

The Impact Of Service Recovery Fairness On Customer Recovery Satisfaction In Sports Brand Stores: Exploring The Mediating Role Of Authenticity In The Recovery Process

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Abstract

The objective of this study was to examine the relationship between service recovery fairness and satisfaction in the recovery process. Specifically, this study focused on resolving service failures encountered in sports brand stores. This study also aimed to explore the mediating role of authenticity in this relationship. To achieve these goals, this study collected customers who had purchased goods at sports brand stores within the past year and had undergone a service recovery process after a service failure. A survey was conducted using non-probability sampling by using 345 customers who had visited sports brand stores at one of six general sports centers in Seoul region, South Korea, and purchased goods within the last 6 months. Purposive sampling was employed during the selection process, and questionnaires were distributed accordingly. The collected data were then analyzed using SPSS 28.0, which included frequency analysis, exploratory factor analysis, reliability analysis, correlation analysis, and the Hayes macro model. This study found that distributive fairness in sports brand stores had a positive impact on recovery satisfaction. Procedural fairness also had a positive impact on recovery satisfaction. Interactive fairness had a positive impact on recovery satisfaction as well. Moreover, authenticity during the service recovery process was a partial mediator in the relationship between distributive fairness and recovery satisfaction. Authenticity during the service recovery process was a partial mediator in the relationship between procedural fairness and recovery satisfaction. Authenticity during the service recovery process was a partial mediator in the relationship between interactive fairness and re-recovery satisfaction. Based on these findings, it is suggested that brand companies should prioritize and invest in recovery efforts for customers who have experienced service failures while emphasizing the importance of authenticity during the service recovery process in sports brand stores.

Keywords: service recovery, customer recovery satisfaction, authenticity.

INTRODUCTION

Service recovery, the process of addressing and resolving service failures, is a critical aspect of service marketing. Arizona State University's newly released 2017 Customer Rage Survey found that \$313 billion in future sales at risk due to ineffective customer-service programs that leave a majority of consumers unsatisfied [1].

Service failure refers to customer dissatisfaction caused by inadequate service delivery that does not meet customer expectations [2, 3]. This dissatisfaction increases customer churn, hinders new customer acquisition, and leads to negative word-of-mouth [4]. Gilmore [5] identified several reasons for brand loyalty erosion, including unfair pricing, customer inconvenience, contact point failures, ethical concerns, lack of competitiveness, and discontinuity in core services. Eight failure and recovery processes have been described. Among these stages, the recovery process represents the final step after a customer has already experienced dissatisfaction with the service and has attempted to restore it but remains unsatisfied. Therefore, the success of a service-oriented company depends on its ability to recover from service failures and satisfy its customers. Since service recovery

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strategies are valuable management tools for analyzing and resolving service failures [6], it is essential for companies to have a proactive attitude toward service recovery, even in the event of a service failure.

Albrecht [7] evaluated service failure recovery and outlined a process in which employees, agents, and others played a critical role in fulfilling the company's promises through the interactions with customers in "At America's Service". He emphasized that customer satisfaction and dissatisfaction were determined by differences in experiences, underscoring the importance of human interaction. Albrecht also identified the "seven evils of service" among employee behaviors that contributed to customer dissatisfaction. It is important to note that service failures have a halo effect that affects the overall brand image rather than just creating a single negative perception. Additionally, a service failure in one specific area can trigger a domino effect, leading to failures in other service attributes or areas [8].

To address service failure, the concept of the service recovery paradox theory has been introduced. McCollough and Bharadwaj [9] first used this theory to refer to a situation where satisfaction after a service failure (secondary satisfaction) exceeded satisfaction before the failure. They argued that effective recovery could provide an opportunity to retain and attract customers. The equity theory is an influential factor in the service recovery paradox and consists of three types: distributive fairness, procedural fairness, and interactive fairness [3]. Seiders and Berry [10] further defined the types and principles of service fairness. Specifically, fairness can be categorized as distributive justice (what is provided to the customer), interactive justice (how it is provided), and procedural justice (the rationale behind a particular response) [11].

Companies make various efforts to restore service, including acknowledgment, apology, symbolic gestures of atonement, compensation, explanation, correction, discounts, free provision, coupons, refunds, replacements, assistance, speed of response, and doing nothing [12, 13, 14, 15, 16]. Previous studies emphasized the importance of service restoration efforts, but recent studies stressed the value of how customers perceive these efforts and fairness. Many previous studies have used the equity theory which focuses on customers' cognitive processes during service recovery [17, 18, 19]. Fairness in service recovery examines how customers evaluate and respond to the outcomes, procedures, and interactions of the recovery process. However, even with the same fairness process, not all customers respond positively. Some customers perceive it positively, while some do not take it positively. This highlights the need to understand the differences in customer perceptions regarding the fairness of the company's actions.

