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Designing a Model to Reduce Brand Hate in the Home Appliance Industry Using Interpretive Structural Modeling Technique

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A B S T R A C T

The purpose of this study was to propose a model aimed at reducing brand hate in the country's home appliance industry. To conduct the present research, ten factors influencing the reduction of brand hate were first identified through a review of the research literature. Then, the interpretive structural modeling (ISM) technique was employed to structure these drivers using the insights of 13 experts. Subsequently, to validate and test the conceptual model derived, a questionnaire containing 33 items with a five-point Likert scale was developed and distributed among 234 managers and employees of the national home appliance industry. Based on the data collected and through the application of structural equation modeling (SEM) and the Smart PLS3 software, the conceptual model of this study was evaluated and tested. The findings revealed an eight-level hierarchical structure, in which customer complaint handling, communication quality, and after-sales services were identified as the primary drivers initiating the model for reducing brand hate. The results of this research can serve as a guiding framework for strategies aimed at mitigating brand hate.

Keywords: *brand hate, communication quality, after-sales services, customer complaint handling*

1. Introduction

In the contemporary marketplace, brands hold profound symbolic and emotional significance, yet the same intensity of consumer-brand relationships can turn into deep-seated negative feelings when expectations are violated. This phenomenon, widely conceptualized as *brand hate*, represents not merely dissatisfaction but an intense, long-lasting, and emotionally charged aversion that influences consumer attitudes and behaviors toward a brand (Kucuk, 2019; Zhang & Laroche, 2020). While brand love and loyalty have been the focus of marketing scholarship for decades, understanding the antecedents and behavioral consequences of brand hate is increasingly critical as firms face reputational risks, viral negative word-of-mouth, and boycotts (Abbas et al., 2023; Pinto & Brandão, 2021). The home appliance industry, with its high involvement products and strong symbolic associations, is particularly vulnerable

to brand hate as consumers often have long-term relationships with such products and high service expectations (Attiq et al., 2022; Fani et al., 2022).

Brand hate is a complex, multidimensional construct that goes beyond transient anger or frustration. It includes emotional, cognitive, and behavioral dimensions such as anger, disgust, contempt, avoidance, retaliation, and even public shaming (Roy et al., 2022; Zhang & Laroche, 2020). Several scholars have investigated its antecedents, ranging from unmet expectations and negative consumption experiences to perceived moral transgressions and corporate social irresponsibility (Aziz & Rahman, 2022; Gois et al., 2023; Roozbahani et al., 2022). In the context of home appliances, where product reliability, after-sales service, and environmental impact are key determinants of consumer satisfaction, failures in these areas can trigger strong negative emotions (Durugbo, 2020; Mousavi et al., 2021). Poor communication, lack of complaint responsiveness, and the absence of meaningful recovery strategies amplify these emotions and can lead to active rejection and the spread of negative word-of-mouth (Ali et al., 2020; Asayesh & Jafari Zare, 2021).

A growing stream of research emphasizes that brand hate is not only triggered by direct functional failures but also by broader symbolic and ethical concerns. Consumers have become increasingly conscious of sustainability, environmental responsibility, and corporate ethics (Kraus et al., 2020; Santos et al., 2023). Greenwashing—making misleading environmental claims—has been shown to damage corporate reputation and intensify brand hate, as consumers perceive hypocrisy and betrayal (Costa & Azevedo, 2022; Santos et al., 2023). Similarly, corporate social irresponsibility, such as unethical labor practices or ignoring social commitments, significantly shapes negative emotional reactions (Islam et al., 2021; Roozbahani et al., 2022). In markets like home appliances, where global sustainability discourse shapes consumer expectations, such failures can be particularly damaging to brand equity.

