



The Effects of AI Anthropomorphism and Service Recovery on Perceived Fairness, Post Recovery Trust, and Recovery Satisfaction in Chinese E-Commerce

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Abstract

Artificial Intelligence (AI) has become a key component of customer service in e-commerce, particularly in handling service failures and recovery processes. However, the mechanisms through which AI-assisted service recovery influences consumers' perceptions and post-recovery outcomes remain insufficiently understood. This study examines the effects of AI anthropomorphism and service recovery on perceived fairness, and investigates how perceived fairness subsequently influences post-recovery trust and recovery satisfaction in Chinese e-commerce. Data were collected from 400 users of major Chinese e-commerce platforms using a structured questionnaire and analyzed through descriptive statistics, Pearson correlation, and multiple regression analysis. Results indicate that both AI anthropomorphism and service recovery significantly influence perceived fairness, together explaining 44.7% of its variance. Perceived fairness significantly affects post-recovery trust (Adjusted $R^2 = 0.461$) and recovery satisfaction (Adjusted $R^2 = 0.504$), with interactional fairness emerging as the most influential dimension. In AI-mediated service encounters, interactional fairness, which reflects consumers' perceptions of respectful, sincere, and empathetic treatment, proves more influential than distributive or procedural fairness. This occurs because human-like interaction quality is particularly salient when consumers evaluate whether an AI system genuinely cares rather than merely processes complaints. This study extends the Stimulus-Organism-Response (S-O-R) framework and offers practical implications for e-commerce platforms. Findings suggest that AI customer service systems should incorporate calibrated empathy through emotionally responsive language, sincere acknowledgment of concerns, and personalized interactional cues to strengthen interactional fairness perceptions and enhance post-recovery trust and satisfaction.

Keywords: AI Anthropomorphism; Service Recovery; Perceived Fairness; Post-Recovery Trust; Recovery Satisfaction



Introduction

China's e-commerce sector has experienced remarkable growth as the global digital economy expands. According to the China Internet Network Information Center (January 2025), China's internet penetration rate reached 78.6% by December 2024, with 974 million online shoppers representing 87.9% of all internet users. These figures demonstrate that online shopping has become integral to Chinese consumers' daily routines. In this highly digitalized environment, e-commerce platforms face increasing pressure to enhance service efficiency, customer experience, and relationship management to meet rapidly evolving consumer expectations.

Artificial Intelligence (AI) has driven service transformation in e-commerce. AI customer service systems are widely deployed to handle inquiries, logistics, after-sales support, and complaints, offering scalability, consistency, and speed. However, their effectiveness becomes uncertain in-service failure and recovery, where consumers expect not only problem-solving but also fairness, empathy, and reassurance. Fürst et al. (2025) note that AI performs well in standardized tasks but shows limitations in emotionally complex situations, while Huang and Dootson (2022) find that chatbots failing to address emotional and fairness concerns intensify platform dissatisfaction. Although AI customer service has strong functional value, its role in restoring damaged consumer relationships remains unresolved.

Service failure has become a normalized and largely unavoidable aspect of e-commerce operations. Problems such as delayed delivery, poor product quality, inaccurate order information, or ineffective complaint handling can quickly trigger consumer dissatisfaction and complaint behavior. In such situations, service recovery becomes critically important. Originally defined by Gronroos (1990), service recovery refers to the actions taken by service providers following a service failure in order to compensate for losses and restore customer satisfaction and trust. Prior research has consistently shown that consumers' evaluations of service recovery depend heavily on their perceptions of fairness, including whether the outcome is reasonable, whether the process is transparent, and whether the interaction is respectful and sincere (Colquitt, 2001). In AI-mediated recovery contexts, these fairness judgments may be further shaped by the extent to which the AI system appears human-like, socially responsive, and emotionally aware. In this regard, AI anthropomorphism, defined as the attribution of human-like characteristics, intentions, or emotions to non-human intelligent agents (Epley et al., 2007), has emerged as an increasingly important design dimension in digital service encounters.

Despite growing scholarly interest in AI anthropomorphism and service recovery, existing studies have largely examined these factors separately, with limited attention to how they may operate simultaneously through perceived fairness in AI-assisted recovery contexts.

