to Nordbit rather than generalising to the broader fast-food category, consistent with crisis attribution specificity. That said, prior personal experience with a food safety crisis did independently predict greater industry spillover, suggesting that while a fictional scenario may not move aggregate perceptions, accumulated real-world exposure may gradually erode category-level trust. Null predictions of this kind cannot be positively confirmed; only the disconfirming evidence is absent.

H9: Neither crisis severity nor brand equity will significantly erode institutional trust, as this represents a stable macro-level construct shaped by long-term socialisation rather than firm-specific crisis exposure.

The overall ANOVA model for institutional trust was non-significant, $F(5, 269) = 1.218$, $p = .301$, $R^2 = .022$. Neither brand equity ($p = .127$) nor crisis severity ($p = .233$) nor their interaction ($p = .456$) reached significance. In the ANCOVA model, prior experience with food safety crises (Q21) was significant, $F(1, 266) = 9.713$, $p = .002$, $\eta^2 = .035$, while all experimental effects remained non-significant. Institutional trust means were notably stable across conditions (range: 4.91-5.42), with no discernible trend.

H9 is not disconfirmed. Confidence in Livsmedelsverket was unaffected by exposure to either the brand descriptions or the crisis scenarios, consistent with the view that institutional trust is shaped by accumulated socialisation rather than discrete crisis events. As with H8, prior personal experience with food safety crises accounted for

meaningful additional variance, suggesting this individual-level factor is more consequential for regulatory scepticism than any single experimental exposure.

4.3.5. Additional Exploratory Analyses

The following constructs: moral outrage, disgust, and surprise, were included for exploratory purposes without a priori ~~pre-registered~~ hypotheses. No corrections for multiple comparisons were applied. Findings should be treated as hypothesis-generating rather than confirmatory, and replication is warranted before drawing strong conclusions.

Moral Outrage

The overall ANCOVA model was not significant, $F(6, 186) = 1.506$, $p = .178$. The equity main effect was non-significant in both the ANOVA ($p = .455$) and ANCOVA ($p = .510$) models. Crisis severity produced a significant main effect, $F(2, 186) = 3.311$, $p = .039$, $\eta^2 = .034$. Tukey HSD tests identified this as driven specifically by the mild-versus-severe comparison (mean difference = .54, $p = .038$; marginal means $M = 4.26$ control, 3.78 mild, 4.31 severe); neither the control-mild nor control-severe contrasts reached significance.

Outrage showed no equity effect, yet brand forgiveness did. If consumer anger is directed at the crisis event rather than at the brand's character, which the outrage data suggest, then the equity sensitivity of forgiveness cannot be explained by differential anger levels. Instead, it is consistent with the study's central argument: forgiveness is governed by accumulated relational goodwill rather than by the intensity of the emotional response to the event itself. Outrage is event-driven; forgiveness is relationship-driven. This dissociation between the emotional and relational dimensions of crisis response adds a further layer of specificity to the dual-process account motivating the study.

Disgust

The overall ANOVA model was significant, $F(3, 170) = 4.852$, $p = .003$, $R^2 = .079$; the ANCOVA model was also significant, $F(6, 186) = 2.560$, $p = .021$, $R^2 = .076$. Brand equity did not produce a significant main effect in either model (ANOVA: $p = .154$;

ANCOVA: $p = .165$). Crisis severity produced a significant main effect in both (ANOVA: $p < .001$, $\eta^2 = .071$; ANCOVA: $p = .002$). Tukey HSD post-hoc tests confirmed that disgust was significantly higher in the severe crisis condition than in the mild condition (mean difference = .61, $p = .001$; $M = 4.83$ severe vs. 4.22 mild); the control condition ($M = 4.50$) did not differ significantly from either crisis condition, partly reflecting the small control group cell.

Surprise

The overall ANOVA model was significant, $F(3, 170) = 9.768$, $p < .001$, $R^2 = .147$; the ANCOVA model was also significant, $F(6, 186) = 4.976$, $p < .001$, $R^2 = .138$. Brand equity did not produce a significant main effect in either model (ANOVA: $p = .299$; ANCOVA: $p = .289$). Crisis severity was a strong predictor in both (ANOVA: $F(1, 170) = 28.217$, $p < .001$, $\eta^2 = .142$; ANCOVA: $p < .001$). Tukey HSD tests showed that the severe condition elicited significantly greater shock than the mild condition ($p < .001$; $M = 4.61$ severe vs. 3.63 mild), while neither comparison involving the control condition reached significance, likely reflecting the reduced power of the small control cell ($n = 19$).

4.3.6. Mediation Analysis

The following section examines the psychological mechanisms through which crisis severity shapes consumer outcomes. Two mediation analyses were conducted using Hayes' (2022) PROCESS macro (Model 4) with 5,000 bootstrap resamples and bias-corrected confidence intervals. Both analyses were restricted to crisis-exposed respondents, as the mediation pathways are theoretically contingent on crisis exposure. An indirect effect is considered significant when the 95% bootstrapped confidence interval excludes zero. Given the cross-sectional vignette design, the mediation results describe patterns of statistical association rather than established causal sequences.

H6: Perceived health risk will ~~fully~~ mediate the negative relationship between crisis severity and purchase intention, reflecting a rational cognitive appraisal pathway whereby consumers report lower purchase intentions in response to perceived physical threat rather than general reputational damage.

The analysis was conducted among crisis-exposed respondents ($n = 179$). Crisis severity significantly predicted perceived health risk, $B = 1.404$, $SE = .165$, $t = 8.485$, $p < .001$ (path a). Perceived health risk significantly predicted purchase intention controlling for crisis severity, $B = -.347$, $SE = .078$, $t = -4.445$, $p < .001$ (path b). The total effect of severity on purchase intention was $B = -.848$, $SE = .181$, $t = -4.691$, $p < .001$, 95% CI $[-1.205, -.491]$ (path c). The direct effect after introducing perceived health risk as a mediator was reduced to non-significance, $B = -.361$, $SE = .204$, $t = -1.770$, $p = .079$ (path c'). The bootstrapped indirect effect was $B = -.487$, $BootSE = .121$, 95% CI $[-.735, -.259]$, excluding zero.

H6 is supported. The indirect effect was statistically significant and the direct effect was reduced to non-significance after the mediator was introduced ($B = -.361$, $SE = .204$, $p = .079$). Following Zhao, Lynch, and Chen (2010), this pattern is classified as indirect-only mediation: the association between crisis severity and purchase intention is accounted for entirely by the perceived health risk pathway, with no statistically detectable residual direct effect at $\alpha = .05$. The defensible claim is therefore that perceived health risk accounts for a statistically significant and substantial portion of the association between crisis severity and purchase intention in this sample. The cross-sectional design means temporal precedence cannot be established, and the results describe patterns of statistical association rather than confirmed causal sequences.

H7: Disgust will ~~partially~~ mediate the relationship between crisis severity and brand evaluation, reflecting an automatic affective processing pathway that operates independently of deliberate brand reasoning.

The analysis was conducted among crisis-exposed respondents ($n = 171$). Crisis severity significantly predicted disgust, $B = .6026$, $SE = .1765$, $t = 3.4148$, $p < .001$ (path a).

Disgust significantly predicted brand evaluation controlling for crisis severity, $B = -.3912$, $SE = .0669$, $t = -5.8505$, $p < .001$, 95% CI $[-.5232, -.2592]$ (path b). The total effect of severity on brand evaluation was $B = -.601$, $SE = .124$, $t = -4.833$, $p < .001$, 95% CI $[-.847, -.356]$ (path c). The direct effect remained significant after introducing disgust, $B = -.6351$, $SE = .1586$, $t = -4.0043$, $p < .001$ (path c'). The bootstrapped indirect effect was $B = -.2357$, $BootSE = .0788$, 95% BCa CI $[-.4019, -.0928]$, excluding zero.

