Received: October 1, 2021
Revised: May 29, 2022
Accepted: September 7, 2022

KKBS JOURNAL of Business Administration and Accountancy
วารสารบริหารธุรกิจและการบัญชี มหาวิทยาลัยขอนแก่น
ปีที่ 6 ฉบับที่ 3 กันยายน - ธันวาคม 2565 Volume 6 Number 3 September - December 2022

บทบาทของนวัตกรรมบริการในการเพิ่มความจงรักภักดีให้กับบริการทางออนไลน์ของผู้ให้บริการด้านการท่องเที่ยว

Role of Service Innovation in Enhancing Loyalty to Online Travel Agencies

วทัญญู รัศมิทัต[1*]
Vatanyoo Rasmidatta

บทคัดย่อ

การศึกษาครั้งนี้มีวัตถุประสงค์เพื่อตอบคำถามต่อไปนี้ 1) โมเดลการวัดเกี่ยวกับความผูกพันของลูกค้าครั้งนี้จะเป็นตัวแทนที่ดีมีความเหมาะสมสำหรับบริการทางออนไลน์ของผู้ให้บริการด้านการท่องเที่ยวในประเทศไทยหรือไม่ 2) แบบจำลองแนวคิดที่นำเสนอครั้งนี้ มีความเหมาะสมสำหรับธุรกิจตัวแทนท่องเที่ยวในประเทศไทยหรือไม่ ถ้าหากเหมาะสมแล้ว อำนาจในการพยากรณ์นั้นจะเป็นอย่างไร สำหรับการที่นวัตกรรมบริการจะมากระตุ้นความผูกพันของลูกค้าจนเกิดเป็นความจงรักภักดีในตราสินค้า 3) การรับรู้ของลูกค้าในปัจจุบันสำหรับนวัตกรรมบริการจะช่วยกระตุ้นการประเมินการให้บริการ และความผูกพันของลูกค้าหรือไม่ การศึกษาครั้งนี้เป็นงานวิจัยเชิงปริมาณ ผู้วิจัยใช้แบบสอบถามเป็นเครื่องมือในการเก็บข้อมูลจากผู้ตอบแบบสอบถามจำนวน 478 ราย ซึ่งมาจากความคิดเห็นบนแพลตฟอร์มออนไลน์และออฟไลน์ การค้นพบมีดังนี้ 1) นวัตกรรมบริการ มีอิทธิพลทางบวกต่อความผูกพันของลูกค้า 2) การรับรู้คุณค่า มีอิทธิพลทางบวกต่อความผูกพันของลูกค้า 3) ความผูกพันของลูกค้า มีอิทธิพลทางบวกต่อความจงรักภักดีในตราสินค้า 4) การรับรู้คุณค่า มีอิทธิพลทางบวกต่อความจงรักภักดีในตราสินค้า 5) นวัตกรรมบริการ มีอิทธิพลทางบวกต่อความจงรักภักดีในตราสินค้า การศึกษานี้ชี้ให้เห็นประโยชน์หลักสองประการ ประการแรกคือ การบูรณาการความผูกพันของลูกค้า, นวัตกรรมบริการ, และการประเมินการให้บริการถูกสำรวจในบริบทของการส่งเสริมโรงแรมในประเทศไทยโดยเว็บไซต์ของผู้ให้บริการด้านการท่องเที่ยว ซึ่งจะช่วยขยายการเชื่อมโยงแนวคิดในระดับทฤษฎีที่มีอยู่ ประการที่สอง การศึกษานี้ได้มีการคำนวณอำนาจการพยากรณ์ของตัวแปรที่ใช้ในการขับเคลื่อนความจงรักภักดีในตราสินค้า โดยสามารถนำประโยชน์จากข้อเสนอแนะดังกล่าวไปเป็นแนวทางส่งเสริมความจงรักภักดีในตราสินค้า ที่มาจากนวัตกรรมบริการและความผูกพันของลูกค้า

คำสำคัญ: นวัตกรรมการบริการ ความจงรักภักดี โอทีเอ

Abstract

This study aimed to answer the following questions. (1) Is the latest proposed measurement model for customer engagement suitable for online travel agencies (OTAs) in Thailand? (2) Is the proposed conceptual model suitable for the travel agent business in Thailand? If yes, how much can the predictive power of service innovation trigger customer engagement and collectively predict brand loyalty? (3) Does current customers' awareness of

[1]อาจารย์ประจำ คณะศิลปศาสตร์และวิทยาศาสตร์ มหาวิทยาลัยเกษตรศาสตร์
[*]Corresponding Author e-mail: r.vatanyoo@gmail.com, vatanyoo.r@ku.ac.th

service innovation trigger service evaluation and customer engagement? In this quantitative empirical research, the researcher employed a questionnaire as an instrument for collecting data. The researcher collected data from 478 respondents by using online and off-line surveys. The findings are as follows: (1) service innovation influences customer engagement, (2) perceived value influences customer engagement, (3) customer engagement influences brand loyalty, (4) perceived value influences brand loyalty, and (5) service innovation influences brand loyalty. This study provides two major contributions. First, the integration of customer engagement, service innovation, and service evaluation was explored in the context of Thailand hotels promoted by OTAs, widening the existing nomological network. Second, this study calculated the predictive power of brand loyalty drivers, and thus, practitioners could reap the benefits from the suggestions on how to predict and promote brand loyalty conditional to the level of service innovation and customer engagement.
Keywords: Service Innovation Loyalty OTA

Introduction

The structure of service evolution, such as perceived service quality (Hapsari et al., 2017; Law et al., 2022; Su et al., 2016), customer satisfaction (Petzer & Roberts-Lombard, 2021; Yuan et al., 2021), or perceived value (Matsuoka, 2022; Molinillo et al., 2021; Paulose & Shakeel, 2022), has been widely used to examine brand loyalty in the past literature. Undoubtedly, past rigorous tests have indicated the positive relationship between such service evaluation factors and brand loyalty (Jaakkola & Alexander, 2014; Manosuthi et al., 2020; So et al., 2016). However, recent studies have introduced customer engagement to explain how it interacts with such traditional service evaluation and how it affects brand loyalty (Manosuthi et al., 2021a; So et al., 2016). These studies support the argument that customer engagement can be a smarter driver of brand loyalty than service evaluation. For example, So et al. (2016) proposed that customer engagement is the strongest predictor of service brand loyalty because it has the highest standardized regression weight compared with other service brand evaluations and trust. This previous work emphasized the significance of customer engagement in the context of hospitality and tourism.

