

DOI: <https://doi.org/10.38035/dijefa.v7i4><https://creativecommons.org/licenses/by/4.0/>

Received: 23 September 2026 | Revised: 14 October 2026 | Accepted: 18 October 2026

From Digital Experience to Brand Commitment: The Effects of Perceived Technical Interactivity and Social Media Content among Online Travel Agent Users for Hotel Bookings

Rafelito^{1*}, Lilik Wahyudi²¹Universitas Sebelas Maret, Surakarta, Indonesia, situmorangunited@gmail.com²Universitas Sebelas Maret, Surakarta, Indonesia, lilik.wahyudi@staff.uns.ac.id*Corresponding Author: lilik.wahyudi@staff.uns.ac.id¹

Abstract: This study examines the formation of brand commitment through digital experiences, focusing on the roles of perceived technical interactivity and social media content among users of Online Travel Agent (OTA) applications for hotel bookings in Indonesia. The rapid digitalization of the tourism sector has positioned OTA platforms as primary channels for hotel reservations, yet retaining users remains challenging due to low switching costs and intense competition. This research integrates Stimulus-Organism-Response (SOR) Theory and Relationship Marketing Theory (RMT) to explain how perceived technical interactivity and social media content are related to customer satisfaction and brand attachment, and how these two organism states are related to brand commitment. A quantitative cross-sectional survey of OTA hotel-booking users was conducted, and the data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). All six hypothesized direct relationships were supported: perceived technical interactivity and social media content were positively associated with customer satisfaction and brand attachment, which were in turn positively associated with brand commitment. Customer satisfaction showed the largest direct path coefficient to brand commitment ($\beta = 0.457$), followed by brand attachment ($\beta = 0.306$). The model tested direct relationships only; indirect (mediating) effects were not tested, and the cross-sectional design supports associations rather than causal conclusions. The study contributes to digital marketing literature by providing an integrated test of stimulus–organism–response relationships in the OTA hotel-booking context and offers practical implications for OTA companies in designing digital experiences and social media strategies that foster long-term customer relationships.

Keywords: Brand attachment, brand commitment, customer satisfaction, online travel agent, perceived technical interactivity, social media content.

INTRODUCTION

The digitalization phenomenon in the tourism sector, particularly hotel bookings through Online Travel Agent (OTA) applications, has experienced significant growth in recent years. The e-Conomy SEA 2024 report indicates that Indonesia's online travel gross merchandise

value (GMV) reached almost USD 9 billion in 2024, growing 24% year-on-year, alongside increasing digital technology adoption and a shift in consumer behavior toward application-based bookings. This growth is supported by widespread internet penetration: the APJII 2026 survey recorded 235.26 million internet users in Indonesia, equal to a penetration rate of 81.72% of the population, and users increasingly rely on digital services for daily needs, including travel and accommodation (APJII, 2026; e-Conomy SEA, 2024). These conditions strengthen OTA applications' position as primary channels in the modern hospitality industry while simultaneously transforming how consumers search for information, compare alternatives, and book hotels.

Alongside the increasing role of OTAs in consumer journeys, technological developments in the tourism industry are also marked by the expanding integration of interactive features and social media-based content on these platforms. Digital transformation no longer focuses solely on transactional functions but also on creating more interactive, personalized, and engaging user experiences. Studies on digital transformation in tourism confirm that the combination of interactive technology and digital innovation has created new business models that are more customer-oriented and experience-driven (Gutiérrez et al., 2023). In this context, features such as user reviews, algorithm-based recommendations, service personalization, and social media integration have become important elements influencing consumer perceptions and decisions in choosing hotel services.

The changing characteristics of OTA platforms subsequently affect digital consumer behavior, which increasingly relies on online information and digital interactions before making purchase decisions. This condition indicates that consumers no longer only consider hotel prices or locations but also the quality of information and digital experiences obtained during the search process. This finding is reinforced by recent research showing that digital content quality and technological interactivity levels play important roles in shaping consumer satisfaction and engagement in digital platforms (Cheung et al., 2020; Jo & Ahn, 2024). Thus, competition in the OTA industry increasingly shifts from service competition toward competition in creating digital experiences capable of building user relationships.

Hotel booking is the specific context of this study because it is the most dominantly utilized OTA feature among Indonesian consumers. The Katadata Insight Center (KIC) 2025 survey shows that 87.2% of Indonesian OTA users utilize these platforms to book hotels or accommodations, much higher than purchasing flight tickets (73.2%), train tickets (72.6%), and other travel services. Hotel booking is therefore the core use case of OTA applications, and the point at which users depend most on the platform's interactive features and on information from social media. It also involves different levels of involvement and risk than other travel services, so the quality of the digital experience during the search and booking process is likely to be especially consequential. The high usage of hotel booking services indicates that competition among OTA platforms is increasingly concentrated on applications' ability to create superior user experiences during the search and booking process (Ridwan, 2025).

However, the high level of OTA usage for hotel bookings describes adoption rather than commitment, and does not automatically guarantee the formation of long-term relationships between users and platforms. The research problem therefore concerns retention: it remains unclear which aspects of the digital experience (technical interactivity and social media content) are associated with the satisfaction, attachment, and commitment that keep users on a platform. The digital-based nature of the OTA industry means consumers have many alternative services with relatively low switching costs. Users can easily compare prices, promotions, reviews, and features offered by various platforms in a short time. Research by Anagnostopoulou et al. (2020) explains that the online hotel booking industry operates in a highly competitive environment where user retention becomes a crucial factor for maintaining profitability and business sustainability. This condition demonstrates that OTA's main

challenge is not only acquiring new users but also retaining existing users to maintain brand commitment and prevent switching to competing platforms.

These retention challenges arise because OTA users often experience conflicting evaluations of the platforms they use. On one hand, OTA applications offer ease of access, search efficiency, and various accommodation choices that enhance user convenience. On the other hand, users face various risks such as concerns about personal data security, information search complexity, unclear cancellation policies, and service failure risks that can affect usage experience. Emeafor et al. (2025) state that these conditions can create ambivalence or conflicting evaluations toward platforms, ultimately potentially reducing user retention and increasing the likelihood of switching to other platforms. This finding indicates that OTA success is largely determined by its ability to create positive and consistent usage experiences.

In this context, the quality of technical interaction provided by applications becomes an increasingly important factor. Users not only evaluate the end result of successful hotel bookings but also evaluate their experience during system interaction. Research by Çaylak et al. (2024) analyzing 2,000 user reviews of Booking.com and Expedia found that booking process ease, application usage experience quality, and effectiveness of cancellation and refund handling are primary factors influencing user sentiment toward OTA platforms. These results demonstrate that positive technical interaction experiences can enhance user perceptions of the brand, while negative experiences potentially decrease satisfaction and user loyalty. Therefore, perceived technical interactivity becomes one of the important factors that must be considered in building long-term relationships with OTA users.

Beyond direct technical interaction experiences obtained through applications, user perception formation is increasingly influenced by information obtained through social media. Before making hotel reservations, consumers tend to seek reviews, recommendations, other travelers' experiences, and various travel content shared through social media. In these conditions, social media content no longer functions merely as promotional media but becomes an information source influencing consumer perceptions, emotions, and evaluations of a brand. Al Amin et al. (2026) show that marketing activities through social media can increase customer engagement and satisfaction through more relevant and personalized interaction experiences. Thus, social media content quality potentially becomes an important means of building emotional relationships between users and OTA brands.

The importance of digital experiences and emotional relationships is reflected in the 2024 Indonesian Customer Experience Index (CX Index) results showing differences in customer experience quality among OTA platforms. Variations in customer experience scores indicate that not all OTAs can provide consistent and satisfying user experiences. Yet in competitive digital industries, customer experience is one of the primary determinants in shaping satisfaction, emotional attachment, and brand commitment. Differences in experience quality demonstrate that OTA competitive advantage is no longer determined solely by price and promotion but also by platforms' ability to create valuable digital experiences for users.

The urgency of this research is further reinforced by findings from Zhi & Ha (2024) showing that the relationship between customer satisfaction and loyalty among OTA users tends to strengthen as user experience with the platform increases. The research also found that user preferences for OTA attributes can change over time, requiring companies to understand factors capable of maintaining long-term relationships with customers. Thus, customer satisfaction cannot be viewed as an end goal but as an important mechanism driving the formation of stronger relationships between customers and OTA brands.

Furthermore, recent research in the Indonesian OTA context shows that digital customer loyalty cannot be adequately explained by service quality alone. Research by Oktaviani et al. (2025) found that OTA user loyalty is influenced by psychological factors that develop during interaction processes with digital platforms, requiring deeper understanding of the mechanisms

forming emotional relationships between customers and brands. If this condition is not comprehensively understood, OTA companies risk losing customers due to low emotional attachment and weak brand commitment. Therefore, research on how perceived technical interactivity and social media content are related to customer satisfaction and brand attachment, and how these two constructs are related to brand commitment, becomes important to provide a better understanding of factors shaping user commitment in OTA hotel booking applications.