Moreover, empirical evidence remains limited in Chinese e-commerce, where cultural dynamics uniquely shape consumer expectations. Specifically, mianzi (face-saving) makes service failures threats to social dignity, rendering interaction manner, not merely outcome, socially consequential. Similarly, guanxi (relational orientation) conditions consumers to expect personalized, sincere interactions rather than standardized responses (Song et al., 2017). When AI systems handle service failures, they are evaluated against these culturally embedded expectations, yet this dimension remains largely absent from existing literature. Furthermore, the widespread deployment of large language models and generative AI has fundamentally transformed AI's communicative capabilities, raising new questions about whether consumers recalibrate fairness expectations as AI approximates human-like interaction quality. China represents one of the world's most advanced e-commerce ecosystems and a frontier market for generative AI in customer service, yet remains underexplored in this research stream.

To address these gaps, the present study applies the Stimulus Organism Response (SOR) framework to examine how AI anthropomorphism and service recovery shape consumers perceived fairness, and how perceived fairness subsequently influences post-recovery trust and recovery satisfaction in the context of Chinese e-commerce. By doing so, the study seeks to extend current understanding of AI-assisted service recovery and provide practical guidance for e-commerce platforms seeking to design more effective, trustworthy, and consumer-sensitive AI service systems.

Research Objectives

This study aims to examine the effects of AI anthropomorphism and service recovery on perceived fairness, and to investigate how perceived fairness subsequently influences post-recovery trust and recovery satisfaction in the context of AI-assisted service recovery in Chinese e-commerce. Specifically, the study addresses the following objectives: (1) to examine the effect of AI anthropomorphism on consumers' perceived fairness; (2) to examine the effect of service recovery on consumers' perceived fairness; and (3) to investigate how perceived fairness influences post-recovery trust and recovery satisfaction.

Literature Review

Theoretical Foundation

This study is grounded in the Stimulus-Organism-Response (S-O-R) theory, which explains how external stimuli influence individuals' internal psychological states and shape behavioral responses. AI anthropomorphism and service recovery are treated as external stimuli, perceived fairness represents the internal evaluative mechanism, and post-recovery

trust and recovery satisfaction constitute the response outcomes. Perceived fairness is selected as the focal organism-level construct because service failure contexts activate consumers' cognitive appraisal of just treatment, directly mediating how recovery delivery translates into behavioral responses. While alternative mediators such as perceived control may operate in recovery contexts, perceived fairness is particularly appropriate because organizational justice theory provides a well-validated framework for recovery interactions, and fairness judgments carry cognitive and social significance in collectivist cultural settings. Perceived fairness is operationalized through three dimensions (Colquitt, 2001): distributive fairness (adequacy of outcomes), procedural fairness (transparency and consistency of processes), and interactional fairness (respectfulness and empathy of treatment). This structure is maintained consistently across the conceptual framework, measurement, and analysis.

The study further draws on the CASA paradigm (Nass & Moon, 2000) to explain AI anthropomorphism, distinguishing between cognitive anthropomorphism (perceived AI intelligence and problem-solving competence) and emotional anthropomorphism (perceived AI empathy and relational warmth). This distinction is relevant because cognitive cues may primarily enhance distributive and procedural fairness perceptions by signaling competence, whereas emotional cues may more directly strengthen interactional fairness through the conveyance of sincerity and care.

AI Anthropomorphism and Perceived Fairness

AI anthropomorphism refers to the extent to which consumers perceive AI systems as possessing human-like characteristics, emotions, or communication styles (Epley et al., 2007). In AI customer service contexts, anthropomorphic cues such as human-like language, empathy, and social responsiveness can enhance users' perceptions of social presence and interaction quality. while Koh et al. (2025) reported that AI anthropomorphism positively affected perceived fairness in trust repair contexts. In service recovery situations, where consumers are especially sensitive to treatment, human-like AI may increase perceptions that the interaction is more considerate, appropriate, and fair. Therefore, the following hypothesis is proposed:

H1: AI anthropomorphism has a significant positive effect on perceived fairness.

