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**Actor value formation in Airbnb: Insight from multi-source data**

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## **Actor value formation in Airbnb: Insight from multi-source data**

**Purpose** – This study presents a novel examination of actor value formation (AVF) in the sharing economy by uncovering its key dimensions (i.e., information seeking, personal interaction, and feedback) at each stage of Airbnb consumption. Using multi-source data, how the key dimensions of AVF affect consumers' evaluative judgment capturing the key aspects of consumption experiences (i.e., communication quality, value for money, and overall evaluations) was empirically tested.

**Design/methodology/approach** – This study adopted a triangulated, multi-study approach to test and validate the hypotheses. In Study 1, we analyzed 586,778 online reviews through deductive and inductive approaches to determine how three AVF dimensions could be captured and examine these dimensions' effects on consumers' evaluative judgments. In Study 2, an online survey was adopted to improve the reliability and validity of findings.

**Findings** – This study identified positive and negative outcomes of AVF. Results also revealed which AVF dimensions significantly led to communication quality and value for money, which in turn influenced consumers' overall evaluations. Findings further provided robust support for the mediating role of value for money as a mechanism in the relationships between AVF and overall evaluations across the two studies.

**Originality** – This study contributes to the literature by empirically identifying the three key dimensions of AVF in each consumption stage and subsequently testing a conceptual model using different data, research methods, and analytical techniques to cross-validate the results. We also extended the scope of AVF by integrating both positive and negative aspects in the context of Airbnb.

**Keywords** Actor value formation, Value co-creation, Value co-destruction, Airbnb, Consumption experience, Evaluative judgments

## 1. Introduction

The sharing economy is defined as “a scalable socioeconomic system that employs technology-enabled platforms to provide users with temporary access to tangible and intangible resources that may be crowdsourced” (Eckhardt *et al.*, 2019, p. 7). As a direct alternative to private ownership of goods, the sharing economy has transformed how people consume and create products and services (So *et al.*, 2018; Wirtz *et al.*, 2019). The exponential growth of sharing economy platforms (e.g., Airbnb, Uber, and DoorDash) has sparked a landscape of collaborative consumption where “what’s mine is yours” (Botsman, 2011, p. 15).

The sharing economy is rooted in peer-to-peer (P2P) activities (e.g., consuming, creating, or sharing access to goods and services) organized through online communities (Hamari *et al.*, 2016; So *et al.*, 2018). Three key actors generally sustain P2P businesses via a triadic relationship: platform providers (e.g., Airbnb, Uber); service providers (e.g., hosts, drivers); and consumers (e.g., guests, users) (Wirtz *et al.*, 2019). Accordingly, P2P platforms generate unique, co-created value for actors by leveraging underused resources (Johnson and Neuhofer, 2017).

Airbnb, one of the most successful P2P platforms holding about 27% of market share for P2P accommodation, was founded in 2007. A Statista report (Lock, 2021) indicated that Airbnb’s total worldwide assets have increased to surpass \$3 billion in revenue. Airbnb has been found to enjoy a clear advantage over hotels during the COVID-19 pandemic as people opt to visit less densely populated places for longer-term stays (Dubin, 2021). Although the pandemic has led to a need for physical distance, social interaction (whether virtual or in-person) remains important: social connections between guests and hosts through Airbnb could result in positive attitudes toward and unique experiences with service providers (Gassmann *et al.*, 2020).

In light of Airbnb's value to multiple actors, scholars have suggested that the collaborative and triadic nature of the platform's ecosystem requires a new approach to understanding actor value formation (AVF). AVF refers to value creation resulting from congruent (in the case of value co-creation) or incongruent (in the case of value co-destruction) practice elements among Airbnb itself, hosts, and guests (Echeverri and Skålén, 2011; Heinonen *et al.*, 2019). Dynamic social practices create not only positive value but also negative one for various actors in each role. On the one hand, guests can augment their experiences by staying at a local and authentic place, hosts can share their local expertise with guests for financial benefit, and third parties can easily identify and engage with other stakeholders (So *et al.*, 2022). On the other hand, guests' perceived value also decreases as various actors (e.g., hosts, guests) passively or barely participate in value formation (Jiang *et al.*, 2019). Moreover, these collaborations inspire dynamic evaluative judgments such as satisfaction (Jiang *et al.*, 2019) and disappointment (Camilleri and Neuhofer, 2017). AVF is even more critical in the P2P ecosystem since this sector's key focus has shifted from service delivery to positive or negative value creation (Johnson and Neuhofer, 2017).