Although research on technological interactivity, social media marketing, customer satisfaction, brand attachment, and brand commitment continues to develop, several research gaps require attention. First, previous studies have established that perceived technical interactivity is associated with its impact on user satisfaction, purchase intention, flow experience, or usage behavior in various digital contexts such as e-commerce, virtual shopping, and metaverse (Sulam & Fasa, 2025). What remains unresolved is whether, in OTA hotel-booking applications, perceived technical interactivity is simultaneously related to a cognitive-evaluative outcome (customer satisfaction) and an affective outcome (brand attachment), because the existing evidence comes from other digital contexts and other outcomes. This study adds evidence on both relationships (H1 and H2) within a single OTA model. Second, previous research has established that social media marketing activities are associated with brand equity, brand trust, engagement, purchase intention, and loyalty (Al Amin et al., 2026; Vo Minh et al., 2022). Although some studies show that social media marketing activities can increase customer satisfaction and engagement, what remains unresolved is how social media content is related to customer satisfaction and brand attachment at the same time in OTA application contexts, where this has not been extensively studied. This study adds evidence on both relationships (H3 and H4). Third, previous research has generally placed customer satisfaction as the final outcome leading directly to loyalty or reuse intention. However, recent research shows that these relationships are not always direct because customer satisfaction must first develop into commitment before producing loyal behavior (Sumiyana & Komariyah, 2024). What remains unresolved is how a cognitive-evaluative state (customer satisfaction) and an affective state (brand attachment) are each related to brand commitment when both are examined in the same model. This study adds an estimate of both relationships (H5 and H6) and a descriptive comparison of their magnitudes. Fourth, previous research has established brand attachment mainly in food delivery, mobile commerce, retail application, and restaurant table booking application domains. What remains unresolved is whether these findings hold in the OTA hotel-booking context, where purchase decisions have different involvement levels and risks compared to other digital service categories. This study adds empirical evidence on brand attachment and its antecedents in this specific context.

Based on the identified research gaps, this study offers novelty contributions to digital marketing and consumer behavior literature in Online Travel Agent application contexts. This research integrates Perceived Technical Interactivity and Social Media Content as primary stimuli that simultaneously influence Customer Satisfaction and Brand Attachment, which subsequently contribute to Brand Commitment formation among OTA hotel booking application users. This study does not introduce a new construct. Its novelty lies in (1) testing, in a single model, the relationships of two digital stimuli with both a cognitive-evaluative state (customer satisfaction) and an affective state (brand attachment); (2) relating both states to brand commitment so that their relative magnitudes can be compared descriptively; (3) integrating SOR Theory, which explains the stimulus–organism part of the model, with Relationship Marketing Theory, which explains commitment as a relationship outcome; and (4) applying this integrated model to OTA hotel-booking applications in Indonesia, where such a model has, to the authors' knowledge, not been tested in the literature reviewed here. The study therefore offers practical implications for OTA companies in designing digital

experiences and social media content strategies capable of strengthening long-term consumer-brand relationships.

The main theoretical foundation used to explain the mechanism of variable influence in this research is the Stimulus-Organism-Response (SOR) Theory, integrated with Relationship Marketing Theory (RMT). SOR Theory, first developed in environmental psychology, states that external stimuli from the environment can influence individuals' internal emotional and cognitive states, which subsequently drive certain behavioral responses (Mehrabian & Russell, 1974). In its development in the digital era, the SOR paradigm has been widely adopted to analyze how technical features, application interfaces, and information quality on digital platforms influence psychological evaluations and final user decisions (Ali et al., 2018; Liu et al., 2022). The interactive characteristics of technology and atmospheric elements in a travel application have been shown to function as strong stimuli that stimulate emotional engagement and perceived usefulness in consumers (Camilleri et al., 2023; Sengupta & Cao, 2022).

In this research's conceptual framework, Perceived Technical Interactivity and Social Media Content are positioned as Stimulus (S). These two elements represent technological and information stimuli faced by users when interacting with OTA applications (Ali et al., 2018). These stimuli are then processed by users as Organism (O), triggering internal responses in the form of cognitive evaluation represented by Customer Satisfaction, and deep emotional bonds represented by Brand Attachment (Sengupta & Cao, 2022; Ye et al., 2026). This organism's internal evaluation subsequently produces Response (R) in the form of Brand Commitment, a psychological commitment and user willingness to maintain long-term relationships with the OTA application (Ye et al., 2026).

Customer Satisfaction and Brand Attachment are both classified as Organism states because each is an internal state that forms after exposure to the stimuli and before the behavioral response, but they differ in nature. Customer Satisfaction is primarily a cognitive-evaluative state: a judgment of whether the interaction with the application and the information received met the user's expectations. Brand Attachment is primarily an affective state: an emotional bond and psychological closeness to the brand. Brand Commitment is classified as the Response because it is the relationship-oriented outcome of these internal states, namely the user's dedication and willingness to maintain the relationship with the OTA, rather than an evaluation or feeling in itself. Although satisfaction and attachment are conceptually distinct, they are expected to be correlated, which is why discriminant validity between them is assessed in the Results.

To strengthen understanding of how these user internal responses transform into solid loyalty, this research uses Relationship Marketing Theory (RMT) as a supporting theory. RMT marks a marketing focus shift from short-term transaction-based marketing to the creation, maintenance, and enhancement of strong, mutually beneficial relational relationships with customers over time (Gilaninia et al., 2011). The core of relational marketing is articulated in Commitment-Trust Theory, which confirms that relationship commitment and trust are crucial mediating variables determining the success and sustainability of relational exchanges between companies and consumers (Morgan & Hunt, 1994). Relational marketing emphasizes the importance of customer retention because the cost of maintaining existing relationships is far more efficient than attracting new customers in competitive market structures (Gilaninia et al., 2011; Payne & Frow, 2017). The application of RMT in digital platform contexts such as e-travel agencies becomes increasingly relevant given intense competition due to low consumer switching costs (Nusair et al., 2011). In this online domain, brand commitment does not appear spontaneously but is developed through consistently perceived satisfaction and emotional bonds built during interaction processes (Nusair et al., 2011). In the modern hospitality and tourism industry, managing relationship marketing dimensions such as commitment and conflict handling proves to be a primary determinant in strengthening customer engagement

and securing long-term consumer retention (Salem, 2021). Thus, RMT provides a strong theoretical foundation for explaining why Customer Satisfaction and Brand Attachment are primary drivers of Brand Commitment formation in the OTA application ecosystem.

Drawing from the growth of tourism sector digitalization in Indonesia, the increasing use of Online Travel Agent applications as hotel booking means, and challenges in building long-term user relationships amid high platform switching ease, this research is directed to understand how digital experiences can shape Brand Commitment. Specifically examining how Perceived Technical Interactivity and Social Media Content are related to Customer Satisfaction and Brand Attachment, and how these two constructs are related to Brand Commitment among Indonesian OTA hotel booking application users, this research positions Customer Satisfaction and Brand Attachment as organism states (cognitive-evaluative and affective responses, respectively) that follow the digital stimuli from OTA platforms and are hypothesized to be associated with brand commitment. The model is tested through six direct hypothesized relationships; indirect (mediating) effects are not part of the objectives or hypotheses of this study. Through this approach, the research is expected to provide theoretical contributions to digital consumer behavior and brand relationship literature, while generating practical implications for OTA managers in designing digital experiences capable of strengthening user loyalty and commitment sustainably. Based on the research background, the following research objectives are formulated: (1) to examine the relationship between Perceived Technical Interactivity and Brand Attachment among OTA application users; (2) to examine the relationship between Perceived Technical Interactivity and Customer Satisfaction among OTA application users; (3) to examine the relationship between Social Media Content and Brand Attachment among OTA application users; (4) to examine the relationship between Social Media Content and Customer Satisfaction among OTA application users; (5) to examine the relationship between Brand Attachment and Brand Commitment; and (6) to examine the relationship between Customer Satisfaction and Brand Commitment.

Perceived technical interactivity refers to the extent to which users perceive control, system responsiveness, and two-way communication in a digital platform. This concept reflects individuals' perceptions of the system's ability to provide real-time feedback, offer flexible navigation, and enable personalization of user experiences (Yang & Shi, 2025). Technical interactivity is viewed as an important attribute in application-based environments as it shapes perceptions of technology quality and dynamic usage experiences (Lee et al., 2021). Beyond functional aspects, perceived technical interactivity also creates personal and immersive experiences. Interactions that allow users to actively engage in service exploration processes contribute to psychological closeness formation with the application brand. Technology-based experience quality influences how consumers internalize brands in their cognitive and affective structures (Malik & Depi, 2025). Responsive and participatory digital experiences strengthen perceptions that the brand is dynamically present in meeting user needs. Interaction intensity with the system increases opportunities for emotional relationship formation with the brand. Empirical evidence shows that interactive features in digital platforms are associated with consumer affective bond formation with brands (Sanz-Blas et al., 2026). Therefore, the first hypothesis is proposed:

H1: Perceived Technical Interactivity positively influences Brand Attachment.