Service Recovery and Perceived Fairness

Service recovery refers to actions taken by service providers following service failure to resolve problems and restore customer relationships (Gronroos, 1990). Effective service recovery influences customer evaluations after service failure. Consumers assess whether recovery outcomes are appropriate, processes are reasonable, and they are treated respectfully during interactions. Russo et al. (2022) found that compensation arrangements and rapid response mechanisms significantly influence consumers' fairness perceptions, while

Kuo et al. (2025) showed that recovery timeliness and compensation adequacy are key predictors of post-recovery fairness evaluations. When consumers perceive service recovery as effective and appropriate, they are more likely to perceive the recovery process as fair. Therefore, the following hypothesis is proposed:

H2: Service recovery has a significant positive effect on perceived fairness

Perceived Fairness and Post-Recovery Trust

Perceived fairness is an important psychological mechanism in service recovery because it shapes consumers' evaluations of whether the platform has handled the failure in a just and acceptable manner. According to organizational justice theory, fairness perceptions are formed through evaluations of outcomes, procedures, and interpersonal treatment (Colquitt, 2001). When consumers perceive the recovery process as fair, they are more likely to regain confidence in the service provider. Tomlinson et al. (2021) emphasize that fairness is central not only to trust formation but also to trust repair, while Ilhamalimy and Ali (2021) note that trust is particularly important in e-commerce environments where uncertainty and risk are high. Therefore, when consumers perceive fairness in the recovery process, they are more likely to report higher post-recovery trust. Thus, the following hypothesis is proposed:

H3: Perceived fairness has a significant positive effect on post-recovery trust.

Perceived Fairness and Recovery Satisfaction

Recovery satisfaction refers to consumers' evaluative response after the service failure and recovery process have been completed. In service recovery research, perceived fairness has consistently been identified as a major antecedent of satisfaction because consumers evaluate not only whether the issue is resolved, but also whether the recovery process is fair and appropriate. Gidaković and Čater (2021) found that fairness significantly influences customer satisfaction with service recovery, while Liao et al. (2022) reported that perceived fairness positively affects recovery satisfaction in Chinese mobile e-commerce contexts. These findings suggest that consumers who perceive the service recovery process as fair are more likely to feel satisfied with the recovery experience. Therefore, the following hypothesis is proposed:

H4: Perceived fairness has a significant positive effect on recovery satisfaction.

Conceptual Framework

Based on the theoretical foundation and empirical evidence reviewed above, this study proposes a conceptual framework in which AI anthropomorphism and service recovery function as external stimuli, perceived fairness serves as the internal evaluation mechanism, and post-recovery trust and recovery satisfaction represent response outcomes. Although perceived fairness is presented as a central construct in the conceptual model, it is opera-

tionalized through three dimensions distributive fairness, procedural fairness, and interactional fairness in the empirical analysis.

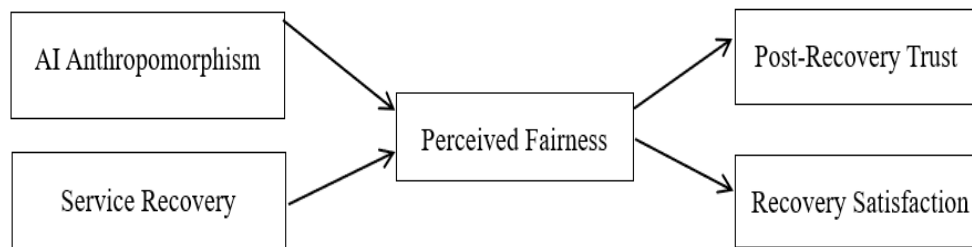


Figure 1 Conceptual Framework

Research Methodology

Research Design

This study employed a quantitative cross-sectional survey design to test theoretically derived hypotheses and measure relationships among variables through numerical data and statistical analysis. This approach is appropriate for examining cause-and-effect relationships and generalizing findings across a defined population. The study examined relationships among five key constructs: AI anthropomorphism, service recovery, perceived fairness, post-recovery trust, and recovery satisfaction in Chinese e-commerce. Data were collected through a structured questionnaire and analyzed using descriptive statistics, Pearson correlation analysis, and multiple regression analysis to test the proposed hypotheses.

Population and Sample

The target population consisted of users of major Chinese e-commerce platforms (Taobao/Tmall, JD.com, and Pinduoduo) who had experienced service failure and subsequent AI-assisted service recovery within the previous 12 months. Data were collected using quota sampling based on platform market share. A total of 500 questionnaires were distributed via online channels, and 400 valid responses were retained for analysis.