Companies are increasingly focusing on perceived value and emotional value to enhance the effectiveness of service recovery. Consequently, studies have been conducted on customer service recovery through authenticity in the recovery process. Customers want genuine, sincere service from providers, and companies should strive to provide authentic interactive experiences rather than artificial ones, which is referred to as "authenticity" [20, 21]. When service is delivered with care and warmth, rather than impersonally like an automated machine, it increases customers' perceived service quality and becomes a critical factor in their positive evaluation of the company favorably [22, 23]. Depaulo [24] and Beverland [25] suggested that sincerity involved seeking the enduring value of consumers rather than being driven solely by commercial motives and that there were neurological differences between genuine expressions and fake expressions in an employee's recovery efforts. As a result, customers who had recognized the expressions and attitudes of sincere employees, and perceived sincerity tended to exhibit more positive reactions. Previous studies also examined sincerity as a series of processes that contributed to recovery satisfaction [7, 26, 27, 28]. Therefore, in the context of service recovery, it is important to consider the recovery of fairness and sincerity.

As interest in service recovery is increasingly growing in the sports industry, the importance of interacting with customers is substantially increasing. Especially, service, an intangible product, is of great value in sports brand stores that sell tangible products like sports

apparel. According to the Korea Federation of Textile Industries, the sportswear market in Korea has been growing (reached KRW 5,980.1 billion in 2020, KRW 6,453.7 billion in 2021, and KRW 7,130.5 billion in 2022). The industry has recognized the increasing demand for athleisure looks [29]. However, when it comes to customer churn, service-related aspects have been highlighted, indicating that it is important to consider not only the cognitive process but also the psychological and emotional aspects that contribute to the perception of the sincerity of service recovery. The process of sincerity is crucial in determining recovery satisfaction. However, in the sports field, existing studies on recovery fairness have mainly focused on recreational centers and facilities by utilizing simple cognitive processes and examining the relationship between fairness and customer loyalty.

In the sports field, there is a lack of studies that have examined the significant im-pact of efficient service recovery and employee sincerity based on both cognitive and psychological processes. Therefore, it is important to examine the cognitive process of recovery satisfaction by using existing fairness theories and explore the associated psychological and emotional processes. This would require examining whether authenticity acts as a mediating variable and whether it effectively influences the recovery process in real service failures. The objective of this study was to uncover the empirical process of recovery. By focusing on the fairness theory specific to sports brand stores, which has not been adequately addressed in previous studies, the results of this study would provide a theoretical foundation that could enhance customer management and improve service in the sports brand industry.

2. Theoretical Background

2.1 Service Recovery Fairness to Overcome Service Failure

Service failure refers to a situation where a customer experiences a service that does not meet the expectations of the customer due to issues that occur during the service encounter process [30, 31]. Bitner, Booms and Tetreault [32] identified several types of service failures (e.g., when a company fails to provide the requested service; when there are delays or the core service does not meet acceptable quality standards; and when the service deviates from standard procedures). If a company fails to effectively address and resolve the service failure, the situation may worsen [16]. Service failures not only have a direct impact but can also create a halo effect that influences brand image. Furthermore, they can trigger a domino effect that affects not only the specific service but also other areas, leading to an overall failure [33]. In light of this, Schelsinger and Heskett [34] introduced "The Cycle of Failure" (Figure 1).

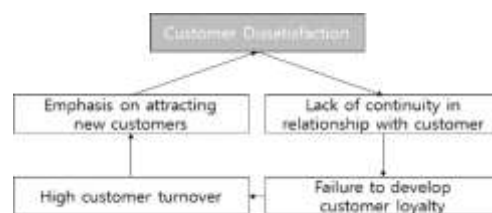


Figure 1. The Cycle of Failure.

Every service manager strives to deliver flawless service. However, in reality, it is impossible to achieve perfection in service delivery, which means that service failures may occur. To address this issue, the fairness theory, also known as the equity theory, has emerged. Fairness refers to the cognitive assessment of whether the outcomes achieved through personal sacrifices are considered fair [35]. The evaluation of enterprise service recovery revolves around what is provided by the service provider and their ability to resolve issues [36]. This phenomenon is known as the service recovery paradox [30, 37, 38, 39]. While it is crucial to proactively prevent service failures, the process of recovering from service failures is equally important. Schelsinger and Heskett [34] introduced "The Cycle of Success" (Figure 2).

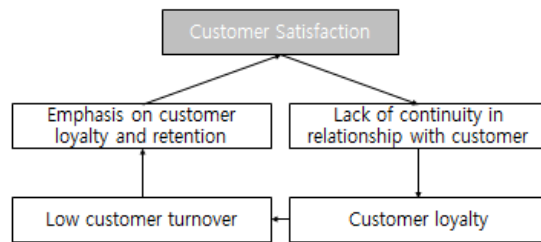


Figure 2. The Cycle of Success.

Previous studies on service failure and recovery have focused primarily on the fairness theory [17, 40, 41]. These studies have relied on clients' cognitive evaluations of subsequent recovery efforts [42, 43, 44]. However, these cognitive approaches have not fully captured the emotional aspect of the customer's experience during the recovery process. Therefore, it is believed that sincerity, which represents the emotional response of company employees, is an important variable for effective service recovery in addition to the cognitive process.