Furthermore, perceived technical interactivity reflects user perceptions of the system's ability to provide quick responses, navigation control, and adaptive interaction experiences. Responsive systems enabling active user participation create more meaningful usage experiences aligned with individual expectations. Technical interaction quality in digital applications is viewed as a determinant of positive evaluations of technology-based service experiences (Ibrahim et al., 2025). Interactive application environments allow users to feel in

control of search and booking processes, reducing uncertainty and enhancing perceived efficiency. Perceptions of optimal technological performance shape comprehensive evaluations of application usage experiences. The relationship between interactive system quality and user satisfaction has been supported in digital service and application-based platform contexts (Lin et al., 2025). Thus, the second hypothesis is:

H2: Perceived Technical Interactivity positively influences Customer Satisfaction.

Social media content describes the form, quality, and characteristics of messages conveyed by brands through social media platforms. This content can take the form of product information, entertainment, education, and interactive content designed to capture audience attention and build meaningful digital experiences (Appel et al., 2020). Social media content quality is often measured through relevance aspects, message consistency, visual appeal, and perceived informative value (Iswanto et al., 2025). Informative, authentic, and engaging social media content can build symbolic experiences that strengthen consumer emotional closeness to brands. Relevant content creates perceptions that the brand understands audience needs and values. Exposure to consistent and meaningful content contributes to affective relationship formation between consumers and brands (Atmaja & Wibowo, 2025). Consumer engagement with social media content enables internalization of brand meanings in individual identity. Visual and narrative representations in digital content form deep emotional associations. Research shows that marketing activities through social media play a role in building emotional attachment to brands (AlFraihat et al., 2025). Therefore, the third hypothesis is:

H3: Social Media Content positively influences Brand Attachment.

Quality social media content characteristics provide clear, transparent, and easily understood information to consumers. Content that facilitates decision-making processes enhances perceptions of benefit and convenience in service usage. Presentation of relevant and valuable content shapes positive evaluations of overall brand experiences (Hollebeek & Macky, 2019). Consumer interaction with social media content also contributes to perceptions that the brand is responsive to audience needs. Exposure to educational and persuasive content increases trust in the brand and strengthens experience evaluations. The effectiveness of digital marketing activities through social media has been linked to increased consumer satisfaction (Al Amin et al., 2026). Hence, the fourth hypothesis is:

H4: Social Media Content positively influences Customer Satisfaction.

Brand attachment reflects strong emotional closeness between consumers and brands, forming the basis of long-term relationships. Deep affective bonds increase individuals' desire to maintain relationships with specific brands. Strong emotional relationships play a role in driving brand commitment in various consumption contexts (Ghorbanzadeh & Rahehagh, 2021). High attachment to brands strengthens relationship sustainability orientation and reduces tendencies to switch to alternatives. Stable psychological bonds become a foundation for consistent brand commitment formation. Empirical findings show that attachment is an important determinant in brand commitment formation (Choi et al., 2024). Thus, the fifth hypothesis is:

H5: Brand Attachment positively influences Brand Commitment.

Customer satisfaction reflects positive evaluations of consumption experiences meeting user expectations. High satisfaction levels strengthen perceptions of value and relationship quality between consumers and brands. Consistent experience evaluations form tendencies to maintain relationships with brands in the long term (Mbango, 2018). Satisfaction serves as a rational and emotional foundation for building stable relationships with brands. Satisfied

consumers show stronger relationship sustainability intentions compared to dissatisfied consumers. Empirical evidence demonstrates that satisfaction is a significant predictor of brand commitment formation in technology-based services (Sumiyana & Komariyah, 2024). Therefore, the sixth hypothesis is:

H6: Customer Satisfaction positively influences Brand Commitment.

Based on the theoretical framework and hypotheses development, the conceptual model of this research is presented as follows:

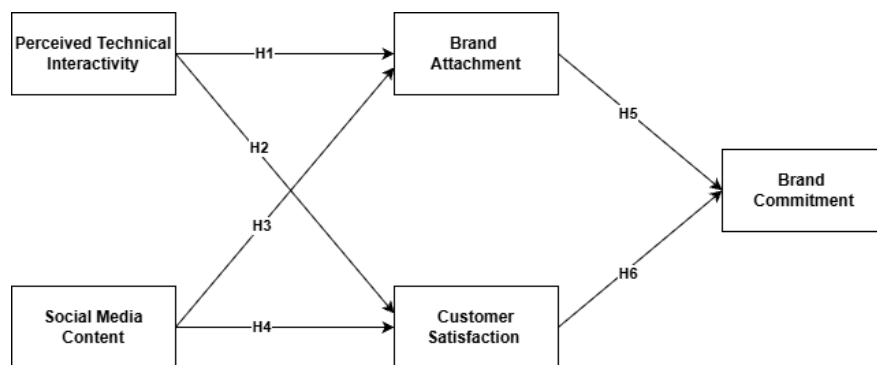


Figure 1. Conceptual Framework

METHODS

This research employs a quantitative approach with explanatory research design aimed at examining hypothesized relationships among variables based on formulated hypotheses. The quantitative approach is selected because this research focuses on variable measurement using structured questionnaire instruments and statistical data analysis to test the proposed conceptual model. This research examines the hypothesized relationships of Perceived Technical Interactivity and Social Media Content with Customer Satisfaction and Brand Attachment, and of these two constructs with Brand Commitment. Thus, this research is classified as explanatory research aimed at testing theoretically derived relationships among latent constructs based on theory and previous empirical findings (Hair et al., 2022). The research design employs a survey method with cross-sectional approach, where data collection is conducted once within a specific period from respondents who have used Online Travel Agent applications for hotel bookings. Because the design is cross-sectional and observational, the results are interpreted as statistical associations consistent with the hypothesized relationships, and causal inference is not claimed. Data are analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) because the research model involves several latent constructs, simultaneous structural relationships, and is oriented toward prediction and theory development. According to Hair et al. (2022), PLS-SEM is an appropriate method for analyzing complex research models, testing relationships among constructs simultaneously, and providing reliable estimates even when data do not fully meet normal distribution assumptions.

This research utilizes two data sources: primary and secondary data. Primary data are obtained directly from respondents through online questionnaire distribution to Online Travel Agent application users who have used the application for hotel bookings. The collected data measure respondent perceptions of Perceived Technical Interactivity, Social Media Content, Customer Satisfaction, Brand Attachment, and Brand Commitment variables to answer research objectives and test hypotheses. Secondary data are obtained through literature review including reference books, scientific articles, national and international journals, proceedings, and other relevant publications. Additionally, the researcher utilizes official websites and credible online sources to obtain supporting data regarding OTA industry development, consumer behavior, and concepts related to research variables. All secondary data serve as

theoretical foundations, conceptual framework development, hypothesis formulation, and research results discussion.

The data collection technique employs a survey method with questionnaire instruments distributed online through Survey EasyPath to respondents meeting research criteria. The survey method is selected because it enables efficient and effective data collection from large respondent numbers, suitable for quantitative research characteristics aiming to measure respondent perceptions and evaluations of researched variables (Malhotra et al., 2017). The questionnaire is structured based on indicators of each variable adapted from previous research and measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. The five-point Likert scale is chosen because it provides balance between respondent ease in providing assessments and accuracy in capturing variations in respondent perceptions for each statement (Hair et al., 2022). Questionnaire distribution is conducted through various digital media, such as social media and messaging applications, to reach OTA application users who have made hotel bookings. Digital platform usage for questionnaire distribution is chosen because it aligns with respondent characteristics as active digital application users, facilitating access and participation in questionnaire completion (Sekaran & Bougie, 2016). Before analysis, all respondent answers are examined to ensure completeness and conformity with research criteria so only valid data are used in PLS-SEM analysis. This data examination process includes identification of incomplete questionnaires, inconsistent answers, and respondents not meeting research criteria to guarantee data quality for analysis (Hair et al., 2022).

The population in this research is all OTA application users in Indonesia who have made hotel bookings through digital platforms. Population is defined as the entire group of individuals, events, or objects possessing specific characteristics and being the focus of research result generalization (Sekaran & Bougie, 2016). Based on APJII (2026) and e-Conomy SEA (2024) reports, Indonesia had 235.26 million internet users in 2026, a penetration rate of 81.72% (APJII, 2026), and online travel GMV reached almost USD 9 billion in 2024 (e-Conomy SEA, 2024). With OTA user growth continuing to increase annually, this research population is infinite because it is impossible to exhaustively enumerate all OTA application users in Indonesia at any given time (Malhotra, 2010). Population characteristics in this research are individuals who have used OTA applications for hotel bookings, have experience interacting with digital features on these platforms, and have been exposed to social media content related to the OTA platforms they use.