Moreover, the digitalization of consumer voice through social media has amplified the reach and speed of negative emotions. Online anti-brand communities and user-generated hate content accelerate the diffusion of brand-related grievances, making recovery and reputation management more challenging (Pantano, 2021; Rodrigues et al., 2020). These virtual spaces allow consumers not only to express dissatisfaction but also to collectively reinforce and escalate their aversion (Itani, 2020; Pinto & Brandão, 2021). In this context, understanding how brand hate evolves and diffuses is essential for home appliance companies that face rapid reputational damage from viral online backlash.

To address these complex challenges, scholars have emphasized the need for systematic and multi-level models to map the factors influencing brand hate and its reduction (Collier, 2020; Nasution et al., 2020). Structural approaches such as interpretive structural modeling (ISM) have been increasingly used to map interrelationships among critical variables in complex managerial problems (Abdolazimi et al., 2020; Yang & Lin, 2020). By clarifying hierarchical drivers and dependencies, ISM helps identify the foundational levers managers must address first to disrupt negative consumer emotions before they escalate into entrenched hate and public brand rejection (Leong et al., 2020; Liu et al., 2020). The use of structural equation modeling (SEM) further allows for empirical testing and validation of such conceptual models (Collier, 2020; Pavlov et al., 2021).

In addition to methodological advances, previous studies have identified actionable factors that can reduce or reverse brand hate. Improving communication quality and transparency is central to restoring trust (Abbas et al., 2023; Ali et al., 2020). Responsive complaint handling and timely problem resolution are repeatedly found to be crucial in transforming negative experiences into opportunities for recovery (Durugbo, 2020; Fani et al., 2022). Effective after-sales services, including warranty management, repair support, and clear channels for consumer feedback, significantly mitigate consumer anger (Durugbo, 2020; Mousavi et al., 2021). Corporate social responsibility (CSR) initiatives, especially when authentic and well-communicated, help counteract negative perceptions and foster forgiveness (Costa & Azevedo, 2022; Islam et al., 2021). Likewise, environmental stewardship and green innovation are increasingly vital for industries associated with resource use and long product life cycles (Kraus et al., 2020; Santos et al., 2023).

The marketing literature also points to the psychological processes underlying the transition from negative experiences to active brand hate. Cognitive dissonance and perceived betrayal play a key role, as consumers experience emotional conflict when brands violate their expectations or values (Curina et al., 2021; Curina et al., 2020). Coping responses to brand hate include avoidance, switching, negative word-of-mouth, and organized retaliation such as boycotts or online campaigns (Bayarassou et al., 2020; Pantano, 2021). However, these responses can be moderated by factors such as apology quality, restitution efforts, and

consumer forgiveness (Costa & Azevedo, 2022; Rasouli et al., 2022). Designing interventions that address both functional recovery (service improvement, fair complaint resolution) and symbolic recovery (CSR, environmental responsibility, authentic apologies) is therefore critical for mitigating brand hate.

Another emerging dimension in brand hate literature is the role of consumer characteristics and socio-cultural context. Individual differences such as narcissism, moral sensitivity, and ideological alignment have been shown to shape the intensity and form of hate (Attiq et al., 2022; Gois et al., 2023). Cultural norms around forgiveness and revenge also influence how consumers respond to brand transgressions (Mahaputra & Saputra, 2021; Nguyen, 2021). For instance, collectivist cultures may amplify community-based negative word-of-mouth and organized anti-brand movements, while individualistic contexts may emphasize personal switching and public shaming (Itani, 2020; Joshi & Yadav, 2021). These nuances highlight the importance of tailoring strategies to reduce brand hate according to the cultural and psychological profile of the target market.

Despite significant progress, research on brand hate in industrial contexts like home appliances remains fragmented. Many studies focus on fast-moving consumer goods, fashion, or services (Abbas et al., 2023; Pinto & Brandão, 2021), yet durable goods industries face unique challenges due to long-term consumer involvement, complex after-sales service networks, and sustainability concerns (Abdolazimi et al., 2020; Durugbo, 2020). Moreover, while conceptual frameworks exist, few empirical studies systematically integrate multiple drivers of brand hate and test them using robust hierarchical modeling (Collier, 2020; Nasution et al., 2020). There is a pressing need to develop comprehensive models that identify which managerial levers—communication, service quality, CSR, environmental strategies, product innovation, pricing fairness, and experience design—are most influential in preventing or reversing brand hate in this sector.

