

From Service Confirmation to Continuance Intention: An Expectation Confirmation Perspective on Customer-Perceived Relationship Management and Perceived Value in the Beauty Industry

Shu-Hui Chuang*, Ching-Chung Chen and Tzu-Ching Chen

Department of Business Administration,
Asia University, Taichung City 41354, Taiwan

(Received February 2026; accepted August 2026)

Abstract: Grounded in Expectation Confirmation Theory (ECT), this study develops and empirically tests an integrated model explaining customers' continuance intention in the beauty service industry. Extending the traditional confirmation–satisfaction–continuance framework, the model incorporates customer-perceived relationship management (CPRM) and perceived value as relational and evaluative mechanisms linking service confirmation to sustained behavioral intention. Using survey data from 202 beauty service customers and structural equation modeling, the results indicate that service confirmation significantly enhances CPRM, perceived value, and service satisfaction. CPRM and perceived value further influence continuance intention both directly and indirectly through satisfaction. Service satisfaction emerges as a key mediator in translating confirmed service experiences into long-term patronage. By integrating relational and value-based perspectives into ECT, this study provides a comprehensive explanation of customer retention in high-contact service contexts. The findings offer theoretical contributions to service management research and managerial insights for strengthening customer retention strategies in experiential service industries.

Keywords: Beauty service industry, customer-perceived relationship management, expectation confirmation theory, perceived value.

1. Introduction

The beauty service industry has undergone rapid expansion in recent years, driven by rising aesthetic awareness and the growing demand for personalized and experiential consumption [5, 19]. Unlike product-based industries, beauty services are characterized by high levels of interpersonal interaction, customization, and repeated service encounters. As a result, long-term customer retention—rather than one-time transactions—has become the primary source of sustainable profitability. In this context, customers' continuance intention is a critical determinant of business success.

* Corresponding author
Email: shuhuichuang@gmail.com

Beauty services involve emotional engagement, trust, and perceived aesthetic outcomes. Customers evaluate not only technical performance but also relational experiences and perceived value derived from service encounters. Therefore, understanding the mechanisms that foster continuance intention is essential for both theoretical advancement and managerial practice in service management. Expectation Confirmation Theory (ECT) provides a robust framework for explaining post-consumption behavior [25]. According to ECT, customers form expectations prior to service consumption and subsequently compare perceived performance with those expectations. When performance confirms or exceeds expectations, satisfaction increases, which in turn influences continuance intention. Although ECT has been widely applied in consumer behavior and service research [27], its application in high-contact service contexts such as the beauty industry remains limited.

Given the relational nature of beauty services, continuance intention may not be shaped solely by confirmation and satisfaction. Customer-perceived relationship management (CPRM) reflects customers' perceptions of relationship-management efforts that strengthen emotional bonds and reinforce trust through personalized communication and ongoing interaction [1]. Similarly, perceived value—customers' overall assessment of benefits relative to costs—plays a crucial role in shaping satisfaction and repeat patronage [13]. Integrating these relational and value-based constructs into the ECT framework can provide a more comprehensive explanation of sustained service usage.

Accordingly, this study aims to develop and empirically examine an integrated model grounded in ECT to explain continuance intention in the beauty service industry. Specifically, this study seeks to investigate how service confirmation influences customer-perceived relationship management and perceived value, how these factors affect service satisfaction, and how satisfaction ultimately drives continuance intention. By positioning continuance intention as the central outcome, this research highlights the strategic importance of customer retention in high-contact service industries.

This study contributes to service management literature in three ways. First, it extends ECT to a high-contact, experience-oriented service context. Second, it integrates relational mechanisms, namely CPRM, and value-based mechanisms, namely perceived value, into the confirmation–satisfaction–continuance framework. Third, it provides managerial implications for beauty service providers seeking to transform confirmed service experiences into long-term customer relationships. From a service operations perspective, the findings further suggest that increased continuance intention may affect customer revisit frequency, arrival patterns, capacity utilization, waiting time, and potential service system congestion, highlighting the need to align customer retention strategies with operational capacity planning.

2. Theoretical Background

2.1. Expectation confirmation theory

Expectation Confirmation Theory, originally proposed by Oliver [14], explains post-consumption evaluation through a cognitive comparison process. According to ECT, customers form expectations prior to service consumption and subsequently compare perceived

performance with those expectations. When perceived performance meets or exceeds prior expectations, confirmation occurs, leading to satisfaction [15]; when performance falls short, dissatisfaction results. Satisfaction then serves as a key determinant of future behavioral intentions, particularly continuance intention. Because of its strong explanatory power, ECT has been widely applied in consumer behavior and post-adoption research to explain repeated usage decisions [24, 27].

Prior research applying ECT has predominantly focused on technology-related and low-contact service contexts. A substantial body of literature has examined continuance intention in information systems and digital environments, such as online platforms, e-commerce services, and mobile applications [3, 27]. In these contexts, customer evaluation is largely based on system performance, usefulness, and functional outcomes. In addition, ECT has been applied in relatively standardized service settings where interactions are limited and processes are structured, such as online retailing and self-service technologies. While these studies have provided valuable insights into post-adoption behavior, they tend to emphasize cognitive evaluation processes and place less emphasis on interpersonal interaction and relational dynamics. In contrast, high-contact service contexts—such as the beauty service industry—are characterized by intensive interpersonal interaction, emotional engagement, and customized service delivery. In such settings, customer experiences are co-created through direct interaction with service providers, suggesting that post-consumption evaluation may involve not only cognitive confirmation but also relational and experiential considerations. Despite these unique characteristics, limited research has explicitly extended ECT to examine continuance intention in high-contact, experience-based service environments.

Taken together, prior ECT research has largely emphasized cognitive and functional evaluations in technology-mediated or standardized service environments. However, relatively limited attention has been paid to high-contact service contexts, where customer experiences are shaped by interpersonal interaction, emotional engagement, and relational continuity. This gap suggests the need to extend ECT by incorporating additional mechanisms that capture relational and value-based evaluations in such contexts.

Within the ECT framework, this study focuses on three core constructs: service confirmation, service satisfaction, and continuance intention. Service confirmation is defined as customers' cognitive evaluation of the extent to which actual beauty service performance matches or exceeds their prior expectations. Service satisfaction refers to customers' overall affective response resulting from their post-consumption evaluation of the beauty service experience. Continuance intention is defined as customers' willingness and intention to continue using the same beauty service provider in the future. In ECT, service confirmation functions as the antecedent cognitive mechanism, service satisfaction represents the affective response, and continuance intention constitutes the behavioral outcome.

Although ECT traditionally emphasizes the confirmation–satisfaction–continuance sequence, its application in high-contact service contexts such as the beauty industry warrants further elaboration. Beauty services involve interpersonal interaction, emotional engagement, and customized treatment processes, suggesting that confirmation experiences extend beyond functional performance to encompass relational and experiential evaluations.

Grounded in ECT, this study adopts service confirmation, service satisfaction, and continuance intention as the core explanatory chain and further integrates relational and value-based mechanisms to better explain sustained customer retention in the beauty service industry.

In the beauty service context, expectation confirmation is not limited to a simple comparison between expected and actual service performance. Beauty services are high-contact and experience-based services in which customers evaluate treatment outcomes, interpersonal interaction, personalization, trust, and emotional comfort during repeated service encounters. Therefore, confirmation in this context reflects customers' overall judgment of whether the service provider delivers outcomes and experiences consistent with prior expectations. This makes ECT particularly suitable for explaining continuance intention in beauty services, because customers' decisions to revisit are shaped by both confirmed service outcomes and confirmed relational experiences.