2.2 Cognitive and Psychological Processes for Service Recovery

Cognitive and psychological processes for service recovery include the formation of fairness through cognitive evaluations to determine the fairness of outcomes in relation to individual sacrifices [35]. Fairness is categorized into three sub-factors (i.e., distributive, procedural, and interactive fairness). Distributive fairness refers to customers' perceptions of whether they have received an adequate level of service relative to the cost they have paid [18]. It is related to the tangible aspects of the service recovery process. Procedural fairness indicates the perceived usefulness and effectiveness of a company's procedures, policies, and standards during the service recovery process [45, 46]. It includes the procedures implemented in the recovery efforts. Interactional fairness refers to customers' perceptions of whether they are treated fairly in their interactions with service providers during the service recovery process [62]. It focuses on the service providers' attitudes toward customers during the recovery process. In this cognitive process of service recovery, companies approach customers as a means to restore the service. To complement the qualitative aspect, authenticity, a variable, is introduced, which can explain the relationship between companies and customers and capture the psychological and emotional values for a more profound recovery experience.

The cognitive-emotive model [47] argued that an apology from the employee during the service recovery process should be based on sincerity. Harter [20] emphasized the importance of sincerity on the basis of employees' apologies. Hennig-Thurau, Groth, Paul, and Gremler [48] highlighted authenticity as a crucial factor in service delivery. They emphasized that sincerity served as a competitive advantage for companies and that customers could distinguish employees' genuine actions from their insincere actions. This empathetic connection stems from sincerity [49]. Various social psychological studies [50, 51, 52] indicate that the relationship between companies and customers is mutually influenced. Simply relying on cognitive processes may not lead to genuine forgiveness

and understanding, and there is a risk that negative customer behavior may persist in the future. However, sincere interactions can increase understanding and reduce the likelihood of negative customer behavior. Ultimately, these processes enhance the effectiveness of the recovery efforts and contribute to the long-term improvement of the company's image.

2.3 Service Recovery Satisfaction

The concept of recovery satisfaction is generally rooted in the broader concept of customer satisfaction. Howard and Sheth [53] showed that customer satisfaction was the perception of the outcome of a consumption experience. Westbrook and Reilly [54] explored the psychological aspect and found that customer satisfaction indicated the entire process, including purchasing behavior, overall experience, and the outcome of a product or service, leading to an emotional response. Both cognitive and psychological factors play a crucial

role in achieving satisfaction for individuals [55].

In terms of recovery satisfaction, it can be seen as a secondary form of satisfaction that arises after a service failure. It involves assessing customers' subjective judgments by comparing their expectations before -service recovery with the actual performance after recovery [56]. Numerous previous studies have demonstrated a positive impact on recovery satisfaction [56, 57, 58, 59]. Additionally, recent studies highlighted the role of sincerity in the service encounter, emphasizing the importance of genuine recovery, particularly in the context of service failure [60, 61].

3. Research Hypothesis and Research Model

3.1. Relationship between Service Recovery Fairness of Sports Brand Stores and Customer Recovery Satisfaction

Due to the challenge of consistently delivering perfect service, companies need to develop countermeasures. Even when service failures occur, if an appropriate recovery is implemented, customers can be satisfied again and maintain their relationship with the company [19]. Furthermore, when customers are highly satisfied with the service recovery, the service recovery paradox occurs, where customer loyalty is actually higher than before the service failure [30]. The service recovery paradox argues that when service recovery exceeds customers' expectations and is adequately addressed, satisfaction and favorability can go beyond the experience levels before the service failure. In this sense, the failure can be viewed as an opportunity for the company rather than a setback [9, 62]. Therefore, service recovery fairness plays a crucial role in customer service recovery. However, most studies that examined service recovery fairness focused on service centers and golf courses, and only a few studies evaluated sports brand stores. Based on research conducted in other domains, this study formulated hypotheses under the assumption that similar relationships would exist in sports brand stores.

Hypothesis 1: Distributive fairness in sports brand stores will positively influence customers' recovery satisfaction.

Hypothesis 2: Procedural fairness in sports brand stores will positively influence customers' recovery satisfaction.

Hypothesis 3: Interactive fairness in sports brand stores will positively influence customers' recovery satisfaction.

3.2. The Mediating Effect of Authenticity on Service Recovery Fairness and Recovery Satisfaction of Sports Brand Stores.

Many previous studies focused on fairness as a cognitive factor, while authenticity was treated as an emotional factor [63]. Lazarus and Folkman's cognitive-emotional model [64] suggested that employees' internal sincerity should be emphasized in service recovery efforts. In other words, actively communicating the company's sincerity to

customers after a service failure can elicit a positive response. Since sincerity would come from company sacrifice rather than behavior [26], this study examined the importance of fairness elements (distributive fairness, procedural fairness, and interactive fairness) as well as authenticity in deriving service recovery satisfaction.