Research Instrument and Measurement

The research instrument was a structured questionnaire adapted from established scales. AI anthropomorphism was measured using 9 items adapted from Shen et al. (2024), service recovery using 6 items from Tax and Chandrashekar (1998), perceived fairness using 9 items (three dimensions: distributive, procedural, and interactional fairness) adapted from Colquitt (2001), post-recovery trust using 6 items adapted from McKnight et al. (2002) and Mayer et al. (1995), and recovery satisfaction using 5 items adapted from Boshoff (1999). In total, the questionnaire consisted of 35 items. All items were measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Instrument Validation and Reliability

The questionnaire was translated using a translation and back-translation procedure. Content validity was assessed using the Index of Item-Objective Congruence (IOC) by three experts, with IOC values ranging between 0.67 and 1.00, indicating acceptable content validity (Rovinelli & Hambleton, 1977). A pilot test with 30 respondents was conducted prior to the main survey. The reliability of the instrument was evaluated using Cronbach's alpha. The results showed that all constructs achieved acceptable internal consistency, with alpha coefficients ranging from 0.819 to 0.912, exceeding the recommended threshold of 0.70 (Cronbach, 1951).

Results

Demographics Characteristics of Respondents

A total of 400 valid responses were included in the analysis. The respondents were users of major Chinese e-commerce platforms who had previously experienced service failure and subsequent AI-assisted service recovery. The demographic profile of respondents is presented in Table 1.

Table 1 Demographic Characteristics of Respondents (n = 400)

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	178	44.5
	Female	222	55.5
Age	18–25	142	35.5
	26–35	156	39.0
	36–45	72	18.0
	46–55	22	5.5
	55 and above	8	2.0
Education	High school or below	28	7.0
	Associate degree	52	13.0
	Bachelor's degree	212	53.0
	Master's degree	96	24.0
	Doctoral degree or above	12	3.0
City Tier	Tier-1	108	27.0
	New Tier-1	128	32.0
	Tier-2	96	24.0
	Tier-3 and below	68	17.0
Primary Platform	Taobao/Tmall	162	40.5
	JD.com	118	29.5



Characteristic	Category	Frequency	Percentage (%)
Shopping Frequency	Pinduoduo	120	30.0
	Daily	52	13.0
	2–3 times/week	118	29.5
	Once/week	112	28.0
	2–3 times/month	86	21.5
	Once/month or less	32	8.0

Descriptive Statistical Analysis of AI Anthropomorphism

The descriptive statistics for AI anthropomorphism are presented in Table 2. The overall mean score is 3.70 (SD = 0.61), indicating that respondents perceive AI customer service at a high level.

Table 2 Descriptive Statistics for AI Anthropomorphism Scale Items (n = 400)

No.	Items	Mean (M)	SD	Interpretation
A1	Language resembles real human conversation	3.82	0.76	High level
A2	Uses humanized expressions	3.88	0.71	High level
A3	Capable of expressing emotion	3.65	0.83	High level
A4	Displays empathy	3.58	0.85	High level
A5	Personalized reply style	3.75	0.78	High level
A6	Adjusts communication to emotional state	3.52	0.89	High level
A7	Avatar/image enhances sense of humanness	3.48	0.92	High level
A8	Proactively inquires about needs	3.79	0.77	High level
A9	Overall possesses human-like qualities	3.85	0.73	High level
Overall Mean		3.70	0.61	High level

Descriptive Statistical Analysis of Service Recovery

The descriptive statistics for service recovery are presented in Table 3. The overall mean score is 3.85 (SD = 0.58), indicating that respondents evaluate service recovery at a high level.

Table 3 Descriptive Statistics for Service Recovery Scale Items (n = 400)

No.	Items	Mean (M)	SD	Interpretation
SR1	Compensation is reasonable	3.92	0.74	High level
SR2	Handling speed is timely	3.78	0.81	High level
SR3	Process is clear and transparent	3.71	0.85	High level
SR4	Expresses sincere apology	3.88	0.77	High level
SR5	Respectful and polite	3.97	0.69	High level
SR6	Effectively resolves problem	3.83	0.76	High level
Overall Mean		3.85	0.58	High level

Descriptive Statistical Analysis of Perceived Fairness

The descriptive statistics for perceived fairness are presented in Table 4. The overall mean score is 3.77 (SD = 0.58), indicating that respondents perceive the service recovery process as fair at a high level. Among the three dimensions, interactional fairness shows the highest mean, followed by procedural fairness and distributive fairness.