Although extensive literature has aimed to provide a comprehensive understanding of consumer value formation in Airbnb settings (e.g., Roy *et al.*, 2020; So *et al.*, 2022), only a few studies have investigated AVF where value co-creation and co-destruction exist simultaneously in a sequential process (i.e., pre-consumption, consumption, and post-consumption). Value is situational; that is, it exists in a setting where consumers' perceptions and evaluations of their consumption experiences are crucial to value formation across consumption stages (Zhang *et al.*, 2018). In a similar vein, value is created by guests along with the Airbnb platform and hosts in the pre-consumption, consumption, and post-consumption stages (Camilleri and Neuhofer,

2017). However, the relative lack of empirical research on AVF that captures holistic value formation may not offer a complete picture of the Airbnb ecosystem. Moreover, clear empirical findings remain scarce in terms of how key AVF dimensions influence consumers' evaluative judgments of Airbnb. To bridge these gaps, we draw upon previous studies (e.g., Echeverri and Skålén, 2011; Schau *et al.*, 2009) to provide novel insight. We specifically conceptualize three AVF dimensions (i.e., information seeking, personal interaction, and feedback) that are central to Airbnb consumers' understanding, engagement, and evaluation (Echeverri and Skålén, 2011; Schau *et al.*, 2009). These dimensions mirror key elements of social practices to depict how actors intersubjectively evaluate value creation. This approach enables us to identify the outcomes of AVF and examine associated impacts on consumers' evaluative judgments.

We carried out two sequential studies using multi-source data to achieve these aims. Prior research (e.g., Cheng and Jin, 2019) involving big data analytics has often employed inductive content analysis, which extracts all sentences from a piece of text. This approach is naturally unbiased by existing knowledge (Firestein, 2012) and is best suited to exploring new topics of interest. Thus, Study 1 began with a deductive approach by developing an AVF dictionary based on Yi and Gong's (2013) value co-creation behavior scale; this measure has been widely used in hospitality and tourism research (e.g., Assiouras *et al.*, 2019; Roy *et al.*, 2020). This method enabled us to directly capture three key AVF dimensions by minimizing spurious results (Pries and Dunnigan, 2015). Then, 586,778 online reviews were analyzed to determine how the chosen AVF dimensions could be captured across three consumption stages.

Study 1 further examined the effects of the three AVF dimensions on consumers' evaluative judgments (i.e., communication quality, value for money, and overall rating). Given the roles of evaluative judgment in the consumption experience and value formation (e.g.,

Yuksel and Yuksel, 2001), we adopted three evaluative judgments to infer AVF-related outcomes. We next considered the mediating roles of communication quality and value for money in the relationship between AVF and overall rating. To compare and extend the findings of Study 1, we sought in Study 2 to replicate Study 1's conceptual model with a different data source and research method. Specifically, we gathered primary data from a consumer panel using an online survey to increase results' external validity.

The remainder of this paper is organized as follows. The following section presents a literature review, including the fundamental principle (i.e., AVF in service-dominant [S-D] logic) guiding this research and hypothesis development. The Research Design and Empirical Overview section outlines the methodological approaches adopted in Studies 1 and 2. We next describe the methods and results of Studies 1 and 2, respectively. Discussions and conclusions are then presented along with theoretical and managerial implications. The paper closes with limitations and future research directions.

## 2. Literature Review

### 2.1. Actor Value Formation in Airbnb

AVF is grounded in S-D logic, which is the overarching principle of value co-creation (Vargo and Lusch, 2008). Vargo and Lusch (2008) highlighted consumers' active roles by suggesting that "the customer is always a co-creator of value" (p. 7). Building on the discourse around S-D logic, several scholars (e.g., Echeverri and Skålén, 2011) have attempted to extend the positive roles of consumers by incorporating multiple behaviors into complex triadic relationships. Researchers are increasingly exploring actors' roles in value co-creation and value

co-destruction. For instance, Prior and Marcos-Cuevas (2016) noted that value co-destruction is emerging as a popular way to reveal negative consequences from actor-to-actor interaction. In the hospitality and tourism literature (e.g., Luo *et al.*, 2019), actor-to-actor interaction can produce negative outcomes wherein at least one actor (e.g., a consumer) experiences a decline in the value realized from an interaction with another (e.g., an organization).

To capture a spectrum of value creation practices, including value co-creation and value co-destruction, Echeverri and Skålén (2011) proposed the notion of interactive value formation. This concept manifests from “providers and customers drawing on congruent (in the case of value co-creation) and incongruent (in the case of value co-destruction) elements of practices” (p. 352). Interactive value formation maintains that value does not pre-exist but instead emerges through distinct social practices (Echeverri and Skålén, 2011). Thus, value co-creation and co-destruction are aspects of interactive value formation that can exist simultaneously (Smith, 2013). For example, the practices of interactive value formation—including informing, greeting, and delivering—that occur between providers and customers constitute not only a creative process but also a destructive one (Dolan *et al.*, 2019; Echeverri and Skålén, 2011). To further distinguish interactive value formation from AVF, we drew upon the tenth foundational premise of S-D logic underscoring the importance of actors’ perceptions: “[V]alue is always uniquely and phenomenologically determined by the beneficiary” (Vargo and Lusch, 2016, p. 8). Perceived value thus depends on the information available to an actor and on their appraisal of that information. Therefore, we use the term “actor” throughout this study to capture dynamic outcomes of value formation from a consumer point of view.