2.2. Customer-perceived relationship management

Customer-perceived relationship management (CPRM) refers to customers' perceptions of the extent to which a service provider invests in, maintains, and strengthens relationships with customers. This construct differs from the traditional concept of customer relationship management (CRM), which is commonly conceptualized as a firm-level strategic, organizational, and process-oriented approach to managing customer relationships [16]. This study does not examine CRM as a firm-level information system or organizational strategy; rather, it focuses on customer-perceived relationship management, which captures how customers perceive the provider's relational efforts during service encounters. Traditional CRM literature has emphasized CRM as a managerial and strategic approach to managing customer relationships at the firm level [22]. However, because the present study examines customers' perceptions of relationship-management efforts, the conceptualization and measurement of CPRM draw on customer-level relationship investment and service bond literature rather than firm-level CRM strategy.

The theoretical foundation of CPRM is closely related to the concept of perceived relationship investment. De Wulf, Odekerken-Schröder, and Iacobucci [4] argued that customers evaluate firms' relationship-building efforts based on the extent to which firms appear to invest time, effort, and resources in maintaining customer relationships. From this perspective, relationship management is not only an internal managerial practice but also a customer-perceived relational signal. When customers perceive that a firm makes deliberate efforts to understand their needs, provide personalized treatment, and maintain ongoing interaction, they are more likely to develop favorable relational evaluations.

In service contexts, customer-perceived relationship management is also reflected through service bonds and value-enhancing relational activities. Siu, Zhang, Dong, and Kwan [21] showed that relationship-management practices in service settings can create customer value through relational bonds and interaction-based mechanisms. Such service bonds help customers perceive that the organization values long-term relationships rather than isolated transactions. This perspective is particularly relevant to high-contact services, where customer evaluations are shaped by repeated interpersonal encounters, communication quality, and relational continuity.

In the beauty service industry, CPRM is especially important because service experiences are highly personalized, interaction-intensive, and trust-based. Customers often evaluate whether a beauty service provider remembers their preferences, communicates effectively, provides tailored recommendations, and maintains continuous interaction after service delivery. These customer-perceived relational efforts can strengthen emotional bonds, reduce uncertainty, and enhance customers' confidence in continuing to use the same provider. Accordingly, this study conceptualizes CPRM as a customer-level perceptual construct that captures customers' evaluations of the beauty service provider's relationship-management efforts. Specifically, CPRM reflects customers' perceptions that the provider values long-term relationships, offers personalized services, maintains effective communication, understands customer preferences, and makes continuous efforts to sustain interaction. Within the ECT framework, CPRM functions as a relational mechanism through which service confirmation contributes to satisfaction and continuance intention.

2.3. *Perceived value*

Perceived value has been widely recognized as a central construct in marketing and service management research. Zeithaml [26] conceptualized perceived value as the consumer's overall assessment of the utility of a product or service based on perceptions of what is received versus what is given. In this view, value represents a trade-off between perceived benefits and perceived sacrifices, where benefits may include product and service quality, and sacrifices often involve monetary and non-monetary costs. This conceptualization highlights that value is subjective and determined by customers' comparative evaluation rather than by objective measures alone [7].

Building on Zeithaml [26] definition, perceived value in service contexts is commonly operationalized through core evaluative dimensions that reflect both benefits and costs. In this study, perceived value is measured using three primary criteria: product quality, service quality, and price. Product quality refers to customers' evaluation of the functional effectiveness and outcome performance of beauty treatments. Service quality reflects customers' perceptions of interaction quality, professionalism, responsiveness, and overall service delivery. Price represents the perceived fairness and reasonableness of monetary sacrifice relative to the benefits received. Together, these dimensions capture customers' comprehensive evaluation of whether the beauty service provides value commensurate with its cost.

In the beauty service industry, perceived value plays a crucial role in shaping satisfaction and long-term patronage. Customers assess not only the technical results of treatments but also the overall service experience and price fairness. When customers perceive that high product and service quality justify the price paid, overall value perception increases, which in turn enhances satisfaction and strengthens continuance intention. Within the ECT framework adopted in this study, perceived value functions as a key evaluative mechanism that translates confirmed service experiences into higher satisfaction and sustained service usage. In high-contact service contexts, perceived value plays a distinct role that differs from satisfaction. While satisfaction reflects an affective response to service experiences, perceived value represents a cognitive evaluation of whether the benefits received justify the costs incurred. In beauty services, customers simultaneously evaluate service outcomes,

interaction quality, and price fairness, making value assessment a critical component of post-consumption evaluation. Therefore, incorporating perceived value into the ECT framework enables a more comprehensive understanding of how customers form overall judgments beyond emotional satisfaction.

3. Research Model and Hypotheses

3.1. Research model

Based on ECT, this study develops an integrated research model to explain customers' continuance intention in the beauty service industry. Prior research grounded in ECT has primarily emphasized the sequential relationship among confirmation, satisfaction, and continuance intention [3, 14]. However, in high-contact service contexts, customer evaluations often extend beyond cognitive confirmation to include relational and value-based assessments. Drawing upon the literature on CPRM and perceived value [21], this study incorporates these constructs into the ECT framework to provide a more comprehensive explanation of sustained service usage.

This study positions CPRM and perceived value not merely as context-specific variables, but as complementary mechanisms that extend the traditional ECT framework. Specifically, CPRM represents a relational mechanism capturing customers' perceptions of interaction quality and relationship management, while perceived value reflects a cognitive evaluative mechanism based on benefit–cost trade-offs. By integrating these two constructs, the model moves beyond the traditional confirmation–satisfaction–continuance sequence and provides a more comprehensive explanation of post-consumption evaluation in high-contact service settings.

It is important to clarify the conceptual distinctions among CPRM, perceived value, and service satisfaction within the proposed model. CPRM reflects customers' relational evaluation of how effectively the service provider manages interactions and builds long-term relationships. Perceived value represents a cognitive evaluation of the trade-off between perceived benefits and costs. In contrast, service satisfaction is an affective response resulting from customers' overall evaluation of their service experience. These distinctions can be understood within a broader cognitive–relational–affective framework. Specifically, perceived value captures customers' cognitive assessment, CPRM captures relational perceptions developed through interaction experiences, and service satisfaction represents the affective outcome of these evaluations. Therefore, CPRM and perceived value are conceptually distinct antecedents that shape satisfaction, rather than overlapping constructs. This theoretical clarification complements the empirical evidence of discriminant validity and provides a stronger foundation for the proposed model.

Guided by ECT, service confirmation is positioned as the primary cognitive antecedent in the model. When customers perceive that actual beauty service performance meets or exceeds their expectations, positive confirmation occurs [8]. This confirmation is expected to enhance perceived value and strengthen customers' perceptions of the provider's relationship-management efforts. From a theoretical perspective, confirmation serves as a cognitive signal that shapes subsequent customer evaluations. Prior research suggests that when

performance meets or exceeds expectations, customers are more likely to attribute this outcome to the firm's competence and effectiveness in managing service delivery and interactions. As a result, confirmation can enhance customers' perceptions of relational quality and interaction management, which are reflected in perceived CPRM. Similarly, confirmation influences perceived value by reinforcing the perception that the benefits received justify the costs incurred. When customers experience positive confirmation, they are more likely to perceive that service quality and outcomes exceed expectations relative to the price paid, thereby strengthening value perceptions. This mechanism is consistent with value-based adoption and expectation-confirmation integration studies, which demonstrate that confirmation positively influences value-related evaluations.

