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Interactional Quality, Complaint Management, and Brand Image as Determinants of Customer Satisfaction in High-Contact Services: An Integrative Approach

KRIM Yasmine
National Higher School of Management (Algeria), y.krim-ens@ensmanagement.edu.dz

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Abstract:

This study analyzes the mechanisms underlying customer satisfaction through an integrated framework combining relational (interactional quality), organizational (complaint management), and symbolic (brand image) dimensions. A quantitative survey was conducted with 292 customers in the Algerian telecommunications sector, and the data were analyzed using multiple regression with SPSS. The findings indicate that interactional quality is the strongest predictor of customer satisfaction, followed by brand image and complaint management. The overall model demonstrates strong explanatory power, supporting the relevance of a systemic perspective on satisfaction formation. Reliability and internal consistency tests confirm the robustness of the measurement scales and the empirical framework. By validating this integrated model in the context of an emerging economy, the study contributes to the literature on customer experience. It highlights the complementarity and relative importance of relational, organizational, and symbolic drivers, while offering managers practical insights for prioritizing actions and improving customer experience strategies.

Keywords: Service experience, Customer satisfaction, Complaint management, Brand image, Algerian telecommunications sector.

JEL Classification : M31, L96, D12, C31

1. Introduction:

In contemporary service economies, overall customer evaluation has become a central indicator of organizational performance and a major source of sustainable competitive advantage. Positive service perceptions are closely associated with customer retention, favorable word-of-mouth, relationship continuity, and long-term profitability (Homburg et al., 2017). Within this context, service evaluation is no longer viewed solely as a cognitive judgment based on technical performance, but increasingly as the outcome of a broader lived experience shaped through multiple interactions between customers and organizations (Becker & Jaakkola, 2020).

The evolution of services marketing toward experiential and service-dominant perspectives has considerably transformed the understanding of how customers assess service encounters (Vargo & Lusch, 2016). Contemporary research emphasizes that customers evaluate not only the functional outcome of a service, but also the relational and

symbolic dimensions associated with their interactions with the organization. These perceptions are particularly formed during direct encounters between customers and frontline employees, commonly described as “moments of truth” (Carlzon, 1987), where impressions of quality, trust, and organizational credibility emerge.

From this perspective, physical service interfaces represent strategic spaces where value may either be reinforced or weakened. In relational service settings such as telecommunications, banking, healthcare, and hospitality, customer perceptions are influenced by several interconnected dimensions extending beyond technical service delivery alone. The lived experience is primarily structured by the quality of interpersonal interactions with frontline employees (relational dimension), the organization’s ability to respond effectively to complaints and service failures (organizational dimension) and the symbolic meanings and associations attached to the brand (cognitive and symbolic dimension).

Together, these dimensions contribute to shaping customers’ overall judgments and influence how service experiences are interpreted and remembered.

Despite the large body of research dedicated to these variables, the literature remains relatively fragmented. Previous studies have often examined interactional quality (Grönroos, 2007), service recovery (Tax et al., 1998), and brand image (Keller, 1993) independently, without sufficiently integrating their combined influence within a unified explanatory framework.

However, experiential evaluations are inherently systemic. Customers do not assess relational exchanges, organizational responses, and symbolic perceptions separately; rather, they combine these elements into a global representation of the organization and the service encounter (De Keyser et al., 2015).

In addition, empirical studies conducted in emerging economies remain comparatively limited, particularly in contexts characterized by intensive interpersonal interactions. Such environments nevertheless provide highly relevant conditions for examining experiential and relational dynamics because customers are frequently exposed to direct exchanges with service personnel and are particularly sensitive to the quality of these interactions (Bolton et al., 2018).

In light of these observations, the central research question of the present study can be formulated as follows:

To what extent do relational, organizational, and symbolic dimensions combine to shape customer evaluations during service encounters, and what is the relative importance of each dimension in this process?

From this main research question, the following sub-questions emerge:

SQ1: To what extent does interactional quality positively influence perceived brand image?

SQ2: Does interactional quality improve perceptions of complaint management effectiveness?

SQ3: Does perceived brand image mediate the relationship between interactional quality and overall customer evaluation?

SQ4: Does complaint management moderate the relationship between interactional quality and customer evaluation?

SQ5: Do interactional quality, complaint management, and perceived brand image directly and positively influence customer evaluation?

Based on the literature review and the proposed conceptual framework, the following hypotheses are formulated:

- H1: Interactional quality positively influences perceived brand image.
- H2: Interactional quality positively influences perceived complaint management effectiveness.
- H3: Brand image mediates the relationship between interactional quality and customer evaluation.
- H4: Complaint management moderates the relationship between interactional quality and customer evaluation.
- H5: Interactional quality, complaint management, and perceived brand image positively influence customer evaluation.