With the introduction of S-D logic and its applicability to the hospitality and tourism industry, substantial research on AVF has been conducted from a business-to-consumer (e.g.,

hotel-to-guest) standpoint (Camilleri and Neuhofer, 2017). AVF is thought to be especially critical in the Airbnb context owing to its unique value proposition—authentic local experiences, often facilitated by various parties’ resource integration (Johnson and Neuhofer, 2017). However, little has been uncovered about AVF and its impact on Airbnb. It is hence necessary to examine AVF’s role on Airbnb consumers’ evaluative judgments.

AVF is crucial in hospitality given the industry’s experiential nature. Hospitality consumers are involved in various activities and interact with other people while engaging in experiences (Kim and So, 2022). The hospitality sector is information-intensive: its products and services are largely intangible and cannot be easily understood or evaluated before purchase (Fodness and Murray, 1997). Information seeking (e.g., online reviews and ratings) represents a core AVF dimension to learn about places and events in the pre-consumption stage (Liang *et al.*, 2019). This task in turn affects evaluative aspects of the consumption experience, such as consumers’ positive attitudes (King *et al.*, 2015). Personal interaction is similarly essential to value co-creation during consumption (Camilleri and Neuhofer, 2017). Designing and providing engagement initiatives, such as offering a prompt greeting, demonstrating social etiquette, and sincerity, inform evaluative judgments as well (e.g., communication quality and value for money) (González-Mansilla *et al.*, 2019; Lin *et al.*, 2019). In addition to information seeking and personal interaction, guests’ behavioral responses to consumption shape value co-creation (Assiouras *et al.*, 2019). Feedback is a key dimension of behavioral responses. It is useful for evaluating consumers’ understanding of and engagement in social practices; this aspect also enhances service creation in the post-consumption stage (Roy *et al.*, 2020), subsequently influencing positive social and economic value (Xie *et al.*, 2020) along with behavior change (Tussyadiah and Miller, 2019).



## 2.2. Effect of Information Seeking on Evaluative Judgment

Information seeking refers to deliberately acquiring information during the decision-making process, particularly in the pre-consumption stage (Fodness and Murray, 1999; Kirillova and Chan, 2018). Consumers actively seek information to understand and learn about service conditions and requirements; doing so fulfills their desire for knowledge, and predictability (Shulga and Busser, 2020). Information processing theory (Miller, 1956) holds that information seeking is essential for consumers because information diminishes ambiguity and insecurity, thus enabling people to better comprehend and predict service environments.

Studies have documented the central role of information seeking in evaluative judgments (i.e., of communication quality, value for money, and overall evaluations). For example, information seeking seems related to improved perceived quality and greater perceived value of money among consumers (González-Mansilla *et al.*, 2019). Information seeking also diminishes uncertainty, resulting in higher levels of communication quality (Camilleri and Neuhofer, 2017). Jiang *et al.* (2019) found that consumers' participation in the pre-consumption stage leads to positive value for money in the Airbnb context. The information and assistance provided by Airbnb also enhance guests' competence when undertaking value co-creation activities, resulting in greater social acceptance (Jiang *et al.*, 2019). Information seeking promotes consumers' destination knowledge, positive attitudes, and visit intentions as well (King *et al.*, 2015; Park and Nicolau, 2019). However, information seeking tends to increase customers' expectations (Camilleri and Neuhofer, 2017). Based on expectation-confirmation theory (Oliver, 1980), negative consequences can arise if an experience does not fully meet a consumer's needs. The following hypotheses are presented accordingly:

H1. Information seeking is related to (a) communication quality, (b) value for money, and (c) overall evaluations.

### 2.3. Effect of Personal Interaction on Evaluative Judgment

In a business context, personal interaction refers to relationships created by integrating and exchanging resources between employees and consumers during service encounters. These relationships are fundamental to value creation (Camilleri and Neuhofer, 2017). Studies suggest that value creation in a service context transpires in social settings, with high interaction and engagement quality—related to courtesy, friendliness, and respect between consumers and employees—being required for success (Kelley *et al.*, 1990). In other words, the more amiable and enjoyable a service setting is, the more likely consumers are to participate in value creation (Camilleri and Neuhofer, 2017).

Research has demonstrated that consumers' active roles in interacting with hosts and other guests lead to value for money (Jiang *et al.*, 2019). Hosts' value facilitation can also strengthen economic value; a host's knowledge of the local area offers a valuable operant resource for guests to leverage in the Airbnb value co-creation process (Johnson and Neuhofer, 2017). Meanwhile, personal interaction with hosts enhances guests' perceived communication quality. Camilleri and Neuhofer (2017) identified communication as especially important for guests, given the number of study participants who mentioned hosts' responsiveness. Personal interaction promotes dialogue, which implies greater interactivity, engagement, and inclination to act (Prahalad and Ramaswamy, 2004). The generation of shared and new knowledge can foster value co-creation on both the demand and supply sides. Personal interaction also

engenders consumer satisfaction (González-Mansilla *et al.*, 2019) and positive attitudes (Lin *et al.*, 2019). However, according to Camilleri and Neuhofer (2017), host–guest interaction embedded in the Airbnb environment is likely to lead to incongruence. This outcome is largely attributable to inattention from the host, such as not providing appropriate service offerings or engaging in miscommunication. In extending these patterns to the sharing economy, the following hypotheses are proposed:

H2. Personal interaction is related to (a) communication quality, (b) value for money, and (c) overall evaluations.