In turn, CPRM and perceived value contribute to higher levels of service satisfaction. Service satisfaction, consistent with ECT, functions as the key affective mechanism that drives continuance intention. Thus, the model proposes a confirmation–evaluation–satisfaction–continuance sequence within a relational service context.

The proposed research model therefore consists of five core constructs: service confirmation, customer-perceived relationship management, perceived value, service satisfaction, and continuance intention. Service confirmation serves as the foundational cognitive evaluation; CPRM and perceived value operate as relational and evaluative mechanisms; service satisfaction represents the affective outcome; and continuance intention constitutes the ultimate behavioral consequence. By integrating relational and value-based constructs into the traditional ECT framework, this study advances a comprehensive model for explaining long-term customer retention in the beauty service industry. This integrated framework is particularly suitable for the beauty service industry. Unlike low-contact or technology-mediated services, beauty services involve repeated face-to-face interactions, personalized treatment processes, and high levels of trust and emotional involvement. In such contexts, customer evaluations are not solely based on service performance confirmation, but also on relational experiences and perceived value. Therefore, incorporating CPRM and perceived value allows the model to better capture the unique characteristics of high-contact, experience-based services.

3.2. Hypotheses

3.2.1. Confirmation-driven mechanism

ECT has traditionally explained post-consumption behavior through a cognitive–affective sequence in which confirmation influences satisfaction, and satisfaction subsequently determines continuance intention [3, 14]. Although this framework has been widely validated, most prior research emphasizes the direct confirmation–satisfaction linkage and pays limited attention to other evaluative mechanisms that may be activated by confirmation experiences, particularly in high-contact service contexts.

This study adopts ECT as its theoretical foundation and extends it by proposing that service confirmation not only enhances satisfaction but also shapes customers' relational and value-based evaluations. In relational service industries such as the beauty sector, confirmation may function as a broader cognitive signal. When customers perceive that service performance meets or exceeds their expectations, they are likely to infer that the service provider has invested effort in understanding their needs and maintaining the relationship. Consequently, confirmation strengthens customers' perceptions of customer-perceived

relationship management [22]. At the same time, confirmation influences perceived value [11] by reinforcing the perception that the benefits received—such as product quality and service quality—justify the price paid. Thus, confirmation may simultaneously affect relational perception (CPRM), evaluative judgment (perceived value), and affective response (service satisfaction).

By incorporating CPRM and perceived value into the ECT framework, this study proposes a confirmation-driven mechanism that better reflects the complexity of post-consumption evaluation in experiential services. Rather than altering the core structure of ECT, this study provides contextual enrichment by demonstrating that confirmation can exert multiple downstream effects in high-contact beauty services. This extension contributes to service management literature by offering a more comprehensive explanation of how confirmed service experiences translate into sustained customer relationships. Accordingly, the following hypotheses are proposed:

H1: Service confirmation is positively related to customer-perceived relationship management.

H2: Service confirmation is positively related to perceived value.

H3: Service confirmation is positively related to service satisfaction.

3.2.2. Relational and value-based mechanisms toward continuance intention

While service confirmation initiates customers' post-consumption evaluation, the transformation of confirmed experiences into long-term behavioral outcomes depends on subsequent relational and value-based mechanisms. In high-contact service industries such as the beauty sector, customer retention is not driven solely by cognitive comparison processes but also by the quality of relationship management and the perceived value derived from service encounters. Accordingly, this study extends the ECT framework by examining how CPRM and perceived value shape service satisfaction and continuance intention.

First, CPRM plays a critical role in fostering customer satisfaction [18, 21]. Customer-perceived relationship management efforts—such as personalized recommendations, effective communication, preference understanding, and follow-up interaction—enhance customers' perception that the service provider values and understands them. Such relational efforts strengthen emotional bonds, increase trust, and reduce perceived uncertainty in future service encounters [22]. When customers perceive that interactions are systematically managed and tailored to their preferences, they are more likely to experience higher satisfaction. Therefore, CPRM functions as a relational driver of service satisfaction.

Beyond its influence on satisfaction, CPRM may also directly enhance continuance intention. In relational service contexts [6], customers often remain loyal not only because they are satisfied but also because of established interpersonal relationships and relational switching costs. Strong relationship management fosters trust, familiarity, and emotional attachment, which reduce customers' motivation to search for alternative providers. Particularly in beauty services—where trust in service providers is crucial—effective CPRM may directly reinforce customers' intention to continue using the same service provider.

Second, perceived value represents customers' overall evaluation of benefits relative to costs [12]. When customers perceive that product quality and service quality justify the price

paid, their overall evaluation of the service becomes favorable. Higher perceived value enhances positive emotional responses, thereby increasing service satisfaction [13]. Moreover, customers who perceive superior value are more likely to believe that continuing the relationship will yield consistent benefits. Thus, perceived value not only influences satisfaction but may also directly encourage continuance intention by reinforcing the attractiveness of maintaining the relationship.

Finally, consistent with the core logic of ECT, service satisfaction serves as the most immediate affective determinant of continuance intention [12, 23, 27]. Satisfaction reflects customers' overall emotional response to their service experience and reinforces confidence in their choice. Numerous studies have demonstrated that satisfied customers exhibit stronger repurchase and continuance intentions because satisfaction reduces perceived risk and enhances commitment [3, 25, 27]. In the beauty industry, where service outcomes are experiential and personalized, satisfied customers are more likely to revisit the same provider to ensure consistent results.

Integrating these relational and value-based mechanisms, this study proposes that CPRM and perceived value influence continuance intention both directly and indirectly through service satisfaction. Accordingly, the following hypotheses are proposed:

H4: Customer-perceived relationship management is positively related to service satisfaction.

H5: Perceived value is positively related to service satisfaction.

H6: Customer-perceived relationship management is positively related to continuance intention.

H7: Perceived value is positively related to continuance intention.

H8: Service satisfaction is positively related to continuance intention.

Based on the above theoretical reasoning and hypotheses, the proposed research model is presented in Figure 1.

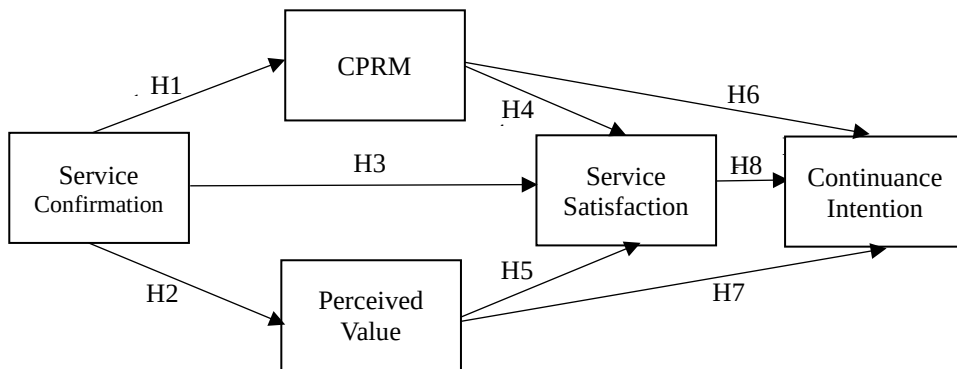


Figure 1. Research model.