H7 is supported. Both the indirect effect ($B = -.2357$, $\text{BootSE} = .0788$, 95% BCa CI $[-.4019, -.0928]$) and the direct effect ($B = -.6351$, $\text{SE} = .1586$, $p < .001$) are statistically significant and same-signed. Following Zhao et al. (2010), this pattern is classified as complementary mediation: disgust partially accounts for the association between crisis severity and brand evaluation, while a substantial direct path remains. Disgust accounts for approximately 39% of the total association $(-.2357 / -.601)$, with the residual direct effect likely capturing parallel cognitive appraisal processes that the present design cannot decompose further. As with H6, the cross-sectional vignette design means these results describe statistical associations rather than established causal sequences.

4.4. Summary of Hypothesis Tests

Table 1 presents consolidated results for all hypothesis tests. Exploratory constructs are included for completeness only. Values shown reflect the primary ANOVA models; ANCOVA models produced substantively identical conclusions for the experimental effects. See Section 4.2 for covariate details.

Dependent Variable	Equity Effect	Severity Effect	Interaction	Hypothesis / Key Interpretation
Brand Evaluation	$p < .001$	$p < .001$	$p = .018$	H1, H3 - Supported
Purchase Intention	$p < .001$	$p < .001$	$p = .252$	H1, H4 - Supported
Brand Trust	$p < .001$	$p < .001$	$p = .474$	H2 - Supported
Brand Forgiveness	$p = .007$	$p = .006$	$p = .663$	H1 - Supported
Perceived Health Risk	$p = .005$	$p < .001$	$p < .001$	H5 - Supported in crisis-exposed subsample ($n = 182$); full-sample effects non-significant (equity $p = .179$, interaction $p = .834$). See Section 4.3.2
Industry spillover	$p = .460$	$p = .867$	$p = .774$	H8 - Not disconfirmed
Institutional trust	$p = .127$	$p = .233$	$p = .456$	H9 - Not disconfirmed
Moral Outrage	$p = .510$	$p = .039$	$p = .746$	Exploratory
Disgust	$p = .165$	$p = .002$	$p = .648$	Exploratory
Surprise	$p = .289$	$p < .001$	$p = .240$	Exploratory

Table 1: Consolidated results for all hypothesis tests. Exploratory constructs carry no pre-specified hypotheses and are included for completeness only.

5. Discussion

This study set out to ask a deceptively simple question: does brand equity protect a fast-food brand when a hygiene crisis occurs? The answer is that it does both; it protects and betrays simultaneously, and which one it does depends entirely on whether what consumers think or what they decide to do is being measured. The same accumulated goodwill that helps with recovery also amplifies attitudinal damage through expectancy violation, while having no detectable influence on stated purchase intentions.

All nine hypotheses in this study were supported or not disconfirmed, including the directionally opposing predictions embedded within them. **H1** predicted that brand equity buffers consumer responses, while **H3** predicted that it amplifies attitudinal damage through expectancy violation, and both were confirmed across different outcome variables. **H4** predicted a null interaction for purchase intention, and its support is as theoretically meaningful as any significant result in the study. The full pattern of results, spanning buffering effects, amplification effects, null moderation, and two theoretically distinct mediation structures, suggests the theoretical framework was well-specified and that the experimental design had sufficient power and precision to detect effects across a range of psychological mechanisms.

The high-equity brand was evaluated more favourably, forgiven more readily, and generated lower perceived health risk under mild crisis conditions, which is all consistent with the conventional view that accumulated goodwill insulates brands from reputational damage. Under severe crisis conditions, however, the picture inverts for brand evaluation: the high-equity brand suffered a disproportionately steeper attitudinal decline than its low-equity counterpart, converging toward the same low evaluations by the severe condition. This is the expectancy violation mechanism described by Dawar and Pillutla (2000) in action in a food hygiene context. This pattern emerged with a fictional brand and respondents who had no prior transactional history with Nordbit, suggesting that the mechanism may be activated by the structural properties of brand descriptions rather than requiring years of accumulated exposure.

The Tukey post-hoc comparisons add an important layer of granularity the main ANOVA effects alone cannot reveal. Brand evaluation declined at every increase in

crisis severity: control, mild, and severe conditions were all meaningfully distinct, indicating that even a relatively minor procedural hygiene lapse is sufficient to reduce overall brand evaluation. Purchase intention and brand trust showed a fundamentally different pattern: the control and mild conditions were statistically indistinguishable, with declines in stated purchase intentions occurring substantially only at the severe crisis level. This asymmetry between evaluative and intention sensitivity to severity has implications for how crisis severity is theorised. Mild crises may damage how consumers think and feel about a brand without producing a measurable decline in purchase intention, but severe crises cross a threshold that disrupts both.

Crucially, the window between attitudinal damage and intention withdrawal is precisely where crisis communication has the greatest potential to intervene, because mild crises may erode how consumers feel about a brand while leaving stated purchase intentions intact, giving firms a narrower but real opportunity to detect deterioration before it extends to purchase intentions.

The expectancy violation penalty does not extend to purchase intention, brand trust, or brand forgiveness. For these outcomes, brand equity exerted a consistent main effect. The high-equity brand performed better across the board, but crisis severity eroded it at equivalent rates regardless of equity level. Consumers may think less favorably of a brand they once admired, while still showing the same level of purchase intention they would toward a brand they never cared about. When physical safety is perceived to be at stake, prior brand relationships appear to stop governing stated purchase intentions, instead only governing the emotional and evaluative response to betrayal.

Standard brand tracking metrics, which typically measure attitudes, may therefore systematically overestimate resilience in hygiene crises, because the outcome most sensitive to equity is the one least connected to stated purchase intentions.

The mediation results are consistent with perceived health risk as a mechanism linking crisis severity to suppressed purchase intentions, though the cross-sectional vignette design means these patterns describe statistical associations rather than established causal sequences. Once consumers translate crisis severity into a perceived physical threat, the stated willingness to purchase appears to drop regardless of prior brand affinity. Consumers in this sample do not appear to be punishing the brand for

irresponsibility in an abstract sense; the data is consistent with a rational self-protective calculation about whether to purchase, as reflected in stated intentions.

Notably, the outrage data reinforce this from a different angle: moral outrage was event-driven and unaffected by brand equity, while forgiveness was relationship-driven and sensitive to it. The two dimensions of consumer crisis response: emotional reaction to the event and relational willingness to recover, are governed by fundamentally different mechanisms, a dissociation the dual-process framework anticipates but that has rarely been demonstrated across both dimensions simultaneously.

The high-equity brand was more readily forgiven, but forgiveness as measured here reflects relational willingness to extend a second chance rather than an immediate resumption of purchase behaviour. Whether this translational goodwill would hold for a real brand with deep equity relationships, and whether it would translate into actual repurchase over time rather than stated intentions in a survey, cannot be established from this design.

Disgust increased strongly with crisis severity but at the same rate regardless of brand equity level. A consumer confronted with descriptions of contaminated food preparation surfaces, dangerous pathogens, and hospitalised customers, responds with the same visceral intensity whether the brand is beloved or obscure, consistent with disgust operating as an evolutionarily ancient automatic response rather than a deliberative judgment shaped by prior attitudes. The complementary mediation pattern, where disgust accounts for roughly two-fifths of the crisis-severity-to-brand-evaluation association, with a substantial direct effect remaining, indicates that the relationship between crisis exposure and brand evaluation is not fully accounted for by affect alone.