#### 2.4. Effect of Feedback on Evaluative Judgment

Feedback is a main AVF dimension, featuring solicited and unsolicited advice and evaluation that consumers provide firms in the post-consumption stage (Yi and Gong, 2013). Social exchange theory (Homans, 1961) maintains that people generally engage in social exchange to gain personal or social benefits, including approval and attention from receivers. As an example, guests are likely to leave positive comments about their accommodation experiences when they are satisfied with these experiences (Assiouras *et al.*, 2019). Scholars have found that guests offer feedback to hotel employees about negative or positive facets of service, partly to guarantee better service moving forward (e.g., for intrinsic rewards such as respect or affection) (Assiouras *et al.*, 2019).

Previous studies suggested that giving feedback to a service provider is likely to positively influence consumers' sense of well-being; people are happiest when they socialize with others (Roy *et al.*, 2020). Guests may also leave positive online reviews or share their

experiences on social media (or face-to-face) with friends and relatives if they are satisfied with an experience (Assiouras *et al.*, 2019). As an example, feedback is positively associated with the economic, social, and novelty value of whale-watching tours (Xie *et al.*, 2020). As an intervention, feedback can induce behavior change (Tussyadiah and Miller, 2019). However, guests may provide negative feedback if they receive poor services (Camilleri and Neuhofer, 2017). These unsatisfactory experiences may then compromise their evaluative judgments. On the basis of extant literature, the following hypotheses are put forth:

H3. Feedback is related to (a) communication quality, (b) value for money, and (c) overall evaluations.

## 2.5. Effects of Communication Quality and Value for Money on Overall Evaluations

Communication quality and value for money, as key outcomes of AVF, are positively related to overall evaluations in restaurant settings (Kim and Tang, 2020). Communication in general is a human activity that creates and maintains relationships between parties (Lages *et al.*, 2005). For communication to occur, people must be able to exchange information and decipher each other's codes (Su *et al.*, 2016). Communication quality has been found to elicit positive consumer attitudes and overall ratings (King *et al.*, 2015; Park and Nicolau, 2019).

In the P2P context, communication is a central factor affecting stakeholders' perceived value as they often jointly create value through effective communication (e.g., Jiang *et al.*, 2019). According to Zhang *et al.* (2018), communication between Airbnb hosts and guests (whether directly or via Airbnb) is a core component of value creation in the Airbnb setting. Alongside communication quality, value for money is also important to consumers' evaluation of the

experience as it reflects one's overall judgment of the functional benefits and sacrifices associated with a product or service (Overby and Lee, 2006). Studies have further suggested that value for money leads to positive attitudes and overall evaluations (González-Mansilla *et al.*, 2019). The following hypotheses are proposed:

H4. Communication quality is positively related to overall evaluations.

H5. Value for money is positively related to overall evaluations.

## 2.6. Mediating Effect of Communication Quality

In communication, exchange is a two-way process that allows involved parties to achieve a common understanding (Lages *et al.*, 2005). Effective communication evokes a sense of having a particular characteristic in common (Raab *et al.*, 2016). It is also a major predictor of consumers' post-purchase behavior, as it helps alleviate uncertainty (Su *et al.*, 2016). Timely and accurate information (i.e., communication quality) can be shared through productive collaboration (Park and Nicolau, 2019), which subsequently generates favorable consumer evaluations.

As information seeking reduces ambiguity, the host-specific information that Airbnb provides can improve guests' ability to communicate with hosts (Camilleri and Neuhofer, 2017). Information seeking, therefore, promotes communication quality and reinforces consumers' positive attitudes (King *et al.*, 2015; Park and Nicolau, 2019). Personal interaction affects communication quality as well, thereby influencing relational satisfaction (Su *et al.*, 2016). Furthermore, providing feedback to a service provider generally informs evaluative judgment—

especially regarding communication quality as individuals develop relationships with others (Assiouras *et al.*, 2019). The following hypotheses are hence put forth:

H6. Communication quality partially mediates the effects of (a) information seeking, (b) personal interaction, and (c) feedback on overall evaluations.

## 2.7. Mediating Effect of Value for Money

From a utilitarian point of view, consumers' behavior is highly task-oriented and rational (Kim and Tang, 2020). Value for money denotes a consumer's holistic evaluation of a product's usefulness based on perceptions of what is given up and what is received (So *et al.*, 2022; Zeithaml, 1988). Consumer-provider interaction can evoke utilitarian value throughout the consumption process and is paramount to consumers' evaluations (Jiang *et al.*, 2019). In the Airbnb context, value for money is defined as the perceived utility stemming from costs and benefits associated with the reciprocally beneficial relationship among Airbnb itself, hosts, and guests compared with hotel-based lodging (Jiang *et al.*, 2019; So *et al.*, 2018).