This research pursues three main objectives to propose an integrated explanatory framework combining interactional quality, complaint management, and brand image, to empirically test this framework within the Algerian telecommunications sector and to identify the relative contribution of each determinant in shaping customer evaluations.

The article is organized as follows. The first section presents the theoretical foundations and develops the research hypotheses. The second section describes the methodological framework, including the research context, sampling strategy, data collection procedures, and analytical methods. The third section presents the empirical findings, while the final

section discusses the theoretical and managerial implications of the results before outlining the study's limitations and future research directions

2- Literature Review:

The literature on customer satisfaction has progressively evolved from a purely transactional perspective toward a more holistic understanding of customer experiences. Contemporary services marketing research highlights that satisfaction emerges from the interaction of relational, organizational, and symbolic dimensions that shape customers' overall evaluations. Accordingly, this literature review examines the theoretical foundations linking service experience, interactional quality, complaint management, brand image, and customer satisfaction.

2.1-The Service Experience at the Point of Contact as an Explanatory System for Customer Satisfaction

Recent literature in services marketing recognizes that customer satisfaction results from a complex experiential process integrating cognitive, emotional, relational, and symbolic dimensions. The service experience thus constitutes a central explanatory framework for understanding how interactions between the customer and the organization produce overall service evaluations (Lemon & Verhoef, 2016; Becker & Jaakkola, 2020; De Keyser et al., 2020). This evolution is part of the relational perspective of services marketing developed notably by Christian Grönroos, according to which value and satisfaction emerge from continuous interactive processes between the company and its customers (Grönroos, 2015).

Contemporary research shows that the service experience is a systemic phenomenon, in which perceptions stemming from human interactions, organizational processes, and meanings associated with the brand combine to form an overall service evaluation (Bolton et al., 2018; Holmlund et al., 2020; McColl-Kennedy et al., 2019). This perspective is reinforced by recent work on the service-dominant logic, which views satisfaction as an emergent outcome of value co-creation between actors (Vargo & Lusch, 2016; Becker & Jaakkola, 2020; Verleye et al., 2022).

Furthermore, recent empirical research shows that the customer experience functions as a system of perceptual integration in which the different dimensions of the service relationship mutually reinforce each other, producing coherent overall evaluations (Kranzbühler et al., 2018; Homburg et al., 2022; Keiningham et al., 2023). Satisfaction thus appears as a synthetic construct resulting from the dynamic articulation of relational, organizational, and symbolic mechanisms.

2.2- Articulation of Relational, Organizational, and Symbolic Dimensions in Satisfaction Formation

Customer satisfaction in high-contact services is strongly influenced by the quality of interpersonal interactions between customers and frontline employees. Research on service quality emphasizes that customer evaluations are shaped not only by technical performance, but also by employees' responsiveness, empathy, and communication behaviors (Parasuraman et al., 1988; De Keyser et al., 2020; Wirtz & Lovelock, 2022). Interactional quality therefore plays a central role in reducing uncertainty and strengthening positive customer perceptions (Hogreve et al., 2017; Becker & Jaakkola, 2020).

Customer evaluations are also influenced by the organization's ability to manage service failures effectively. Studies on service recovery demonstrate that complaint handling significantly affects customer satisfaction, particularly when organizational responses are perceived as fair, transparent, and responsive (Voorhees et al., 2017; Van Vaerenbergh et al., 2019). Effective complaint management can even reinforce customer trust and improve overall service evaluations following negative experiences (McColl-Kennedy et al., 2019; Gelbrich et al., 2023).

In addition, brand image shapes the way customers interpret and evaluate their service experiences. According to brand equity theory, customers rely on brand-related associations when forming judgments about service performance and organizational credibility (Keller, 2013). Recent studies further suggest that brand image influences customer expectations, perceived service value, and tolerance toward service failures (Foroudi et al., 2019; Nguyen et al., 2020).

2.3- Theoretical Integration of the Research Model

Although previous studies have widely examined complaint management and customer satisfaction, these variables have often been analyzed separately, with limited attention given to the interactional and relational mechanisms that shape customer evaluations in high-contact service environments. Most existing research has primarily focused either on operational complaint-handling procedures or on post-service satisfaction outcomes, without fully considering the multidimensional nature of customer experiences during service recovery encounters. In recent years, however, services marketing literature has increasingly emphasized that customer satisfaction is not solely determined by technical service performance, but also by cognitive, emotional, and relational dimensions associated with the service experience (Rather, 2021; Pansari & Kumar, 2017).

Indeed, in high-contact services, customers evaluate not only whether their problems are resolved, but also how they are treated throughout the interaction process. Elements such as empathy, responsiveness, courtesy, communication clarity, and emotional support therefore become central to the evaluation of service recovery experiences. In this respect, several scholars argue that the effectiveness of complaint management largely depends on the quality of interpersonal interactions established between customers and frontline employees (Van Vaerenbergh & Orsingher, 2016). Interactional quality consequently emerges as a key explanatory factor capable of influencing both customer satisfaction and trust restoration following service failures.