The present study addresses these gaps by designing and validating a model for reducing brand hate in the home appliance industry.

2. Methods and Materials

The present study is classified as an applied research endeavor because its main purpose is the development of practical knowledge and its operational application within the home appliance industry. Initially, by reviewing the literature and previous studies, the factors influencing brand hate were identified. Subsequently, the interpretive structural modeling (ISM) technique was employed to design a relational model among the identified factors. For this purpose, a pairwise comparison questionnaire of the identified dimensions was provided to experts. The number of experts required to complete the ISM pairwise comparison questionnaire ranges from 8 to 15. Accordingly, in this stage of the research, the opinions of 13 experts familiar with the research topic—those who had conducted studies in this area and had at least five years of relevant professional experience—were sought to answer the questionnaire items.

The instrument used at this stage was a questionnaire comprising the final eight identified factors. Experts were asked to compare the factors in pairs and determine the type of relationship between them (no relationship, one-way relationship, or reciprocal relationship). It should be noted that since the opinions of 13 experts were used to complete the questionnaires, the self-interaction matrix was formed using the mode method based on the highest frequency observed in each cell.

To validate the conceptual model formed through the interpretive structural modeling technique, Smart PLS3 software was applied. For this purpose, a questionnaire with 33 questions was designed based on the research literature and expert opinions. Considering the use of the structural equation modeling (SEM) approach, the required sample size in this study was determined using the formula $q5 < n < q15$, where q is the number of questionnaire items and n is the sample size. Given that the questionnaire contained 33 items, 270 questionnaires were distributed, of which 234 were returned. Because two types of questionnaires were used in this study, the sampling method for distributing the pairwise comparison questionnaire was snowball sampling, while the sampling method for the questionnaire designed to measure the factors influencing the reduction of brand hate was convenience sampling.

To analyze the data, structural equation modeling (SEM) and Smart PLS3 software were employed. In this approach, the conceptual model was evaluated at three levels: the measurement model, which assesses the relationships between the items and the research variables (construct validity and reliability); the structural model, which evaluates the relationships between the variables themselves; and the overall model fit, which provides an overall assessment of the proposed model.

To examine validity, convergent validity was assessed. Convergent validity refers to the degree of correlation between items associated with a particular construct and the construct itself. This was measured using two criteria: factor loadings and average variance extracted (AVE). Acceptable thresholds for these two criteria were set at 0.40 and 0.50, respectively.

For reliability assessment, Cronbach's alpha and composite reliability (CR) were used. Cronbach's alpha indicates the internal consistency of a construct and its associated indicators, with an acceptable threshold of 0.70. Composite reliability evaluates the reliability of constructs not in absolute terms but based on the intercorrelations among their indicators; a CR value above 0.70 for each construct indicates satisfactory model reliability.

To evaluate the structural model, Q^2, R^2, and F^2 indices were used. The Q^2 index, applied to endogenous constructs, indicates the model's predictive relevance. Models with acceptable structural fit should demonstrate predictive capability for the indicators of endogenous constructs. For predictive strength, Q^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large predictive relevance, respectively. R^2 is also calculated only for endogenous (dependent) constructs and is zero for exogenous (independent) constructs. R^2 thresholds of 0.19, 0.33, and 0.67 represent weak, moderate, and strong explanatory power, respectively; higher R^2 values indicate better model fit for endogenous constructs. The F^2 index measures the effect size, ranging from 0 to 1, with thresholds of 0.02, 0.15, and 0.35 indicating small, medium, and large effect sizes, respectively.