Table 4 Descriptive Statistics for Perceived Fairness Scale Items (n = 400)

No.	Dimension	Items	Mean (M)	SD	Interpretation
DJ1	Distributive	Compensation is fair	3.76	0.78	High level
DJ2	Distributive	Compensation is reasonable	3.69	0.81	High level
DJ3	Distributive	Compensation is appropriate	3.63	0.86	High level
		Distributive Fairness Mean	3.69	0.65	High level
PJ1	Procedural	Handling procedure is fair	3.74	0.79	High level
PJ2	Procedural	Given opportunity to express views	3.67	0.83	High level
PJ3	Procedural	Rules are consistent	3.80	0.76	High level
		Procedural Fairness Mean	3.74	0.63	High level
IJ1	Interactional	Polite and respectful	4.02	0.71	High level
IJ2	Interactional	Handled sincerely	3.87	0.78	High level
IJ3	Interactional	Displays care and concern	3.79	0.82	High level
		Interactional Fairness Mean	3.89	0.62	High level
Overall Perceived Fairness Mean			3.77	0.58	High level

Descriptive Statistical Analysis of Post-Recovery Trust and Recovery Satisfaction

The descriptive statistics for post-recovery trust and recovery satisfaction are presented in Table 5-6. The overall mean scores are 3.82 (SD = 0.60) and 3.86 (SD = 0.59), respectively, indicating that both constructs are perceived at a high level.

Table 5 Descriptive Statistics for Post-Recovery Trust Scale Items (n = 400)

No.	Items	Mean (M)	SD	Interpretation
PT1	Platform is reliable	3.88	0.76	High level
PT2	Platform has capability to handle problems	3.82	0.79	High level
PT3	Platform keeps its promises	3.75	0.82	High level
PT4	Platform acts in customers' best interests	3.69	0.84	High level
PT5	AI information is authentic and credible	3.85	0.75	High level
PT6	Trust has been restored	3.93	0.72	High level
Post-Recovery Trust Overall Mean		3.82	0.60	High level

Table 6 Descriptive Statistics for Recovery Satisfaction Scale Items (n = 400)

No.	Items	Mean (M)	SD	Interpretation
RS1	Satisfied with the handling approach	3.94	0.73	High level
RS2	Satisfied with the recovery outcome	3.86	0.77	High level
RS3	Met expectations	3.73	0.83	High level
RS4	Satisfied with the solution	3.79	0.80	High level
RS5	Overall satisfied	3.98	0.70	High level
Recovery Satisfaction Overall Mean		3.86	0.59	High level

Correlation Analysis

The results of the Pearson correlation analysis are presented in Table 7. All variables are positively and significantly correlated with each other ($p < 0.01$). AI anthropomorphism and service recovery show moderate positive correlations with perceived fairness, post-recovery trust, and recovery satisfaction. In addition, the three dimensions of perceived fairness are positively associated with both post-recovery trust and recovery satisfaction, with interactional fairness showing relatively stronger correlations. These results provide preliminary support for the proposed relationships.

Table 7 Pearson Correlation Coefficient Matrix Among Research Variables (n = 400)

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) AI Anthropomorphism							
(2) Service Recovery	0.523**						
(3) Distributive Fairness	0.412**	0.598**					
(4) Procedural Fairness	0.376**	0.562**	0.621**				
(5) Interactional Fairness	0.498**	0.637**	0.574**	0.541**			
(6) Post-Recovery Trust	0.482**	0.571**	0.531**	0.503**	0.612**		
(7) Recovery Satisfaction	0.509**	0.621**	0.598**	0.521**	0.641**	0.703**	

Note: ** p < 0.01 (two-tailed test)

Research Hypothesis Testing

The results of the multiple regression analyses are presented in Table 8. Model 1 examines the effects of AI anthropomorphism and service recovery on perceived fairness.

Both AI anthropomorphism ($\beta = 0.273$) and service recovery ($\beta = 0.462$) significantly predicted perceived fairness (Adjusted $R^2 = 0.447$, $F = 162.43$), supporting H1 and H2. All three fairness dimensions significantly predicted post-recovery trust (Adjusted $R^2 = 0.461$, $F = 114.72$): distributive fairness ($\beta = 0.213$), procedural fairness ($\beta = 0.196$), and interactional fairness ($\beta = 0.321$), supporting H3. Similarly, all three dimensions significantly predicted recovery satisfaction (Adjusted $R^2 = 0.504$, $F = 136.85$): distributive fairness ($\beta = 0.267$), procedural fairness ($\beta = 0.211$), and interactional fairness ($\beta = 0.341$), supporting H4. All results were significant at $p < .001$. Interactional fairness showed the strongest effects across both outcome variables.