For seven of ten outcomes, neither prior purchase frequency nor personal experience with food safety crises accounted for meaningful variance beyond the experimental conditions, confirming that randomisation successfully equated groups. For blame attribution, prior purchase frequency was independently significant, suggesting that frequent fast-food consumers attribute blame more readily, which is plausible given their greater category involvement. Prior personal experience with a food safety crisis independently predicted both greater industry spillover and lower institutional trust, effects that the experimental manipulations alone did not produce. This finding implies

that real-world exposure to food safety failures may be a more powerful driver of category-level and regulatory scepticism than single-exposure experimental scenarios can replicate. It is consistent with the broader argument that institutional trust is shaped by accumulated experience rather than discrete events.

Despite exposure to a severe crisis involving dangerous pathogens and mass hospitalisation, consumers did not generalise their negative reactions to the broader fast-food industry or to Livsmedelsverket. Fault was attributed specifically to Nordbit, and the regulatory ecosystem was left largely untouched by the experimental manipulations. This is consistent with Roehm and Tybout's (2006) finding that industry-level blame attribution requires the offending brand to carry strong category-representative associations, which is a condition a fictional brand without established market presence cannot meet. The covariate results add an important nuance: individual prior experience with food safety crises independently predicted both outcomes, suggesting that accumulated real-world exposure may gradually erode category and regulatory trust in ways that a single experimental exposure cannot produce.

The results tell a coherent story about the architecture of consumer crisis response. Brand equity shapes the cognitive and evaluative layer of that response: how consumers interpret the crisis, how harshly they judge the brand, how willing they are to consider forgiveness. It does not, in this experimental context, appear to reach the intention layer, where perceived physical threat is associated with lower stated purchase intentions in a way that prior brand relationships cannot override. The boundary condition of brand equity's crisis-buffering function, at least in food hygiene contexts, appears to be the moment a consumer concludes that purchasing from the brand might make them sick. At that point, the brand appears to cease functioning as a relationship asset and instead becomes a perceived risk factor, as reflected in the suppression of stated purchase intentions. Understanding where that threshold lies in real brand contexts, and what it takes to move consumers back across it, is the practical question this study raises and that future research should pursue.

6. Conclusion

6.1. Theoretical Contribution

The findings extend three established bodies of work: brand equity buffering, expectancy violation theory, and dual-process accounts of consumer crisis response. While Dawar and Pillutla (2000) established the expectancy violation mechanism and showed that high-equity brands can suffer disproportionate reputational damage, their work was conducted in a different crisis context and did not test whether this pattern holds consistently across evaluative and relational outcomes. The present study provides experimental evidence suggesting that it does not. Brand equity amplified attitudinal damage through an expectancy violation mechanism, by producing a steeper decline in brand evaluation for the high-equity condition, yet exerted no differential influence on purchase intention, brand trust, or brand forgiveness. This dissociation between attitude and purchase intention is not a pattern that prior literature had clearly mapped in a food hygiene context. Consumers adjust how they think and feel about a brand in ways that are sensitive to prior equity; whether they report lower purchase intentions is not. Notably, these patterns emerged with a fictional brand, suggesting that equity-based processing is activated by the structural properties of brand descriptions alone.

The post-hoc Tukey analyses add a further contribution by distinguishing continuous from threshold patterns of severity response: brand evaluation declined at every increase in severity, while purchase intention and brand trust remained stationary between control and mild conditions before dropping sharply at the severe level, which is a pattern the existing literature has not previously mapped.

The crisis context itself fills a gap in the literature. Hygiene crises are underrepresented relative to product recalls and financial scandals in brand equity research, and the application of SCCT and expectancy violation theory to this context provides a more complete picture of the boundary conditions under which equity's protective function holds.

Taken together, these contributions demonstrate how established mechanisms interact and diverge across outcome dimensions in a context the literature had not previously

examined with this design. The central finding, that brand equity functions simultaneously as a buffer and a liability, depending on which outcome is measured, is the result most worth carrying forward.

6.2. Practical Implications

The findings carry a counterintuitive message for brand managers at fast-food chains: the equity operationalised in this study, through brand descriptions rather than accumulated real-world exposure, did not function as a crisis shield for stated purchase intentions. Whether this pattern holds for a brand with deeper, habitually reinforced equity relationships is an open question the present design cannot resolve. Taken at face value, the results suggest that a high-equity brand recovers more readily and is forgiven more easily once a crisis resolves, while accumulated goodwill does not appear to prevent consumers from reporting suppressed purchase intentions when they perceive a genuine physical threat. The practical takeaway is not to abandon brand-building, but to resist treating brand reputation as a substitute for credible safety management. When a hygiene crisis hits, the brand story may become largely irrelevant until the safety concern is resolved.

This has direct consequences for how crisis communication should be structured. The mediation results show that purchase intentions are suppressed through elevated perceived health risk, not through generalised reputational damage. A communication response that leads with brand heritage, values, or past achievements therefore misses the mechanism that is consistent with suppressed purchase intentions. This means the first communication priority should be: (1) confirm the scope of the incident factually and without minimisation, (2) announce specific corrective measures, and (3) name the external authority (Livsmedelsverket or equivalent) coordinating the response. Brand values and heritage belong in the recovery phase, not the acute one.

The expectancy violation finding introduces a more uncomfortable implication for well-established brands. The very associations that make a brand valuable, such as quality, care, trustworthiness, become a liability in a severe hygiene crisis, because consumers hold high-equity brands to a higher standard and experience a greater sense of betrayal when those standards are breached. This means that leaning on brand identity in the

immediate aftermath of a food safety incident is unlikely to soften consumer sentiment and may risk compounding it, insofar as invoking the brand's heritage draws attention to the gap between reputation and reality. For marketing teams at strong brands, the instinct to remind consumers of who the brand is should be consciously resisted in the acute phase, because what worked in peacetime can backfire in a crisis. In a hygiene crisis, a brand's greatest liability may not be what it failed to do, but what it spent years promising it never would.

The post-hoc threshold finding has an additional practical implication. Mild crises, that is procedural lapses without consumer harm, limited media coverage, may damage brand attitudes without triggering disengagement i.e. visible declines in stated purchase intentions that managers most fear. This creates both a risk and an opportunity: the risk is that mild crises are dismissed as manageable because stated purchase intentions do not visibly drop, while underlying brand evaluation is quietly eroding; the opportunity is that prompt, transparent corrective action after a mild crisis may prevent the evaluative damage from accumulating to the severity threshold at which purchase intentions shift.

Finally, the disgust findings offer a warning that is easy to overlook. Disgust responds to the nature and severity of the crisis itself, not to the brand's prior reputation, meaning it is essentially immune to reputational framing. No amount of goodwill messaging neutralises the visceral reaction consumers have to descriptions of contaminated food, dangerous pathogens, and hospitalised customers.

Crisis teams, whether in-house or at PR firms advising food industry clients, should recognise that disgust responds to the sensory and physical content of crisis information rather than to brand reputation, and cannot be moderated by reputational messaging. This means that communications which dwell on or repeat descriptions of contamination, unsanitary conditions, or consumer harm, even in a corrective or apologetic register, risk prolonging the disgust response rather than neutralising it. The practical recommendation follows directly: shift communication focus as quickly as possible away from what went wrong toward concrete, verifiable corrective action such as independent safety inspections, transparent remediation timelines, and third-party verification of restored hygiene standards, all of which must be communicated before any brand-heritage messaging is introduced. For high-equity brands specifically, the

instinct to invoke the brand's track record should be actively resisted in the acute phase, as it risks compounding the expectancy violation by drawing attention to the gap between stated values and the incident. Once safety has been credibly resolved and independently verified, the accumulated goodwill reflected in the forgiveness findings becomes relevant: it is then, and not before, that relational messaging anchored in brand history is likely to aid recovery rather than backfire.