The overall fit of the model was assessed using the Standardized Root Mean Square Residual (SRMR) index. This index ranges from 0 to 1, and smaller values indicate better overall model fit. In other words, the closer the factor loadings and regression coefficients are to high levels, the closer the SRMR will be to zero. The recommended cutoff value for SRMR is 0.08; thus, an SRMR value of 0.08 or lower indicates a high overall model fit, while values greater than 0.08 suggest weaker model fit.

3. Findings and Results

Considering the factors obtained for reducing brand hate in the home appliance industry and based on the experts' pairwise comparison opinions, the relationships among these factors are presented in Table 1.

Table 1

Structural Self-Interaction Matrix

Factor	1	2	3	4	5	6	7	8	9	10
1- Communication Quality	—	V	O	O	A	O	V	V	O	O
2- Customer Complaint Handling	A	—	A	A	A	A	A	A	A	A
3- After-Sales Services	A	V	—	A	A	V	O	O	A	A
4- Environmental Approach	X	V	O	—	O	O	V	A	O	O
5- Social Responsibility	V	O	O	X	—	O	O	O	V	O
6- On-Time Delivery	A	A	A	A	—	—	—	—	—	—
7- Product Up-to-dateness	V	V	O	—	—	—	—	—	—	—
8- Customer Experience	O	O	—	—	—	—	—	—	—	—
9- Price–Quality Fit	O	—	—	—	—	—	—	—	—	—
10- Word-of-Mouth Advertising	—	—	—	—	—	—	—	—	—	—

Using Table 1, the initial reachability matrix was formed, and then the final reachability matrix was derived. To determine the level of dimensions, as described in the methodology section, it was necessary to identify the reachability sets, antecedent sets, and their intersections, which are shown in Table 2.

Table 2

Determining the Levels of Factors Influencing the Establishment of Quality 4.0

Factors	Reachability Set	Antecedent Set	Intersection Set	Level
1- Communication Quality	{10, 9, 8, 7, 6, 5, 3, 2, 1}	{7, 5, 1}	{7, 5, 1}	6
2- Customer Complaint Handling	{10, 9, 8, 7, 6, 5, 4, 3, 2, 1}	{7, 5, 1}	{2}	8
3- After-Sales Services	{10, 9, 7, 6, 5, 4, 3, 2, 1}	{7, 5, 1}	{7, 5, 1}	5
4- Environmental Approach	{10, 9, 6, 4, 3, 2}	{10, 7, 5, 4, 1}	{10, 4}	1
5- Social Responsibility	{6, 4, 3, 2}	{10, 7, 5, 4}	{4}	7
6- On-Time Delivery	{8, 6, 3, 2}	{8, 5, 1}	{8}	5
7- Product Up-to-dateness	{9, 6, 3, 2}	{10, 9, 7, 5, 4, 1}	{9}	4
8- Customer Experience	{6, 3, 2}	{10, 9, 7, 5, 4, 3, 1}	{3}	3
9- Price–Quality Fit	{6, 2}	{10, 9, 7, 6, 5, 4, 3, 1}	{6}	1
10- Word-of-Mouth Advertising	{2}	{10, 9, 7, 6, 5, 4, 3, 2, 1}	{2}	2

Based on Table 2 and following the steps described in the methodology section, the interpretive structural model was drawn as shown in Figure 1.

Figure 1

Conceptual Model

The model obtained in this study, presented in Figure 1, was uploaded to the Smart PLS3 software for statistical validation. Using the data gathered from 214 employees of the home appliance industry in the country, the model was tested. Table 3 presents the validity and reliability values obtained for each dimension of the model.