4. Methods

This study adopts a quantitative research design to empirically examine the proposed research model grounded in ECT. A survey method was employed to collect data from customers who have experience using beauty services. The survey approach is appropriate

because the constructs examined in this study—such as service confirmation, CPRM, perceived value, service satisfaction, and continuance intention—are perceptual in nature and require direct responses from customers.

4.1. Measurement of constructs

All constructs in this study were measured using multi-item scales adapted from prior validated literature to ensure content validity. All items were measured on a seven-point Likert scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”).

Service confirmation was measured based on the ECT framework [3, 14], capturing customers’ perceptions of the extent to which actual beauty service performance met or exceeded prior expectations. Customer-perceived relationship management (CPRM) was measured by adapting customer-level relationship-management and perceived relationship-investment measures from Siu et al. [21] and De Wulf et al. [4]. The items capture customers’ perceptions of the extent to which the beauty service provider values long-term relationships, provides personalized services, maintains effective communication, understands customer preferences, and makes continuous efforts to sustain interaction. This operationalization is consistent with the customer-perceived nature of the construct and with the service-context focus of the present study. Perceived value was measured following Zeithaml [26], operationalized through three dimensions: product quality, service quality, and price fairness. These dimensions collectively capture customers’ evaluation of the trade-off between perceived benefits and sacrifices. Service satisfaction was measured as customers’ overall affective response to their beauty service experience [3]. Continuance intention was measured as customers’ intention to continue using the same beauty service provider in the future [3].

To fit the context of the beauty service industry, the original measurement items were slightly reworded by adjusting terminology (e.g., replacing general service descriptions with “beauty service” or “beauty salon”), while preserving the original conceptual meanings. To ensure the appropriateness and clarity of the adapted items, the questionnaire was reviewed by academic experts in service management and practitioners in the beauty service industry. Their feedback was used to refine item wording and ensure content validity. In addition, a pilot test was conducted with a small group of respondents who had prior experience with beauty services. The purpose of the pilot test was to assess the clarity, readability, and contextual relevance of the measurement items. Based on the feedback, minor revisions were made before the final survey was administered.

4.2. Data collection

Data were collected from customers of beauty service providers through both online and paper-based surveys. The online survey was distributed via social media platforms (e.g., Facebook, Instagram, and LINE groups) and online communities related to beauty and skincare, allowing the study to reach a diverse group of respondents with prior beauty service experience. Paper-based questionnaires were administered at physical beauty service locations, including beauty salons and skincare centers, where customers were approached after receiving services and invited to participate voluntarily. This mixed-mode data collection approach helped enhance sample diversity and reduce sampling bias.

No monetary incentives were provided to participants. Respondents were informed that participation was voluntary and anonymous, and that the data would be used solely for academic research purposes. All respondents were required to have prior experience with beauty services (e.g., skincare treatments, facial care, aesthetic treatments, or related procedures), ensuring that they were able to provide informed evaluations of service confirmation, CPRM practices, perceived value, and satisfaction.

The survey was administered over a two-month period. Prior to formal data collection, the questionnaire was pre-tested with a small group of respondents to ensure clarity and appropriateness of the items. After eliminating incomplete and invalid responses, a total of 202 usable questionnaires were retained for analysis, yielding an effective response rate of 87.8% from the 230 distributed questionnaires. The final sample size exceeds the recommended threshold for structural equation modeling, ensuring adequate statistical power.

The demographic characteristics of the respondents are presented in Table 1, including gender, age, education level, marital status, occupation, and income. The sample includes a higher proportion of female respondents, with 162 female respondents accounting for 80.2% of the sample and 40 male respondents accounting for 19.8%. This gender distribution is consistent with the customer profile commonly observed in the beauty service industry and supports the relevance of the sample to the research context.

4.3. Response-mode bias and common method variance

To assess potential response-mode bias, online and paper-based respondents were compared on key demographic variables and construct means. No significant differences were found, suggesting that the mixed-mode data collection procedure was unlikely to bias the results [2]. Because data for all constructs were collected from the same respondents at a single point in time, common method variance was assessed. Procedural remedies were implemented, including assuring respondent anonymity and separating predictor and criterion variables within the questionnaire. In addition, Harman's single-factor test was conducted as a diagnostic test for common method bias [17]. An unrotated principal components factor analysis of all constructs used in this study revealed five factors with eigenvalues greater than 1.0, collectively accounting for 71% of the total variance. The results indicated that no single factor accounted for the majority of variance, suggesting that common method bias was not a serious concern in this study.

5. Analysis and Results

This study employed structural equation modeling (SEM) to examine the proposed research model. The data analysis proceeded in two stages. First, the measurement model was assessed to evaluate reliability and validity. Second, the structural model was tested to examine the hypothesized relationships. This study employs Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS to analyze the proposed research model. PLS-SEM is particularly suitable for prediction-oriented research and focuses on maximizing the explained variance of endogenous constructs.

Table 1. Demographic characteristics of the respondents (N=202)

Variable	Category	Frequency(n)	Percentage(%)
Gender	Male	40	19.8
	Female	162	80.2
Age	18 and below	5	2.5
	19~25	39	19.3
	26~30	30	14.9
	30~39	30	14.9
	40~49	47	23.3
	50~59	40	19.8
	60 and above	11	5.4
Education Level	Junior High School or below	4	2.0
	Senior High School	36	17.8
	University	119	58.9
	Master's Degree or above	43	21.3
Marital Status	Unmarried	92	45.5
	Married	110	54.5
Occupation	Student	10	5.0
	General Industry & Commerce	100	49.5
	Military, Public, or Teaching	7	3.5
	Freelance	30	14.9
	Unemployed / Homemaker	22	10.9
	Retired	6	3.0
	Others	25	13.2
Monthly In- come(NTD)	Below NT\$9,999	15	7.4
	\$10,000~19,999	4	2.0
	\$20,000 ~29,999	16	7.9
	\$30,000 ~39,999	51	25.5
	\$40,000~49,999	32	15.8
	\$50,000 ~59,999	29	14.4
	\$60,000 ~69,999	22	10.9
	\$70,000 ~79,999	8	4.0
	\$80,000 and above	25	12.4

Table 2. Standardized factor loading, CR, and AVE.