Authenticity a variable that captures emotional factors, has been studied in the field of consumer behavior in relation to service recovery. Sirianni et al. [61] argued that differentiation and competitive advantage could be achieved by focusing on service authenticity. Therefore, sincerity, which is an intangible characteristic, requires an approach that addresses the emotional aspect in the personal relationship between customers and service providers. Consequently, under service failure and recovery, service authenticity can be considered a crucial factor in service providers' efforts to resolve problems. Particularly, recovery satisfaction is an essential variable in service recovery,

and it is important to determine whether authenticity can positively contribute to recovery satisfaction. Authenticity can be viewed as a mediating factor that influences service recovery and, at the same time, as an outcome variable of service recovery fairness. Thus, it was hypothesized that the authenticity of sports brand stores could mediate the relationship between service recovery fairness and recovery satisfaction. Based on these premises, study hypotheses were formulated as follows.

Hypothesis 4: The authenticity of sports brand stores will mediate the relationship between distributive fairness and recovery satisfaction.

Hypothesis 5: The authenticity of sports brand stores will mediate the relationship between procedural fairness and recovery satisfaction.

Hypothesis 6: The authenticity of sports brand stores will mediate the relationship between interactive fairness and recovery satisfaction.

Based on these hypotheses, a research model presented (Figure 3) was developed.

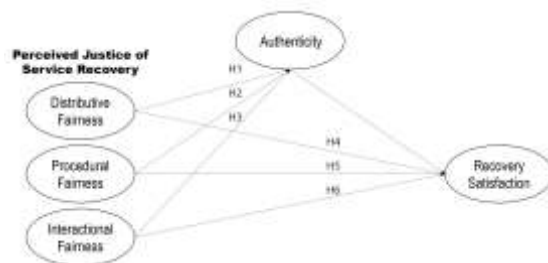


Figure 3. Schematic diagram of the research model

4. Methods

This study was approved by KNoIBP(Korea National Institute for Bioethics Policy) (P01-202307-01-036).

4.1. Subjects

The target population of this study consisted of customers who had experienced a service failure at a sports brand store within the past year and subsequently undergone a service recovery process. Data were collected by using a survey over approximately three months (April to June 2023). The survey targeted consumers who had visited sports brand stores and made purchases within six months prior to the survey among customers who visited one of six general sports centers in the Seoul region, South Korea. The survey was carried out using a purposive sampling method, a form of non-probability sampling, and 380 questionnaires were distributed. Invalid responses were excluded from the analysis, resulting in the removal of 35 questionnaires based on outlier removal procedures. Finally, data from 345 subjects were used for the final analysis. Table 1 shows the demographic characteristics of the subjects.

Table 1. Results of frequency analysis of demographic characteristics.

Classification		Frequency(N)	Ratio(%)
Gender	Male	180	52.2
	Female	165	47.8
Age	10's	44	12.8
	20's	87	25.2
	30's	46	13.3
	40's	54	15.7
	50's	73	21.2

	60+	41	11.9
Store type	Department store	88	25.5
	Outlet	69	20.0
	Road shop general store	81	23.5
	Road shop permanent discount store	91	26.4
	Others	16	4.6
Dissatisfaction type	Bad product	58	16.8
	Calculation error	4	1.2
	Excessive solicitation	66	19.1
	Wrong information from employees	35	10.1
	Employee's unfriendly attitude	70	20.3
	Change of mind	30	8.7
	Size exchange	63	18.3
	Others	19	5.5
	Product exchange	105	30.4
	Refund	52	15.1
Form of compensation	Discount	13	3.8
	Provision of gift certificates /discount coupons	9	2.6
	Apology and forgiveness	101	29.3
	Others	65	18.8
Total		345	100

The subjects were composed of 180 men (52.2%) and 165 women (47.8%). Eighty-seven subjects were in their 20s (25.2%), while 73, 54, 46, 44, and 41 were in their 50s (21.2%), 40s (15.6%), 30s (13.3%), teenagers (12.8%), and 60 years or older (11.9%), respectively. Eighty-eight subjects (25.5%) visited department stores, while 81 (23.5%), 69 (20.0%), and 16 subjects (4.6%) visited road shop general stores, outlets, and other types of stores, respectively. The main reasons for dissatisfaction were an unfriendly attitude of employees (70 subjects; 20.3%), excessive solicitation (66 subjects; 19.1%), size exchange issues (63 subjects; 18.3%), receiving a faulty product (58 subjects; 16.8%), misleading information from employees (35 subjects; 10.1%), a change of mind (30 subjects; 8.7%), and other reasons (19 subjects; 5.5%). Calculation errors were mentioned by 4 subjects (1.2%). In terms of compensation, 105 subjects (30.4%) received product exchanges, 101 subjects (29.3%) received apologies, 65 individuals (18.8%) received other forms of compensation, 52 individuals (15.1%) received refunds, 13 subjects (3.8%) received discounts, and 9 subjects (2.6%) received gift certificates or discount coupons.