6.3. Limitations and Additional Exploration

6.3.1. Limitations

The findings of this study are best understood against the backdrop of the design choices that made them possible. The use of a fictional brand was methodologically necessary, without it, pre-existing attitudes toward real brands would have made it impossible to isolate brand equity as an independent variable, but it comes at a cost. The equity manipulated here was constructed in minutes through a written description, whereas the brand equity that protects or betrays a company in a real crisis has been built over years of advertising, product experience, and cultural familiarity. It is plausible, perhaps likely, that the effects observed in this study underestimate the true intensity of both the betrayal penalty and the forgiveness advantage that real brand relationships would produce. The duality this study documents may be sharper in the real world than the data here can show.

The decision to use a fictional brand rather than MAX Burgers, the real-world case motivating the study, warrants explicit justification. MAX carries years of accumulated associations, advertising exposure, and cultural familiarity that vary substantially across respondents; some encountered the Aftonbladet investigation closely, others peripherally, others not at all. Using MAX would have meant respondents arriving at the experiment with fundamentally different pre-existing equity levels and crisis exposures, rendering both manipulations uncontrollable. MAX is therefore best understood as the motivating context for the research questions. What is lost is ecological validity; what is gained is the internal validity that causal inference requires.

A further measurement limitation concerns the operationalisation of brand evaluation. Following standard practice in experimental brand research, overall brand attitude was

captured through a single semantic-differential item anchored at ‘extremely negative’ and ‘extremely positive’. However, Spears and Singh (2004), whose scale is cited in the methodology to justify the measurement approach, in fact advocate a five-item brand attitude scale encompassing distinct evaluative dimensions. The single item operationalisation used here sacrifices the construct breadth and psychometric reliability that a multi-item scale would provide and may have attenuated the precision with which evaluative differences across conditions were detected. Future research should replicate the design using the full Spears and Singh (2004) scale to assess whether the interaction effects observed here, particularly the expectancy violation penalty under severe crisis conditions, hold under a more comprehensive measurement approach.

The sample reinforces this caution. With nearly 70% of respondents aged 18-24 and recruitment concentrated in Stockholm, the study captures a demographic that is digitally fluent, relatively health-conscious, and potentially more sensitive to food safety information than the average Swedish consumer. Whether the same patterns, particularly the uniform suppression of purchase intentions under severe crisis conditions, would hold among older consumers with deeper and more habitual brand relationships is an open question. Brand equity's protective function may be stronger, or its betrayal effect weaker, in consumer segments for whom brand loyalty is less cognitively mediated and more deeply ingrained.

The mediation analyses carry the additional limitation inherent to vignette-based cross-sectional designs: statistical mediation cannot establish causal order. The patterns are consistent with perceived health risk and disgust as mediating mechanisms, but alternative causal sequences cannot be ruled out based on this data alone. The results should be understood as describing patterns of association that are theoretically interpretable as mediation, pending replication with designs that can establish temporal precedence.

A further limitation is that all behavioural-proximate measures, purchase intention in particular, capture stated intentions rather than actual purchase behaviour. The intention-behaviour gap is well-documented (Ajzen, 1991), and it is possible that real-world behavioural responses to hygiene crises diverge from the patterns observed here.

Finally, the cross-sectional design captures a snapshot of consumer psychology at the most volatile moment: immediately after crisis exposure. This is precisely when perceived health risk and disgust are at their peak, and when the equity advantage in forgiveness is least likely to be visible. The study can say what happens in the first moments of a crisis; it cannot say what happens in the weeks that follow, when emotions settle, organisational responses accumulate, and consumers begin deciding whether to return.

6.3.2. Additional Exploration

The most important question this study raises but cannot answer is whether the duality it documents is permanent or temporary. High-equity brands suffer more attitudinally in the acute phase, but do they also recover faster, and by how much? The forgiveness finding suggests they should, but forgiveness measured at a single point in time immediately after crisis exposure is very different from forgiveness expressed through actual repurchase behaviour weeks later. A longitudinal study tracking the same consumers from crisis exposure through organisational response and into the recovery phase would be able to close this gap and would directly test the practical claim that brand equity, at least as operationalised through structural brand descriptions in this experiment, appears more relevant to recovery conditions than to acute protection of stated purchase intentions. The MAX scandal represents precisely the kind of real-world natural experiment that would make such a study both feasible and ecologically valid.

A second avenue worth pursuing is the role of crisis response strategy, which this study held constant by design. SCCT predicts that how a firm responds, whether it apologises, denies, deflects, or takes corrective action, substantially moderates consumer outcomes. This study showed that an optimal response strategy may differ depending on which outcome a firm is trying to protect. If purchase intention is driven by perceived health risk and is insensitive to brand equity level, then a response strategy that addresses physical safety may matter more than one that manages brand image. If brand evaluation is partly driven by disgust and only partially by cognitive updating, no communication strategy can fully repair it in the short term, which is a constraint that neither crisis communication nor brand equity literature has yet adequately reckoned with.

7. Appendix

7.1. Appendix I: Survey Instrument

Manipulation Check	Brand Equity Perception	1. <i>I perceive this brand to be well-established in the market.</i> 2. <i>This brand appears to have a strong reputation among consumers.</i> 3. <i>This brand is well-known to most consumers.</i>
	Crisis Severity Perception (treatment only)	1. <i>The situation described in the scenario involved a hygiene-related problem.</i> 2. <i>The scenario I read posed a potential risk to consumer health.</i>
Mediators	Perceived Health Risk	1. <i>I worry that this brand's products could pose a risk to my physical health.</i> 2. <i>The hygiene issues associated with this brand could have serious health consequences (treatment only).</i> 3. <i>I feel concerned about the safety of this brand's products</i> 4. <i>After reading this scenario, I felt like avoiding this product/brand</i>
	Disgust (treatment only)	1. <i>Reading this scenario made me feel disgusted</i> 2. <i>After reading this scenario, I would not want to touch the product</i> 3. <i>The hygiene situation described made me feel physically uncomfortable or ill</i> 4. <i>This scenario made me feel that the product/brand is unclean</i>
Dependent Variables	Brand Evaluation	1. <i>My overall attitude towards this brand is...</i>
	Purchase Intention	1. <i>I would consider purchasing products from this brand</i> 2. <i>I would choose this brand over a competitor in the same category</i> 3. <i>I would be willing to try this brand's products in the near future</i> 4. <i>I would purchase from this brand the next time I need this type of product</i>