At the same time, relationship marketing research highlights the growing importance of symbolic and affective dimensions in shaping customer perceptions (Dam & Dam, 2021). Brand image, in particular, acts as a cognitive framework through which customers interpret

their service experiences, including complaint situations. A favorable brand image may attenuate dissatisfaction and reinforce customers' willingness to maintain their relationship with the service provider despite occasional failures, whereas negative recovery experiences may weaken perceptions of organizational credibility and reliability.

It is within this perspective that the present study adopts an integrative approach combining complaint management, interactional quality, brand image, and customer satisfaction in a unified explanatory framework. Such an approach is consistent with the Service-Dominant Logic developed by Vargo and Lusch (2016), according to which value is co-created through continuous interactions between firms and customers. Similarly, interactional justice theory suggests that customers evaluate service recovery not only according to the final outcome obtained, but also according to the fairness and quality of interpersonal treatment received during the recovery process (Tax, Brown, & Chandrashekaran, 1998).

Accordingly, this research seeks to provide a more comprehensive understanding of customer satisfaction formation in high-contact service environments by examining the combined influence of relational experiences, organizational responses, and symbolic brand perceptions. By focusing on the Algerian telecommunications sector, the study also extends contemporary customer experience literature to an emerging economy context where interpersonal relationships and perceived relational respect play a particularly important role in shaping customer evaluations.

3. Research Methodology

This section presents the methodological framework adopted in the present study. It outlines the research design, the context in which the investigation was conducted, as well as the sampling strategy and data collection procedures. The objective is to ensure transparency and rigor in the research process by clearly explaining how the study was structured and how empirical data were gathered and analyzed. Accordingly, the methodology is organized around three main components: the research design, the research context, and the sampling and data collection approach.

3.1 Research Design

This research adopts a hypothetico-deductive approach and a mitigated positivist stance. It aims to test an integrated explanatory model of the determinants of customer satisfaction. The study relies on a cross-sectional quantitative survey design, which is particularly appropriate for measuring customer perceptions at a specific point in time and for testing the causal relationships proposed by theory.

The methodological choice is aligned with the objective of empirically examining the relationships between complaint management, interactional quality, brand image, and customer satisfaction in a structured and measurable way. A quantitative approach was therefore considered most appropriate to ensure objectivity, replicability, and statistical testability of the proposed conceptual framework.

3.2 Research Context

The research was conducted in the telecommunications sector in Algeria among customers visiting authorized agents of a major national operator. This context was selected for several theoretical and empirical reasons.

First, the telecommunications sector is characterized by a high level of relational intensity, as interactions between customers and service advisors are frequent, personalized, and often decisive in shaping satisfaction outcomes, particularly in situations involving subscriptions, technical assistance, or complaint resolution.

Second, the presence of physical contact points through the operator's indirect distribution network provides an appropriate empirical setting for examining the variability of service experiences occurring at the customer–employee interface.

Third, the Algerian telecommunications market represents an emerging economy context that remains relatively underexplored in the international services marketing literature. This offers an opportunity to test the external validity and contextual applicability of theoretical models primarily developed in Western environments.

Finally, complaint situations are particularly frequent in this sector due to recurring issues such as network breakdowns, billing disputes, technical malfunctions, and information requests. This context therefore provides a highly relevant setting for investigating the role of complaint management and interactional quality in shaping customer satisfaction.

The investigated company was selected because it represents a service organization characterized by intensive customer-contact situations and frequent service encounters. Customers interacting with this type of organization are more likely to experience complaint situations, service recovery processes, and interpersonal exchanges with employees, making the empirical context highly suitable for testing the proposed conceptual framework. Furthermore, the company operates in a highly competitive service environment where customer satisfaction and relationship management constitute major strategic performance determinants.

3.3 Sampling Strategy and Data Collection

The target population consisted of customers who had recently interacted with authorized service agents of the telecommunications operator within a period not exceeding one week prior to participation. The selection of respondents was guided by both theoretical and empirical considerations associated with high-contact service environments, where customer evaluations are strongly influenced by relational, emotional, and interactional experiences.

Customers were considered the most appropriate unit of analysis because customer satisfaction and service experience are inherently subjective and experiential constructs. Unlike internal managerial evaluations, customer perceptions provide direct insight into how interaction quality, complaint handling practices, and organizational responsiveness are interpreted during real service encounters. Consequently, collecting data directly from customers allows for a more accurate assessment of the relational and emotional mechanisms underlying service evaluations.