Construct	Indicator	Mean	Standard Deviation	Factor Loading	Composite Reliability	Average Variance Extracted
Service Confirmation	SC1	5.70	1.289	0.681	0.933	0.704
	SC2	6.48	0.978	0.885		
	SC3	6.52	0.893	0.902		
	SC4	6.64	0.853	0.914		
	SC5	6.64	0.859	0.851		
	SC6	6.58	0.844	0.855		
CPRM	CPRM1	6.18	1.138	0.831	0.887	0.613
	CPRM2	6.03	1.325	0.778		
	CPRM3	6.10	1.074	0.807		
	CPRM4	5.99	1.349	0.827		
	CPRM5	5.30	1.621	0.659		
Perceived Value	PV1	6.21	1.100	0.751	0.928	0.722
	PV2	6.51	0.932	0.873		
	PV3	6.46	0.931	0.846		
	PV4	6.36	0.979	0.893		
	PV5	6.33	0.943	0.879		
Service Satisfaction	SS1	6.59	0.855	0.889	0.956	0.758
	SS2	6.50	0.916	0.872		
	SS3	6.46	0.909	0.846		
	SS4	6.67	0.755	0.886		
	SS5	6.64	0.812	0.892		
	SS6	6.65	0.791	0.883		
	SS7	6.70	0.655	0.822		
Continuance Intention	CI1	6.46	0.858	0.907	0.964	0.872
	CI2	6.38	0.885	0.954		
	CI3	6.41	0.884	0.955		
	CI4	6.36	0.926	0.918		

5.1. Measurement model

Table 2 presents the standardized loading results and other metrics for the item measures, as well as the reliability and validity measures. Internal consistency reliability was evaluated using composite reliability (CR). All constructs demonstrated composite reliability values ranging from 0.887 to 0.964, exceeding the recommended threshold of 0.70 suggested by Segars [20], thereby indicating satisfactory internal consistency. In addition, all

standardized factor loadings were significant and ranged from 0.659 to 0.955, surpassing the acceptable level of 0.60. These results confirm the adequacy of the measurement items and support their suitability for subsequent analysis. The Average Variance Extracted (AVE) values for all constructs exceeded the recommended threshold of 0.50, indicating that each construct explained more than half of the variance of its indicators.

Because all measurement items in this study were adapted from previously validated scales, the factor structure of the constructs was theoretically established. Therefore, this study employs confirmatory factor analysis (CFA) rather than exploratory factor analysis (EFA). CFA is appropriate for testing whether the observed data fit the hypothesized measurement model, whereas EFA is typically used when the underlying factor structure is unknown. This approach is consistent with prior SEM-based studies that employ CFA for theory testing rather than EFA for construct exploration.

Table 3 shows the discriminant validity of the measurements. The square root of AVE for each construct was greater than its correlations with other constructs, demonstrating satisfactory discriminant validity. Overall, the measurement model exhibited adequate reliability and validity.

Table 3. Discriminant validity.

	1	2	3	4	5
1.Continuanace Intention	0.934				
2.Service Satisfaction	0.687	0.870			
3.Service Confirmation	0.571	0.821	0.839		
4.Perceived Value	0.672	0.765	0.690	0.839	
5.CPRM	0.564	0.678	0.650	0.652	0.783
Notes: Diagonals represent the square root of average variance extracted, while the other matrix entries represent the correlations.					

In addition to the Fornell–Larcker criterion, this study further assessed discriminant validity using the Heterotrait–Monotrait (HTMT) ratio. The original HTMT values were below the commonly accepted threshold of 0.90, suggesting acceptable discriminant validity among the constructs. However, because the HTMT value between service confirmation and service satisfaction was relatively high (0.882) and its bootstrap confidence interval approached or exceeded the threshold, this distinction should be interpreted with caution. This result is theoretically understandable because ECT positions confirmation as a direct antecedent of satisfaction. Future studies may further refine the measurement items to strengthen the empirical separation between these two constructs (see Table 4).

5.2. Structural model

Figure 2 presents the structural paths and their corresponding levels of significance for the hypothesis testing results. After confirming the adequacy of the measurement model, the structural model was tested to examine the hypothesized relationships among service confirmation, CPRM, perceived value, service satisfaction, and continuance intention.

Table 4. HTMT ratios

	Original sample	Sample mean	2.5%	97.5%
Continuance intention <-> Service satisfaction	0.724	0.728	0.627	0.820
Continuance intention <-> Perceived value	0.725	0.727	0.618	0.818
Continuance intention <-> CPRM	0.620	0.621	0.499	0.724
Continuance intention <-> Service confirmation	0.616	0.619	0.485	0.734
Service satisfaction <-> CPRM	0.828	0.819	0.688	0.915
Service satisfaction <-> Perceived value	0.729	0.723	0.587	0.824
Service satisfaction <-> Service confirmation	0.882	0.873	0.737	0.956
Perceived value <-> CPRM	0.730	0.728	0.588	0.840
Perceived value <-> Service confirmation	0.767	0.753	0.579	0.883
CPRM <-> Service confirmation	0.713	0.706	0.549	0.822

The results indicate that service confirmation has significant positive effects on CPRM ($\beta = 0.650$, $t = 8.963$, $p < .001$), perceived value ($\beta = 0.690$, $t = 8.231$, $p < .001$), and service satisfaction ($\beta = 0.508$, $t = 13.125$, $p < .001$), thereby supporting H1, H2, and H3. These findings support the proposed confirmation-driven mechanism, suggesting that confirmation not only influences satisfaction but also shapes relational and value-based evaluations. CPRM was found to have significant positive effects on service satisfaction ($\beta = 0.134$, $t = 1.993$, $p < .05$) and continuance intention ($\beta = 0.105$, $t = 2.057$, $p < .05$), supporting H4 and H6. These findings suggest that effective relationship management enhances both affective responses and long-term behavioral intentions. Perceived value also exerted significant positive effects on service satisfaction ($\beta = 0.328$, $t = 3.416$, $p < .01$) and continuance intention ($\beta = 0.319$, $t = 4.425$, $p < .01$), thereby supporting H5 and H7. Customers who perceive higher benefits relative to price are more likely to experience satisfaction and sustain long-term relationships. Consistent with Expectation Confirmation Theory, service satisfaction demonstrated a significant positive effect on continuance intention ($\beta = 0.372$, $t = 2.926$, $p < .01$), supporting H8. Satisfaction emerged as the most direct affective determinant of customers' intention to continue using beauty services.

The overall model demonstrated satisfactory explanatory power. The R^2 value for service satisfaction was 0.758, indicating that 75.8% of its variance was explained by service confirmation, CPRM, and perceived value. In addition, the model accounted for 52.8% of the variance in continuance intention ($R^2 = 0.528$). Service confirmation explained 42.3% of the variance in CPRM ($R^2 = 0.423$) and 47.6% of the variance in perceived value ($R^2 = 0.476$). Overall, these results suggest that the proposed model exhibits substantial explanatory capability.

In addition, demographic variables, including gender, age, and monthly income, were included as control variables in the structural model to assess the robustness of the

hypothesized relationships. The results showed that the inclusion of these control variables did not substantively change the magnitude or significance of the hypothesized paths. For service satisfaction, the effects of gender ($\beta = 0.013$, $t = 0.303$, $p > .05$), age ($\beta = -0.012$, $t = 0.732$, $p > .05$), and monthly income ($\beta = 0.040$, $t = 0.285$, $p > .05$) were not significant. For continuance intention, the effects of gender ($\beta = -0.026$, $t = 0.850$, $p > .05$), age ($\beta = 0.041$, $t = 0.442$, $p > .05$), and monthly income ($\beta = 0.017$, $t = 0.735$, $p > .05$) were also not significant. These results indicate that the main structural relationships remained robust after accounting for demographic characteristics.

To further examine the mediating role of service satisfaction, this study conducted mediation analysis using a bias-corrected bootstrapping approach with 5,000 resamples. The results indicate that the indirect effect of customer-perceived relationship management on continuance intention through service satisfaction was significant ($\beta = 0.050$, $p < .05$, 95% BC bootstrap CI = [0.008, 0.103]). Similarly, the indirect effect of perceived value on continuance intention through service satisfaction was also significant ($\beta = 0.122$, $p < .05$, 95% BC bootstrap CI = [0.044, 0.219]). Because neither confidence interval included zero, the results confirm the presence of significant mediation effects. These findings provide empirical support for the mediating role of service satisfaction, indicating that CPRM and perceived value influence continuance intention both directly and indirectly through satisfaction.