The sample is a portion of the population selected from it (Hair et al., 2022). In this research, the sample is drawn from Indonesian OTA application users meeting inclusion criteria: (1) have used OTA applications for hotel bookings at least once in the past year, (2) are at least 18 years old, and (3) are willing to become respondents by completing questionnaires fully. Sample size determination refers to power-based recommendations by Hair et al. (2022) for PLS-SEM analysis, as all constructs in this model are reflective, the "10 times the number of formative indicators" rule is not applicable and is not used. The maximum number of structural paths pointing at any endogenous construct is two (Brand Attachment and Customer Satisfaction each receive paths from Perceived Technical Interactivity and Social Media Content, and Brand Commitment receives paths from Brand Attachment and Customer Satisfaction). For a model with two predictors per endogenous construct, detecting a minimum R^2 of 0.10 at the 5% significance level with 80% statistical power requires approximately 110 observations (Hair et al., 2022). A minimum of 200 respondents was therefore adopted, which exceeds this requirement, Click or tap here to enter text. Click or tap here to enter text. and this research targeted a larger number of respondents to anticipate incomplete or invalid questionnaires. A total of 651 questionnaires were collected through the online survey. Of these, 115 questionnaires were excluded during data screening because they were flagged by

one or more of the following screening criteria: straight-lining (identical answers across items), univariate outliers based on z-scores, multivariate outliers based on distance, extreme outliers, and abnormally fast responses, leaving 536 valid questionnaires (82.3% of those collected) for the final analysis. The final sample of 536 respondents is well above the minimum required by the power-based guidance and satisfies the sample-size requirement for the PLS-SEM model.

The sampling technique employed is purposive sampling, determining samples based on specific criteria relevant to research objectives (Sekaran & Bougie, 2016). Purposive sampling is chosen because this research requires respondents with specific experience and knowledge regarding OTA application usage for hotel bookings, so not all individuals in the population can be appropriate respondents (Malhotra, 2010). Sample selection criteria include: (1) respondents are active OTA application users who have made hotel bookings, (2) respondents have experience interacting with interactive features on OTA applications, and (3) respondents are exposed to social media content related to OTA platforms. Purposive sampling usage is also based on time and cost efficiency considerations, as well as the ability to reach respondents matching target population characteristics through online questionnaire distribution (Hair et al., 2022). To expand respondent reach, snowball sampling is also used complementarily, where respondents who have completed questionnaires are asked to recommend or distribute questionnaires to other OTA users meeting research criteria (Sekaran & Bougie, 2016). The combination of purposive and snowball sampling is expected to produce eligible and appropriate samples for PLS-SEM data analysis requirements. However, both techniques are non-probability methods and do not produce a statistically representative sample of all Indonesian OTA hotel-booking users. The sample may be affected by selection and sampling bias (for example, over-representation of active social media users and of respondents within the researchers' and earlier respondents' networks), so the findings should be generalized beyond the sample with caution.

Operational definitions of each variable are elaborated into indicators adapted from previous research instruments and adjusted to the context of hotel booking on OTA applications. These indicators are then structured into questionnaire forms as data collection instruments to measure respondent perceptions of each construct in the research model. The questionnaire is administered to respondents who are OTA application users who have made hotel bookings through the application. Perceived Technical Interactivity is measured using indicators adapted from Lee et al. (2021), including perceptions of system responsiveness, control flexibility, and personalization capabilities. Social Media Content is measured using indicators from Appel et al. (2020) and Hollebeek & Macky (2019), encompassing relevance, consistency, visual appeal, and informative value. Customer Satisfaction is measured using indicators from Dehghanpouri et al. (2020) and Lu et al. (2020), reflecting overall evaluation of consumption experiences. Brand Attachment is measured using indicators from Brocato et al. (2012) and Shimul (2022), capturing emotional bonds and psychological closeness to the brand. Brand Commitment is measured using indicators from Nyadzayo et al. (2015) and Shukla et al. (2016), reflecting dedication and willingness to maintain long-term relationships. The construct definitions, sources, number of items, and response scale for all five constructs are summarized in Table 1. The items were taken from the sources above and adapted by the authors into Indonesian, with the wording adjusted to the context of OTA users booking hotels.

Table 1. Measurement Instruments

Construct	Definition	Source	Items	Scale
Perceived Technical Interactivity (PTI)	The extent to which users perceive control, system responsiveness, and two-way communication in a digital platform (Yang & Shi, 2025)	Lee et al. (2021)	4 (PTI1–PTI4)	5-point Likert (1 = strongly disagree, 5 = strongly agree)

Social Media Content (SMC)	The form, quality, and characteristics of messages conveyed by brands through social media platforms (Appel et al., 2020)	Appel et al. (2020); Hollebeek & Macky (2019)	4 (SMC1–SMC4)	5-point Likert (1 = strongly disagree, 5 = strongly agree)
Customer Satisfaction (CS)	A positive evaluation of consumption experiences that meet user expectations	Dehghanpouri et al. (2020); Lu et al. (2020)	4 (CS1–CS4)	5-point Likert (1 = strongly disagree, 5 = strongly agree)
Brand Attachment (BA)	The strong emotional closeness and psychological bond between consumers and a brand	Brocato et al. (2012); Shimul (2022)	4 (BA1–BA4)	5-point Likert (1 = strongly disagree, 5 = strongly agree)
Brand Commitment (BC)	The user's psychological commitment and willingness to maintain a long-term relationship with the OTA application	Nyadzayo et al. (2015); Shukla et al. (2016)	4 (BC1–BC4)	5-point Likert (1 = strongly disagree, 5 = strongly agree)

Data analysis employs PLS-SEM with two-stage evaluation: outer model and inner model assessment. Outer model evaluation ensures measurement model validity and reliability through convergent validity, discriminant validity, and reliability testing. Convergent validity is assessed through outer loading values (≥ 0.70) and Average Variance Extracted ($AVE \geq 0.50$) (Hair et al., 2021; Henseler et al., 2009). Discriminant validity is evaluated using the Fornell-Larcker Criterion, where the square root of AVE for each construct should exceed its correlations with other constructs, and using the heterotrait–monotrait ratio of correlations (HTMT), where values below 0.85 (conservative threshold) or 0.90, together with bootstrapped confidence intervals that do not include 1, indicate discriminant validity (Henseler et al., 2015). HTMT is particularly important here because Brand Attachment and Brand Commitment are conceptually close constructs. Reliability is assessed using Cronbach's Alpha and Composite Reliability values (≥ 0.70) (Sarstedt et al., 2021). Inner model evaluation examines structural relationships among constructs through R-Square (R^2), Q-Square (Q^2), and path coefficients. R^2 values of 0.75 indicate strong predictive ability, 0.50 moderate, and 0.25 weak (Hair et al., 2021). Predictive power was assessed with PLSpredict (Shmueli et al., 2019) using 10 folds and 10 repetitions. Q^2 predict values greater than zero were examined together with the RMSE and MAE of the endogenous indicators, which were compared with the linear model (LM) benchmark. Predictive power is considered high when all indicators have lower PLS-SEM prediction errors than the LM benchmark, medium when the majority do, and low when only a minority or none do. The analysis was conducted using SmartPLS 4.1.1.8. Hypothesis testing uses a bootstrapping procedure with 5,000 subsamples to obtain path coefficients, t-statistics, p-values, and percentile bootstrap 95% confidence intervals, using two-tailed tests; hypotheses are supported when the t-statistic > 1.96 , the p-value < 0.05 , and the 95% confidence interval does not include zero (Hair et al., 2021).

RESULTS AND DISCUSSION

Results

The measurement model was assessed through convergent validity, discriminant validity, and reliability testing. Convergent validity was evaluated using outer loadings and Average Variance Extracted (AVE). As presented in Table 2, all indicator outer loadings exceeded the recommended threshold of 0.70, ranging from 0.719 to 0.799, indicating that each indicator adequately reflects its respective construct. The loadings were not uniformly strong, however: the lowest (PTI3 = 0.719) was only slightly above the threshold, while the highest (BA4 = 0.799) was the strongest. Because all loadings exceeded 0.70 and all constructs met the AVE and reliability criteria, no indicator needed to be removed and all 20 indicators were retained.

Furthermore, all constructs demonstrated AVE values above 0.50, ranging from 0.554 to 0.581, confirming that each construct explains more than 50% of the variance in its indicators (Hair et al., 2021; Henseler et al., 2009).