In accordance with Manosuthi et al. (2021a), customer engagement has been investigated in the fields of hospitality and tourism since 2013. To date, no consensus exists on its conceptualization and appropriate number of dimensions (Islam & Rahman, 2016; Manosuthi et al., 2021a). Nonetheless, the most commonly used conceptualization is a unidimensional behavioral manifestation. Many scholars have argued that behavioral participation alone cannot guarantee real customer engagement (So et al., 2016). For example, customers may seek information to help them make decisions or reduce risks from asymmetric information rather than get connected to firms. Three dimensions, namely, behavior, emotion, and cognition, are extensively used in the marketing literature (Fakfare et al., 2021).

In hospitality and tourism, five dimensions, namely, interaction, identification, absorption, enthusiasm, and attention, were introduced by So et al. (2014).

Given the exponential increase in the number of studies on customer engagement in hospitality and tourism since 2013, scholars have extensively demonstrated and proposed a measurement model for customer engagement that is specifically designed for these fields. Previously, some researchers examined the measurements (Harrigan et al., 2017) and consequences of customer engagement (Leckie et al., 2017; Manosuthi et al., 2021a) and confirmed the positive relationship within the nomological network (Harrigan et al., 2018). However, other researchers have examined its antecedents (Jaakkola & Alexander, 2014; Manosuthi et al., 2021a; So et al., 2016), while the effects of high- or low-level customer engagement on hotel brand loyalty remain unexplored. Understanding antecedents enables service providers to offer a marketing program that can help increase the degree of customer engagement. Similarly, understanding what causes customers to be classified under high- or low-level customer engagement can also assist service providers in appropriately segmenting and offering the right combination of services to target customers, increasing their loyalty and gaining long-term relationship sustainability.

In previous studies, scholars have suggested investigating customer involvement as an antecedent of customer engagement (Harrigan et al., 2017; So et al., 2016). Nevertheless, competition in the hotel business is sharp and many traditional constructs, such as service quality, customer satisfaction, or perceived value, are regarded as expected practical criteria of companies, implying that online travel agencies (OTAs) also experience crucial time to attract new customers because one of the major factors that drives customers to purchase is a discounted price compared with buying directly from hotels. By contrast, when it is appropriately implemented, service innovation can be a key driver in boosting service evaluation and triggering customer involvement and engagement. In accordance with the elaboration likelihood model (Kitchen et al., 2014; Shahab et al., 2021), when customers are aware of the existence of service innovation and have gotten used to it, they are inclined to provide profound elaboration and tend to emotionally and physically engage with the firm (Leckie et al., 2017). Although previous studies have examined the essence of customer engagement and service innovation, interactions between these constructs and their consequences on hotel business brand loyalty remain unknown. To advance the body of knowledge in hospitality and tourism, service innovation is introduced to widen the nomological network of customer engagement.

This research aims to answer the following questions. (1) Is the latest proposed measurement model for customer engagement suitable for OTAs in Thailand? (2) Is the proposed conceptual model suitable for OTA business in Thailand? If yes, how much predictive power of service innovation can trigger customer engagement and collectively predict brand

loyalty? (3) Does the current customers' awareness of service innovation trigger service evaluation and customer engagement?

To answer these questions, this research adopted 25 items from So et al. (2014) to capture the five underlying factors of customer engagement. To check the robustness of a parsimonious version of customer engagement, 11 items from Harrigan et al. (2017) nested within the original 25 items were also evaluated. Service innovation was measured using a four-item perceived service concept newness scale from Lowe and Alpert (2015). To assess perceived value as a representative of service evaluation, four overall service quality items from Sirdeshmukh et al. (2002) were employed. Attitudinal loyalty and behavioral loyalty were measured in accordance with the four items of Srinivasan et al. (2002). By using cluster analysis, this study identified different tiers of customer engagement groups and investigated the difference between these subgroups. Meanwhile, structural equation modeling (SEM) that used the traditional maximum likelihood estimator triangulated with variance-based SEM was applied to increase the internal validity of the findings (Manosuthi et al., 2021b). Moreover, the partial least squares (PLS) technique was employed to determine the predictive force of service innovation and customer engagement on brand loyalty.

This study provides two major contributions. First, the integration of customer engagement, service innovation, and service evaluation was explored in the context of Thailand hotels promoted in OTAs, widening the existing nomological network. Second, this study calculated the predictive force of brand loyalty drivers; thus, practitioners can reap the benefits from the suggestion on how to predict and promote brand loyalty conditional to the level of service innovation and customer engagement. In practice, this study also used OTA brand and its application as a case study.

Literature Review

Customer engagement

The marketing literature considers the customer engagement construct an imperative driver for mobilizing business success. This construct has been tested and verified to exert a positive effect on the key performance of a business (Brodie et al., 2011; Kumar & Pansari, 2016; Van Doorn et al., 2010). For example, several pieces of literature have pointed out that customer engagement plays a significant role in increasing firm performance directly (e.g., net profit margin and market share) and indirectly (e.g., providing feedback that firms can use to improve their products or services) (Bleier et al., 2019; Hollebeek et al., 2016). In addition, customer engagement can be regarded as a strategy for strengthening sustainable competitive advantage (Brodie et al., 2013; Van Doorn et al., 2010) and an approach for effectively keeping customers loyal to a firm (Manosuthi et al., 2021a).

Since 2013, the concept of customer engagement has been gradually recognized in the context of hospitality and tourism as a major driver for business success (Manosuthi & Aouad,

2018). Nevertheless, no consensus exists with regard to its conceptualization (Dijkmans et al., 2015). According to Brodie et al. (2011), such divergence can be demonstrated by 8 definitions from marketing, 22 from social science, and 19 from business literature. On the one hand, some scholars have encouraged using behavioral manifestation as a representative of the construct (Verhoef et al., 2010). On the other hand, other specialists have argued that behavioral manifestation is necessary but insufficient for capturing real customer engagement because incorporating the enduring psychological connection with a firm or brand is such an important behavior (Brodie et al., 2011; Brodie et al., 2013; Hollebeek et al., 2016).

Although several multidimensional conceptualizations of customer engagement are prevailing, the current study applies the scale from So et al. (2014) because it was developed and rigorously demonstrated specifically for the hospitality and tourism context. Moreover, its conceptualization is in line with the traditional one in the marketing literature. In the present study, customer engagement is operationalized as the connection of stakeholders to a firm or brand, along with the expression of cognitive, emotional, and behavioral responses upon purchase as a second construct that consists of enthusiasm, attention, absorption, interaction, and identification. In particular, enthusiasm represents an individual's strong level of excitement and interest regarding the focus of engagement, such as a brand, while attention describes a consumer's attentiveness to a brand. Absorption is a pleasant state in which a customer is fully concentrated, happily and deeply engrossed while playing the role of a consumer of a brand. Interaction refers to the customer's online and off-line participation with a brand or with other customers outside of the purchasing transaction. Identification is an individual's perceived oneness with or belongingness to a brand. The five underlying dimensions collectively reflect the psychological and behavioral aspects of customer engagement.