	Brand Trust	1. <i>I trust this brand</i> 2. <i>I trust that this brand takes consumer safety seriously</i> 3. <i>I feel confident that this brand maintains adequate hygiene and quality standards</i> 4. <i>This brand genuinely prioritises the wellbeing of its customers</i> 5. <i>I would feel comfortable consuming products from this brand regularly</i>
	Brand Forgiveness / Recovery (treatment only)	1. <i>I would be willing to give this brand a second chance</i> 2. <i>I believe this brand can recover from what happened</i> 3. <i>Despite what occurred, I could see myself forgiving this brand</i> 4. <i>If this brand took corrective action, I would be willing to trust them again</i>
Additional Constructs (Secondary / Exploratory)	Moral Outrage & Blame Attribution (treatment only)	1. <i>I felt morally outraged after reading this scenario</i> 2. <i>I think what this brand did (or allowed to happen) is morally wrong</i> 3. <i>I hold this brand responsible for the situation described in the scenario</i> 4. <i>The problem described was caused by the brand's own actions or negligence</i> 5. <i>This brand should be held accountable for the hygiene issue</i> 6. <i>I believe the brand could have prevented this situation</i>
	Negative WOM Intention	1. <i>I would share negative information about this brand on social media</i> 2. <i>I would discourage people I know from purchasing from this brand</i> 3. <i>I would complain or make jokes about this brand to others</i> 4. <i>I would warn others about the issues I read about with this brand (treatment only)</i>
	Surprise (treatment only)	1. <i>I felt surprised by what I read</i> 2. <i>Reading the scenario gave me a sense of shock</i>
	Industry Spillover (treatment only)	1. <i>After reading this, my trust in food safety standards of the fast food industry as a whole has decreased</i> 2. <i>Reading this has made me more cautious about eating at other fast food restaurants</i> 3. <i>I would be less likely to eat out at any fast food restaurant after reading this</i> 4. <i>I think hygiene issues are common across the fast food industry</i> 5. <i>After reading this, I would be more hesitant to eat out at restaurants in general</i>

	Institutional Trust	1. I trust the health protection agency (Livsmedelsverket) to investigate and respond effectively 2. I believe the health protection agency (Livsmedelsverket) acts in the interest of public health 3. The health protection agency (Livsmedelsverket) is reliable in protecting consumers
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What is in the picture?



- ☐ A cat with a hat
- ☐ A dog with jeans
- ☐ A horse with wings
- ☐ A crocodile with sunglasses

Thank you for taking part in this study. This survey is part of bachelor thesis academic research at the Stockholm School of Economics examining consumer perceptions of brands. There are no right or wrong answers - please respond based on your own honest opinions and reactions. The survey will take approximately 10 minutes to complete. Your participation in the survey is completely voluntary and you may stop answering at any time without providing a reason. Your responses are very valuable and will contribute to the results of this academic study.

The empirical data collected will be handled according to the information on General Data Protection Regulation (EU Regulation 2016/679, 2016). In accordance with the guidelines of GDPR, we only collect relevant and necessary personal data. The information collected in this survey will be used solely for academic research purposes related to this bachelor's thesis. No personally identifiable information will be collected and all responses will be treated confidentially. Individual participants cannot be identified.

By clicking "Agree" you confirm that you have read and understood the information above and that you consent to the processing of your responses for research purposes.

Please note that any names used in the examples are purely fictional.

If you have any further questions about the study please contact
Student researchers: Jens Örnehed & Alexis Rubinstein
Email: 26059@student.hhs.se & 26061@student.hhs.se

7.2. Appendix II: Descriptive Statistics

What is your gender?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	159	57.0	57.2	57.2
	Female	109	39.1	39.2	96.4
	Non-binary / third gender	4	1.4	1.4	97.8
	Prefer not to say	6	2.2	2.2	100.0
	Total	278	99.6	100.0	
Missing	System	1	.4		
Total		279	100.0		

What is your highest level of education?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary / High School	98	35.1	35.3	35.3
	Undergraduate	127	45.5	45.7	80.9
	Postgraduate	46	16.5	16.5	97.5
	Other	7	2.5	2.5	100.0
	Total	278	99.6	100.0	
Missing	System	1	.4		
Total		279	100.0		

How often do you purchase food from a food chain or restaurant?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than once a month	57	20.4	20.5	20.5
	1-3 times a month	108	38.7	38.8	59.4
	Once a week	47	16.8	16.9	76.3
	More than once a week	66	23.7	23.7	100.0
	Total	278	99.6	100.0	
Missing	System	1	.4		
Total		279	100.0		

Equity * Severity Crosstabulation

Count

		Severity			Total
		Control	Mild	Severe	
Equity	High	58	38	42	138
	Low	39	59	43	141
Total		97	97	85	279

7.3. Appendix III: Cronbach's Alpha Coefficients

Brand Equity Perception	0.936
Crisis Severity Perception	0.830
Perceived Health Risk	0.845
Brand Trust	0.911
Brand Evaluation	single-item measure; alpha not applicable
Purchase Intention	0.873
NWOM	0.628
Brand Forgiveness / Recovery	0.871
Moral Outrage	0.737
Blame Attribution	0.837
Surprise	0.724
Disgust	0.770
Industry Spillover	0.790
Institutional Trust in Livsmedelsverket	0.798

Table 2: Cronbach's alpha coefficients for all multi-item scales

7.4. Appendix IV: Statistical Output

7.4.1. ANCOVA Test Results

Tests of Between-Subjects Effects

Dependent Variable: PurchInt

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	115.751 ^a	7	16.536	12.075	<.001	.241	84.525	1.000
Intercept	196.684	1	196.684	143.625	<.001	.351	143.625	1.000
Q22	1.362	1	1.362	.994	.320	.004	.994	.168
Q21	.007	1	.007	.005	.944	.000	.005	.051
Equity	44.041	1	44.041	32.160	<.001	.108	32.160	1.000
Severity	57.392	2	28.696	20.955	<.001	.136	41.909	1.000
Equity * Severity	3.796	2	1.898	1.386	.252	.010	2.772	.297
Error	364.268	266	1.369					
Total	3734.063	274						
Corrected Total	480.018	273						

a. R Squared = .241 (Adjusted R Squared = .221)

b. Computed using alpha = .05

Figure 2: Summary of Equity, Severity, and Their Effects on Purchase Intention

Tests of Between-Subjects Effects

Dependent Variable: Brand_Evaluation

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	137.870 ^a	7	19.696	14.511	<.001	.276	101.578	1.000
Intercept	210.630	1	210.630	155.186	<.001	.368	155.186	1.000
Q22	.481	1	.481	.354	.552	.001	.354	.091
Q21	.785	1	.785	.578	.448	.002	.578	.118
Equity	42.981	1	42.981	31.667	<.001	.106	31.667	1.000
Severity	68.836	2	34.418	25.358	<.001	.160	50.716	1.000
Equity * Severity	11.022	2	5.511	4.060	.018	.030	8.121	.719
Error	361.036	266	1.357					
Total	3618.250	274						
Corrected Total	498.906	273						

a. R Squared = .276 (Adjusted R Squared = .257)

b. Computed using alpha = .05

Figure 3: Summary of Equity, Severity, and Their Effects on Brand Evaluation

Tests of Between-Subjects Effects

Dependent Variable: Brand_Forgiveness

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	37.763 ^a	6	6.294	3.661	.002	.107	21.968	.954
Intercept	191.485	1	191.485	111.396	<.001	.378	111.396	1.000
Q22	1.567	1	1.567	.912	.341	.005	.912	.158
Q21	3.769	1	3.769	2.193	.140	.012	2.193	.313
Equity	12.883	1	12.883	7.495	.007	.039	7.495	.777
Severity	18.099	2	9.049	5.264	.006	.054	10.529	.830
Equity * Severity	.328	1	.328	.191	.663	.001	.191	.072
Error	314.567	183	1.719					
Total	4565.111	190						
Corrected Total	352.330	189						

a. R Squared = .107 (Adjusted R Squared = .078)

b. Computed using alpha = .05

Figure 4: Summary of Equity, Severity, and Their Effects on Brand Forgiveness

Tests of Between-Subjects Effects

Dependent Variable: Moral_Outrage

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	18.466 ^a	6	3.078	1.506	.178	.046	9.036	.574
Intercept	219.380	1	219.380	107.353	<.001	.366	107.353	1.000
Q22	3.046	1	3.046	1.490	.224	.008	1.490	.229
Q21	.551	1	.551	.270	.604	.001	.270	.081
Equity	.893	1	.893	.437	.510	.002	.437	.101
Severity	13.532	2	6.766	3.311	.039	.034	6.622	.622
Equity * Severity	.215	1	.215	.105	.746	.001	.105	.062
Error	380.099	186	2.044					
Total	3579.250	193						
Corrected Total	398.565	192						