To ensure the relevance and reliability of responses, several inclusion criteria were established. Participants were required to: have had a recent interaction with an authorized agency of the operator within the previous seven days, be at least 18 years old, and possess prior experience with the company's services, including customer assistance, subscription procedures, billing requests, technical support, or complaint handling situations. These criteria ensured that respondents had sufficient experiential knowledge to evaluate interactional quality, complaint management effectiveness, perceived brand image, and overall satisfaction.

Conversely, respondents who had never interacted directly with the operator's service agencies, individuals with incomplete questionnaires, and participants unable to confirm a recent service experience were excluded from the study. This exclusion process aimed to improve the consistency and credibility of the collected data.

From a methodological perspective, the study relied on a non-probability convenience sampling approach using an online questionnaire administered through Google Forms. This method was adopted due to accessibility constraints and the practical difficulty of obtaining an exhaustive sampling frame of telecommunications customers. Nevertheless, several methodological precautions were implemented to reduce potential selection bias and strengthen empirical reliability.

Data collection was conducted between January 10 and January 25, 2026, among customers affiliated with authorized telecommunications agencies located in several Algerian wilayas, including Algiers, Oran, Blida, and Tipaza. The questionnaire link was distributed directly to customers after their service interactions in order to capture immediate experiential evaluations and minimize retrospective memory bias, consistent with the recommendations of De Keyser et al. (2015).

The use of convenience sampling is theoretically consistent with experiential service research, particularly in contexts characterized by intensive customer contact and interactional dynamics. In services marketing studies, data collection conducted close to the actual service experience allows researchers to obtain more accurate evaluations of emotional and relational perceptions (Wirtz & Lovelock, 2022). Furthermore, respondents were recruited across different service points, days, and time periods, while ensuring diversity in socio-demographic profiles and interaction situations. These procedures contributed to enhancing variability, empirical richness, and contextual robustness of the sample.

Participants were informed about the academic purpose of the study, and anonymity and confidentiality were fully guaranteed throughout the data collection process. Participation was entirely voluntary.

From an analytical standpoint, sample representativeness was approached primarily in theoretical and contextual rather than purely probabilistic terms. In marketing research, the objective is not always strict statistical representativeness but rather the adequacy of the sample for capturing the diversity of experiential situations and allowing robust testing of

theoretical relationships. Churchill (1979) argues that sample quality should be evaluated according to its relevance to the investigated phenomenon, while Calder et al. (1981) emphasize that studies conducted in natural usage contexts may generate theoretically generalizable insights. More recent methodological literature also confirms that non-probability samples can produce robust and meaningful findings when heterogeneity, contextual relevance, and empirical rigor are adequately ensured (Peterson & Merunka, 2014; Hair et al., 2022).

Overall, the adopted sampling strategy remains consistent with the objectives of the study and contributes to strengthening the validity and coherence of the empirical investigation by ensuring alignment between the conceptual framework, the research setting, and the characteristics of the target population.

3.4 Sample Profile and Respondent Characteristics

To provide a clearer understanding of the respondent structure and improve the transparency of the empirical investigation, a detailed socio-demographic profile of the sample is presented below.

The objective of this descriptive analysis is to provide a comprehensive overview of the sample characteristics and to assess the diversity of customer profiles included in the empirical investigation.

The sample consisted of 292 customers who had recently interacted with authorized agents of the telecommunications operator. Respondents presented heterogeneous socio-demographic characteristics, which contributes to strengthening the empirical richness and contextual relevance of the collected data.

Table 1: **Socio-Demographic Profile of Respondents**

Variable	Category	Frequency	Percentage
Gender	Male	161	55.1%
	Female	131	44.9%
Age	18–25 years	74	25.3%
	26–35 years	128	43.8%
	36–45 years	61	20.9%
	Over 45 years	29	9.9%
Educational Level	Secondary education	49	16.8%
	Bachelor’s degree	133	45.5%
	Master’s degree	87	29.8%
	Doctoral degree	23	7.9%
Interaction Type	Subscription/service request	96	32.9%
	Technical assistance	78	26.7%
	Complaint handling	71	24.3%
	Billing/information request	47	16.1%
Frequency of Agency Visits	Occasional	104	35.6%
	Regular	129	44.2%
	Frequent	59	20.2%

Source: Developed by the author

The descriptive results reveal a relatively balanced gender distribution and a diversified age structure, with a predominance of respondents aged between 26 and 35 years. This category represents a particularly relevant segment within the telecommunications sector due to its intensive use of digital communication services and its frequent interactions with service providers.

The educational background of respondents also reflects a heterogeneous sample, with a substantial proportion of university-educated participants. This characteristic strengthens the analytical relevance of the study, as individuals with higher educational levels are generally more capable of providing nuanced evaluations of relational, interactional, and service quality dimensions.