Value for money has been identified as a mediator in the relationship between AVF and attitude (Liang *et al.*, 2018; Ozturk *et al.*, 2016). For instance, value for money mediates perceived service quality and behavioral intentions (Virabhakul and Huang, 2018). It also mediates the impact of cultural motivation on consumers' appreciation in upscale ethnic restaurants (Liu *et al.*, 2021). Liang *et al.* (2018) examined the mediating role of perceived value on the relationship between consumers' electronic word-of-mouth and repurchase intentions. In a similar vein, Ozturk *et al.* (2016) identified the mediating effect of utilitarian value on the

relationship between perceived value and continued use in a mobile hotel booking environment.

The following hypotheses are proposed accordingly:

H7. Value for money partially mediates the effects of (a) information seeking, (b) personal interaction, and (c) feedback on overall evaluations.

### 3. Research Design and Empirical Overview

Although single data sources are common in research due to their benefits, findings can be further validated through triangulation (Nightingale, 2009). Triangulation is a popular technique in mixed-method studies wherein datasets are integrated to provide an in-depth understanding of a phenomenon (Denzin and Lincoln, 1994). We employed methodological triangulation and data triangulation. Methodological triangulation involves adopting more than one method; data triangulation refers to using multiple data sources to reduce potential bias or issues related to a single approach or data type (Denzin and Lincoln, 1994). We conducted a pair of sequential studies via the sequential transformative approach (Kroll and Neri, 2009). Specifically, triangulation was achieved by referring to distinct data sources (i.e., online reviews and survey data), methods, and analytical techniques (i.e., qualitative: dictionary-based text analysis; quantitative: regression and partial least squares structural equation modeling).

Study 1 was intended to capture AVF dimensions in Airbnb consumers' reviews across three consumption stages. Text mining and text analysis were accordingly employed to identify AVF dimensions in Airbnb consumers' online reviews. Study 1 began with a deductive approach by developing an AVF dictionary based on the literature. The resulting dictionary was used to

identify AVF dimensions across Airbnb consumption stages when analyzing 586,778 online reviews, integrating deductive and inductive methods (Moro *et al.*, 2015). Study 1 further examined the effects of AVF dimensions on consumers' evaluative judgments (i.e., communication quality, value for money, and overall rating) through a series of multiple linear regression models and mediation analyses. As consumers are the core actors in contributing to value co-creation and value co-destruction under S-D logic, Study 1 considered Airbnb Star ratings to measure a focal customer's evaluative judgments as follows: communication quality (did the host promptly respond to the guest's messages?); value for money (did the guest feel that the listing provided good value for the price?); and overall rating (overall, how was the stay?) (Airbnb, 2021).

Due to the nature of secondary data, the findings of Study 1 were further validated with primary data to increase results' validity (i.e., via Study 2). Hosts' perceptions and roles have become increasingly prominent in an Airbnb context as P2P accommodation shifts towards professional provision (Demir and Emekli, 2021). Study 2 examined how AVF dimensions affect Airbnb consumers' evaluative judgments, further corroborating the role of AVF throughout consumption in the guest–host relationship. Figure 1 presents the methodological overview.

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#### 4. Study 1

Entailing a text-mining approach, we explored how the three AVF dimensions could be captured in each consumption stage in Study 1. We began with a deductive approach, namely by developing an AVF dictionary to minimize spurious results while directly identifying the three



key AVF dimensions. In total, 586,778 online reviews were analyzed using an inductive approach to discern how the AVF dimensions could be captured across consumption stages in an Airbnb context. This study also investigated the differential effects of each AVF dimension which influenced communication quality, value for money, and overall rating. Furthermore, we examined the mediating roles of communication quality and value for money in the relationship between AVF and overall rating.

#### 4.1. Methodology

##### 4.1.1. Data collection

Data were obtained from an independent, non-commercial third-party website, Inside Airbnb. The dataset from Inside Airbnb contained public information from Airbnb websites (e.g., the location, availability, and reviews for each listing) (Gutiérrez *et al.*, 2017). The United States has the largest number of Airbnb listings in the world (iPropertyManagement, 2021); therefore, all chosen accommodation locations were in this country to appropriately represent the Airbnb market. Among several U.S. cities, New York City and Los Angeles were the top international destinations where travelers sought to stay through Airbnb (Buchholz, 2019). A dataset including information on Airbnb property listings was collected for each city on December 18, 2019. Data management and analyses were carried out in R 3.6.1 with multiple packages (e.g., tidyverse, tm, qdap). A total of 586,778 reviews (New York City, NY: 294,140; Los Angeles, CA: 292,638) were obtained.