a. R Squared = .046 (Adjusted R Squared = .016)

b. Computed using alpha = .05

Figure 5: Summary of Equity, Severity, and Their Effects on Moral Outrage

Tests of Between-Subjects Effects

Dependent Variable: Blame_Attribution

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	11.885 ^a	6	1.981	2.224	.043	.067	13.344	.774
Intercept	408.180	1	408.180	458.259	<.001	.712	458.259	1.000
Q22	5.212	1	5.212	5.852	.017	.031	5.852	.672
Q21	.296	1	.296	.332	.565	.002	.332	.088
Equity	.281	1	.281	.316	.575	.002	.316	.087
Severity	5.844	2	2.922	3.280	.040	.034	6.561	.618
Equity * Severity	.001	1	.001	.001	.975	.000	.001	.050
Error	164.783	185	.891					
Total	6123.910	192						
Corrected Total	176.668	191						

a. R Squared = .067 (Adjusted R Squared = .037)

b. Computed using alpha = .05

Figure 6: Summary of Equity, Severity, and Their Effects on Blame Attribution

Tests of Between-Subjects Effects

Dependent Variable: Brand_Trust

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	106.713 ^a	7	15.245	10.914	<.001	.222	76.398	1.000
Intercept	229.213	1	229.213	164.099	<.001	.380	164.099	1.000
Q22	.055	1	.055	.040	.842	.000	.040	.055
Q21	.453	1	.453	.324	.570	.001	.324	.088
Equity	30.446	1	30.446	21.797	<.001	.075	21.797	.996
Severity	67.151	2	33.576	24.038	<.001	.152	48.075	1.000
Equity * Severity	2.089	2	1.044	.748	.474	.006	1.495	.176
Error	374.341	268	1.397					
Total	3748.573	276						
Corrected Total	481.054	275						

a. R Squared = .222 (Adjusted R Squared = .202)

b. Computed using alpha = .05

Figure 7: Summary of Equity, Severity, and Their Effects on Brand Trust

Tests of Between-Subjects Effects								
Dependent Variable: Shock								
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	47.460 ^a	6	7.910	4.976	<.001	.138	29.856	.992
Intercept	212.268	1	212.268	133.533	<.001	.418	133.533	1.000
Q22	.157	1	.157	.099	.754	.001	.099	.061
Q21	2.268	1	2.268	1.427	.234	.008	1.427	.221
Equity	1.798	1	1.798	1.131	.289	.006	1.131	.185
Severity	42.500	2	21.250	13.368	<.001	.126	26.736	.998
Equity * Severity	2.213	1	2.213	1.392	.240	.007	1.392	.217
Error	295.670	186	1.590					
Total	3585.000	193						
Corrected Total	343.130	192						
a. R Squared = .138 (Adjusted R Squared = .111)								
b. Computed using alpha = .05								

Figure 8: Summary of Equity, Severity, and Their Effects on Surprise

Tests of Between-Subjects Effects								
Dependent Variable: Industry_Spillover								
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	14.149 ^a	6	2.358	1.697	.124	.053	10.181	.635
Intercept	224.705	1	224.705	161.679	<.001	.469	161.679	1.000
Q22	3.682	1	3.682	2.649	.105	.014	2.649	.367
Q21	8.688	1	8.688	6.251	.013	.033	6.251	.701
Equity	.761	1	.761	.548	.460	.003	.548	.114
Severity	.397	2	.198	.143	.867	.002	.286	.072
Equity * Severity	.115	1	.115	.083	.774	.000	.083	.059
Error	254.338	183	1.390					
Total	2531.688	190						
Corrected Total	268.487	189						
a. R Squared = .053 (Adjusted R Squared = .022)								
b. Computed using alpha = .05								

Figure 9: Summary of Equity, Severity, and Their Effects on Industry Spillover

Tests of Between-Subjects Effects								
Dependent Variable: Institutional_Trust								
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	19.035 ^a	7	2.719	2.293	.028	.057	16.053	.839
Intercept	637.850	1	637.850	537.930	<.001	.669	537.930	1.000
Q22	.064	1	.064	.054	.816	.000	.054	.056
Q21	11.517	1	11.517	9.713	.002	.035	9.713	.874
Equity	2.726	1	2.726	2.299	.131	.009	2.299	.327
Severity	6.085	2	3.043	2.566	.079	.019	5.132	.510
Equity * Severity	2.054	2	1.027	.866	.422	.006	1.732	.198
Error	315.410	266	1.186					
Total	7997.222	274						
Corrected Total	334.445	273						
a. R Squared = .057 (Adjusted R Squared = .032)								
b. Computed using alpha = .05								

Figure 10: Summary of Equity, Severity, and Their Effects on Institutional Trust

Tests of Between-Subjects Effects

Dependent Variable: Disgust

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	19.770 ^a	6	3.295	2.560	.021	.076	15.362	.839
Intercept	249.799	1	249.799	194.097	<.001	.511	194.097	1.000
Q22	.609	1	.609	.473	.492	.003	.473	.105
Q21	.091	1	.091	.071	.791	.000	.071	.058
Equity	2.498	1	2.498	1.941	.165	.010	1.941	.283
Severity	16.797	2	8.398	6.526	.002	.066	13.051	.904
Equity * Severity	.269	1	.269	.209	.648	.001	.209	.074
Error	239.378	186	1.287					
Total	4192.188	193						
Corrected Total	259.148	192						

a. R Squared = .076 (Adjusted R Squared = .046)
b. Computed using alpha = .05

Figure 11: Summary of Equity, Severity, and Their Effects on Disgust

Tests of Between-Subjects Effects

Dependent Variable: PerHR

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power ^b
Corrected Model	223.051 ^a	7	31.864	17.560	<.001	.314	122.918	1.000
Intercept	407.160	1	407.160	224.377	<.001	.455	224.377	1.000
Q22	.635	1	.635	.350	.555	.001	.350	.091
Q21	.001	1	.001	.000	.983	.000	.000	.050
Equity	3.293	1	3.293	1.815	.179	.007	1.815	.269
Severity	219.308	2	109.654	60.428	<.001	.310	120.856	1.000
Equity * Severity	.659	2	.329	.182	.834	.001	.363	.078
Error	488.135	269	1.815					
Total	6904.917	277						
Corrected Total	711.186	276						

a. R Squared = .314 (Adjusted R Squared = .296)
b. Computed using alpha = .05

Figure 12: Summary of Equity, Severity, and Their Effects on Perceived Health Risk

7.4.2. Post-Hoc Analysis with Tukey's Test

Severity**Multiple Comparisons**

Dependent Variable: Brand_Evaluation

Tukey HSD

(I) Severity	(J) Severity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Control	Mild	.4375 [*]	.16839	.027	.0407	.8343
	Severe	1.3257 [*]	.17283	<.001	.9184	1.7331
Mild	Control	-.4375 [*]	.16839	.027	-.8343	-.0407
	Severe	.8882 [*]	.17369	<.001	.4789	1.2976
Severe	Control	-1.3257 [*]	.17283	<.001	-1.7331	-.9184
	Mild	-.8882 [*]	.17369	<.001	-1.2976	-.4789

Based on observed means.

The error term is Mean Square(Error) = 1.347.

*. The mean difference is significant at the .05 level.