Table 3

Reliability and Validity Values

Research Variables	Related Items	Factor Loadings	AVE	Cronbach's Alpha	Composite Reliability
Communication Quality	Q1	0.841	0.698	0.784	0.874

	Q2	0.833			
	Q3	0.832			
Customer Complaint Handling	Q4	0.823	0.645	0.823	0.883
	Q5	0.771			
	Q6	0.811			
	Q7	0.811			
After-Sales Services	Q8	0.810	0.661	0.744	0.854
	Q9	0.813			
	Q10	0.817			
Environmental Approach	Q11	0.862	0.693	0.778	0.871
	Q12	0.816			
	Q13	0.818			
Social Responsibility	Q14	0.832	0.694	0.779	0.872
	Q15	0.839			
	Q16	0.826			
On-Time Delivery	Q17	0.798	0.647	0.818	0.880
	Q18	0.814			
	Q19	0.800			
	Q20	0.805			
Product Up-to-dateness	Q21	0.801	0.733	0.806	0.873
	Q22	0.802			
	Q23	0.766			
	Q24	0.812			
Customer Experience	Q25	0.838	0.707	0.793	0.879
	Q26	0.841			
	Q27	0.843			
Price–Quality Fit	Q28	0.768	0.659	0.740	0.853
	Q29	0.839			
	Q30	0.826			
Word-of-Mouth Advertising	Q31	0.811	0.668	0.751	0.858
	Q32	0.811			
	Q33	0.828			

Based on the values presented in Table 3, the reliability and validity of the research questionnaire were confirmed. According to Table 4, the structural model fit and the values of Q^2 and R^2 for the dependent variables of the research model and their corresponding constructs were also assessed.

Table 4

Criteria Related to the Structural Model Fit

No.	Endogenous Variables	R^2	Q^2
1	Environmental Approach	0.701	0.460
2	Social Responsibility	0.605	0.399
3	On-Time Delivery	0.615	0.376
4	Product Up-to-dateness	0.642	0.384
5	Customer Experience	0.692	0.464
6	Price–Quality Fit	0.556	0.349
7	Word-of-Mouth Advertising	0.580	0.369

According to the values obtained in Table 4, the structural model fit was also confirmed. For the overall model fit, as stated in the methodology section, the Standardized Root Mean Square Residual (SRMR) index was used, and the value obtained in this study was 0.050, indicating a good overall fit of the research model. The t-statistics for all paths must exceed the absolute critical value of 1.96. In this study, the t-statistics for all relationships were higher than 1.96, confirming the significance of the relationships among the research dimensions. Table 5 presents the path coefficients, t-statistics, and effect sizes.

Table 5

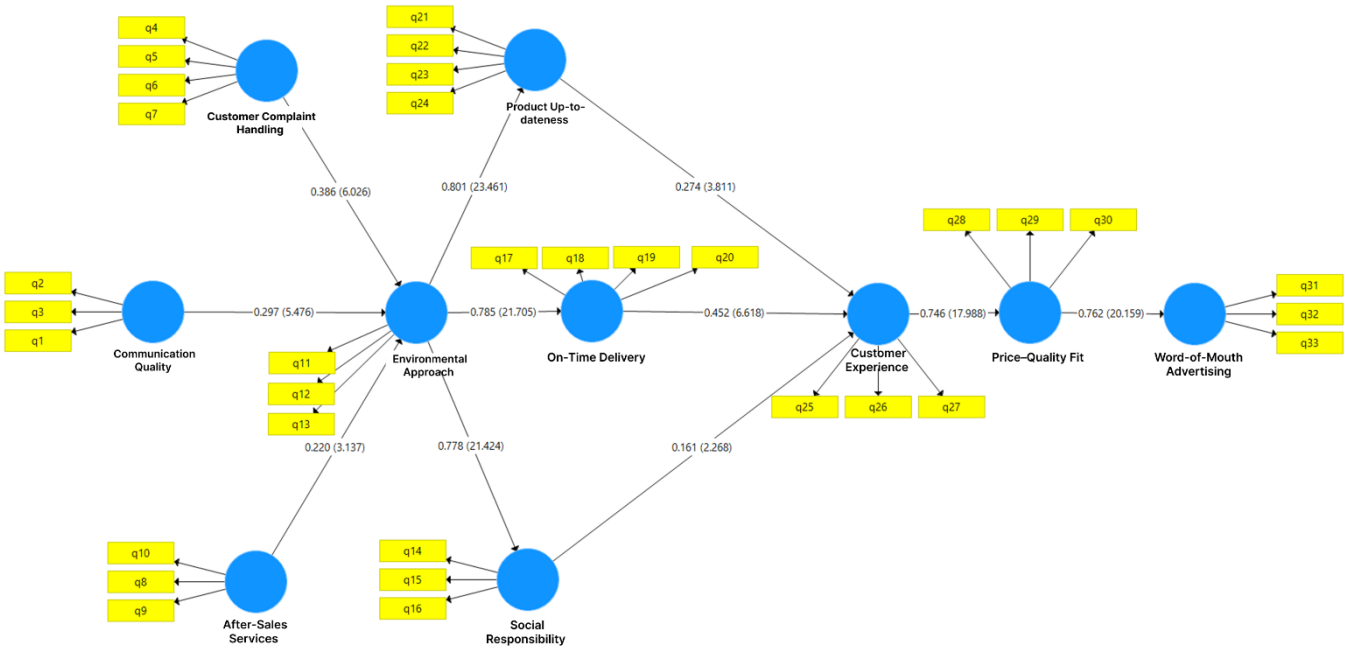
Results of t-Statistics and Path Coefficients