Table 2. Outer Loadings

Indicator	BA	BC	CS	PTI	SMC
BA1	0.766				
BA2	0.749				
BA3	0.735				
BA4	0.799				
BC1		0.763			
BC2		0.753			
BC3		0.746			
BC4		0.721			
CS1			0.759		
CS2			0.767		
CS3			0.750		
CS4			0.752		
PTI1				0.786	
PTI2				0.751	
PTI3				0.719	
PTI4				0.762	
SMC1					0.755
SMC2					0.732
SMC3					0.738
SMC4					0.751

Discriminant validity was assessed using the Fornell-Larcker criterion, where the square root of AVE for each construct should be greater than its correlations with other constructs. As shown in Table 3a, the square root of the AVE of each construct (diagonal values) is compared with its correlations with the other constructs and exceeds all of them (the highest inter-construct correlation is 0.611, between CS and BC). Because the Fornell-Larcker criterion has limited sensitivity in detecting discriminant validity problems, HTMT was also assessed (Table 3b) ; all HTMT values were below the conservative threshold of 0.85 (highest: 0.819 for CS–BC; 0.716 for the closely related BA–BC pair). Together these results are used to establish that each construct is distinct from others in the research model (Fornell & Larcker, 1981).

Reliability assessment was conducted using Cronbach's Alpha and Composite Reliability (CR). As shown in Table 3, all constructs demonstrated Cronbach's Alpha values above 0.70, ranging from 0.731 to 0.760, and Composite Reliability values above 0.70, ranging from 0.832 to 0.847. These results confirm that all constructs exhibit satisfactory internal consistency reliability (Sarstedt et al., 2021).

Table 3. Reliability and Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability (rho_a)	Composite Reliability (rho_c)	AVE
BA	0.760	0.761	0.847	0.581
BC	0.734	0.734	0.834	0.556
CS	0.752	0.753	0.843	0.573
PTI	0.748	0.751	0.841	0.570
SMC	0.731	0.732	0.832	0.554

Table 3a. Discriminant Validity: Fornell–Larcker Criterion

Construct	BA	BC	CS	PTI	SMC
BA	0.762				
BC	0.536	0.746			

CS	0.504	0.611	0.757		
PTI	0.449	0.494	0.572	0.755	
SMC	0.464	0.494	0.494	0.084	0.744

Table 3b. Discriminant Validity: Heterotrait–Monotrait Ratio (HTMT)

Construct	BA	BC	CS	PTI	SMC
BA					
BC	0.716				
CS	0.664	0.819			
PTI	0.591	0.666	0.762		
SMC	0.621	0.675	0.665	0.124	

Structural Model Evaluation

The structural model was evaluated through R-Square (R^2), Q-Square (Q^2), and path coefficient significance testing. As presented in Table 4, the R^2 values for endogenous constructs indicate weak-to-moderate explanatory power based on the thresholds stated in the method (0.25 weak, 0.50 moderate, 0.75 strong). In addition to the R^2 of the original sample, Table 3 reports the bootstrapped (5,000 resamples) sample mean, standard deviation, t-statistic, and p-value of each R^2 , which show that each R^2 differs significantly from zero. Brand Attachment (BA) demonstrated an R^2 of 0.385, indicating that perceived technical interactivity and social media content together explain 38.5% of the variance in brand attachment. Customer Satisfaction (CS) showed the highest R^2 at 0.528, which is in the moderate range, meaning 52.8% of its variance is explained by the antecedent variables. Brand Commitment (BC) exhibited an R^2 of 0.443, indicating that brand attachment and customer satisfaction collectively explain 44.3% of the variance in brand commitment. These values suggest weak-to-moderate explanatory power, with only Customer Satisfaction reaching the moderate level (Hair et al., 2021).

Table 4. R-Square Values and Bootstrapping Results

Construct	R-square (original sample)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics	P Values
BA	0.385	0.394	0.042	9.234	< 0.001
BC	0.443	0.452	0.063	7.050	< 0.001
CS	0.528	0.535	0.051	10.371	< 0.001

Predictive power was assessed using PLSpredict (Shmueli et al., 2019), not blindfolding, so the measure is reported as Q^2 predict together with RMSE and MAE. As shown in Table 5, all endogenous constructs demonstrated Q^2 predict values greater than zero, with Brand Attachment (0.370), Customer Satisfaction (0.512), and Brand Commitment (0.419), indicating that the model has predictive relevance for each endogenous construct. The RMSE and MAE in Table 4 are reported at the construct level for readability.

Table 5. Predictive Relevance (Q^2 predict)

Construct	Q^2 predict	RMSE	MAE
BA	0.370	0.801	0.556
CS	0.512	0.707	0.471
BC	0.419	0.771	0.533

Hypothesis Testing

Hypothesis testing was conducted using bootstrapping procedures with 5,000 resamples to assess the significance of path coefficients. The results of the structural model testing are presented in Table 6.

Table 6. Hypothesis Testing Results

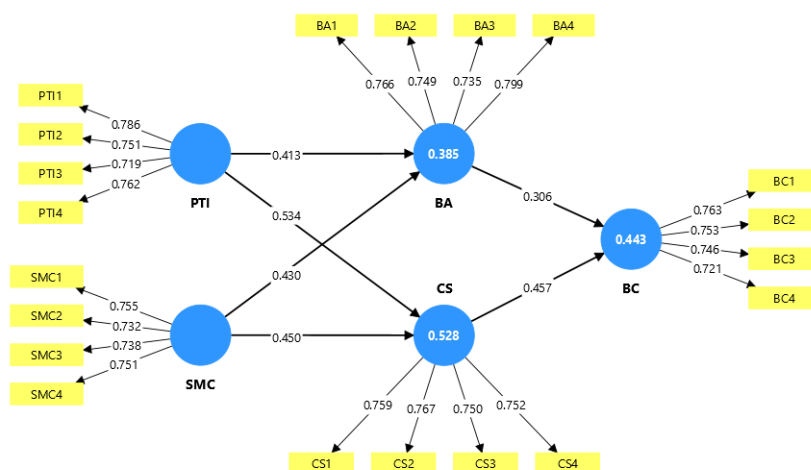
Hypothesis	Relationship	Path Coefficient	T-Statistics	P-Values	Decision
H1	PTI → BA	0.413	6.519	< 0.001	Supported
H2	PTI → CS	0.534	8.110	< 0.001	Supported
H3	SMC → BA	0.430	7.549	< 0.001	Supported
H4	SMC → CS	0.450	6.939	< 0.001	Supported
H5	BA → BC	0.306	4.583	< 0.001	Supported
H6	CS → BC	0.457	7.450	< 0.001	Supported

The results indicate that all six hypotheses are supported at the 0.05 significance level. Hypothesis 1 (H1) tested the influence of Perceived Technical Interactivity on Brand Attachment, showing a significant positive path coefficient of 0.413 ($t = 6.519$, $p < 0.001$), supporting H1. Hypothesis 2 (H2) examined Perceived Technical Interactivity's influence on Customer Satisfaction, revealing a significant positive relationship with a path coefficient of 0.534 ($t = 8.110$, $p < 0.001$), supporting H2.

Hypothesis 3 (H3) tested Social Media Content's influence on Brand Attachment, demonstrating a significant positive path coefficient of 0.430 ($t = 7.549$, $p < 0.001$), supporting H3. Hypothesis 4 (H4) examined Social Media Content's influence on Customer Satisfaction, showing a significant positive relationship with a path coefficient of 0.450 ($t = 6.939$, $p < 0.001$), supporting H4.

Hypothesis 5 (H5) tested Brand Attachment's influence on Brand Commitment, revealing a significant positive path coefficient of 0.306 ($t = 4.583$, $p < 0.001$), supporting H5. Hypothesis 6 (H6) examined Customer Satisfaction's influence on Brand Commitment, demonstrating a significant positive path coefficient of 0.457 ($t = 7.450$, $p < 0.001$), supporting H6. Notably, the path from customer satisfaction to brand commitment ($\beta = 0.457$) was numerically larger than the path from brand attachment ($\beta = 0.306$). As a descriptive comparison, this suggests that functional evaluation may play a more dominant role in commitment in the OTA context; no formal test of the difference between the two coefficients was conducted. In addition, the model was specified with direct paths only (H1–H6), so indirect effects (e.g., $PTI \rightarrow CS \rightarrow BC$ and $SMC \rightarrow BA \rightarrow BC$) were not estimated. Customer satisfaction and brand attachment are therefore interpreted as organism states within the SOR framework, not as statistically tested mediators.

To provide a comprehensive visual summary of all structural relationships, including the direct effects and the explanatory power of the model, the complete structural model results are depicted in Figure 2. The figure consolidates the path coefficients for each hypothesized relationship and the R^2 values for the endogenous constructs, offering a clear overview of the model's empirical performance.