Harrigan et al. (2017) performed an instrumental test in the context of social media brands in the United States, similar to that in the current study. The findings also confirmed a good fit for the 25 items. In addition, the scale refinement advanced the body of knowledge by introducing the parsimonious 11-item scale that was specifically designed for the context of OTA brands. With the same operationalization but different dimensionalities, the present study adopted three dimensions (i.e., identification, absorption, and interaction) and the 11-item scale from Harrigan et al. (2017) developed from the originally proposed 25 items from So et al. (2014).

Service innovation

Innovation in service and product can be regarded as a salient source of augmenting firm value, particularly in the case of an economic downturn (Martin-Rios & Pasamar, 2018). To examine service innovation, three perspectives, namely, assimilation, demarcation, and synthesis, have been proposed (Snyder et al., 2016; Witell et al., 2016). From an assimilation perspective, service innovation involves an introduction of new technology and is frequently

considered an extension of product innovation conceptualized as goods-dominant logic (Droege et al., 2009; Mele et al., 2014). In contrast with assimilation, the demarcation perspective concentrates on the service development process that makes a service unique and does not focus solely on technology (Sundbo et al., 2007). Service-dominant logic (SDL) can be used to match this perspective (Hollebeek & Andreassen, 2018). The synthesis perspective views all innovations as service innovations. It focuses on value proposition as a platform offered by a service organization to customers who can create value for themselves or their community.

Previous studies have suggested that service innovation is a source of stimulation because it reflects some properties that influence buyer decisions, such as novelty, surprise, and change. Service innovation can trigger the curiosity of stakeholders to learn more about a new service of firms or brands. When customers realize that a new service is unique and can fulfill their needs, they are inclined to elaborate, engendering customer engagement (Kitchen et al., 2014). In this manner, the concepts of value-in-use, co-creation value, and customer engagement are supported (Hollebeek & Andreassen, 2018). Therefore, the hypothesis that relates service innovation to customer engagement is as follows.

H1: Service innovation exhibits a positive relationship with customer engagement.

Perceived value as service evaluation and customer engagement

Numerous studies have revealed that brand loyalty can be created through customer experience reflected by perceived service quality, satisfaction, and perceived value. The results of a prior research indicated that correlations among intercorrelated variables are high, implying that creating a new underlying factor that can explain the three constructs is desirable because it is parsimonious in terms of analysis and it reduces the chance of obtaining multicollinearity in a model (Crosby et al., 1990). Moreover, including all evaluation variables in the nomological network can be problematic because a high correlation exists among those constructs, possibly leading to unfavorable situations, such as multicollinearity. For example, Crosby et al. (1990) introduced a relationship quality variable that comprises satisfaction and trust with a salesperson.

Empirical research involving customer engagement is scarce because this concept is still in the seeding stage (Manosuthi & Aouad, 2018; Manosuthi et al., 2021a; So et al., 2016). Nevertheless, research on employee engagement in the human resource literature is abundant.The key findings indicate that employee work engagement significantly and positively contributes to job satisfaction (Alarcon & Lyons, 2011; Li et al., 2021; Manosuthi, 2020; Rasool et al., 2021; Reeves et al., 2021). Relationship in the context of an employee possibly transfers to that of a customer because they share similar properties. If employee work engagement is supposed to drive satisfaction, which is considered one aspect of service evaluation, then customer engagement will be presupposed to be an antecedent of service brand evaluation reflected by customer satisfaction. The psychology and marketing literature confirm this idea.

In particular, customer engagement causes a favorable attitude toward a product, service, or brand. In addition, perceived service quality, perceived value, and customer satisfaction are categorized as a type of attitude, implying that customer brand engagement can lead to positive brand evaluation.

However, some scholars have argued that evaluation factors cause engagement. For example, Kumar and Pansari (2016) proposed that the procedure to engage customers will occur after they experienced the product or service based on trust and commitment, suggesting that satisfaction and emotions are the key drivers of customer engagement. In accordance with theory of engaging customers, service brand evaluation can lead to customer engagement (Kumar & Pansari, 2015; Pansari & Kumar, 2017). In the context of hospitality and tourism, the directional relationship from service evaluation, such as perceived value, customer engagement, or perceived service quality, is well supported with solid theory, such as engagement theory. As discussed earlier, perceived value and other constructs (e.g., perceived service quality or customer satisfaction) can be considered a form of service evaluation. Therefore, the directional relationship in this study is hypothesized as follows.

H2: Perceived value exhibits a positive relationship with customer engagement.

Brand loyalty

Theoretically, when consumers experience product or service from a firm, they tend to form judgment regarding the brand in terms of attitude and satisfaction, paving toward positive behavioral intention. To support this argument, prior studies have confirmed that increasing the service brand evaluation of perceived value contributes to higher purchase intention, word of mouth, and customer loyalty (So et al., 2014; So et al., 2016). Consequently, service brand evaluation, which is the aggregation of perceived service quality, perceived value, and customer satisfaction, plays a significant role in enhancing brand loyalty.

Findings from the literature reveal that individuals who are highly engaged with a brand are inclined to spend time interacting and sharing experiences about the product and service, leading to purchase intention (Vivek et al., 2012). In addition, several studies in the marketing literature show that customer brand engagement influences consequences, such as brand perception, brand attitude, and brand loyalty (Harrigan et al., 2017; Harrigan et al., 2018; Hollebeek & Andreassen, 2018; Hollebeek et al., 2016). Scholars have defined brand loyalty as a customer's commitment to rebuy or re-patronize a favorite brand constantly; hence, repurchase intention is inevitably incorporated into brand loyalty. Therefore, customer engagement is an antecedent of brand loyalty.

Service innovation can be perceived as a novel method. Service newness can trigger unawareness of needs or provide solutions to existing problems that currently prevailing services cannot fulfill, resulting in positive outcomes, such as repurchase intention and brand loyalty. Hence, if customers notice that service innovation can fulfill their latent needs, they will tend to develop positive behavioral intention and loyalty.

H3 Customer engagement exhibits a positive relationship with brand loyalty.
H4 Perceived value exhibits a positive relationship with brand loyalty.
H5 Service innovation exhibits a positive relationship with brand loyalty.

Method

Sample and data collection

Data were gathered from a sample of OTA customers by using online and off-line surveys. In the online survey, potential participants were selected and invited to join from the webboard Pantip.com, which is a popular website and discussion forum in Thailand. In the off-line survey, undergraduate and graduate students were asked to answer the survey. To qualify in the survey, the first filter question asked potential participants whether they have used a mobile phone, tablet, or computer application to access service from OTAs. Only the respondents who chose "had experienced" were invited to join the survey. In the case of the undergraduate and graduate students, each item was clarified, read aloud, and then filled together by the participants. In this manner, the likelihood of increasing the common method bias was reduced, strengthening the quality of the dataset.