Hypothesis	Relationship	Direction	Path Coefficient	t-Statistic	Effect Size	Test Result
1	Product Up-to-dateness → Customer Experience	Direct	0.274	3.81	0.167	Confirmed
2	Customer Experience → Price–Quality Fit	Direct	0.746	17.98	0.254	Confirmed
3	On-Time Delivery → Customer Experience	Direct	0.452	6.61	0.176	Confirmed
4	Price–Quality Fit → Word-of-Mouth Advertising	Direct	0.762	20.15	0.383	Confirmed
5	After-Sales Services → Environmental Approach	Direct	0.220	3.13	0.155	Confirmed
6	Environmental Approach → Product Up-to-dateness	Direct	0.801	23.46	0.792	Confirmed
7	Environmental Approach → On-Time Delivery	Direct	0.785	21.70	0.600	Confirmed
8	Environmental Approach → Social Responsibility	Direct	0.778	21.42	0.530	Confirmed
9	Social Responsibility → Customer Experience	Direct	0.161	2.26	0.169	Confirmed
10	Customer Complaint Handling → Environmental Approach	Direct	0.386	6.02	0.162	Confirmed
11	Communication Quality → Environmental Approach	Direct	0.297	5.47	0.153	Confirmed

As shown in Table 6, all hypotheses of this study were supported.

Figure 2

t-Statistics and Path Coefficients



4. Discussion and Conclusion

The present study set out to design and empirically validate a comprehensive model to reduce brand hate in the home appliance industry by structuring the complex network of influencing factors and testing their interrelationships through interpretive structural modeling (ISM) and structural equation modeling (SEM). The results revealed a hierarchical eight-level structure in which *communication quality* and *customer complaint responsiveness* emerged as foundational drivers that trigger subsequent processes such as after-sales service effectiveness, environmental and social responsibility, product up-to-dateness, fair price–quality perception, and, ultimately, positive word-of-mouth. Statistical analysis demonstrated that all hypothesized paths were significant, with t-values exceeding the 1.96 threshold and satisfactory model fit indices, including an SRMR of

0.050, confirming the robustness of the conceptual framework.

One of the most noteworthy findings was the centrality of communication quality and complaint responsiveness as the initial levers in mitigating brand hate. This result aligns with prior research indicating that open, transparent, and empathetic communication significantly shapes consumer emotions and builds resilience against negative experiences (Abbas et al., 2023; Ali et al., 2020). Effective complaint handling transforms dissatisfaction into opportunities for service recovery and strengthens perceptions of fairness and care (Durugbo, 2020; Fani et al., 2022). In markets for durable goods such as home appliances, where consumers invest significant financial and emotional resources, failures in communication and problem resolution can easily escalate frustration into deeper emotional rejection (Attiq et al., 2022). Our results underscore that strengthening complaint handling and equipping frontline staff with the skills and systems to address grievances promptly is foundational for any brand hate reduction strategy.