Figure 2. Structural Model Results

As illustrated in Figure 2, Perceived Technical Interactivity shows the largest path coefficient to Customer Satisfaction ($\beta = 0.534$), followed by its effect on Brand Attachment ($\beta = 0.413$). Social Media Content demonstrates a relatively balanced influence on both Brand Attachment ($\beta = 0.430$) and Customer Satisfaction ($\beta = 0.450$). The structural model further reveals that the path from Brand Attachment to Brand Commitment ($\beta = 0.306$) is notably weaker than the path from Customer Satisfaction to Brand Commitment ($\beta = 0.457$), consistent with the earlier descriptive observation that satisfaction has the larger direct path to commitment. The R^2 value of 0.443 for Brand Commitment indicates weak-to-moderate explanatory power for users' commitment to their OTA applications.

Discussion

The findings of this study provide comprehensive insights into the formation of brand commitment through digital experiences among OTA hotel booking application users. All six hypotheses were supported, providing empirical support for the proposed theoretical relationships derived from the Stimulus-Organism-Response (SOR) and Relationship Marketing Theory (RMT) frameworks within the OTA context. Because the data are cross-sectional and self-reported, these findings describe associations; they do not demonstrate causal effects or statistically tested mediating mechanisms. Interpretations that go beyond the measured constructs are explicitly labeled below as plausible managerial interpretations.

The results confirm that perceived technical interactivity significantly influences both brand attachment ($\beta = 0.413$) and customer satisfaction ($\beta = 0.534$). These findings align with previous research demonstrating that interactive technical features in digital platforms play a crucial role in shaping users' emotional connections and evaluative responses (Al-Shafei, 2025; Zhao et al., 2025). The stronger effect on customer satisfaction compared to brand attachment suggests that users primarily evaluate the functional benefits of technical interactivity before developing emotional bonds with the brand. This finding is consistent with Man & Hashim (2025), who found that system responsiveness and control flexibility are primary drivers of satisfaction in digital platforms, as these features directly address users' immediate needs for efficiency and convenience during hotel searches and bookings. The significant relationship between perceived technical interactivity and brand attachment indicates that when users perceive OTA applications as responsive, controllable, and personalized, they develop deeper emotional connections with the brand. This finding extends the work of Anggraeni (2026), who demonstrated that interactive experiences facilitate the internalization of brand meaning in consumers' cognitive and affective structures. In the OTA context, features such as real-time availability updates, personalized recommendations, and seamless navigation create immersive experiences that transform transactional interactions into meaningful relationships. A plausible managerial interpretation is that users who feel in control of their search and booking processes may be more inclined to see the OTA brand as more than a service provider; however, trust and partner perceptions were not measured in this study.

Social media content demonstrated significant positive influences on both brand attachment ($\beta = 0.430$) and customer satisfaction ($\beta = 0.450$). These findings support previous research highlighting the importance of social media content in building consumer-brand relationships (Hollebeek & Macky, 2019). The relatively balanced effects on both constructs suggest that social media content serves dual functions: providing informative value that enhances satisfaction and creating symbolic meaning that strengthens emotional bonds. This dual mechanism is consistent with Al Amin et al. (2026), who found that social media marketing activities simultaneously influence cognitive evaluations and affective responses. The significant influence of social media content on brand attachment can be attributed to the authentic and engaging nature of content that resonates with users' travel aspirations and identity expression. Visual storytelling, user-generated content, and personalized travel

inspiration shared through OTA social media channels allow users to envision themselves experiencing the destinations and accommodations featured. This process facilitates the internalization of brand values and creates emotional associations that extend beyond mere service satisfaction, aligning with AlFraihat et al. (2025) who demonstrated that well-crafted social media content enables consumers to form deeper psychological connections with brands through narrative and visual engagement. Furthermore, the influence of social media content on customer satisfaction underscores the importance of content quality in facilitating informed decision-making. Informative and transparent content regarding hotel amenities, location details, and user reviews helps reduce uncertainty and enhances confidence in booking decisions, consistent with Hollebeek & Macky (2019) who argued that valuable content supports consumer decision-making processes and enhances perceptions of brand competence and reliability.

Brand attachment demonstrated a significant positive influence on brand commitment ($\beta = 0.306$), aligning with previous research establishing emotional bonds as foundations for long-term relationship maintenance (Choi et al., 2024; Ghorbanzadeh & Rahehagh, 2021). This finding indicates that users who develop deep emotional connections with OTA brands are more likely to demonstrate dedication and willingness to maintain relationships with those platforms. The psychological proximity created through consistent positive experiences may help transform transactional relationships into more meaningful ones, although loyalty and the choice to stay despite competitive alternatives were not measured. The magnitude of this path suggests that brand attachment is an important correlate of brand commitment; because indirect effects were not tested, a mediating role cannot be concluded. Relationship marketing literature suggests that users who feel that an OTA brand understands their preferences may be less susceptible to competitive offers and more willing to invest in the relationship (Nusair et al., 2011).

Customer satisfaction showed the largest direct path coefficient to brand commitment ($\beta = 0.457$) of the two predictors of brand commitment, consistent with satisfaction being an important correlate of relationship sustainability in digital service contexts. This is a descriptive comparison of coefficient magnitudes; the difference between $\beta = 0.457$ and $\beta = 0.306$ was not formally tested. This finding aligns with research by Mbango (2018) and Sumiyana & Komariyah (2024), who demonstrated that satisfaction serves as both rational and emotional foundation for brand commitment. The stronger effect of satisfaction compared to brand attachment suggests that users' commitment to OTA platforms may be primarily grounded in the consistent fulfillment of functional expectations. The importance of satisfaction in driving commitment can be attributed to the high-involvement nature of hotel booking decisions. Users invest significant time and resources in travel planning, and positive experiences that meet or exceed expectations reinforce the perception that the OTA platform is a reliable and valuable partner. This finding is particularly relevant given the competitive nature of the OTA industry, where users have numerous alternatives with low switching costs. Satisfaction may create a psychological barrier to switching by establishing a track record of positive experiences that users are reluctant to risk abandoning, and satisfied users may also be more likely to engage in positive word-of-mouth and repeat purchases. These behaviors, together with switching, were not measured in this study and are plausible managerial interpretations rather than demonstrated effects.

The theoretical implications of this study are as follows. By integrating Stimulus-Organism-Response (SOR) Theory and Relationship Marketing Theory (RMT), this research provides an integrated framework for examining the relationships among digital stimuli, internal states, and brand commitment in digital contexts. The findings show that digital stimuli (perceived technical interactivity and social media content) are positively associated with internal states (satisfaction and attachment), which are in turn positively associated with a

relational outcome (commitment). This is consistent with the complementary explanatory value of both theoretical frameworks in the OTA context. The study also contributes to the brand attachment literature by identifying perceived technical interactivity and social media content as important antecedents of emotional bonds in digital service contexts, extending understanding to application-based service platforms where emotional connections are formed through mediated interactions. Furthermore, the research provides a descriptive indication of the relative size of the satisfaction and attachment paths to brand commitment, suggesting that functional fulfillment may remain paramount even as emotional connections contribute meaningfully to relationship sustainability.

From a managerial perspective, the findings offer several practical implications for OTA companies seeking to strengthen user commitment and reduce switching behavior. The strong influence of perceived technical interactivity on both satisfaction and attachment underscores the importance of investing in responsive, intuitive, and personalized application features. OTA companies should prioritize system responsiveness, navigation ease, and personalization capabilities as these technical attributes significantly shape users' evaluative and emotional responses. Features such as real-time availability updates, seamless booking processes, and personalized recommendations should be continuously refined to enhance perceived interactivity. The significant impact of social media content on satisfaction and attachment highlights the strategic importance of content marketing in building brand relationships, where OTA companies should develop comprehensive social media content strategies that balance informative value with emotional resonance, providing practical information that facilitates decision-making while also telling compelling stories that inspire travel aspirations and create emotional connections. Finally, the stronger effect of satisfaction on commitment relative to attachment suggests that OTA companies should prioritize functional excellence as the foundation of relationship building, monitoring satisfaction metrics closely and addressing service failures promptly to maintain the functional trust that underpins commitment.

A prioritized managerial framework follows from the reported effect sizes (path coefficients are compared descriptively, not through a formal test). Priority 1 – technical interactivity: perceived technical interactivity has the strongest upstream path, to customer satisfaction ($\beta = 0.534$), and also a meaningful path to brand attachment ($\beta = 0.413$), so investment in responsiveness, navigation, and personalization should come first. Priority 2 – satisfaction management: customer satisfaction has the largest direct path to brand commitment ($\beta = 0.457$), so satisfaction monitoring and prompt resolution of service failures should be built on top of the interactive features. Priority 3 – social media content: social media content has balanced paths to brand attachment ($\beta = 0.430$) and customer satisfaction ($\beta = 0.450$), so content should combine informative value (satisfaction) with emotional storytelling (attachment). Priority 4 – attachment building: brand attachment has a smaller but significant path to brand commitment ($\beta = 0.306$), so personalization and relationship-oriented content should support, rather than replace, functional excellence.