Figure 13: Tukey Post Hoc Comparisons for Brand Evaluation Across Severity Conditions**Severity****Multiple Comparisons**

Dependent Variable: PurchInt

Tukey HSD

(I) Severity	(J) Severity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Control	Mild	.3260	.16934	.134	-.0731	.7251
	Severe	1.1741 [*]	.17381	<.001	.7645	1.5838
Mild	Control	-.3260	.16934	.134	-.7251	.0731
	Severe	.8481 [*]	.17468	<.001	.4364	1.2598
Severe	Control	-1.1741 [*]	.17381	<.001	-1.5838	-.7645
	Mild	-.8481 [*]	.17468	<.001	-1.2598	-.4364

Based on observed means.

The error term is Mean Square(Error) = 1.362.

*. The mean difference is significant at the .05 level.

Figure 14: Tukey Post Hoc Comparisons for Purchase Intention Across Severity Conditions

Severity**Multiple Comparisons**

Dependent Variable: Brand_Trust

Tukey HSD

(I) Severity	(J) Severity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Control	Mild	.3552	.16976	.093	-.0448	.7553
	Severe	1.2471 [*]	.17516	<.001	.8343	1.6599
Mild	Control	-.3552	.16976	.093	-.7553	.0448
	Severe	.8919 [*]	.17516	<.001	.4791	1.3046
Severe	Control	-1.2471 [*]	.17516	<.001	-1.6599	-.8343
	Mild	-.8919 [*]	.17516	<.001	-1.3046	-.4791

Based on observed means.

The error term is Mean Square(Error) = 1.383.

*. The mean difference is significant at the .05 level.

Figure 15: Tukey Post Hoc Comparisons for Brand Trust Across Severity Conditions
Severity**Multiple Comparisons**

Dependent Variable: Shock

Tukey HSD

(I) Severity	(J) Severity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Control	Mild	.3652	.31823	.486	-.3866	1.1170
	Severe	-.6059	.31954	.143	-1.3608	.1490
Mild	Control	-.3652	.31823	.486	-1.1170	.3866
	Severe	-.9711 [*]	.19097	<.001	-1.4222	-.5199
Severe	Control	.6059	.31954	.143	-.1490	1.3608
	Mild	.9711 [*]	.19097	<.001	.5199	1.4222

Based on observed means.

The error term is Mean Square(Error) = 1.586.

*. The mean difference is significant at the .05 level.

Figure 16: Tukey Post Hoc Comparisons for Surprise Across Severity Conditions

Severity**Multiple Comparisons**

Dependent Variable: Disgust

Tukey HSD

(I) Severity	(J) Severity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Control	Mild	.2809	.28559	.588	-.3938	.9556
	Severe	-.3265	.28677	.492	-1.0039	.3510
Mild	Control	-.2809	.28559	.588	-.9556	.3938
	Severe	-.6074*	.17138	.001	-1.0122	-.2025
Severe	Control	.3265	.28677	.492	-.3510	1.0039
	Mild	.6074*	.17138	.001	.2025	1.0122

Based on observed means.

The error term is Mean Square(Error) = 1.277.

*. The mean difference is significant at the .05 level.

Figure 17: Tukey Post Hoc Comparisons for Disgust Across Severity Conditions**Severity****Multiple Comparisons**

Dependent Variable: Moral_Outrage

Tukey HSD

(I) Severity	(J) Severity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Control	Mild	.4879	.36104	.369	-.3650	1.3408
	Severe	-.0486	.36253	.990	-.9051	.8078
Mild	Control	-.4879	.36104	.369	-1.3408	.3650
	Severe	-.5365*	.21666	.038	-1.0483	-.0246
Severe	Control	.0486	.36253	.990	-.8078	.9051
	Mild	.5365*	.21666	.038	.0246	1.0483

Based on observed means.

The error term is Mean Square(Error) = 2.041.

*. The mean difference is significant at the .05 level.

Figure 18: Tukey Post Hoc Comparisons for Moral Outrage Across Severity Conditions

Severity**Multiple Comparisons**

Dependent Variable: Brand_Forgiveness

Tukey HSD

(I) Severity	(J) Severity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Control	Mild	-.1169	.33338	.935	-.9046	.6708
	Severe	.5340	.33373	.248	-.2546	1.3225
Mild	Control	.1169	.33338	.935	-.6708	.9046
	Severe	.6508*	.20114	.004	.1756	1.1261
Severe	Control	-.5340	.33373	.248	-1.3225	.2546
	Mild	-.6508*	.20114	.004	-1.1261	-.1756

Based on observed means.

The error term is Mean Square(Error) = 1.730.

*. The mean difference is significant at the .05 level.

Figure 19: Tukey Post Hoc Comparisons for Brand Forgiveness Across Severity Conditions**Multiple Comparisons**

Dependent Variable: Blame_Attribution

Tukey HSD

(I) Severity	(J) Severity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Control	Mild	.0506	.24140	.976	-.5197	.6209
	Severe	-.3193	.24216	.387	-.8914	.2528
Mild	Control	-.0506	.24140	.976	-.6209	.5197
	Severe	-.3699*	.14512	.031	-.7127	-.0270
Severe	Control	.3193	.24216	.387	-.2528	.8914
	Mild	.3699*	.14512	.031	.0270	.7127

Based on observed means.

The error term is Mean Square(Error) = .911.

*. The mean difference is significant at the .05 level.

Figure 20: Tukey Post Hoc Comparisons for Blame Attribution Across Severity Conditions

Multiple Comparisons

Dependent Variable: Industry_Spillover

Tukey HSD

(I) Severity	(J) Severity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Control	Mild	.1689	.30445	.844	-.5504	.8883
	Severe	.0556	.30478	.982	-.6645	.7757
Mild	Control	-.1689	.30445	.844	-.8883	.5504
	Severe	-.1133	.18369	.811	-.5474	.3207
Severe	Control	-.0556	.30478	.982	-.7757	.6645
	Mild	.1133	.18369	.811	-.3207	.5474

Based on observed means.

The error term is Mean Square(Error) = 1.442.

Figure 21: Tukey Post Hoc Comparisons for Industry Spillover Across Severity Conditions**Multiple Comparisons**

Dependent Variable: Institutional_Trust

Tukey HSD

(I) Severity	(J) Severity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Control	Mild	-.2270	.16069	.336	-.6057	.1518
	Severe	-.1627	.16493	.586	-.5515	.2260
Mild	Control	.2270	.16069	.336	-.1518	.6057
	Severe	.0642	.16575	.921	-.3264	.4548
Severe	Control	.1627	.16493	.586	-.2260	.5515
	Mild	-.0642	.16575	.921	-.4548	.3264

Based on observed means.

The error term is Mean Square(Error) = 1.226.

Figure 22: Tukey Post Hoc Comparisons for Institutional Trust Across Severity Conditions

Post Hoc Tests

Severity

Multiple Comparisons

Dependent Variable: PerHR

Tukey HSD

(I) Severity	(J) Severity	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Control	Mild	-.7787 [*]	.19382	<.001	-1.2355	-.3219
	Severe	-2.1652 [*]	.20051	<.001	-2.6378	-1.6927
Mild	Control	.7787 [*]	.19382	<.001	.3219	1.2355
	Severe	-1.3865 [*]	.20002	<.001	-1.8579	-.9151
Severe	Control	2.1652 [*]	.20051	<.001	1.6927	2.6378
	Mild	1.3865 [*]	.20002	<.001	.9151	1.8579

Based on observed means.

The error term is Mean Square(Error) = 1.813.

*. The mean difference is significant at the .05 level.