The study further demonstrated the strong positive effect of after-sales services on creating an environmentally responsible brand image and indirectly reducing brand hate. This is consistent with literature emphasizing the role of post-purchase support in shaping long-term consumer perceptions (Durugbo, 2020; Mousavi et al., 2021). Comprehensive warranty systems, reliable repair services, and customer-centric service channels reduce functional frustration and signal commitment to product quality. Additionally, after-sales engagement creates a platform to communicate sustainable practices and product updates, reinforcing environmentally responsible positioning (Kraus et al., 2020; Santos et al., 2023). This twofold impact—functional satisfaction and symbolic sustainability communication—appears particularly important for mitigating brand hate among environmentally conscious consumers who expect both product reliability and ethical behavior.

Another significant contribution of this study lies in highlighting the environmental and social responsibility dimensions as higher-level, integrative constructs that influence multiple downstream outcomes. The results confirmed that an *environmental approach* strongly affects product up-to-dateness, timely delivery, and social responsibility. These findings support earlier studies demonstrating that sustainable operations and authentic green strategies not only protect corporate reputation but also facilitate product innovation and operational reliability (Abdolazimi et al., 2020; Santos et al., 2023; Yang & Lin, 2020). Conversely, when companies engage in *greenwashing* or fail to meet environmental promises, consumers interpret these actions as moral transgressions, fueling hate (Costa & Azevedo, 2022; Santos et al., 2023). Similarly, genuine corporate social responsibility (CSR) initiatives reinforce consumer trust and can encourage forgiveness after negative experiences (Islam et al., 2021; Rasouli et al., 2022). The structural placement of environmental and social strategies as pivotal nodes in the model indicates that beyond immediate service recovery, long-term ethical and sustainable practices are essential to reduce deeper, value-based brand aversion.

The link between product up-to-dateness and customer experience observed in the model also resonates with previous scholarship on innovation and consumer engagement. Our findings reveal that offering technologically updated, aesthetically appealing, and user-friendly products significantly enhances customer experience, which in turn reduces negative affect and promotes fairness perceptions (Panigrahi et al., 2021; Pantano, 2021). In high-involvement industries, innovation signals respect for evolving consumer needs and mitigates the stagnation and disappointment that often lead to active dislike (Mahaputra & Saputra, 2021; Nguyen, 2021). Additionally, timely product delivery and reliable distribution chains further reinforce positive experiences and trust, aligning with research that highlights logistics performance as an indirect moderator of consumer-brand relationships (Abdolazimi et al., 2020; Yang & Lin, 2020).

One of the most powerful pathways identified was the mediating role of price–quality fit between customer experience and positive word-of-mouth. When customers perceive pricing to be fair and consistent with product performance, they are more likely to replace hate with satisfaction and advocacy. This is in line with studies showing that perceived price injustice triggers anger and retaliatory behaviors, while fair pricing restores balance and can transform dissatisfied customers into passive or even supportive consumers (Joshi & Yadav, 2021; Rodrigues et al., 2020). In an era where online reviews and recommendations strongly influence purchase decisions, this shift from hate to advocacy through perceived fairness offers a critical strategic lever.

Another interesting contribution is the confirmation that negative emotions can be reversed through relational and symbolic repair strategies, not just functional corrections. Research on consumer forgiveness indicates that emotional

wounds from betrayal can heal if companies demonstrate accountability, provide meaningful explanations, and enact corrective measures (Costa & Azevedo, 2022; Rasouli et al., 2022). Our model integrates this logic by positioning early drivers (communication and complaint response) as immediate recovery actions, while higher-level social and environmental commitments act as long-term repair mechanisms that rebuild identification and reduce the persistence of hate (Curina et al., 2021; Itani, 2020).