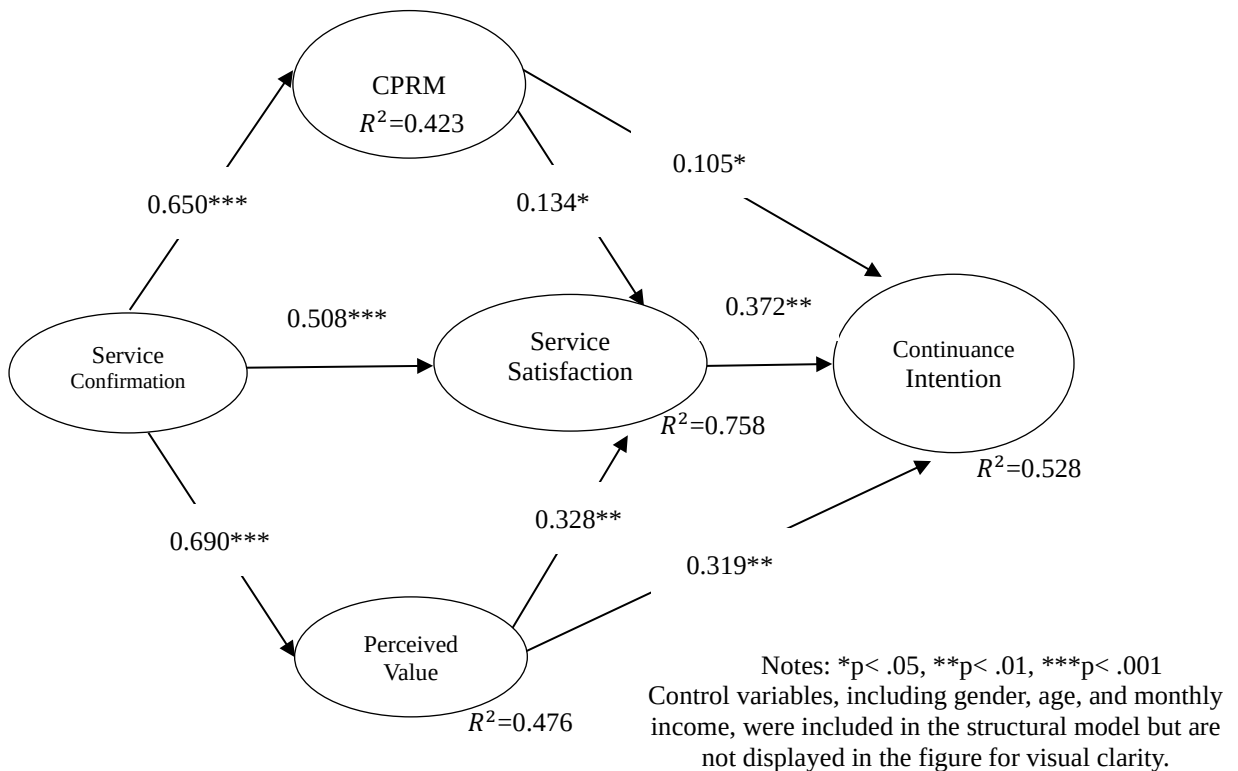


Figure 2. Results of hypothesis analysis.

6. Discussion

Beyond statistical significance, it is important to compare the relative strength of the structural relationships to better understand the underlying mechanisms. Among the antecedents of service satisfaction, perceived value ($\beta = 0.328$) exhibits a stronger effect than CPRM ($\beta = 0.134$), suggesting that customers' cognitive evaluation of value plays a more prominent role than relational perceptions in shaping satisfaction in the beauty service context. Similarly, when examining continuance intention, perceived value ($\beta = 0.319$) has a stronger direct effect than CPRM ($\beta = 0.105$), indicating that value-based considerations are more influential than relational factors in driving customers' intention to revisit. This finding highlights the importance of delivering superior value in addition to maintaining customer relationships. Regarding the effects of service confirmation, its impact on perceived value ($\beta = 0.690$) is slightly stronger than its effect on CPRM ($\beta = 0.650$), suggesting that confirmation primarily enhances customers' value perceptions, while also strengthening relational evaluations. Moreover, service confirmation exerts a substantial effect on satisfaction ($\beta = 0.508$), reinforcing its central role within the ECT framework. These comparisons suggest that value-based mechanisms play a relatively stronger role than relational mechanisms in influencing both satisfaction and continuance intention, although both are important components of the extended ECT model.

First, the findings confirm that service confirmation significantly influences service satisfaction. This result is consistent with the core logic of ECT [14] and subsequent extensions such as Bhattacharjee [3] expectation confirmation model, which emphasize confirmation as the primary antecedent of satisfaction in post-consumption contexts. Similar findings have been reported across diverse service settings, including information systems, online services, and experiential consumption contexts. The present study extends these findings to the beauty service industry, demonstrating that confirmation remains a robust predictor of satisfaction in high-contact, relational service environments.

Beyond its direct effect on satisfaction, service confirmation was also found to significantly influence CPRM and perceived value. Although prior ECT research has primarily focused on the confirmation–satisfaction linkage, emerging service literature suggests that confirmed performance can reinforce relational perceptions and value evaluations [11]. The present findings align with service management research [9], which indicates that consistent performance enhances customers' satisfaction and perceptions of relational competence. Likewise, value-based research grounded in Zeithaml [26] suggests that when performance meets or exceeds expectations, customers perceive a more favorable benefit–cost trade-off. Thus, the results are theoretically consistent with both relational marketing and perceived value literature.

Second, CPRM was found to positively influence both service satisfaction and continuance intention. These findings are consistent with prior CPRM and service management studies [10], which demonstrate that effective relationship management strengthens emotional bonds, enhances trust, and fosters long-term loyalty. Previous empirical studies have shown that systematic interaction management and personalization strategies contribute to customer satisfaction and repurchase intention [1]. The present study confirms these established relationships within the beauty service context, where interpersonal trust and repeated

interaction are particularly salient.

Third, perceived value significantly influenced both service satisfaction and continuance intention. This result aligns with extensive prior research demonstrating that customers who perceive superior value are more likely to experience satisfaction and maintain ongoing relationships [13]. Consistent with Zeithaml [26] conceptualization and subsequent empirical studies, perceived value serves as a critical evaluative mechanism linking service quality and pricing perceptions to behavioral outcomes. The findings reinforce the view that value perception plays a central role in retention decisions across service industries.

Finally, service satisfaction exhibited a strong positive effect on continuance intention. This finding is highly consistent with both ECT and broader service management literature [9], which consistently identifies satisfaction as one of the most reliable predictors of repurchase and continuance behavior. Numerous studies across hospitality, retail, and service sectors have reported similar effects [8, 25]. The present results further confirm that in experiential services such as beauty treatments, satisfaction remains a fundamental driver of sustained customer patronage.

7. Conclusion

This study developed and empirically tested an extended ECT model to explain continuance intention in the beauty service industry. Based on 202 valid responses, the findings confirm that service confirmation influences CPRM, perceived value, and service satisfaction, which in turn affect continuance intention. All proposed hypotheses were supported. By integrating relational and value-based constructs into the ECT framework, this study provides a more comprehensive explanation of customer retention in high-contact service contexts. The findings emphasize that continuance intention is shaped not only by satisfaction but also by relational management and value perception mechanisms.