4.2. Measurement Tools

The subjects responded to the questionnaire using the self-administration method. The measurement variables included service recovery fairness, authenticity, and recovery satisfaction, and all items were measured on a 5-point Likert scale.

4.2.1. Service Recovery Fairness

Service recovery fairness refers to the way a company handles a service failure through a

cognitive process. The service recovery fairness scale used in this study was based on the sub-factors of distributive, procedural, and interactive fairness, as developed by Blodgett, Hill, and Tax [17]. Distributive fairness is assessed through four items that examines whether the recovery process is appropriately allocated among customers. Procedural fairness is evaluated based on four items, which assess whether the recovery process is conducted properly. Interactive fairness is measured by using four items, which evaluates whether there is effective communication between employees and customers. The questionnaire items were measured on a 5-point Likert scale, where a higher score indicated a higher degree of fairness in the service recovery process.

4.2.2. Authenticity

Authenticity refers to the genuine and humanistic approach adopted by service providers in the process of service recovery. The authenticity scale used in this study was developed by Price, Arnould, and Deibler [21], and later revised and supplemented by Price, Arnould, and Tierney [65]. It consists of four items and measures a single factor. A higher score indicates a greater utilization of emotional value in the service recovery process, while a score closer to 5 shows a more appropriate application of emotional aspects.

4.2.3. Recovery Satisfaction

Recovery satisfaction is a variable that measures the level of satisfaction with the service recovery efforts made by sports brand stores after a service failure. The questionnaire developed by Oliver and Swan [56] was used in this study as a recovery satisfaction scale to assess customer response satisfaction. It consists of four items and represents a single factor. A higher score on this scale indicates a greater degree of satisfaction with the service recovery process. On the other hand, a score closer to the maximum shows a higher level of satisfaction with the service recovery.

4.3. Data Processing Method

IBM SPSS Statistics 28 was used for statistical analyses in this study. Firstly, a frequency analysis was conducted to examine the demographic characteristics of the study subjects. Secondly, the validity of the questionnaire was assessed. Convergent validity and discriminant validity were assessed using exploratory factor analysis, which is a unidimensional test. Thirdly, the internal consistency of each factor was examined using Cronbach's α test to examine reliability. Fourthly, correlation analysis was performed to explore the relationships between variables. Fifthly, multiple regression analysis was conducted to investigate the influence of each variable. Lastly, mediation effect analysis was carried out using Hayes' [66] SPSS Process Macro model number 4, following a partial distribution model that divided the total sum of constructs of each variable used in the study by the mean.

5. Results

5.1. Validation of the Validity and Reliability of Variables

5.1.1. Exploratory Factor Analysis and Reliability Assessment

Table 2 shows the results of the exploratory factor analysis to validate the service recovery fairness, authenticity, and recovery satisfaction. Items with a factor load of .4 or higher were selected to identify 20 items and 5 sub-factors: "Distributive Fairness",

"Procedural Fairness", "Interactive Fairness", "Authenticity", and "Recovery Satisfaction". The analysis demonstrated a good fit (a cumulative variance = 66.506).

Table 2. Results of exploratory factor analysis and reliability testing.

factor	DJ	PJ	IJ	A	RS	α
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Interactive Fairness	Satisfied with compensation	.626	-.044	.014	-.224	.022	.895
	Compensation is relatively fair	.842	.012	.059	.043	.004	
	Compensation exceeds expectations	.663	.091	.043	-.012	.134	
	Compensation is relatively adequate	.783	.099	.018	.047	.042	
Procedural Fairness	Complaint is handled quickly	-.040	.603	.071	-.038	.150	.834
	Issue resolution process is fair	.065	.810	-.075	.001	.030	
	Issue solving process makes sense	.099	.601	.169	-.031	-.062	
	Respond promptly	.029	.525	.099	-.096	.020	
Distributive Fairness	Employees treat me with respect	.049	-.051	.750	-.051	.079	.867
	Employees listen to me respectfully	.076	-.006	.811	.047	.20	
	Employees are polite to me	-.060	.109	.749	-.023	-.011	
	Employees understand my position	.098	.144	.487	-.151	-.019	
Authenticity	Service recovery efforts feel human	-.059	.080	.127	-.695	.058	.908
	Recovery efforts come from the inside	-.056	.000	.067	-.824	.029	
	Sincerity of service recovery efforts	.060	-.017	-.004	-.772	.105	
	Service is genuine	.196	.103	-.080	-.737	-.022	
Recovery Satisfaction	Satisfied with the recovery process	-.010	-.106	.088	.004	.797	.895
	Satisfied with the outcome of recovery	.086	.007	-.013	-.007	.806	
	Better than I expected	.047	-.055	.002	-.155	.681	
	Satisfied overall	-.012	.123	-.026	.038	.807	
Eigenvalues	9.857	1.264	1.051	.699	.430		
Variance%	49.285	6.321	5.255	3.493	2.151		
Cumulative%"	49.285	55.606	60.862	64.355	66.506		
MSA of Kaiser-Meyer-Olkin=.940, Bartlett's test of sphericity ($X^2=4870.073$, $df=190$, $sig.=.000$)							