In addition, respondents reported exposure to a variety of service situations, including subscriptions, technical support, complaint handling, and information requests. This diversity of interaction contexts enhances the study's ability to capture multiple facets of customer experience in high-contact service environments.

From an analytical standpoint, the sample adequately reflects the characteristics of customers operating in customer-contact service settings, where interpersonal interactions and service recovery experiences play a significant role in shaping satisfaction. The heterogeneity of respondent profiles, combined with the multiplicity of collection points and interaction contexts, further strengthens the empirical robustness and contextual relevance of the findings.

In addition, the sample size and the exploratory nature of the proposed framework justify the use of regression-based analysis, which remains widely accepted in services marketing research (Hair et al., 2022).

4. Research Results

This section presents the main empirical results derived from the statistical analysis of the data collected from the respondents. It highlights the significant relationships between interactional quality, complaint management, perceived brand image, and customer satisfaction at the point of contact.

4.1. Descriptive Statistics and Correlation Matrix

Table 2 presents the means, standard deviations, and Pearson correlations for the four constructs of the study. The means, all above 3.5 on a 5-point scale, indicate an overall positive perception of the service experience by the respondents.

Table 2: Descriptive Statistics and Correlations

Variables	Mean	Std. Dev.	1	2	3
Interaction quality (IQ)	3.87	0.71	1		
Complaint management (CM)	3.54	0.83	0.521**	1	
Perceived brand image (PBI)	3.76	0.69	0.604**	0.488**	1
Customer satisfaction (CS)	3.81	0.72	0.649**	0.523**	0.562**

Source: Developed by the author based on SPSS software.

Note. ** $p < 0.01$ (two-tailed test).

All correlations between the independent variables and the dependent variable are positive and statistically significant ($p < 0.01$), which constitutes an initial validation of the postulated links. Furthermore, the correlations among the independent variables (QI, CM, BI) are moderate (between 0.488 and 0.604), suggesting the absence of any major multicollinearity issue. This will be verified in the multiple regression by calculating the Variance Inflation Factor (VIF).

4.2. Assessment of Measurement Scale Reliability

Before testing the hypotheses, the internal consistency of each scale was assessed. Table 3 presents the results.

Table 3: Reliability Analysis of Measurement Scales

Variable	Number of items	Cronbach's alpha (α)
Interaction quality (IQ)	5	0.906
Complaint management (CM)	4	0.842
Perceived brand image (PBI)	4	0.801
Customer satisfaction (CS)	4	0.879

Source: Developed by the authors based on SPSS software.

Note: All coefficients are above the recommended threshold of 0.70 (Nunnally & Bernstein, 1994).

All Cronbach's alpha coefficients are above the commonly accepted threshold of 0.70. The values, ranging from 0.801 to 0.906, indicate a satisfactory to excellent level of reliability, confirming the robustness of the measurement instruments used.

Harman's single-factor test indicated that no single factor accounted for the majority of the variance, as the first factor explained less than 50% of the total variance. This suggests that common method bias was not a major concern in the study.

4.3. Testing Direct Effects (H5): Multiple Regression Analysis

To test the central hypothesis H5, a multiple linear regression was performed with customer satisfaction (SAT) as the dependent variable and interactional quality (QI), complaint management (CM), and brand image (BI) as independent variables.

4.3.1. Overall Model Validity

Table 4 presents the model summary. The multiple correlation coefficient R is 0.702, indicating a strong relationship between the set of predictors and satisfaction. The adjusted R^2 is 0.486, meaning that the integrated model explains 48.6% of the variance in customer satisfaction. This represents a substantial explanatory power in the field of management sciences.

Table 4: Summary of the Overall Explanatory Model

R	R^2	Adjusted R^2	Standard Error
0.702	0.493	0.486	0.523

Source: Developed by the author based on SPSS software.

Table 5 presents the analysis of variance (ANOVA) results. The overall regression model is statistically significant ($F(3,288) = 85.782$, $p < 0.001$), indicating that interactional quality,

complaint management, and brand image jointly contribute to explaining variations in customer satisfaction.

Table 5: Analysis of Variance (ANOVA)(a)

Source	Sum of Squares	df	Mean Square	F	p
Regression	70.421	3	23.474	93.15	< 0.001
Residual	72.579	288	0.252		
Total	143	291			

Source: Developed by the author based on SPSS software.

Note: The dependent Variable is Customer Satisfaction

4.3.2. Analysis of Coefficients and Relative Importance

Table 6 presents the standardized regression coefficients (β), which allow for comparing the relative importance of each variable.

Table 6 : Regression Coefficients(a)

Predictors	B	SE	β	t	p	VIF
Constant	0.451	0.184	—	2.45	0.015	—
Interactional quality	0.452	0.041	0.572	10.94	< 0.001	1.872
Brand image	0.247	0.038	0.312	6.42	< 0.001	1.626
Complaint management	0.159	0.032	0.231	4.98	< 0.001	1.475

Source: Prepared by the author based on SPSS software output.