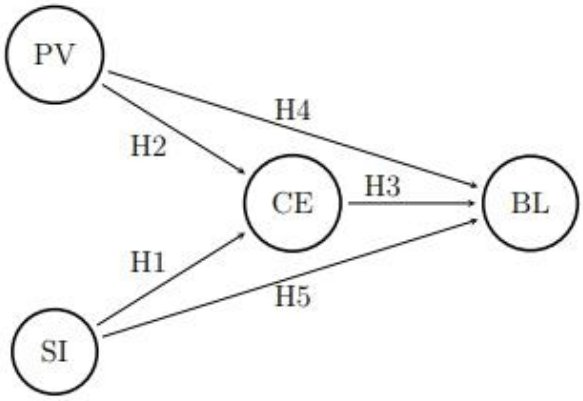

Figure 1: Conceptual model

A total of 478 respondents completed the survey. After cleaning for missing data and outliers, the respondents included 311 females, 95 males, and 11 others. In terms of age, 40% belonged to the below 25 years old group, 33.4% belonged to the 26–35 years old group, 18.6% belonged to the 36–45 years old group, 5.1% belonged to the 46–55 years old group, and 2.9% belonged to the 56 years old and older group. Most of the respondents had a bachelor's degree (43.8%) and were studying at the undergraduate level (39.9%). Interestingly, most of them enjoyed using Agoda (74.7%), while Expedia (13.8%) came second.

In measuring customer engagement, the scale created by So et al. (2014) but recognized by Harrigan et al. (2017) with 11 items in 3 dimensions, namely, identification, absorption, and interaction, was selected. Perceived value was assessed using three items

adopted from Barrutia and Gilsanz (2013). Service innovation was measured using Lowe and Alpert's (2015) four-item scale to capture the overall novel idea in the offered services. Finally, operationalized brand loyalty to capture overall attitudinal loyalty to a specific brand resulting in repeat purchase behavior was analyzed by adopting the four-item scale from Srinivasan et al. (2002).

Analysis

Measurement model: First-order confirmatory factor analysis (CFA)

Customer engagement is conceptualized in the form of a higher-order factor structure; thus, a two-step analysis is required to analyze its validity. In the first step, the first-order measurement model was estimated on all the scales used in the study. In the second step, second-order CFA was then used to assess the customer engagement construct.

The first-order measurement model was conducted on R programing with the "lavaan" package on the overall sample data (n=412) by using maximum likelihood (ML) and its robust multiple linear regression estimator. A univariate normality test is a necessary but insufficient condition for reaching the multivariate normal distribution of the dataset; hence, testing was in the form of rigorous multivariate tests. Three sets of instruments, Royston, Mardia, and H-Z test, in the MVN package were performed to ensure maximum robustness of the conclusion. Although the univariate test signified the normality of the dataset by assessing each item in terms of the higher moment (skewness and kurtosis), the multivariate test results confirmed the violation of the multivariate normal distribution, and thus, the traditional ML estimator was used. In such case, the findings could be bias. The robust version of ML was utilized to fix the standard error of estimation. The results of the analysis indicated a good fit to the overall sample data with χ^2 = 311.128, degree of freedom (df) = 194, df = 1.603, and p-value < 0.05. Although χ^2 was statistically significant because it is typically sensitive to a large sample size, all the other fit indices are within their acceptable ranges to support satisfactory model fit [goodness-of-fit index (GFI) = 0.99, adjusted GFI (AGFI) = 0.99, comparative fit index (CFI) = 0.98, Tucker–Lewis index (TLI) = 0.98, root-mean-square error of approximation (RMSEA) =0.039, and standardized root- mean-square residual (SRMR) = 0.026] as indicated in Table 1. To evaluate construct validity, convergent and discriminant validities were assessed. In accordance with Table 1, all p-values of the standardized factor loadings (λi) were statistically significant [p(χ^2) = 0.000] and greater than 0.6, except for item P1. Moreover, all α, ω, and average variance extracted (AVE) were greater than the threshold levels of 0.7, 0.7, and 0.5, respectively, providing strong support to convergent validity.

Discriminant validity was assessed on the basis of the criteria suggested by Hair et al. (2019). From Table 2, the square root of AVE for each factor was greater than its correlation with other factors except for brand loyalty. In such situation, correlations between suspect

constructs were tested against the hypothesis that they were less than one (Hair et al., 2020). Discriminant validity is evidenced if the value of one is not contained within the range of two standard errors of the correlations. As illustrated in Table 2, the highest correlation between constructs was 0.852. Hence, discriminant validity was assumed to support all pairs of constructs with the rigorous tests.

Construct reliability was assessed through AVE and α (Hair et al., 2020; Hair et al., 2019; Manosuthi et al., 2021b). All α values exceeded the recommended level of 0.7 and the AVE values of all constructs were above 0.5, yielding support for the construct reliability of the measurement scales.

All the constructs in this study were measured from the same participants through a self-administered survey, common method bias could be problematic, inflating correlations among constructs (Podsakoff, 2003). In such case, Harman's single-factor test was used to examine if the variance of the data was largely attributed to a single factor (Chang et al., 2010). However, this single-factor model indicated that the common method variance was unlikely to be bias for the study results, as demonstrated by an RMSEA of 0.15.

Measurement model: Second-order CFA

In the second-order measurement model, customer engagement with all nested sub-dimensions was regarded as correlated constructs. The measurement model yielded a good model fit for the sample data, with χ^2 = 75.419 (p-value < 0.005, df = 41), df = 1.839, GFI = 0.99, AGFI = 0.99, CFI = 0.99, TLI = 0.98, RMSEA = 0.047, and SRMR = 0.017. The construct validity and reliability of all the constructs were evaluated in the first-order model; thus, this analysis focused on only one customer engagement as second-order CFA. As presented in Table 3, the standardized factor loadings of all the dimensions were all significant (p-value < 0.000), Moreover, AVE, α, and ω exceeded the minimum acceptable thresholds of 0.7, 0.7, and 0.5, respectively, supporting the evidence of convergent validity. Discriminant validity was also supported because the square root of AVE for each factor was higher than its correlation with other factors (Hair et al., 2019).

Structural model

As indicated in Table 5, the results of the test of the overall SEM indicated that the proposed model fit the empirical data well as demonstrated with χ^2 = 318.786 (p-value < 0.005, df = 200), x^2df = 1.59, GFI = 0.99, AGFI = 0.99, CFI = 0.98, TLI = 0.98, RMSEA = 0.039, and SRMR = 0.026. Because the significance test of χ^2 test relies on the sample size, the significant p-value may not be problematic if the relevant fit indices are within the acceptable range. Moreover, an additional investigation of the structural path coefficient (Γ) implied that four structural paths were supported, except for the path that linked service innovation to customer brand loyalty. The results also indicated that customer engagement plays an important role in explaining brand loyalty (β = 0.695, *t*-value = 12.705, p-value < 0.000). In addition, perceived

value (β = 0.402, *t*-value = 9.827, p-value < 0.000) and service innovation (β = 0.557, *t*-value = 15.051, p-value < 0.000) significantly engendered customer engagement, accounting for 72% of the variation explained in customer engagement. Furthermore, customer engagement, perceived value, and service innovation are significant factors that explain brand loyalty, collectively accounting for 86% of the variation explained. Figure 2 graphically depicts the results of the hypotheses testing.