5.1.2. Testing Discriminant Validity

The discriminant validity test proposed by Anderson and Gerbing [67] and Fornell and Larcker [68] was conducted to ensure that each construct had distinct measurement results. The correlation matrix, obtained through the phi matrix, was used to calculate the values with a 95% confidence interval (correlation+(2×standard error)). These values should not be 1. Additionally, the mean variance extracted (MVE) values, which represented the square of the correlation between all constructs, were examined. MVE ranged from .283 to .477, and the MVE for each latent factor ranged from .562 to .711, indicating partial validity. The analysis of all variables revealed that they were significantly different (Table 3). Therefore, discriminant validity was established through the aforementioned verification method.

variable factor	Mean	S.D.	Interactive Fairness	Procedural Fairness	Distributive Fairness	Authenticity	Recovery Satisfaction
Interactive Fairness	3.07	.74	.684 ¹	.429 ³	.328	.382	.412
Procedural Fairness	3.33	.70	.655** ²	.562	.477	.331	.331
Distributive Fairness	3.27	.70	.573**	.691**	.628	.358	.283
Authenticity	3.12	.74	.618**	.575**	.598**	.711	.450
Recovery satisfaction	3.21	.70	.642**	.575**	.532**	.671**	.682

Note: ¹ Mean variance extracted, ² Correlation coefficient, ³ Correlation coefficient², **p<.01

Table 3. Results of discriminant validity analysis and correlation analysis

5.2. Hypothesis Testing

5.2.1. The Effect of Service Recovery Fairness on Recovery Satisfaction

Table 4 shows the results of the multiple regression analysis, evaluating the impact of service recovery fairness provided by sports brand stores on consumers' recovery satisfaction.

Table 4. The effect of service recovery fairness on recovery satisfaction

Variable factor	Recovery satisfaction					
	B	S.E.	β	t	p	VIF
Interactive Fairness	.404	.050	.432	8.050	.000	1.842
Procedural Fairness	.182	.061	.182	2.999	.003	2.369
Distributive Fairness	.158	.056	.159	2.827	.005	2.014

F=99.578***, R²=.467, Adjusted R²=.462

Note: *** p<.001

The results of the multiple regression analysis indicated that service recovery fairness significantly affected recovery satisfaction, with an explanatory power of 46.7% (F=99.578, p<.001). Among the different types of service recovery fairness, distributive fairness (β =.432), procedural fairness (β =.182), and interactive fairness (β =.159) positively influenced recovery satisfaction in the specified order.

5.2.1. The mediating effect of authenticity on the effect of service recovery fairness on recovery satisfaction

The study employed Hayes' [66] Process Macro Model 4 to examine the mediating effect of employee authenticity on the relationship between service recovery fairness in sports brand stores and recovery satisfaction. The results of the analysis are presented in Tables 5 and 6, and the overall findings are summarized in Table 7.

Table 5 shows the mediating effect of authenticity on the relationship between distributive fairness and recovery satisfaction. Firstly, distributive fairness had a significant effect on authenticity ($\beta=.615$, $t=14.568$, $p<.001$). Secondly, distributive fairness also had a significant effect on recovery satisfaction ($\beta=.416$, $t=9.436$, $p<.001$). Thirdly, authenticity had a significant effect on recovery satisfaction ($\beta=.416$, $t=9.436$, $p<.001$). Fourthly, the indirect effect of authenticity in the relationship between distributive fairness and recovery satisfaction was .256, indicating a mediating role. The upper limit (ULCI) of the indirect effect was .331, and since there was no zero between the lower limit and the upper limit, the indirect effect of authenticity was considered significant, based on Hayes' [66] assertion. Therefore, it was determined that authenticity partially mediated the relationship.

Table 5. The mediating effect of authenticity in the relationship between distributive fairness and restorative satisfaction

variable factor	Coeff	S.E.	t	p	LLCI	ULCI
Step 1 (Procedural Fairness → Authenticity)						
1	.615	.042	14.568	.000	.533	.699
F=169.176, R ² .330, p<.001						
Step 2 (Procedural Fairness, Authenticity → Recovery satisfaction)						
1	.344	.044	7.848	.000	.258	.431
2	.416	.044	9.436	.000	.329	.503
F=173.664, R ² =.504, p<.001						
Step 3 (indirect effect)						
	effect		Boot S.E.		BootLLCI	BootULCI
2(Mediating Effect)	.256		.037		.187	.331

Note: Bootstrapping (5,000 resamples), 1. Distributive Fairness, 2. Authenticity

Table 6 presents the mediating effect of authenticity on the relationship between procedural fairness and recovery satisfaction. Firstly, procedural fairness significantly affected authenticity ($\beta=.610$, $t=13.009$, $p<.001$). Secondly, procedural fairness also significantly influenced recovery satisfaction ($\beta=.282$, $t=6.082$, $p<.001$). Thirdly, authenticity had a significant effect on recovery satisfaction ($\beta=.477$, $t=10.921$, $p<.001$). Fourthly, the indirect effect of authenticity in the relationship between procedural fairness and recovery satisfaction was .291, indicating a mediating role. The ULCI of the indirect effect was .369. Since there was no zero between the lower limit and the upper limit, the indirect effect of authenticity was considered significant [66]. Therefore, it was determined that authenticity partially mediated the relationship.