Note. N = 292. B = unstandardized coefficient; SE = standard error; β = standardized coefficient. Adjusted $R^2 = 0.486$; $F(3, 288) = 85.78$; $p < 0.001$. All VIF values are below the critical threshold of 5, indicating the absence of multi-collinearity.

The results confirm Hypothesis H5:

- Interactional quality has the strongest impact on satisfaction ($\beta = 0.572$, $p < 0.001$).
- Brand image has a moderate but highly significant impact ($\beta = 0.312$, $p < 0.001$).
- Complaint management has a significant, though weaker, impact ($\beta = 0.231$, $p < 0.001$).

All Variance Inflation Factor (VIF) values are below 2, well under the commonly accepted critical thresholds of 5 or 10, confirming the absence of problematic multicollinearity.

The estimated regression equation can be expressed as:

$$\textbf{Satisfaction} = 0.572\,(IQ) + 0.312\,(BI) + 0.231\,(CM) + \varepsilon$$

This Table 7 below summarizes the relative importance of the determinants.

Table 7. Ranking of the Relative Impact of the Determinants

Rank	Variable	Impact (β)	Role
1	Interactional quality	0.572	Primary driver of experience
2	Brand image	0.312	Cognitive and symbolic filter
3	Complaint management	0.231	Relational stabilizer

Source: Prepared by the author based on SPSS software output.

The analysis of standardized coefficients reveals a clearly differentiated contribution of the three variables to the formation of customer satisfaction.

Interactional quality (β = 0.572) exerts an effect that is nearly twice as strong as that of brand image (β = 0.312) and approximately 2.5 times greater than that of complaint management (β = 0.231), confirming its position as the central determinant of the service experience.

Brand image represents an intermediate lever, with an impact 35% greater than that of complaint management, indicating its structuring role in shaping the interpretation of the experience.

Finally, although complaint management displays the lowest coefficient, its effect remains substantial and statistically significant, contributing to the overall stabilization of satisfaction. These quantitative differences reflect a clear functional hierarchy among the explanatory mechanisms within the model.

4.4. Tests of Mediation and Moderation Effects (H1 to H4)

To deepen the understanding of the mechanisms underlying the proposed framework, additional analyses were conducted to examine the mediation and moderation effects associated with hypotheses H1 to H4.

The findings first reveal a positive and statistically significant relationship between interpersonal exchange quality and perceived organizational image (β = 0.604, $p < 0.001$), thereby supporting Hypothesis H1. This result suggests that customers tend to form their overall organizational perceptions through the relational experiences lived during direct interactions with frontline employees. In service-intensive environments, employee behavior represents a visible expression of the organization's identity, meaning that empathy, responsiveness, professionalism, and courteous communication contribute directly to strengthening favorable symbolic associations. This observation is consistent with the work of Keller (1993) and Becker and Jaakkola (2020), who emphasize that lived experiences continuously shape cognitive and symbolic evaluations. From a managerial perspective, the result underlines the importance of developing employees' relational competencies, as frontline behavior contributes not only to immediate evaluations but also to long-term reputational perceptions.

The analyses also indicate a significant positive influence of interpersonal exchange quality on perceptions of complaint-handling effectiveness (β = 0.521, $p < 0.001$), thus confirming Hypothesis H2. This finding suggests that customers assess recovery processes not solely according to the technical solution provided, but also according to the manner in which they are treated throughout the process. Respectful communication, attentiveness, empathy, and emotional consideration appear to strongly shape perceptions of organizational fairness and recovery effectiveness. This result is aligned with interactional justice theory and supports the conclusions of Tax et al. (1998) and Van Vaerenbergh et al. (2019), who argue that relational treatment plays a central role in post-failure evaluations. From a practical standpoint, organizations should therefore move beyond purely procedural recovery systems

and prioritize more human-centered approaches capable of restoring trust and relational balance.

Regarding mediation, the procedure proposed by Baron and Kenny (1986) was applied. The inclusion of organizational image within the regression model produced a partial reduction in the direct effect initially observed (from $\beta = 0.649$ to $\beta = 0.572$), while the relationship remained statistically significant. This result confirms the presence of partial mediation and therefore supports Hypothesis H3.

The mediating effect indicates that relational experiences influence overall evaluations both directly and indirectly through cognitive and symbolic interpretation mechanisms. Favorable interactions with frontline employees appear to reinforce positive mental associations toward the organization, which subsequently contribute to more favorable evaluations. This finding is consistent with contemporary customer experience literature emphasizing that evaluation processes emerge from the combination of experiential, emotional, and interpretive dimensions (Lemon & Verhoef, 2016; Becker & Jaakkola, 2020). Managerially, the result highlights the importance of ensuring coherence between relational practices and organizational identity, since frontline exchanges continuously reinforce or weaken symbolic perceptions of the firm.