Table 1: Results of a measurement model

Construct and item	λ
Service Innovation (SI) ($\alpha = 0.90$, $\omega = 0.92$, and AVE = 0.76)	
S1: OTAs services are new.	0.788
S2: OTAs services are different.	0.786
S3: OTAs services are unique.	0.810
S4: OTAs services are original.	0.974
Perceived value (PV) ($\alpha = 0.76$, $\omega = 0.79$, and AVE = 0.59)	
P1: Services I get from the OTAs application are excellent value.	0.573
P2: OTAs application gives me a feeling of being in control.	0.625
P3: The overall value I get from the OTAs application is worth my money and effort.	0.976
Customer Engagement (CE)	
Identification (ID) ($\alpha = 0.93$, $\omega = 0.94$, and AVE = 0.85)	
I1: When someone criticizes OTAs, it feels like a personal insult.	0.896
I2: When I talk about OTAs, I sometimes think that it is "we" rather than "they".	0.890
I3: When someone praises OTAs, it feels like a personal compliment.	0.966
Absorption (AB) ($\alpha = 0.91$, $\omega = 0.92$, and AVE = 0.73)	
A1: I am passionate about OTAs.	0.884
A2: I felt excited about OTAs concept at the first time.	0.988
A3: Anything related to OTAs grabs my attention.	0.758
A4: When I am interacting with OTAs, I forget everything else around me.	0.740
A5: In my interaction with OTAs, I am immersed.	0.739
Interaction (INT) ($\alpha = 0.93$, $\omega = 0.94$, and AVE = 0.86)	
N1: In general, I like to get involved in the OTAs community discussions.	0.979
N2: I am someone who enjoys interacting with like-minded others in the community.	0.897
N3: I often participate in activities of the OTAs community.	0.881
Brand loyalty (BL) ($\alpha = 0.88$, $\omega = 0.89$, and AVE = 0.68)	
B1: When I need to use similar services that OTAs offers, this is my first choice.	0.964
B2: OTAs is my favorite company to buy the same kind of services	0.715
B3: To me, OTAs is the best company to do business with	0.758
B4: As long as the present service continues, It is hard for me to switch to others	0.742
$\chi^2 = 311.128$ (p-value < .005, df = 194); $\frac{\chi^2}{df} = 1.603$	
GFI = 0.99; AGFI = 0.99; CFI = 0.98; TLI = 0.98; RMSEA = 0.039; SRMR = 0.026	
λ = Loadings; α = Composite Reliability; AVE = Average Variance Extracted	
$\alpha = 0.96$, $\omega = 0.98$, and AVE = 0.75	
All λs are significant at .05	

Table 2: Discriminant validity analysis from first-order CFA

	SI	PV	ID	AB	INT	BL
SI	**0.871**					
PV	0.554	**0.765**				
ID	0.692	0.665	**0.924**			
AB	0.737	0.641	0.849	**0.859**		
INT	0.725	0.671	0.852	0.858	**0.928**	
BL	0.720	0.784	0.827	0.852	0.843	**0.826**

Note:
The bold diagonal elements are the square root of average variance extracted.
Off diagonal elements are the correlation between constructs.
SI = Service Innovation; PV = Perceived Value; AB = ABsorption
INT = Interaction; and BL = Brand Loyalty

Table 3: Second-order measurement model for customer engagement

Factors	λ	AVE	α	ω
Customer Engagement		0.810	0.959	0.975
Identification	0.918			
Absorption	0.827			
Interaction	0.929			

$\chi^2 = 75.419$ (p-value $< .005$, df $= 41$); $\frac{\chi^2}{df} = 1.839$
GFI = 0.99; AGFI = 0.99; CFI = 0.99; TLI = 0.98; RMSEA = 0.047; SRMR = 0.017
λ = Loadings; α = Composite Reliability; AVE = Average Variance Extracted; ω = Omega
All λs are significant at .05

Table 4: Result of the structural model

DV	IV	Hypotheses	β	p-value	Result	R^2
BL	CE	H3	0.695	0.000*	Supported	0.866
	PV	H4	0.274	0.000*	Supported	
	SI	H5	0.027	0.483	Not supported	
CE	PV	H2	0.402	0.000*	Supported	0.720
	SI	H1	0.557	0.000*	Supported	

Note:
DV = Dependent Variable; IV = Independent Variable; Γ = Regression Weight
$\chi^2 = 318.786$ (p-value $< .005$, df $= 200$); $\frac{\chi^2}{df} = 1.59$
GFI = 0.99; AGFI = 0.99; CFI = 0.98; TLI = 0.98; RMSEA = 0.039; SRMR = 0.026
SI = Service Innovation; PV = Perceived Value; AB = ABsorption
INT = Interaction; and BL = Brand Loyalty
* are significant at .05

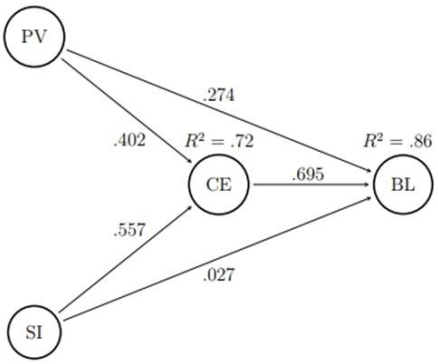

Figure 2: Illustration of structural relationships on the basis of covariance-based analysis

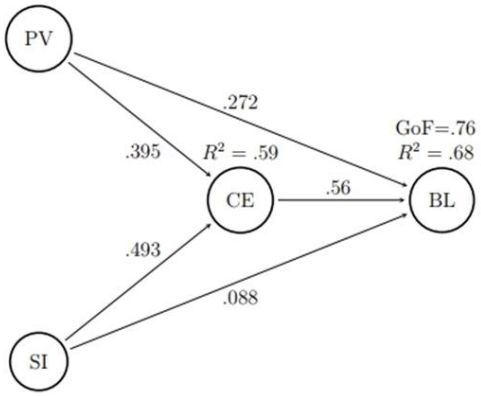

Figure 3: Illustration of structural relationships on the basis of variance-based analysis (PLS)

Table 5: Results of the predictive power based on PLS

Relationship	Direct Effect	Indirect Effect	Total Effect
PV → CE	0.3982	-	0.3982
SI → CE	0.4916	-	0.4916
CE → BL	0.5607	-	0.5607
PV → BL	0.2746	0.2234	0.498
SI → BL	0.0857	0.2753	0.361
Note: All values are reported on bootstrapping with 500 rounds			
Note: All values are significant at .01			

Predictive power

After testing the proposed model, the PLS technique was applied to examine the predictive power. The traditional covariance-based structural equation model is appropriate as the testing model because it minimizes the difference between the model-implied covariance matrix and the empirical dataset. Unlike the covariance-based structural equation model, the variance-based structural equation model is appropriate for prediction because its underlying methodology focuses on maximizing the explained variance (Ali et al., 2018; Manosuthi et al., 2021b). Among the prevailing variance-based techniques, such as generalized structured component analysis, PLS is the most commonly use. This study applied the "plspm" package and the analysis was performed in R programming.