The findings also corroborate the growing literature on consumer heterogeneity in hate responses. Previous studies have noted that personality traits such as narcissism and ideological values influence how consumers react to perceived brand misconduct (Attiq et al., 2022; Gois et al., 2023). While our model did not explicitly test these moderating factors, the significant relationships among emotional and functional variables suggest that different consumer segments might move through the model differently. For example, highly moralized consumers may weigh environmental and social actions more heavily in their hate reduction trajectory (Aziz & Rahman, 2022; Santos et al., 2023), while pragmatic consumers may respond faster to functional repair and price fairness.

By integrating functional recovery elements (communication, complaint response, after-sales service) with symbolic and ethical strategies (CSR, environmental responsibility, innovation), this study offers a holistic roadmap for reducing brand hate in the home appliance industry. It advances theory by linking previously fragmented streams—service recovery, sustainability, and brand relationship repair—into one empirically tested structural model (Collier, 2020; Nasution et al., 2020). Moreover, the application of interpretive structural modeling followed by SEM validation strengthens the methodological rigor of brand hate research, encouraging scholars to move beyond descriptive typologies (Curina et al., 2020; Kucuk, 2019).

Despite its contributions, this study has several limitations that should be acknowledged. First, the research was conducted within the home appliance industry of a single national context. Consumer expectations and cultural norms around service recovery, sustainability, and forgiveness vary across markets; therefore, the generalizability of the model beyond this context may be limited. Second, the data relied on self-reported perceptions from managers and employees, which, while valuable for internal insights, may differ from consumers' direct experiences and emotional responses. Future studies could benefit from triangulating perspectives by including customer-level data to validate and refine the hierarchical structure. Third, the cross-sectional design restricts causal inference about how interventions in early drivers (e.g., communication) lead to long-term reductions in brand hate. Longitudinal research could capture the dynamic process of hate formation and mitigation over time. Finally, although the study examined a wide range of drivers, other potentially relevant variables such as cultural dimensions, consumer identity orientation, and digital engagement behaviors were not included.

Future research could build upon these findings by expanding the model across different industries and cultural settings to test its robustness and adaptability. Comparative cross-country studies could explore how cultural values such as collectivism versus individualism moderate the pathways from service failure to hate reduction. Additionally, integrating personality and psychological traits of consumers (e.g., moral identity, narcissism, resilience) could help personalize hate mitigation strategies. Another promising avenue is exploring the digital dimension of hate formation and reduction. As social media platforms amplify both negative and positive narratives, understanding the interplay of online communities, influencer advocacy, and brand recovery efforts could offer deeper insights. Methodologically, future studies could adopt mixed methods or longitudinal designs to trace the trajectory of brand hate over time and assess how managerial interventions affect both immediate emotions and long-term loyalty restoration. Finally, integrating emerging constructs such as brand forgiveness, co-creation after failure, and consumer empowerment into the model could further enrich its explanatory power.

From a managerial perspective, the findings provide actionable guidance for companies aiming to reduce brand hate and rebuild consumer trust. Firms should invest in robust complaint management systems and train frontline employees to handle grievances empathetically and promptly. Building an effective after-sales service infrastructure that provides reliability and support is essential for minimizing frustration and reinforcing quality promises. Managers should also integrate sustainability and social responsibility authentically into their brand strategies, ensuring transparency and avoiding greenwashing, which can backfire and intensify negative emotions. Innovation and product relevance should be ongoing priorities, as outdated products can erode positive experiences and fuel dissatisfaction. Finally, price–quality fairness must be

continuously monitored, as consumers' perceptions of unjust pricing remain a strong driver of retaliatory behaviors. Together, these strategies offer a proactive, multi-layered approach to mitigating brand hate and safeguarding brand equity in competitive and emotionally charged markets.

Authors' Contributions

Authors contributed equally to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethics Considerations

In this research, ethical standards including obtaining informed consent, ensuring privacy and confidentiality were considered.

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