Beyond the confirmation of the proposed hypotheses, these findings suggest that customer retention in beauty services should be understood as a combined outcome of confirmed service experiences, relational perceptions, value evaluation, and satisfaction. This implication is particularly relevant to high-contact experiential services, where customers' revisit decisions are shaped not only by service outcomes but also by interpersonal interaction and perceived value. Given that female respondents account for 80.2% of the sample, the findings are more consistent with the beauty service context. Nevertheless, the conclusions should be interpreted within the present empirical setting, and future studies may further validate the model across different customer groups and service contexts.

7.1. Theoretical implications

This study extends ECT to a high-contact service context by integrating CPRM and perceived value into the confirmation–satisfaction–continuance framework, thereby enhancing understanding of customer retention in experiential service industries. This study offers several important theoretical implications for service management research.

This study extends the application of ECT to a high-contact, experiential service context. Although ECT has been widely applied in information systems, online services, and post-adoption behavior research, relatively limited attention has been given to relational service

industries characterized by intensive interpersonal interaction. By empirically validating the confirmation–satisfaction–continuance sequence within the beauty service industry, this study strengthens the external validity of ECT and demonstrates its applicability beyond technology-oriented settings.

This study enriches the ECT framework by incorporating CPRM and perceived value as additional downstream mechanisms influenced by service confirmation. Traditional ECT research primarily emphasizes the direct effect of confirmation on satisfaction. In contrast, the present study shows that confirmation may simultaneously shape relational perception (e.g., CPRM) and evaluative judgment (e.g., perceived value). This finding suggests that confirmation functions as a broader cognitive trigger that influences multiple post-consumption evaluations. By integrating relational and value-based constructs into the ECT model, this study provides a more comprehensive understanding of how confirmed service experiences are translated into sustained behavioral intention.

This study contributes to CPRM and perceived value literature by embedding these constructs within a post-consumption evaluation framework. Rather than treating CPRM solely as an organizational capability or managerial strategy, this research conceptualizes CPRM as a customer-perceived relational outcome shaped by confirmation experiences. Similarly, perceived value is positioned not only as an independent predictor of satisfaction but also as an evaluative consequence of confirmation. This theoretical positioning clarifies the causal sequence among confirmation, relational perception, value assessment, and behavioral intention.

Finally, by empirically examining the integrated model within the beauty service industry, this study contributes contextual insights to service management research. Beauty services represent a high-contact, trust-based, and experience-driven sector in which relational continuity is critical. The findings demonstrate that the confirmation-driven mechanism operates effectively in such relational contexts, thereby expanding theoretical understanding of customer retention in experiential service industries.

7.2. Managerial implications

The findings provide context-specific managerial implications for beauty service providers. Given the cross-sectional design and the specific empirical context of this study, these implications should be interpreted with caution rather than as universally generalizable prescriptions. Within the present research context, the results suggest that beauty service providers may improve customer retention by managing service expectations, strengthening customer-perceived relationship management, enhancing perceived value, and improving satisfaction.

From the customer perspective, the findings highlight the importance of expectation management, relational interaction, and value perception in shaping continuance intention. Beauty service providers should clearly communicate service procedures, expected outcomes, and pricing information to minimize uncertainty and prevent expectation gaps. In addition, personalized interactions and post-service follow-up can strengthen trust and emotional bonds. When customers perceive that service performance meets or exceeds expectations and delivers fair value, their satisfaction and long-term engagement are significantly

enhanced.

For managers, the results underscore the strategic role of systematic relationship-management efforts and service consistency. Establishing comprehensive customer databases, tracking service history, and understanding individual preferences enable more effective personalization. Combining standardized service procedures with flexible adjustments helps ensure both service quality and responsiveness to individual needs. Moreover, regular feedback collection and effective service recovery mechanisms are essential for preventing customer attrition and reinforcing relationship commitment.

At the organizational level, the study suggests that strengthening service confirmation, relational quality, and perceived value can enhance customer retention and long-term profitability. A stable customer base contributes to higher customer lifetime value and reduces acquisition costs and demand volatility. Therefore, firms should integrate relationship-management efforts and value creation into their core strategic framework, positioning relationship management and customer satisfaction as key drivers of sustainable competitive advantage in experiential service industries.

From a service operations perspective, the findings of this study also have implications beyond customer behavior. In high-contact service settings such as beauty services, increases in continuance intention may translate into higher customer return rates and more stable demand patterns. As a result, firms may experience changes in customer arrival rates, which can influence service system performance, including capacity utilization, waiting time, and queue length. For example, improvements in service confirmation, CPRM, and perceived value may increase customer retention, leading to higher revisit frequency. While this enhances revenue stability, it may also create potential service congestion if capacity is not adjusted accordingly. Therefore, managers should consider aligning customer retention strategies with service capacity planning to maintain service quality and avoid excessive waiting time. Future research could extend this study by employing simulation or queueing models to examine how changes in continuance intention propagate to operational outcomes under different service capacity scenarios. Such an approach would provide a more comprehensive understanding of the interplay between customer behavior and service system performance.

7.3. Limitations and future research directions

Despite its contributions, this study has several limitations that should be acknowledged. The data were collected using a cross-sectional design, which limits the ability to infer causal relationships among the constructs. Future research may adopt longitudinal designs to examine how service confirmation, customer-perceived relationship management, perceived value, satisfaction, and continuance intention evolve over time.

All variables were measured using self-reported data collected at a single point in time, which may raise concerns regarding common method bias. Although procedural and statistical remedies were applied, future studies may incorporate multi-source data, experimental designs, or additional mediating and moderating variables, such as switching costs, service involvement, brand image, or emotional attachment, to enhance methodological rigor and refine the proposed model.

Future research may further validate the proposed model using samples from different regions, service categories, and customer groups to enhance the generalizability of the findings.

References

- [1] Agarwal, R., Badghish, S., Yaqub, M. Z., & Pandey, R. (2025). Customer engagement through metaverse-empowered retail channels: role of personalization. *International Journal of Retail & Distribution Management*, 53(6), 467-484.
doi:<https://doi.org/10.1108/IJRDM-07-2024-0344>
- [2] Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research*, 14(3), 396-402.
- [3] Bhattacharjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly*, 25(3), 351-370.
doi:<https://doi.org/10.2307/3250921>
- [4] De Wulf, K., Odekerken-Schröder, G., & Iacobucci, D. (2001). Investments in consumer relationships: A cross-country and cross-industry exploration. *Journal of Marketing*, 65(4), 33–50.
- [5] Djafarova, E., & Davies, J. (2025). Exploring the impact of virtual vs human influencers on purchase intentions in fashion/beauty industry. *Journal of Digital Economy*. doi:<https://doi.org/10.1016/j.jdec.2025.11.001>
- [6] Gao, L., Melero-Polo, I., Ruz-Mendoza, M. Á., & Trifu, A. (2021). Exploring the role of service touchpoints on the path to financial, behavioral and relational customer outcomes: insights from a B2B service context. *Journal of Business & Industrial Marketing*, 37(11), 2260-2277. doi:<https://doi.org/10.1108/JBIM-02-2021-0100>
- [7] Jang, Y., & Min, K. S. (2025). Who wins the value game? Understanding the perceived value of leading quick-service restaurants and its impact on purchase intentions. *British Food Journal*, 128(2), 755-773. doi:<https://doi.org/10.1108/BFJ-07-2025-0934>
- [8] Jiang, P., Zhu, Z., Zhou, P., & Li, W. (2024). The unexpected sales boost of the rating gap and review gap for hotels: An expectation confirmation perspective. *International Journal of Hospitality Management*, 123, 103940.
doi:<https://doi.org/10.1016/j.ijhm.2024.103940>
- [9] Köcher, S., Köcher, S., Chatterjee, R., & Shukla, Y. (2025). Something old and something new: a replication and extension of the disconfirmation model of consumers' response to service failure and recovery in the contemporary servicescape. *Journal of Service Management*, 36(5), 711-727.
doi:<https://doi.org/10.1108/JOSM-02-2025-0063>
- [10] Ledro, C., Nosella, A., & Dalla Pozza, I. (2026). Unlocking the power of artificial intelligence in customer relationship management: a comprehensive analysis of critical success factors. *Journal of Retailing and Consumer Services*, 91, 104754.
doi:<https://doi.org/10.1016/j.jretconser.2026.104754>