Despite these contributions, several limitations should be acknowledged. The cross-sectional design limits causal inferences, as relationships were measured at a single point in time, suggesting that future research could employ longitudinal designs to examine how digital experiences and brand commitment evolve over time. The study focused on general OTA users without distinguishing between specific platforms or types of users, so future research could examine whether the relationships vary across different OTA platforms or user segments based on travel frequency, purpose, or demographic characteristics. The reliance on self-reported measures of perceptions and evaluations from the same respondents may be subject to common method bias, which could inflate or otherwise distort the estimated relationships (see the common method bias assessment in the Results), indicating that future research could incorporate objective behavioral data such as booking frequency, platform usage patterns, or

switching behavior to validate the findings through multiple data sources. Future research could also explore other psychological factors, such as need for cognition, tech-savviness, or social influence, that may further explain variations in commitment formation. Finally, the study was conducted in the Indonesian context, which may limit generalizability to other cultural or economic contexts, so cross-cultural research examining whether the relationships hold across different countries or regions would enhance external validity and reveal contextual variations in digital consumer behavior.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study examined the formation of brand commitment through digital experiences in Online Travel Agent (OTA) hotel booking applications, focusing on the roles of perceived technical interactivity and social media content. The findings provide empirical support for the proposed theoretical relationships derived from the integrated Stimulus-Organism-Response and Relationship Marketing Theory framework within the OTA context, with all six hypotheses supported. Perceived technical interactivity and social media content were significantly and positively associated with customer satisfaction and brand attachment, which were in turn significantly and positively associated with brand commitment. Furthermore, customer satisfaction showed a numerically larger direct path to brand commitment than brand attachment (a descriptive comparison), suggesting that functional service performance plays an important role in strengthening digital consumer relationships.

The findings contribute to digital marketing literature by providing evidence from an integrated model of digital experiences, customer satisfaction, brand attachment, and brand commitment in the OTA hotel booking context. The study extends understanding of the antecedents of brand attachment in digital services and demonstrates the complementary roles of customer satisfaction and brand attachment in developing brand commitment. From a managerial perspective, OTA companies should prioritize responsive and interactive application features alongside relevant and engaging social media content to enhance customer satisfaction and emotional connections. Given the larger path coefficient of customer satisfaction to brand commitment, functional service quality should remain an important foundation for relationship building, supported by personalized experiences, exclusive offerings, continuous satisfaction monitoring, and prompt resolution of service failures.

Limitations

This study has several limitations. First, the research was conducted within the Indonesian OTA hotel booking context and during a specific period, so the findings may not be fully generalizable to other countries, digital service sectors, or consumer contexts. In addition, purposive and snowball sampling are non-probability techniques, so the sample is not statistically representative and may be affected by sampling bias. Second, the study examined a limited set of variables, consisting of perceived technical interactivity, social media content, customer satisfaction, brand attachment, and brand commitment, while other technological, relational, and psychological factors may also influence brand commitment. Third, the cross-sectional design and reliance on self-reported data limit the ability to capture long-term changes in consumer perceptions and relationships and may introduce potential common method bias, which could inflate or distort the estimated relationships. The cross-sectional design also limits causal interpretation, so the results should be read as associations. The questionnaire items were adapted and translated into Indonesian by the authors without formal back-translation or a pilot test, although their validity and reliability were evaluated in the main sample. Finally, the model tested direct relationships only; indirect effects through customer satisfaction and

brand attachment were not tested. The findings should therefore be interpreted within the specific context, variables, sample, and research period examined in this study.

Recommendations

Future studies should broaden the scope of research objects by examining different OTA platforms, digital service industries, regions, and cultural contexts, while using probability-based or more diverse sampling where feasible and a larger sample to improve the robustness and generalizability of the findings. Researchers are also encouraged to use a longer observation period or longitudinal design to capture changes in customer satisfaction, brand attachment, and brand commitment over time and to incorporate objective behavioral data where possible. Additional technological, relational, and psychological variables may also be included to develop a more comprehensive model of digital brand commitment formation. Extensions tied to the limitations of the current model include: (1) testing the specific indirect effects of perceived technical interactivity and social media content on brand commitment through customer satisfaction and brand attachment using bootstrapped confidence intervals, to answer whether these constructs mediate the relationships; (2) formally comparing path coefficients (e.g., the satisfaction versus attachment path to brand commitment) and testing differences across OTA platforms or user segments with multigroup analysis; (3) using longitudinal or experimental designs to examine whether the hypothesized relationships hold over time and to support stronger causal interpretation; and (4) assessing common method bias with a design that separates the measurement of predictors and outcomes, or with objective behavioral data.

Author Contributions

All authors made significant contributions to this study. The first author was primarily responsible for conceptualizing the study, collecting and analyzing the data, and preparing the initial manuscript. The second author contributed to the development of the conceptual framework, interpretation of the research findings, and critical evaluation and revision of the manuscript. Both authors reviewed and approved the final version of the manuscript for publication

REFERENCES

- Al Amin, M., Rahman, M. M., Hollebeek, L. D., Ul Islam, J., & Clark, M. K. (2026). The role of sustainable social media marketing activities in raising bottom-of-the-pyramid customers' engagement, satisfaction, and subjective well-being. *Business Strategy and the Environment*, 35(4), 5158–5174.
- AlFraihat, S. F. A., Ali, A. M., Hodaifa, G., & Alghizzawi, M. (2025). The impact of digital content marketing on brand defence: The mediating role of behavioural engagement and brand attachment. *Administrative Sciences*, 15(4), 124.
- Ali, F., Rasoolimanesh, S. M., Sarstedt, M., Ringle, C. M., & Ryu, K. (2018). An assessment of the use of partial least squares structural equation modeling (PLS-SEM) in hospitality research. *International Journal of Contemporary Hospitality Management*, 30(1), 514–538.
- Al-Shafei, M. (2025). Navigating human-chatbot interactions: An investigation into factors influencing user satisfaction and engagement. *International Journal of Human–Computer Interaction*, 41(1), 411–428.
- Anagnostopoulou, S. C., Buhalis, D., Kountouri, I. L., Manousakis, E. G., & Tsekrekos, A. E. (2020). The impact of online reputation on hotel profitability. *International Journal of Contemporary Hospitality Management*, 32(1), 20–39. <https://doi.org/10.1108/IJCHM-03-2019-0247>

- Anggraeni, A. D. (2026). Emotional Anchoring: Explaining Emotional Persistence in Social Media Marketing. *Marketra: Journal of Marketing Strategy and Customer Research*, 1(1), 30–57.
- APJII. (2026). *Survei Internet APJII 2026*. Retrieved September 5, 2026, from <https://survei.apjii.or.id/>.
- Appel, G., Grewal, L., Hadi, R., & Stephen, A. T. (2020). The future of social media in marketing. *Journal of the Academy of Marketing Science*, 48(1), 79–95.
- Atmaja, D. R., & Wibowo, S. F. (2025). *Interaksi Parasosial dalam Pemasaran Digital: Membedah Kekuatan Hubungan, Kepercayaan, dan Pengaruh*. DRA Cipta Kreasi.
- Brocato, E. D., Voorhees, C. M., & Baker, J. (2012). Understanding the influence of cues from other customers in the service experience: A scale development and validation. *Journal of Retailing*, 88(3), 384–398.
- Camilleri, M. A., Troise, C., & Kozak, M. (2023). Functionality and usability features of ubiquitous mobile technologies: the acceptance of interactive travel apps. *Journal of Hospitality and Tourism Technology*, 14(2), 188–207.
- Çaylak, P. Ç., Kayakuş, M., Eksili, N., Yiğit Açıkgoz, F., Coşkun, A. E., Ichimov, M. A. M., & Moiceanu, G. (2024). Analysing online reviews consumers' experiences of mobile travel applications with sentiment analysis and topic modelling: The example of Booking and Expedia. *Applied Sciences*, 14(24), 11800.
- Cheung, M. L., Pires, G. D., Rosenberger, P. J., & De Oliveira, M. J. (2020). Driving consumer–brand engagement and co-creation by brand interactivity. *Marketing Intelligence & Planning*, 38(4), 523–541. <https://doi.org/10.1108/MIP-12-2018-0587>
- Choi, C.-J., Xu, J., & Min, D.-G. (2024). Investigating of the influence process on consumer's active engagement through emotional brand attachment and brand love. *Asia Pacific Journal of Marketing and Logistics*, 36(11), 3061–3080.
- Dehghanpouri, H., Soltani, Z., & Rostamzadeh, R. (2020). The impact of trust, privacy and quality of service on the success of E-CRM: the mediating role of customer satisfaction. *Journal of Business & Industrial Marketing*, 35(11), 1831–1847.
- e-Conomy SEA. (2024). *Southeast Asia's Digital Economy Report 2024*. Google, Temasek, Bain & Company.
- Emeafor, O. F., Anunobi, N. H., & Eyisi, A. P. (2025). Service Failure Dynamics in the Hospitality Industry. *Nsukka Journal of the Humanities*, 33(1), 153.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Ghorbanzadeh, D., & Rahehagh, A. (2021). Emotional brand attachment and brand love: the emotional bridges in the process of transition from satisfaction to loyalty. *Rajagiri Management Journal*, 15(1), 16–38.
- Gilaninia, S., Almani, A. M., Pournaserani, A., & Mousavian, S. J. (2011). Relationship marketing: A new approach to marketing in the third millennium. *Australian Journal of Basic and Applied Sciences*, 5(5), 787–799.
- Gutiérrez, A., García, E., & López, R. (2023). Digital transformation in tourism: New business models and customer experience. *Tourism Management*, 94, 104–118.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-80519-7>
- Hair, J. F., Jr., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (3rd ed.). Sage Publishing.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>

- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In *New Challenges to International Marketing* (pp. 277–319). Emerald Group Publishing. [https://doi.org/10.1108/S1474-7979\(2009\)0000020014](https://doi.org/10.1108/S1474-7979(2009)0000020014)
- Hollebeek, L. D., & Macky, K. (2019). Digital content marketing's role in fostering consumer engagement, trust, and value: Framework, fundamental propositions, and implications. *Journal of Interactive Marketing*, 45(1), 27–41.
- Ibrahim, M., Emmanuel, C., Yeboah, D., & Kumah, A. (2025). The influence of digital technologies on quality service delivery in the public sector: the mediating role of service expectation. *Future Business Journal*, 11(1), 158.
- Iswanto, D., Premananto, G. C., Sudarnice, S., & Sangadji, S. S. (2025). Structural equation modeling of social media influences: How visual appeal and product information shape positive word of mouth. *Journal of Applied Data Sciences*, 6(2), 921–935.
- Jo, H., & Ahn, H. Y. (2024). Understanding digital engagement: factors influencing awareness and satisfaction of digital transformation. *Discover Computing*, 27(1), 23. <https://doi.org/10.1007/s10791-024-09455-4>
- Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration*, 11(4), 1–10.
- Lee, J., Lee, Y., & Kim, S. (2021). The effects of consumers' in-store technology experience on perceived interactivity, retail brand commitment, and revisit intention in a Korean beauty store. *International Journal of Human–Computer Interaction*, 37(6), 534–546.
- Lin, Y., Zhang, X., & Wang, L. (2025). Interactive technology and customer satisfaction in online travel agencies: A comprehensive study. *Tourism Management*, 86, 104–121.
- Liu, Y., Lu, X., Li, C., & Zhao, G. (2022). The influence of content presentation on users' intention to adopt mHealth applications: Based on the SOR theoretical model. *Sustainability*, 14(16), 9900.
- Lu, C. Y., Suhartanto, D., Gunawan, A. I., & Chen, B. T. (2020). Customer satisfaction toward online purchasing services: evidence from small & medium restaurants. *International Journal of Applied Business Research*, 2(01), 1–14.
- Malhotra, N. K. (2010). *Marketing Research: An Applied Orientation*. Pearson Education. <https://books.google.co.id/books?id=VLwVPwAACAAJ>
- Malhotra, N. K., Nunan, D., & Birks, D. F. (2017). *Marketing Research: An Applied Approach*. Pearson Education. <https://books.google.co.id/books?id=iPEmDwAAQBAJ>
- Malik, H., & Depi, J. W. S. (2025). Membangun Identitas Merek Melalui Pengalaman Event: Pendekatan Desain dalam Strategi Branding. *Jurnal Ilmiah Manajemen Dan Bisnis (JIMBI)*, 6(1), 90–98.
- Man, Z., & Hashim, A. M. (2025). Interaction Design–Driven User Satisfaction Mechanism in Online Education Platforms: The Mediating Roles of Empathy and Work-Life Balance. *International Conference on Emerging Technologies and Educational Innovation*, 231–250.
- Mbango, P. (2018). Examining the effects of customer satisfaction on commitment and repurchase intentions of branded products. *Cogent Social Sciences*, 4(1), 1521056.
- Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. The MIT Press.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20–38.
- Nusair, K., “Khal,” Parsa, H. G., & Cobanoglu, C. (2011). Building a model of commitment for Generation Y: An empirical study on e-travel retailers. *Tourism Management*, 32(4), 833–843. <https://doi.org/10.1016/j.tourman.2010.07.008>

- Nyadzayo, M. W., Matanda, M. J., & Ewing, M. T. (2015). The impact of franchisor support, brand commitment, brand citizenship behavior, and franchisee experience on franchisee-perceived brand image. *Journal of Business Research*, 68(9), 1886–1894.
- Oktaviani, D., Sulistiyo, T. D., & Sugiharto, T. (2025). Peran Intention To Revisit Dan Value Co-Creation Dalam Menciptakan Loyalitas Di Ekosistem Online Travel Agent. *Jurnal Pariwisata*, 12(2).
- Payne, A., & Frow, P. (2017). Relationship marketing: looking backwards towards the future. *Journal of Services Marketing*, 31(1), 11–15.
- 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(5), 879–903.
- Ridwan, A. (2025, October 1). *Jenis Layanan Online Travel yang Digunakan Warga RI pada 2025*. Databoks Katadata. Retrieved September 5, 2026, from <https://databoks.katadata.co.id/layanan-konsumen-kesehatan/statistik/68dcbdc98336/jenis-layanan-online-travel-yang-digunakan-warga-ri-pada-2025>.
- Salem, S. F. (2021). Do relationship marketing constructs enhance consumer retention? An empirical study within the hotel industry. *Sage Open*, 11(2), 21582440211009224.
- Sanz-Blas, S., Buzova, D., & Otero Gómez, M. C. (2026). “Brand love goes through the interactive brand community”: the role of member-to-member emotional bonds. *Journal of Research in Interactive Marketing*, 20(3), 309–323.
- Sarstedt, M., Ringle, C. M., & Hair, J. F. (2021). Partial least squares structural equation modeling. In *Handbook of market research* (pp. 587–632). Springer.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Sengupta, A., & Cao, L. (2022). Augmented reality’s perceived immersion effect on the customer shopping process: decision-making quality and privacy concerns. *International Journal of Retail & Distribution Management*, 50(8–9), 1039–1061.
- Shimul, A. S. (2022). Brand attachment: A review and future research. *Journal of Brand Management*, 29(4), 400–419.
- Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J.-H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: Guidelines for using PLSpredict. *European Journal of Marketing*, 53(11), 2322–2347.
- Shukla, P., Banerjee, M., & Singh, J. (2016). Customer commitment to luxury brands: Antecedents and consequences. *Journal of Business Research*, 69(1), 323–331.
- Sulam, R. T., & Fasa, M. I. (2025). TikTok Shop sebagai inovasi social commerce: Analisis pengalaman pengguna, kepuasan konsumen, dan perubahan perilaku belanja. *Inflasi: Jurnal Ekonomi, Manajemen Dan Perbankan*, 2(1), 97–106.
- Sumiyana, S., & Komariyah, E. F. (2024). Satisfaction and trust should first be nested in commitment before affecting loyalty in the use of mobile shopping applications. *SAGE Open*, 14(4), 21582440241288020.
- Vo Minh, S., Nguyen Huong, G., & Dang Nguyen Ha, G. (2022). The role of social brand engagement on brand equity and purchase intention for fashion brands. *Cogent Business & Management*, 9(1), 2143308.
- Yang, L., & Shi, S. (2025). Sustaining front-seat passenger engagement: User experience and perceived interactivity of in-vehicle information systems. *IEEE Access*, 13, 47763–47775.
- Ye, Y., Chen, K.-H., Li, C., Li, Y., & Wu, J. (2026). Stimulating tourists’ psychological restoration and subjective vitality via religious tourism: combining stimulus-organism-

- response model and attention restoration theory. *Asia Pacific Journal of Tourism Research*, 1–21.
- Zhao, J., Ma, Y., Zhang, X., Lin, H., Lu, Y., Wu, R., Zhang, Z., & Zou, F. (2025). An empirical study on the impact of different interaction methods on user emotional experience in cultural digital design. *Sensors*, 25(17), 5273.
- Zhi, L., & Ha, H.-Y. (2024). Evolving consumer preferences: The role of attribute shifts in online travel agency satisfaction and loyalty. *Journal of Theoretical and Applied Electronic Commerce Research*, 19(4), 2880–2895.