#### 4.1.2. Data preprocessing and descriptive statistics

To prepare textual data for further analysis, the full dataset was preprocessed following the procedure recommended by Toutanova *et al.* (2003) and Tussyadiah and Zach (2017). During preprocessing, reviews that were not written in English or that were missing important information (e.g., listing ID) were eliminated. Each review was tokenized into unigram-based tokens (i.e., words). After tokenization, all texts were transformed into lowercase. Unnecessary parts (e.g., punctuation and white spaces) were then removed. Each corpus was converted into stem words after filtering out non-meaningful words; specifically, the inflectional forms and related forms of a word were converted to a common base form (i.e., word stemming). For example, words such as *encouraged*, *encouraging*, and/or *encouragement* were changed to *encourage*. Once word stemming was completed, stop words (i.e., words that do not contribute to the meaning of text) were removed to ensure that terms which did not add value were excluded from analysis. We eliminated common stop words as well as words that did not contribute to review content (e.g., *was*, *a*, and *the*). These preprocessing steps narrowed the text corpora substantially, from 21,640,178 to 7,182,574 (about a 66.8% reduction). Preprocessing resulted in 474,990 reviews and 10,793 corpora. The number of sentences per review ranged from 1 to 133. Each review contained roughly 4.33 sentences on average.

#### 4.1.3. Actor value formation dictionary

By adopting a big data dictionary approach (Moro *et al.*, 2015), we created an AVF dictionary based on terms appearing in validated scales. Our research began with a deductive approach by developing an AVF dictionary based on Yi and Gong's (2013) value co-creation behavior scale. This measure has been widely used in hospitality and tourism studies (e.g.,

Assiouras *et al.*, 2019; Roy *et al.*, 2020). To ensure that the developed dictionary included an adaptable list of terms, all terms in the AVF dictionary were compared with the most common 1,000 words from retrieved reviews, representing 95% of the total term frequency. Assembling a dictionary that contains common concepts and terms is more reasonable than allowing algorithms to examine, cluster, and calculate words randomly (Moro *et al.*, 2015). The initial AVF dictionary was further refined to ensure high content validity and objectivity. Table 1 presents the final dictionary.

--- Insert Table 1 About Here ---

We next analyzed online reviews using an inductive approach (Moro *et al.*, 2015) to determine how the three AVF dimensions could be captured across the three consumption stages. Each online review was carefully reviewed by two members of the research team, who were instructed to explicitly identify each consumption stage. Two rounds of discussion to lessen subjectivity and bias (Mayring, 2014) led to either very good (>0.80) or good (>0.60) agreement (Landis and Koch, 1977) on the following patterns: information seeking typically occurred in the pre-consumption stage, personal interaction was most frequent in the consumption stage, and feedback generally manifested in the post-consumption stage. Table 2 lists sample reviews for AVF.

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Among 474,990 reviews, 31,358 included the keywords representing AVF dimensions, indicating that approximately 7% of all reviews included one or more AVF dimensions. To promote content validity, reviews that did not contain pre-defined keywords (i.e., dictionary words) were excluded from further analysis; 31,358 reviews were retained for the main analyses. These reviews reflected the AVF dimensions well—38% of reviews were related to information seeking, 36% represented feedback, and 31% described personal interaction. Only about 5% of reviews illustrated more than one AVF dimension.

After changing the unit of analysis to the property level, 14,553 properties remained for analysis. The number of reviews for each property was skewed: about 47% of listings included only one review, while 16% had more than three reviews (max 20). This distribution was consistent with prior studies (e.g., Tussyadiah and Zach, 2017). In total, 6,516 properties were included for further analysis after integration with property-level rating data.

## 4.2. Results

We examined the effects of the three AVF dimensions on evaluative judgment. Results indicated that information seeking negatively affected value for money ( $\beta = -0.29, p < 0.01$ ) and overall rating ( $\beta = -2.09, p < 0.01$ ), supporting H1b and H1c. However, information seeking was insignificantly related to communication quality ( $p > 0.05$ ); H1a was thus not supported. In addition, personal interaction was marginally significant in explaining value for money ( $\beta = 0.25, p < 0.1$ ) but was insignificantly correlated with communication quality and overall rating ( $p > 0.05$ ). Therefore, H2b was supported whereas H2a and H2c were not. Feedback was negatively related to both value for money ( $\beta = -0.44, p < 0.001$ ) and overall rating ( $\beta = -3.31, p < 0.001$ ) and marginally related to communication quality ( $\beta = -0.12, p < 0.1$ ), supporting H3a, H3b, and

H3c. Lastly, communication quality ( $\beta = 3.67, p < 0.001$ ) and value for money ( $\beta = 3.82, p < 0.001$ ) were each positively related to overall rating, lending support to H4 and H5.

We then conducted a mediation analysis using the causal step approach (Baron and Kenny, 1986). In the first step, the effects of the three AVF dimensions on mediators (i.e., communication quality and value for money) were tested. Next, the impacts of information seeking, personal interaction, and feedback on overall rating were examined, followed by tests investigating the influences of the AVF dimensions on overall rating. The findings demonstrated that communication quality did not mediate the effects of information seeking, personal interaction, or feedback on overall rating, failing to support H6. Meanwhile, value for money mediated the effects of information seeking and feedback on overall rating; H7a and H7c were hence supported. Value for money did not mediate the effect of personal interaction on overall rating. As such, H7b was not supported. Table 3 presents the path estimates.