- [11] Lin, T.-C., Wu, S., Hsu, J. S.-C., & Chou, Y.-C. (2012). The integration of value-based adoption and expectation–confirmation models: An example of IPTV continuance intention. *Decision Support Systems*, 54(1), 63-75.
doi:<https://doi.org/10.1016/j.dss.2012.04.004>
- [12] Liu, D., Son, S., & Zhu, Y. (2026). From perceived value to customer loyalty behavioral intentions: a social exchange theory perspective on value-based selling. *Journal of Business & Industrial Marketing*, 41(3), 413-428.
doi:<https://doi.org/10.1108/JBIM-01-2025-0007>
- [13] Monfort, A., López-Vázquez, B., & Sebastián-Morillas, A. (2025). Building trust in sustainable brands: Revisiting perceived value, satisfaction, customer service, and brand image. *Sustainable Technology and Entrepreneurship*, 4(3), 100105.
doi:<https://doi.org/10.1016/j.stae.2025.100105>
- [14] Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. *Journal of Marketing Research*, 17(4), 460-469.
doi:<https://doi.org/10.2307/3150499>
- [15] Parasuraman, A. P., Zeithaml, V. A., & Berry, L. L. (1985). A conceptual model of service quality and its implication for future research (SERVQUAL). *Journal of Marketing*, 49, 41-50. doi:<https://doi.org/10.2307/1251430>
- [16] Payne, A., & Frow, P. (2005). A strategic framework for customer relationship management. *Journal of Marketing*, 69(4), 167–176.
- [17] Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903.
- [18] Reinartz, W. J. (2026). Customer relationship management: Past, present, and future. *International Journal of Research in Marketing*, 43(1), 8-27.
doi:<https://doi.org/10.1016/j.ijresmar.2025.12.001>
- [19] Sedita, S. R., Belussi, F., Noni, I. D., & Apa, R. (2022). The technological acquisitions paradox in the beauty industry. *European Journal of Innovation Management*, 25(6), 393-412. doi:<https://doi.org/10.1108/EJIM-05-2021-0235>
- [20] Segars, A. H. (1997). Assessing the unidimensionality of measurement: a paradigm and illustration within the context of information systems research. *Omega*, 25(1), 107-121.
- [21] Siu, N. Y.-M., Zhang, T. J.-F., Dong, P., & Kwan, H.-Y. (2013). New service bonds and customer value in customer relationship management: The case of museum visitors. *Tourism Management*, 36, 293-303.
doi:<https://doi.org/10.1016/j.tourman.2012.12.001>
- [22] Stone, M., Woodcock, N., & Wilson, M. (1996). Managing the change from marketing planning to customer relationship management. *Long Range Planning*, 29(5), 675-683.
doi:[https://doi.org/10.1016/0024-6301\(96\)00061-1](https://doi.org/10.1016/0024-6301(96)00061-1)

- [23] Su, S. S., Sheu, S.-H., & Wang, K.-H. (2023). Does self-checkout service really improve customer service in systems subject to congestion? – An Empirical Investigation in the Retail Industry. *Queueing Models and Service Management*, 6(2), 59-76.
- [24] Xie, G. (2026). The impact of generative AI shopping assistants on E-commerce consumer motivation and behavior: Consumer-AI interaction design. *International Journal of Information Management*, 86, 102983.
doi:<https://doi.org/10.1016/j.ijinfomgt.2025.102983>
- [25] Yang, T., Yang, F., & Men, J. (2023). Understanding consumers' continuance intention toward recommendation vlogs: An exploration based on the dual-congruity theory and expectation-confirmation theory. *Electronic Commerce Research and Applications*, 59, 101270. doi:<https://doi.org/10.1016/j.elerap.2023.101270>
- [26] Zeithaml, V. A. (1988). Consumer perceptions of price, quality and value: A means-end model and synthesis of evidence. *Journal of Marketing*, 52(3), 2-22. doi:<https://doi.org/10.2307/1251446>
- [27] Zhao, Y., Hu, Y., Vai, P. R., & Feng, T. (2026). How airport service quality and expectation confirmation shape airline passengers' behavioral intentions: Evidence from Papua New Guinea. *Transport Economics and Management*, 4, 1-13. doi:<https://doi.org/10.1016/j.team.2025.12.002>

Appendix A

Questionnaire: Beauty Service Study

All items are measured using a 7-point Likert scale (1 = Strongly disagree; 7 = Strongly agree).

Service Confirmation

SC1. The service performance of this beauty salon meets my expectations.

SC2. The service provided by this beauty salon is better than I expected.

SC3. My experience with this beauty salon confirms my prior expectations.

SC4. Overall, the performance of this beauty salon is consistent with what I expected.

SC5. The service outcomes of this beauty salon match what I anticipated before using it.

SC6. My overall experience with this beauty salon is in line with my initial expectations.

Customer-Perceived Relationship Management (CPRM)

CPRM1. I feel that this beauty salon values long-term relationships with customers.

CPRM2. This beauty salon provides personalized services based on customer needs.

CPRM3. This beauty salon maintains effective communication with its customers.

CPRM4. I believe this beauty salon understands my preferences and expectations.

CPRM5. This beauty salon makes efforts to maintain continuous interaction with customers.

Perceived Value

PV1. The services provided by this beauty salon offer good value for the money.

PV2. Considering the price I pay, the overall service quality is worthwhile.

PV3. The benefits I receive from this beauty salon exceed the costs I incur.

PV4. Overall, using this beauty salon is a wise choice.

PV5. Overall, this beauty salon provides good value relative to what I pay.

Service Satisfaction

SS1. Overall, I am satisfied with my experience at this beauty salon.

SS2. I am pleased with the services provided by this beauty salon.

SS3. My decision to use this beauty salon was a wise one.

SS4. I feel happy about my experience with this beauty salon.

SS5. This beauty salon has met my expectations regarding overall service performance.

SS6. I am content with the overall service quality of this beauty salon.

SS7. I believe choosing this beauty salon was the right decision for me.

Continuance Intention

CI1. I intend to continue using this beauty salon in the future.

CI2. I will continue to use this beauty salon rather than switch to another provider.

CI3. My future use of this beauty salon is very likely.

CI4. I plan to revisit this beauty salon for future services.