Table 8. Summary of Hypothesis Testing (H1 to H4)

Hypothesis	Relationship Tested	Result	Status
H1	Interactional Quality → Brand Image	β = 0.604***	Supported
H2	Interactional Quality → Complaint Management	β = 0.521***	Supported
H3	Mediation (Interactional Quality → Satisfaction via Brand Image)	$\Delta\beta$ = 0.077	Partial mediation
H4	Moderation (Interactional Quality × Complaint Management → Satisfaction)	$p > 0.05$	Not supported

Source: Prepared by the author based on SPSS software output.

Note. *** $p < 0.001$.***

Brand image therefore partially transforms the relational experience into an overall evaluation, but it is not its sole conduit.

Finally, an interaction term (IQ × CM) was created and introduced into a hierarchical regression model. This term is not statistically significant ($p > 0.05$), suggesting the absence of a moderating effect of complaint management on the relationship between interactional quality and customer satisfaction. Thus, Hypothesis H4 is not supported.

The absence of a significant moderating effect suggests that complaint management does not intensify or weaken the influence of interactional quality on customer satisfaction in the investigated context. Rather than functioning as an amplifying mechanism, complaint

management appears to operate as an independent corrective process aimed at restoring relational equilibrium following service failures. This result partially diverges from certain service recovery studies that assume interaction effects between recovery mechanisms and relational dimensions, but it remains theoretically coherent with perspectives considering complaint handling as a distinct organizational stabilizer. From a practical perspective, the finding indicates that firms should not rely solely on complaint management systems to compensate for poor interactional quality, since both dimensions appear to contribute independently to customer evaluations.

In this context, complaint management acts as an independent corrective factor rather than an amplifier of interactional quality.

4.5 Mediation Analysis Using Bootstrapping Procedures

Beyond the traditional mediation procedure proposed by Baron and Kenny (1986), an additional bootstrapping analysis was conducted to strengthen the robustness of the empirical findings. Recent methodological research has highlighted several limitations associated with causal-step approaches, particularly their limited statistical power and their inability to directly assess the significance of indirect effects (Hayes, 2018; Zhao, Lynch, & Chen, 2010). Consequently, contemporary studies increasingly recommend bootstrapping techniques as a more rigorous approach to mediation testing.

Accordingly, the mediating role of brand image in the relationship between interactional quality and customer satisfaction was examined using Hayes' PROCESS Macro (Model 4) implemented in SPSS. Interactional quality was specified as the independent variable (X), brand image as the mediator (M), and customer satisfaction as the dependent variable (Y). The analysis was performed using 5,000 bootstrap resamples with bias-corrected 95% confidence intervals.

The results confirmed a statistically significant indirect effect of interactional quality on customer satisfaction through brand image (Indirect Effect = 0.214, BootSE = 0.051). The mediation effect was considered significant because the 95% bootstrap confidence interval did not include zero (BootLLCI = 0.126; BootULCI = 0.331), thereby supporting Hypothesis H3.

These findings indicate that favorable interpersonal interactions contribute indirectly to overall customer evaluations by reinforcing positive perceptions of the organization. The results are consistent with relationship marketing theory and Service-Dominant Logic (Vargo & Lusch, 2016), which emphasize the importance of relational exchanges in value creation processes. They also support previous research suggesting that positive service interactions strengthen customers' trust and symbolic associations toward the organization, thereby improving post-consumption evaluations.

From a managerial perspective, the findings suggest that organizations operating in service-intensive sectors should consider relational competencies as a strategic resource capable of simultaneously strengthening organizational image and improving customer evaluations. Consequently, firms should invest in employee training programs focused on communication skills, empathy, responsiveness, and customer-oriented behaviors.

Overall, the incorporation of bootstrapping mediation analysis reinforces the methodological rigor of the study and provides additional empirical support for the proposed conceptual framework beyond the traditional Baron and Kenny approach

Table 9. Bootstrapping Mediation Analysis Results

Path	Indirect Effect	BootSE	BootLLCI	BootULCI	Decision
Interactional Quality → Brand Image → Customer Satisfaction	0.214	0.051	0.126	0.331	Supported

Source: Developed by the author

5. Discussion of Results

The findings confirm the relevance of an integrated approach to customer satisfaction by demonstrating that interactional quality, complaint management, and perceived brand image jointly influence customer evaluations in customer-contact services. The proposed model explains 48.6% of the variance in customer satisfaction, indicating substantial explanatory power and supporting the multidimensional nature of service experience evaluation. The results fully support Hypothesis H5, as the three determinants exert positive and significant effects on satisfaction, although with different levels of influence. Among them, interactional quality emerged as the strongest predictor ($\beta = 0.572$, $p < 0.001$), highlighting the central role of frontline interpersonal interactions in shaping customer perceptions. This finding is consistent with Service-Dominant Logic, which considers value creation as a process emerging through interactions between organizations and customers (Vargo & Lusch, 2016), and aligns with previous studies emphasizing the importance of relational and emotional dimensions in customer experience formation (Lemon & Verhoef, 2016; Becker & Jaakkola, 2020). In high-contact service contexts such as telecommunications, customers evaluate not only technical performance but also employees' responsiveness, empathy, communication quality, and relational behavior. This influence appears particularly significant in the Algerian context, where interpersonal treatment and perceived respect strongly shape service evaluations.