As shown in Figure 3, the model satisfies good predictive power because GFI (0.76) is greater than 0.5 (Hair et al., 2020; Hair et al., 2019). The estimations from the two techniques are similar. The signs of the coefficients are the same across techniques, and the same variables are statistically significant in each technique, except for the coefficient from service innovation to brand loyalty. The predictive power of service innovation (0.493) is greater than that of perceived value (0.395) on customer engagement, accounting for 59% of the variation in customer engagement. For brand loyalty, the predictive power of customer engagement (0.56) is the highest compared with perceived value (0.272) and service innovation (0.088), accounting for 68% of the variation explained in brand loyalty. Other statistics, such as construct validity or reliability, are bypassed because they are tested and validated in the process of covariance-based structural equation analysis.

Table 5 provides the direct and indirect effects of each construct. All the coefficients are significant at p-value < 0.01. The most predictive power for brand loyalty is for customer engagement (0.56), perceived value (0.49), and service innovation (0.36).

Discussion

Customer engagement is eliciting interest among scholars due to its high explanation power, but its possible antecedent remains as an unknown issue that researchers are trying to explore (Hapsari et al., 2017; Harrigan et al., 2018; Manosuthi et al., 2021a; So et al., 2014; So et al., 2016). Testing the role of customer engagement as a mediator that influences

customer loyalty, the current study advances the existing body of customer engagement–service innovation knowledge by providing insights into how service innovation interacts with customer engagement in developing customer loyalty. By controlling for the perceived value, the proposed model fits the empirical data well.

To answer the first research question, the latest customer engagement measurement model proposed by Harrigan et al. (2017) fit the empirical data extremely well. Given that the customer engagement construct addressed by Manosuthi and Aouad (2018) has been tested in a few countries, e.g., Australia (2), Hong Kong (2), Japan (1), Taiwan (1), Italy (2), the Netherlands (1), and USA (3), considerably more rooms are available for enhancing the validity of measurement by testing it across countries. This 11-item parsimonious version of the original 25-item scale developed by So et al. (2014) is encouraged to be used and tested across countries and industries because it is user-friendly and not time-consuming.

For the second and third research questions, the proposed model reveals a good fit with the empirical data. In terms of predictive power, the PLS technique provides the same result as the traditional covariance-based structural equation analysis. Perceived value and service innovation exert considerable influence on customer engagement, particularly for service innovation. If customers are aware that an innovation can fulfill their latent needs, then they tend to positively develop their attitude toward services and start participating in firms or brands. Similarly, customer engagement has the highest predictive power for brand loyalty compared with perceived value and service innovation. Simultaneously, they can predict a variation of 68% in brand loyalty.

The findings also insist on an argument that perceived value affects customer engagement, demonstrating that perceived value contributes to customer brand loyalty directly and indirectly. Although customer engagement performs as a mediator that explains the role of perceived value and service innovation in building brand loyalty, its contribution, as recognized by the magnitude of regression weight (0.695), is considerably greater than that (0.274) of the traditional perceived value, implying that customer engagement is a salient driver of brand loyalty. Consequently, future research is highly recommended to introduce customer engagement, along with the existing traditional brand evaluation constructs, such as perceived value, satisfaction, perceived service quality, trust, or commitment, to the model for creating customer brand loyalty. The effect of service innovation on customer brand loyalty is expected to be positive before testing; however, it is unexpected that service innovation has statistically no effect on brand loyalty. Although direct effect (0.027) does not have statistically significant, customer engagement is the major player that contributes to an extremely high degree of indirect effect (0.387), implying that customer engagement serves as a full mediator that explains the relationship between service innovation and brand loyalty.

Theoretical implications

Behavioral loyalty is a customer's degree of preference for a brand, their willingness to purchase the brand's goods or services at present and in the future. Brand loyalty is the common construct that scholars have tried to explain with various underlying theories, such as evaluation theory, relationship theory, or SDL (Brodie et al., 2011; Brodie et al., 2013; Hollebeek & Andreassen, 2018; Hollebeek et al., 2016; Kumar & Pansari, 2015, 2016; Leckie et al., 2017; Pansari & Kumar, 2017). The traditional explanation (e.g., relationship theory) requires a purchase-specific action to establish the customer–brand relationship first and then develop the bond to get connected with the brand or firm. With the dynamic context at present, using only one perspective to unravel such a complex relationship may be insufficient. Hence, the findings of this study based on the combination of relationship, evaluation, and SDL not only advance the understanding of how customer engagement relates to service innovation to form brand loyalty but also incorporates service innovation and customer engagement into the domain of loyalty formation, widening the existing body of knowledge. In particular, customer engagement beyond purchase exerts an extremely strong influence on loyalty to the highly competitive service brand.

Managerial implications

Several interesting insights and managerial indications can be derived from our findings and can help address management's need to gain knowledge about customer engagement and brand loyalty on a service organization in a competitive market (e.g., Agoda). A suggestion is made to innovate existing resources to draw the participation of potential customers. In this manner, managers should create communication that enables consumers and their company to interact with each other through social media, establish or maintain the presence of their brand on various social media platforms, and deal closely with customers who regularly via newsletters, distributing brochures, broadcast advertisements, customer interactions, or offering promotions. Given the significant influence of and potential benefit of accessing the Internet, managers should encourage sharing and recommendations on online transaction platforms to fulfill the forms of engagement, such as value co-creation, by engaged customers (Hollebeek & Andreassen, 2018). This process will gradually and psychologically develop the connection between customers and company/brand, inducing a higher level to reach customer engagement state, and finally, leverage their loyalty.

Limitations and Implications for Further Research

First, the implication of these findings is merely an association among constructs instead of a causal relationship because the research design was originally designed to aggregate data in a cross-sectional manner. Future research should consider a longitudinal study with a repeated measure design to realize an interpretation in terms of a causal relationship. Second, generalization is limited because the sample of this study mostly incorporated customers who

are students whose experiences are concerned with a daily used mobile application. Future research should enhance this scope to include not only students but also other types of potential customers. In addition, future research should integrate other antecedents (e.g., customer involvement) and consequences (e.g., customer equity, customer value, firm reputation, competitive sustainability, brand recognition, or financial outcome) to enhance the current nomological network.