Table 6. The mediating effect of authenticity in the relationship between procedural fairness and restorative satisfaction

Variable factor	Coeff	S.E.	t	p	LLCI	ULCI
Step 1 (Procedural Fairness → Authenticity)						
1	.610	.047	13.009	.000	.518	.702
F=169.176, R ² .330, p<.001						
Step 2 (Procedural Fairness, Authenticity → Recovery satisfaction)						
1	.282	.046	6.082	.000	.191	.373
2	.477	.044	10.921	.000	.391	.563
F=173.664, R ² =.504, p<.001						
Step 3 (indirect effect)						

	effect	Boot S.E.	BootLLCI	BootULCI
2(Mediating Effect)	.291	.039	.218	.369

Note: Bootstrapping (5,000 resamples), 1. Procedural fairness, 2. Authenticity

Table 7 shows the mediating effect of authenticity on the relationship between in-teractive fairness and recovery satisfaction among service recovery fairness. Firstly, in-teractive fairness had a significant effect on authenticity ($\beta=.610$, $t=13.009$, $p<.001$). Secondly, interactive fairness also had a significant effect on recovery satisfaction ($\beta=.282$, $t=6.082$, $p<.001$). Thirdly, authenticity had a significant effect on recovery satisfaction ($\beta=.477$, $t=10.921$, $p<.001$). Fourthly, the indirect effect of authenticity in the

relationship between interactive fairness and recovery satisfaction was .291, indicating a mediating role. The lower limit (LLCI) of the indirect effect was .218, and the upper limit (ULCI) was .369. Since there was no zero between the lower limit and the upper limit, the indirect effect of authenticity was considered significant [66]. Therefore, it was determined that authenticity partially mediated the relationship between the variables.

Table 7. The mediating effect of authenticity on the relationship between interactive fairness and restorative satisfaction

variable factor	Coeff	S.E.	t	p	LLCI	ULCI
Step 1 (Interactive Fairness → Authenticity)						
1	.636	.046	13.831	.000	.546	.727
F=191.295, R ² =.358, p<.001						
Step 2 (Interactive Fairness, Authenticity → Recovery satisfaction)						
1	.204	.049	4.180	.000	.108	.300
2	.515	.046	11.245	.000	.425	.65
F=196.028, R ² =.731, p<.001						
Step 3 (indirect effect)						
	effect	Boot S.E.	BootLLCI	BootULCI		
2(Mediating Effect)	.328	.042	.250	.413		

Note: Bootstrapping (5,000 resamples), 1. Interactive fairness, 2. Authenticity

6. Discussion

The objective of this study was to examine the mediating effect of sincerity in the relationship between service recovery fairness and recovery satisfaction by examining customers who had experienced service failure and undergone a service recovery process at a sports brand store. Previous studies in the sports industry have mainly focused on analyzing the cognitive process through recovery fairness, neglecting the actual emotional process experienced by customers. Therefore, this study investigated the mediation between service recovery fairness, representing cognitive value, and authenticity, representing psychological value, during the service recovery process of sports brand stores.

The relationship between service recovery fairness and customer recovery satisfaction in sports brand stores had a significant and positive association. All sub-factors of service recovery fairness had a positive impact on customer recovery satisfaction. This underscored the critical role of recovery fairness as a vital variable in situations where companies needed to undergo a recovery process after a service failure to regain customer satisfaction. These findings were partially supported by Magnini and Tam (2007), Patterson, Cowley, and

Parasongsukarn (2006), and Santos and Fernandes (2008), which also found that higher levels of service recovery fairness increased recovery satisfaction. This emphasized the importance of fairness in the service recovery process to ensure customer satisfaction. Furthermore, the results of this study agreed with the results of Goodwin and Ross [18], Karande, Magnini, and Tam [69], Patterson, Cowley, and Parasongsukarn [70], and Santos and Fernandes [71], which supported that a higher level of service recovery fairness contributed to higher recovery satisfaction.

Therefore, the results of this study strongly implied that a higher level of service recovery fairness in sports brand stores increased consumer recovery satisfaction. Accordingly, it is crucial for frontline employees in sports brand stores not only to acknowledge their mistakes and provide active secondary services but also to provide psychological support,

regulatory measures, and procedural solutions to ensure consumer satisfaction. The results of this study also highlighted the substantial impact of tangible compensations, such as goods and monetary compensation, on customer satisfaction with service recovery, particularly in sports brand stores that sold functional products. Since customers often make purchases based on their performance expectations and seek satisfaction through product use, implementing strategies that allow customers to experience products can contribute to effective service recovery. Additionally, the concept of "wag the dog" is relevant in the stock market, where the futures market influences the spot market. In the context of service recovery, this implies that providing compensation exceeding customer expectations can achieve effective recovery. This concept can be utilized by sports brand stores to implement bonus marketing strategies and systematically manage rewards such as sports socks, wristbands, and mileage accumulation for recovery purposes.