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## 5. Study 2

Using a triangulated approach (Denzin and Lincoln, 1994), we adopted an online survey in Study 2 to validate the findings of Study 1 and to increase external validity by examining the impacts of the three AVF dimensions on respondents' evaluative judgments. Such integration enabled us to investigate AVF in the Airbnb ecosystem more thoroughly. We also examined the mediating roles of communication quality and value for money in the relationship between AVF and attitude.

## 5.1. Methodology

### 5.1.1. Data Collection and Instrument

To generate meaningful and objective results while enhancing the reliability and validity of findings from Study 1, a self-administered online survey was used in Study 2. This triangulated approach allowed for a richer understanding of the complex phenomenon under study (Denzin and Lincoln, 1994).

Study 2 employed a purposive quota sampling method to effectively balance positive and negative Airbnb experiences. The sample size was 250 for positive and negative Airbnb experiences, respectively. Prior to the nationwide online survey, a pilot survey was administered with 100 workers from Amazon Mechanical Turk (MTurk). Main data collection followed on MTurk once the pilot test results demonstrated sufficient reliability and validity. Five hundred pilot respondents were recruited through MTurk in January 2021. The beginning of the survey presented respondents with the question “Overall, how would you evaluate your most recent Airbnb experience?” to assess their overall experiences at an Airbnb rental. The positive experience group ( $M = 6.06$ ,  $SD = 1.06$ ) scored significantly higher on their overall experience ratings than the negative experience group ( $M = 2.80$ ,  $SD = 1.57$ ,  $t[498] = 27.29$ ,  $p < 0.001$ ).

Measurement items for AVF were adopted from Yi and Gong (2013). We evaluated information seeking with four items and measured personal interaction with five items. Three items were used to measure feedback. Communication quality was assessed by three items from Albacete-Saez *et al.* (2007). Value for money was measured with four items from So *et al.* (2018), and attitude was evaluated using three items from Han *et al.* (2010). All constructs were assessed with multiple items scored on either a 7-point Likert or semantic differential scale.

Several attention check items and quality commitment items were included in the survey to ensure the data quality.

### 5.1.3. Data Analysis

Partial least squares–structural equation modeling (PLS-SEM) was used to test the reliability and validity of measures and associated relationships. Because several variables were evaluated through the same method, common method variance was tested in two ways. We found that exogenous constructs had variance inflation factors less than the cut-off of 2.5 (Hair *et al.*, 2021). Additionally, we performed Harman’s one-factor test via exploratory factor analysis with unrotated principal component factor analysis. The resulting factor accounted for less than 50% of all variance (i.e., 21.23%); thus, no general factor was evident (Podsakoff *et al.*, 2003). We also tested for potential non-response bias by comparing the first 20% and last 20% of respondents in terms of demographic variables and individual measurement items (Armstrong and Overton, 1977). Findings indicated that demographic variables did not differ significantly between the earliest and latest respondent group. Additionally, the results did not reveal significant differences in responses from early and late respondents across measured items ( $p > 0.10$ ). Non-response bias was therefore not a significant concern in this study.

## 5.2. Results

### 5.2.1. Respondents’ Profile

Of the 500 responses, 35 were deemed invalid due to failure to answer the attention check question correctly; 465 valid responses were ultimately retained for analysis. Respondents hailed from assorted backgrounds. Slightly less than half (45.6%) were women. Regarding age, 18.1%

of all respondents were under age 30, 78.5% were between 30 and 59, and 3.4% were over 60. In terms of annual income, 25.6% of the sample earned \$40,000 or less, 67.3% earned between \$40,001 and \$100,000, and 7.3% earned more than \$100,000.

### 5.2.2. Measurement Model

Our construct reliability and validity scores appear in Table 4. All constructs' factor loadings were statistically significant and exceeded the recommended 0.70 cut-off (Hair *et al.*, 2021). The AVE values of all constructs also surpassed the suggested 0.60 value, signifying adequate convergent validity (Fornell and Larcker, 1981; Hair *et al.*, 2021). The measures' composite reliability and Cronbach's alpha values conveyed high scale reliability. Discriminant validity was first assessed based on Fornell and Larcker's (1981) criterion and the heterotrait–monotrait (HTMT) ratio of correlations (Henseler *et al.*, 2015). As shown in Table 5, the square root of each construct's AVE exceeded its respective inter-correlation, satisfying the first criterion (Fornell and Larcker, 1981; Hair *et al.*, 2021). Second, all HTMT values were below the 0.85 threshold, indicating discriminant validity (Henseler *et al.*, 2015).