Table 8 Multiple Regression Analysis Results (n = 400)

	Model 1	Model 2	Model 3
	Perceived Fairness	Post-Recovery Trust	Recovery Satisfaction
Predictor	β	β	β
AI Anthropomorphism	0.273***	—	—
Service Recovery	0.462***	—	—
Distributive Fairness	—	0.213***	0.267***
Procedural Fairness	—	0.196***	0.211***
Interactional Fairness	—	0.321***	0.341***
Adjusted R^2	0.447	0.461	0.504
F	162.43***	114.72***	136.85***

Note: *** p < 0.001

Summary of all research hypothesis

The comprehensive summary of all research hypothesis verification results is presented in Table 9.

Table 9 Summary of Research Hypothesis Verification Results

Hypothesis	Path	Result
H1	AI Anthropomorphism → Perceived Fairness	Supported
H2	Service Recovery → Perceived Fairness	Supported
H3	Perceived Fairness → Post-Recovery Trust	Supported
H4	Perceived Fairness → Recovery Satisfaction	Supported

Discussion

The findings align with the S-O-R framework, organizational justice theory, and the CASA paradigm, confirming that AI anthropomorphism and service recovery function as external stimuli influencing perceived fairness, which subsequently affects post-recovery trust and recovery satisfaction. Service recovery exerts a stronger effect on perceived fairness than AI anthropomorphism, revealing a substantive-versus-symbolic distinction. Consumers primarily seek AI that resolves problems with professional competence and tangible fairness rather than merely human-like features. Anthropomorphic features contribute positively but function as complementary signals, not substitutes for substantive recovery quality. This aligns with Koh et al. (2025) and Crolig et al. (2022), suggesting anthropomorphic design cannot compensate for deficiencies in recovery outcomes or procedural transparency. Platforms investing heavily in AI aesthetics while neglecting recovery mechanisms are unlikely to achieve meaningful fairness perception gains.

Interactional fairness centrally predicts both outcomes, yet raises a theoretically important question: can AI genuinely convey sincerity? Unlike human agents, AI possesses no subjective emotional states; perceived empathy is algorithmically generated courtesy, optimized to appear considerate rather than to be so. One interpretation is that consumers engage in willing attribution, extending social expectations to AI as predicted by the CASA paradigm (Nass & Moon, 2000), such that functional respectful treatment is psychologically sufficient regardless of computational origin. Alternatively, as consumers become more AI-literate, the gap between algorithmic and authentic sincerity may widen, potentially eroding the interactional fairness advantage. Future research should examine whether awareness of AI's non-sentient nature moderates this relationship. The results invite reconsideration of CASA's boundaries. While consumers respond to AI's interactional cues as socially meaningful, the weaker effect of distributive fairness on trust suggests that when monetary interests are



at stake, consumers may shift toward calculative evaluation. The CASA effect may operate powerfully in the interactional domain but attenuates when assessing tangible compensation adequacy, suggesting CASA's scope may be bounded by whether evaluation is social versus economic in nature, a boundary condition receiving insufficient attention in prior literature.

Conclusion

This study examined how AI anthropomorphism and service recovery influence perceived fairness, and how perceived fairness shapes post-recovery trust and recovery satisfaction in Chinese e-commerce. All hypotheses were supported, with interactional fairness as the most influential dimension. Theoretically, the findings validate the S-O-R framework in AI-mediated recovery contexts and suggest a CASA paradigm boundary condition: social attribution effects attenuate when consumers evaluate distributive outcomes involving monetary interests. Practically, findings support a hybrid recovery model with AI handling interactional dimensions for speed and empathetic consistency, while human agents retain authority over compensation decisions. Limitations include temporal constraints, as data from early 2026 may not reflect outcomes as AI systems advance, particularly given Uncanny Valley effects where excessive anthropomorphism may reduce trust. Future research should investigate anthropomorphism backfire effects, longitudinal designs, cross-cultural comparisons, and moderators such as AI literacy and platform experience.

Recommendations for Future Research

Future research may extend this study in several directions. First, longitudinal or experimental designs could better capture causal relationships and examine how perceived fairness, trust, and satisfaction evolve over time following service failure and recovery. Second, additional moderating variables, such as service failure characteristics and individual consumer differences, could clarify conditions under which AI anthropomorphism and service recovery influence perceived fairness. Finally, examining other digital commerce platforms and conducting cross-cultural comparisons could assess the generalizability of findings across different market and cultural settings.

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