Figure 23: Tukey Post Hoc Comparisons for Perceived Health Risk Across Severity Conditions

7.4.3. Mediation Analysis

```
*****
OUTCOME VARIABLE:
  PurchInt

Model Summary
      R      R-sq      MSE      F      df1      df2      p
    .4476    .2003    1.3191   22.0469    2.0000   176.0000   .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant   5.5455   .3640  15.2347   .0000    4.8271    6.2639
Severity   -1.3608   .2039  -1.7696   .0785   -1.7632    .0416
PerHR      -1.3472   .0781  -4.4445   .0000   -1.5014   -1.1930

***** DIRECT AND INDIRECT EFFECTS OF X ON Y *****

Direct effect of X on Y
      Effect      se      t      p      LLCI      ULCI
    -1.3608   .2039  -1.7696   .0785   -1.7632    .0416

Indirect effect(s) of X on Y:
      Effect   BootSE   BootLLCI   BootULCI
PerHR    -1.4873    .1210    -1.7347    -1.2592
```

Figure 24: PROCESS Model 4 - Path a: Crisis Severity Predicting Perceived Health Risk (H6)

```
*****
Model : 4
  Y : PurchInt
  X : Severity
  M : PerHR

Sample
Size: 179

*****
OUTCOME VARIABLE:
  PerHR

Model Summary
      R      R-sq      MSE      F      df1      df2      p
    .5377    .2892    1.2212   72.0009    1.0000   177.0000   .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant   3.1576   .2576  12.2600   .0000    2.6494    3.6659
Severity    1.4035   .1654   8.4853   .0000    1.0771    1.7300
```

Figure 25: PROCESS Model 4 - Paths b, c', and Indirect Effect: Perceived Health Risk Mediating Purchase Intention (H6)

***** BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS *****

OUTCOME VARIABLE:

PerHR

	Coeff	BootMean	BootSE	BootLLCI	BootULCI
constant	3.1576	3.1552	.2839	2.5926	3.7016
Severity	1.4035	1.4054	.1624	1.0912	1.7257

OUTCOME VARIABLE:

PurchInt

	Coeff	BootMean	BootSE	BootLLCI	BootULCI
constant	5.5455	5.5449	.3597	4.8305	6.2371
Severity	-.3608	-.3640	.2110	-.7763	.0463
PerHR	-.3472	-.3463	.0811	-.5031	-.1837

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

Figure 26: PROCESS Model 4 - Bootstrap Confidence Intervals for Indirect Effect via Perceived Health Risk (H6)**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.333 ^a	.111	.106	1.20785

a. Predictors: (Constant), Severity

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.108	1	32.108	22.008	<.001 ^b
	Residual	258.227	177	1.459		
	Total	290.334	178			

a. Dependent Variable: PurchInt

b. Predictors: (Constant), Severity

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	4.449	.282		15.805	<.001	3.894	5.005
	Severity	-.848	.181	-.333	-4.691	<.001	-1.205	-.491

a. Dependent Variable: PurchInt

Figure 27: OLS Regression - Total Effect of Crisis Severity on Purchase Intention (H6)

```

*****
Model   : 4
  Y     : BrandEv
  X     : Severity
  M     : Disgust

Sample
Size: 171

*****
OUTCOME VARIABLE:
  Disgust

Model Summary
      R      R-sq      MSE      F      df1      df2      p
    .2541    .0645    1.3314   11.6606    1.0000   169.0000   .0008

Model
      coeff      se      t      p      LLCI      ULCI
constant    3.6212    .2785   13.0003   .0000    3.0713    4.1711
Severity     .6026    .1765    3.4148   .0008    .2542    .9510

```

Figure 28: PROCESS Model 4 - Path a: Crisis Severity Predicting Disgust (H7)

```

*****
OUTCOME VARIABLE:
  BrandEv

Model Summary
      R      R-sq      MSE      F      df1      df2      p
    .5324    .2834    1.0059   33.2278    2.0000   168.0000   .0000

Model
      coeff      se      t      p      LLCI      ULCI
constant    5.7699    .3424   16.8513   .0000    5.0939    6.4458
Severity    -.6351    .1586   -4.0043   .0001   -.9482   -.3220
Disgust     -.3912    .0669   -5.8505   .0000   -.5232   -.2592

***** DIRECT AND INDIRECT EFFECTS OF X ON Y *****

Direct effect of X on Y
      Effect      se      t      p      LLCI      ULCI
    -.6351    .1586   -4.0043   .0001   -.9482   -.3220

Indirect effect(s) of X on Y:
      Effect      BootSE      BootLLCI      BootULCI
Disgust    -.2357    .0788    -.4019    -.0928

```

Figure 29: PROCESS Model 4 - Paths b, c', and Indirect Effect: Disgust Mediating Brand Evaluation (H7)

***** BOOTSTRAP RESULTS FOR REGRESSION MODEL PARAMETERS *****

OUTCOME VARIABLE:

Disgust

	Coeff	BootMean	BootSE	BootLLCI	BootULCI
constant	3.6212	3.6214	.2900	3.0395	4.1902
Severity	.6026	.6017	.1764	.2542	.9509

OUTCOME VARIABLE:

BrandEv

	Coeff	BootMean	BootSE	BootLLCI	BootULCI
constant	5.7699	5.7658	.3589	5.0610	6.4629
Severity	-.6351	-.6329	.1552	-.9411	-.3310
Disgust	-.3912	-.3913	.0690	-.5257	-.2580

***** ANALYSIS NOTES AND ERRORS *****

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

Figure 30: PROCESS Model 4 - Bootstrap Confidence Intervals for Indirect Effect via Disgust (H7)**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.332 ^a	.111	.106	1.12036

a. Predictors: (Constant), Severity

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.317	1	29.317	23.356	<.001 ^b
	Residual	235.978	188	1.255		
	Total	265.295	189			

a. Dependent Variable: BrandEv

b. Predictors: (Constant), Severity

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	3.905	.186		20.959	<.001	3.537	4.272
	Severity	-.601	.124	-.332	-4.833	<.001	-.847	-.356

a. Dependent Variable: BrandEv

Figure 31: OLS Regression - Total Effect of Crisis Severity on Brand Evaluation (H7)

7.5. Appendix V: Disclosure of AI-tool Use

1) What AI tools have been used and how?

Claude Sonnet (Anthropic) and ChatGPT Thinking (OpenAI) were used during the writing process. These tools were used to assist with phrasing and structural feedback on draft sections, to check for logical consistency in argumentation, and to identify gaps in literature review coverage. All substantive theoretical arguments, hypothesis formulations, methodological decisions, and interpretations of statistical output are the authors' own.

2) In what ways have these tools contributed to increasing the quality of the thesis?

AI tools provided a rapid sounding board for structural decisions, helped identify where arguments were underspecified, and assisted in improving the clarity of academic phrasing in sections where English is not the authors' first language.

3) What potential risks were identified, and how were they reduced?

The primary risks identified were factual confabulation (AI generating plausible but incorrect citations or claims) and over-reliance on AI phrasing that could obscure the authors' own analytical voice. These risks were reduced by verifying all cited sources independently, never using AI to generate statistical results or interpret SPSS output, and revising all AI-assisted passages substantially before inclusion. Another risk identified was sharing confidential data with the AI from the survey. This risk was reduced by not sharing the data gathered in Qualtrics, the SPSS output generated from that data, and the screenshots from the SPSS output in the thesis draft.

4) What insights were gained from using AI tools in the thesis writing process?

AI tools are most useful as a structural and editorial aid rather than a substantive one. They help identify logical gaps and improve surface-level clarity but cannot replace the authors' theoretical judgment or statistical expertise.

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