References

Alarcon, G.M. & Lyons, J.B. (2011). The relationship of engagement and job satisfaction in working samples. *The Journal of Psychology, 145*(5), 463-480. https://doi.org/10.1080/00223980.2011.584083

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. https://doi.org/10.1108/IJCHM-10-2016-0568

Bleier, A., Harmeling, C.M. & Palmatier, R.W. (2019). Creating effective online customer experiences. *Journal of Marketing*, *83*(2), 98-119. https://doi.org/10.1177/0022242918809930

Brodie, R.J., Hollebeek, L.D., Jurić, B. & Ilić, A. (2011). Customer engagement: Conceptual domain, fundamental propositions, and implications for research. *Journal of Service Research*, *14*(3), 252-271. https://doi.org/10.1177/1094670511411703

Brodie, R. J., Ilic, A., Juric, B. & Hollebeek, L. (2013). Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research*, *66*(1), 105-114. https://doi.org/10.1016/j.jbusres.2011.07.029

Chang, S.J., Van Witteloostuijn, A. & Eden, L. (2010). From the editors: Common method variance in international business research. *Journal of International Business Studies*, *41*(12), 178-184. https://doi.org/10.1057/jibs.2009.88

Crosby, L.A., Evans, K.R. & Cowles, D. (1990). Relationship quality in services selling: an interpersonal influence perspective. *Journal of Marketing*, *54*(3), 68-81. https://doi.org/10.1177/002224299005400306

Dijkmans, C., Kerkhof, P. & Beukeboom, C.J. (2015). A stage to engage: Social media use and corporate reputation. *Tourism Management*, *47*, 58-67. https://doi.org/10.1016/j.tourman.2014.09.005

Droege, H., Hildebrand, D. & Forcada, M.A.H. (2009). Innovation in services: present findings, and future pathways. *Journal of Service Management*, *20*(2), 131-155. https://doi.org/10.1108/09564230910952744

Fakfare, P., Cho, G., Hwang, H. & Manosuthi, N. (2021). Examining the sensory impressions, value perception, and behavioral responses of tourists: the case of floating markets in Thailand. *Journal of Travel & Tourism Marketing*, *38*(7), 666-681. https://doi.org/10.1080/10548408.2021.1985042

Hair, J.F., Howard, M.C. & Nitzl, C. (2020). Assessing measurement model quality in PLS-SEM using confirmatory composite analysis. *Journal of Business Research*, *109*, 101-110. https://doi.org/10.1016/j.jbusres.2019.11.069

Hair, J.F., Risher, J.J., Sarstedt, M. & Ringle, C.M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2-24. https://doi.org/10.1108/EBR-11-2018-0203

Hapsari, R., Clemes, M.D., & Dean, D. (2017). The impact of service quality, customer engagement and selected marketing constructs on airline passenger loyalty. *International Journal of Quality and Service Sciences*, *9*(1), 21-40. https://doi.org/10.1108/IJQSS-07-2016-0048

Harrigan, P., Evers, U., Miles, M. & Daly, T. (2017). Customer engagement with tourism social media brands. *Tourism Management*, *59*, 597-609. https://doi.org/10.1016/j.tourman.2016.09.015

Harrigan, P., Evers, U., Miles, M.P. & Daly, T. (2018). Customer engagement and the relationship between involvement, engagement, self-brand connection and brand usage intent. *Journal of Business Research*, *88*, 388-396. https://doi.org/10.1016/j.jbusres.2017.11.046

Hollebeek, L.D. & Andreassen, T.W. (2018). The SD logic-informed “hamburger” model of service innovation and its implications for engagement and value. *Journal of Services Marketing*, *32*(1), 1-7. https://doi.org/10.1108/JSM-11-2017-0389

Hollebeek, L.D., Conduit, J. & Brodie, R.J. (2016). Strategic drivers, anticipated and unanticipated outcomes of customer engagement. *Journal of Marketing Management*, *32*(5-6), 393-398. https://doi.org/10.1080/0267257X.2016.1144360

Islam, J.U. & Rahman, Z. (2016). Linking customer engagement to trust and word-of-mouth on Facebook brand communities: An empirical study. *Journal of Internet Commerce*, *15*(1), 40-58. https://doi.org/10.1080/15332861.2015.1124008

Jaakkola, E. & Alexander, M. (2014). The role of customer engagement behavior in value co-creation: A service system perspective. *Journal of Service Research*, *17*(3), 247-261. https://doi.org/10.1177/1094670514529187

Kitchen, P.J., Kerr, G., Schultz, D.E., McColl, R. & Pals, H. (2014). The elaboration likelihood model: review, critique and research agenda. *European Journal of Marketing*, *48*(11/12), 2033-2050. https://doi.org/10.1108/EJM-12-2011-0776

Kumar, V. & Pansari, A. (2015). Measuring the benefits of employee engagement. *MIT Sloan Management Review*, *56*(4), 67-72.

Kumar, V. & Pansari, A. (2016). Competitive advantage through engagement. *Journal of Marketing Research*, *53*(4), 497-514. https://doi.org/10.1509/jmr.15.0044

Law, C.C., Zhang, Y. & Gow, J. (2022). Airline service quality, customer satisfaction, and repurchase Intention: Laotian air passengers' perspective. *Case Studies on Transport Policy*, *10*(2), 741-750. https://doi.org/10.1016/j.cstp.2022.02.002

Leckie, C., Nyadzayo, M.W. & Johnson, L.W. (2017). Promoting brand engagement behaviors and loyalty through perceived service value and innovativeness. *Journal of Services Marketing*, *32*(1), 70-82. https://doi.org/10.1108/JSM-01-2017-0035

Li, P., Sun, J.M., Taris, T.W., Xing, L. & Peeters, M.C. (2021). Country differences in the relationship between leadership and employee engagement: A meta-analysis. *The Leadership Quarterly*, *32*(1), 101458. https://doi.org/10.1016/j.leaqua.2020.101458

Lowe, B. & Alpert, F. (2015). Forecasting consumer perception of innovativeness. *Technovation*, *45*, 1-14. https://doi.org/10.1016/j.technovation.2015.02.001

Manosuthi, N. (2020). *Unified framework for predicting customer values by using a set of customer metrics.* Hong Kong: Hong Kong Polytechnic University.

Manosuthi, N. & Aouad, M. (2018). *The customer engagement construct in the context of hospitality and tourism: A systematic literature review global.* Tokyo: Global Marketing Conference.