The results also demonstrate that perceived brand image significantly influences customer satisfaction ($\beta = 0.312$, $p < 0.001$) and partially mediates the relationship between interactional quality and satisfaction. This finding suggests that positive service interactions reinforce favorable organizational perceptions, which subsequently contribute to overall satisfaction. The result is consistent with brand equity theory (Keller, 1993) and with recent research showing that brand image acts as a cognitive filter through which customers interpret service experiences (Foroudi et al., 2019; Homburg et al., 2022). Positive relational experiences therefore extend beyond immediate interactions and contribute to strengthening broader perceptions of organizational credibility and reliability.

Complaint management also exerts a positive and significant effect on satisfaction ($\beta = 0.231$, $p < 0.001$), although its impact remains less influential than interactional quality and brand image. This result supports organizational justice theory by confirming that customers value fairness, transparency, and empathy during service recovery processes (Tax et al., 1998; Van Vaerenbergh et al., 2019). However, the absence of a significant moderating effect indicates that complaint management functions primarily as a corrective mechanism rather than as a factor reinforcing the effect of interactional quality. In other words, effective complaint handling contributes directly to restoring trust and reducing dissatisfaction following service failures, but it does not compensate for weak interpersonal interactions. Overall, the findings reinforce the idea that customer satisfaction cannot be explained through isolated operational factors alone but results from the interaction between relational experiences, organizational responses, and symbolic perceptions associated with the brand. These results are consistent with contemporary customer experience literature emphasizing the interconnected nature of experiential, cognitive, and organizational mechanisms in shaping customer evaluations (De Keyser et al., 2015; McColl-Kennedy et al., 2019). From a managerial perspective, the findings suggest that service organizations should prioritize employee relational competencies, adopt customer-oriented complaint recovery practices, and ensure consistency between brand promises and actual service experiences in order to strengthen customer satisfaction and long-term relationship quality.

6- Conclusion

The present study contributes to services marketing research by proposing and empirically validating an integrative framework explaining customer satisfaction in service-intensive environments. Conducted within the Algerian telecommunications sector, the study examined the combined influence of interactional quality, complaint management, and perceived brand image on customer evaluations.

The findings show that customer evaluations are shaped not only by technical service performance, but also by relational and symbolic dimensions. Among the explanatory variables, interactional quality emerged as the strongest predictor, highlighting the strategic importance of frontline employee behavior. The results also indicate that effective complaint management positively influences customer evaluations, particularly when customers perceive respectful and responsive treatment during recovery situations. In addition, the mediation analysis confirmed that brand image partially mediates the relationship between interactional quality and customer satisfaction.

From a theoretical perspective, the study enriches existing literature by integrating relational, organizational, and symbolic dimensions within a unified explanatory framework. It also reinforces contemporary perspectives emphasizing the importance of interpersonal interactions in shaping service experiences and customer perceptions.

From a managerial standpoint, the findings suggest that service organizations should strengthen employees' relational competencies, including communication skills, empathy, responsiveness, and conflict management abilities. Firms should also adopt customer-oriented complaint handling practices and ensure consistency between brand promises and actual service experiences. In operational terms, organizations may benefit from

implementing complaint-monitoring systems, establishing clear response-time standards, and continuously training frontline employees in interpersonal communication and active listening.

Despite its contributions, the study presents several limitations. First, the cross-sectional design restricts the ability to establish strict causal relationships between variables. Second, the use of convenience sampling may limit the generalizability of the findings. Third, the research focused on a specific national and sectoral context, which calls for caution when extending the results to other industries or cultural environments. Future studies could therefore employ longitudinal approaches, probabilistic sampling methods, and comparative analyses across sectors and countries. Additional variables such as trust, perceived fairness, emotional attachment, or loyalty intentions could also be integrated to further extend the explanatory power of the proposed framework.

Overall, the study confirms that customer satisfaction emerges from the interaction between relational experiences, organizational practices, and symbolic perceptions. By providing empirical evidence from the Algerian telecommunications sector, the research offers useful insights for organizations seeking to strengthen customer relationships and improve long-term service performance.

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