Secondly, it was found that authenticity in sports brand stores plays a partial mediating role in the relationship between all sub-factors of service recovery fairness and customer recovery satisfaction. This may be attributed to the interconnectedness of cognitive and emotional processes in the recovery process. Previous studies suggested that simple expressions of empathy or apology during the recovery process might not resonate deeply with customers and that the sincerity behind the apology was crucial to fostering relationship recovery. Therefore, the results of this study were consistent with the results of previous studies that emphasized the importance of authenticity in apology [22, 72].

Beverland [25] defined authenticity as the pursuit of enduring consumer value rather than being driven solely by commercial motives, and this definition has been widely used. Particularly in service encounters, the sincerity of service providers at the interface is highly likely to have a substantial impact on positive customer response, customer satisfaction, and service quality [27]. When a company provides poor service, offering a flat, mechanical compensation can be more displeasing to customers than taking no action. Therefore, sincerity is important because it conveys the authenticity of the employee. Authenticity comes from the inside of the employee and focuses on the genuine transmission of emotions to the other party. Through this process, customers experience satisfaction. Essentially, when customers perceive that a company is making a genuine effort on their behalf, it increases their satisfaction in the recovery process. Grandey et al. [60] also suggested that sincerity could lead to higher levels of customer satisfaction.

In principle, companies should strive to provide high-quality and differentiated services to their customers. Failure to do so may result in customer dissatisfaction and churn. Recovering from such situations requires cost and effort. In other words, service recovery personnel should refrain from deceiving customers, listen to their complaints, and move customers' hearts through sincere efforts in accordance with company policies. Until now, standardized service approaches outlined in manuals have been regarded as best practices. However, it becomes more challenging for companies to convince customers when they perceive such inauthentic service as a habitual gesture. It should be recognized that plain apologies and mechanized processes alone cannot truly touch the customer's emotions. In the current consumer trend observed in sports brand stores, the role of interaction and communication through experiential engagement with sports brand products has become

increasingly important. Particularly, as sports apparel is closely linked to consumers' lifestyles, interactive communication is critical in these product offerings. This means that emotional communication with consumers remains crucial even in the context of service recovery. Therefore, it was concluded that the impact of sincerity in service recovery efforts would be significant if both companies and consumers value mutual communication and establish a deep relationship before service failure. Ultimately, it will be more effective to restore service in sports brand stores if distributive compensation is provided based on customer experience, genuine communication with customers is established beforehand, and sincere service recovery efforts are made in service recovery after a failure occurs.

7. Conclusions

This study focused on the concept of service failure in sports brand stores and aimed to understand the relationship between service recovery efforts and recovery satisfaction after service failures. Based on the theoretical results of previous studies, this study examined the effects of service recovery fairness, company sincerity, and service provider sincerity on the relationship between recovery satisfaction and service recovery fairness. The results of this study revealed a positive relationship between service recovery fairness in sports brand stores and customers' recovery satisfaction, while sincerity played a mediating role.

The results of this study suggested that sports brand stores should consider emotional values in addition to cognitive values when managing the service recovery process after a service failure. Therefore, these stores should implement appropriate compensation measures for customers, streamline resolution procedures, and strengthen mutual relationships through efforts in distribution, procedures, and interactions. Since sports apparel is closely associated with athletic performance and customers perceive that the athletic apparel they purchased would enhance their own performance, loyalty to sports brands differs from that to general fashion brands. Consequently, sports apparel evokes a strong sense of self-identity, and the brand represents a symbol of the individual. This high level of attachment to sports brands means that customers may experience even larger disappointment. However, a sincere apology can more easily resonate with customers and move their emotions. Therefore, it is suggested that the service paradox situation can be overcome by impressing customers with fair recovery efforts and sincere gestures.

The results of this study suggested how to address issues and future study topics. First, this study examined various types of sports brands, which made it difficult to accurately identify the service recovery efforts specific to each brand. Future studies should examine the service recovery process of each brand in-depth based on the findings of this study.

Second, this study focused on individuals who had undergone the recovery process and experienced recovery satisfaction. Although previous studies showed that loyalty tended to increase after the recovery satisfaction process, this study only examined only the recovery process. Future studies should examine the whole recovery process longitudinally by analyzing all three steps (i.e., the actual service failure, the recovery process itself, and the final recovery outcome).

Lastly, although this study explored the causes of service failure by using quantitative methods, it could not specifically identify which aspects of the disengagement effect were effective. Therefore, in-depth content analysis should be used to discover the root causes, and qualitative studies should be carried out to analyze the experiences and content involved in the service recovery process. These suggestions and future research directions will contribute to further enhancing our understanding of service recovery in the context of sports brand stores.

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