Manosuthi, N., Lee, J.S. & Han, H. (2020). Predicting the revisit intention of volunteer tourists using the merged model between the theory of planned behavior and norm activation model. *Journal of Travel & Tourism Marketing*, *37*(4), 510-532. https://doi.org/10.1080/10548408.2020.1784364

Manosuthi, N., Lee, J.S. & Han, H. (2021a). Causal-predictive model of customer lifetime/ influence value: Mediating roles of memorable experiences and customer engagement in hotels and airlines. *Journal of Travel & Tourism Marketing*, *38*(5), 461-477. https://doi.org/10.1080/10548408.2021.1940422

Manosuthi, N., Lee, J.S. & Han, H. (2021b). An innovative application of composite-based structural equation modeling in hospitality research with empirical example. *Cornell Hospitality Quarterly*, *62*(1), 139-156. https://doi.org/10.1177/1938965520951751

Martin-Rios, C. & Pasamar, S. (2018). Service innovation in times of economic crisis: The strategic adaptation activities of the top EU service firms. *R&D Management*, *48*(2), 195-209. https://doi.org/10.1111/radm.12276

Matsuoka, K. (2022). Effects of revenue management on perceived value, customer satisfaction, and customer loyalty. *Journal of Business Research*, *148*, 131-148. https://doi.org/10.1016/j.jbusres.2022.04.052

Mele, C., Colurcio, M. & Russo-Spena, T. (2014). Research traditions of innovation: Goods-dominant logic, the resource-based approach, and service-dominant logic. *Managing Service Quality*, *24*(6), 612-642. https://doi.org/10.1108/MSQ-10-2013-0223

Molinillo, S., Aguilar-Illescas, R., Anaya-Sánchez, R. & Liébana-Cabanillas, F. (2021). Social commerce website design, perceived value and loyalty behavior intentions: The moderating roles of gender, age and frequency of use. *Journal of Retailing and Consumer Services*, *63*, 102404. https://doi.org/10.1016/j.jretconser.2020.102404

Pansari, A. & Kumar, V. (2017). Customer engagement: The construct, antecedents, and consequences. *Journal of the Academy of Marketing Science*, *45*(3), 294-311. https://doi.org/10.1007/s11747-016-0485-6

Paulose, D. & Shakeel, A. (2022). Perceived experience, perceived value and customer satisfaction as antecedents to loyalty among hotel guests. *Journal of Quality Assurance in Hospitality & Tourism*, *23*(2), 447-481. https://doi.org/10.1080/1528008X.2021.1884930

Petzer, D.J. & Roberts-Lombard, M. (2021). Delight and commitment-revisiting the satisfaction loyalty link. *Journal of Relationship Marketing*, *20*(4), 282-318. https://doi.org/10.1080/15332667.2020.1855068

Podsakoff, N.P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, *885*(879), 879-903.

Rasool, S.F., Wang, M., Tang, M., Saeed, A. & Iqbal, J. (2021). How toxic workplace environment effects the employee engagement: the mediating role of organizational support and employee wellbeing. *International Journal of Environmental Research and Public Health*, *18*(5), 2294-2311. https://doi.org/10.3390/ijerph18052294

Reeves, A., Delfabbro, P. & Calic, D. (2021). Encouraging employee engagement with cybersecurity: How to tackle cyber fatigue. *SAGE Open*, *11*(1), 21582440211000049. https://doi.org/10.1177/21582440211000049

Shahab, M.H., Ghazali, E. & Mohtar, M. (2021). The role of elaboration likelihood model in consumer behaviour research and its extension to new technologies: A review and future research agenda. *International Journal of Consumer Studies*, *45*(4), 664-689. https://doi.org/10.1111/ijcs.12658

Sirdeshmukh, D., Singh, J. & Sabol, B. (2002). Consumer trust, value, and loyalty in relational exchanges. *Journal of Marketing*, *66*(1), 15-37. https://doi.org/10.1509/jmkg.66.1.15.18449

Snyder, H., Witell, L., Gustafsson, A., Fombelle, P. & Kristensson, P. (2016). Identifying categories of service innovation: A review and synthesis of the literature. *Journal of Business Research*, *69*(7), 2401-2408. https://doi.org/10.1016/j.jbusres.2016.01.009

So, K.K.F., King, C. & Sparks, B. (2014). Customer engagement with tourism brands: Scale development and validation. *Journal of Hospitality & Tourism Research*, *38*(3), 304-329. https://doi.org/10.1177/1096348012451456

So, K.K.F., King, C., Sparks, B.A. & Wang, Y. (2016). The role of customer engagement in building consumer loyalty to tourism brands. *Journal of Travel Research*, *55*(1), 64-78. https://doi.org/10.1177/0047287514541008

Srinivasan, S.S., Anderson, R. & Ponnavolu, K. (2002). Customer loyalty in e-commerce: An exploration of its antecedents and consequences. *Journal of Retailing and Consumer Services*, *78*(1), 41-50. https://doi.org/10.1016/S0022-4359(01)00065-3

Su, L., Swanson, S.R. & Chen, X. (2016). The effects of perceived service quality on repurchase intentions and subjective well-being of Chinese tourists: The mediating role of relationship quality. *Tourism Management*, *52*, 82-95. https://doi.org/10.1016/j.tourman.2015.06.012

Sundbo, J., Orfila-Sintes, F. & Sorensen, F. (2007). The innovative behaviour of tourism firms-comparative studies of Denmark and Spain. *Research Policy*, *36*(1), 88-106. https://doi.org/10.1016/j.respol.2006.08.004

Van Doorn, J., Lemon, K.N., Mittal, V., Nass, S., Pick, D., Pirner, P. & Verhoef, P.C. (2010). Customer engagement behavior: Theoretical foundations and research directions. *Journal of Service Research*, *13*(3), 253-266. https://doi.org/10.1177/1094670510375599

Verhoef, P.C., Reinartz, W.J. & Krafft, M. (2010). Customer engagement as a new perspective in customer management. *Journal of Service Research*, *13*(3), 247-252. https://doi.org/10.1177/1094670510375461

Vivek, S.D., Beatty, S.E. & Morgan, R.M. (2012). Customer engagement: Exploring customer relationships beyond purchase. *Journal of Marketing Theory and Practice*, *20*(2), 122-146. https://doi.org/10.2753/MTP1069-6679200201

Witell, L., Snyder, H., Gustafsson, A., Fombelle, P. & Kristensson, P. (2016). Defining service innovation: A review and synthesis. *Journal of Business Research*, *69*(8), 2863-2872. https://doi.org/10.1016/j.jbusres.2015.12.055

Yuan, Y., Yang, M., Feng, T., Rasouli, S., Ruan, X., Wang, X. & Li, Y. (2021). Analyzing heterogeneity in passenger satisfaction, loyalty, and complaints with air-rail integrated services. *Transportation Research Part D: Transport and Environment*, *97*, 102950. https://doi.org/10.1016/j.trd.2021.102950