--- Insert Table 4 About Here ---

--- Insert Table 5 About Here ---

### 5.2.3. Structural Model

The structural model was evaluated by examining the  $R^2$  and  $Q^2$  values of predictor variables. All  $R^2$  values surpassed the 0.10 threshold, and Stone-Geisser's  $Q^2$  values for our



endogenous constructs were positive (Hair *et al.*, 2021). The significance of direct and indirect effects was examined using a bootstrap procedure with 5,000 iterations and 95% bias-corrected confidence intervals (Hair *et al.*, 2021).

Table 6 displays the estimated path coefficients of modeled relationships. Information seeking significantly influenced respondents' attitudes ( $\beta = -0.098, p < 0.01$ ), supporting H1c. Information seeking did not correlate with communication quality and value for money ( $p > 0.05$ ); H1a and H1b were thus not supported. Personal interaction was significantly related to communication quality ( $\beta = 0.108, p < 0.001$ ), value for money ( $\beta = 0.286, p < 0.001$ ), and attitude ( $\beta = 0.336, p < 0.001$ ), supporting H2a, H2b, and H2c. Similarly, feedback was found to significantly affect communication quality ( $\beta = 0.530, p < 0.001$ ), value for money ( $\beta = 0.428, p < 0.001$ ), and attitude ( $\beta = 0.125, p < 0.01$ ); H3a, H3b, and H3c were supported as a result. Communication quality ( $\beta = 0.48, p < 0.001$ ) and value for money ( $\beta = 0.378, p < 0.001$ ) were each positively related to overall rating, lending support to H4 and H5. Figure 2 depicts the results of both empirical studies.

--- Insert Table 6 About Here ---

--- Insert Figure 2 About Here ---

We further evaluated the significance of indirect effects through bias-corrected bootstrap confidence intervals (CIs), as recommended by Hair *et al.* (2021). This technique has been extensively utilized as a rigorous method to generate CIs for statistical inference in mediation analysis. Results indicated that communication quality significantly mediated the relationships

between personal interaction and attitude (95% CI for the indirect effect of communication quality: [.011, .103]) and between feedback and attitude (95% CI for the indirect effect of communication quality: [.102, .273]), partially supporting H6b and H6c. Further, value for money significantly mediated the relationships between personal interaction and attitude (95% CI for the indirect effect of value for money: [.061, .226]) and between feedback and attitude (95% CI for the indirect effect of value for money: [.115, .363]); H7b and H7c were hence partially supported as well. In sum, our analyses suggest that AVF indirectly boosts individuals' attitudes by enhancing communication quality and value for money (see Table 7).

--- Insert Table 7 About Here ---

## 6. Discussion and Conclusions

In the ecosystem of P2P platforms such as Airbnb, AVF applies to various consumption stages. However, research on AVF in the three distinct stages of consumption is lacking, resulting in a limited understanding of concurrent aspects of value formation (i.e., co-creation and co-destruction) in the Airbnb context. By adopting a triangulation approach using a mixed-method and multi-source data, we explored how three identified AVF dimensions affected Airbnb consumers' evaluative judgments.

Our findings partly opposed prior studies that documented positive effects of information seeking on certain outcomes, such as perceived value (González-Mansilla *et al.*, 2019; Jiang *et al.*, 2019). In particular, we found that information seeking negatively influenced Airbnb guests' evaluative judgments (Study 1: value for money, overall rating; Study 2: attitude). These discrepancies could be explained by expectation-confirmation theory (Oliver, 1980), which

asserts that negative disconfirmation occurs when performance does not meet one's expectations, adversely affecting consumers' evaluations. This explanation is also consistent with prior literature (e.g., Zhao *et al.*, 2019), showing that consumers' information-seeking behavior is likely to boost their expectations because most online reviews are positive. However, negative evaluations can occur if the overall quality of an experience does not meet a consumer's needs and wants. However, the impact of information seeking on communication quality was not significant in either study. Although earlier work (e.g., Camilleri and Neuhofer, 2017) suggested that information seeking allows consumers to reduce uncertainty, consumers are more likely to read online reviews and use property ratings as heuristic evaluations rather than directly communicating with Airbnb or hosts in the pre-consumption stage. Information seeking may therefore increase value for money and overall rating in this context without significantly contributing to better communication quality.

In alignment with the literature on Airbnb (Camilleri and Neuhofer, 2017; Johnson and Neuhofer, 2017), we observed that personal interaction was positively related to value for money in Studies 1 and 2. The results of Study 1 showed that personal interaction did not significantly affect communication quality and overall rating; however, personal interaction was positively related to communication quality and attitude in Study 2. The insignificant relationships may have emerged in Study 1 because more customers rent an entire accommodation than share a space with others. Our results are largely consistent with other research on Airbnb (e.g., So *et al.*, 2021), which found that renting an entire accommodation could minimize a guest's potential (and the importance) of interacting with the host or other consumers in the consumption (i.e., service encounter) stage. However, the different data source (i.e., consumer panel) used for the

online survey in Study 2 revealed that a host's physical presence and face-to-face interaction with guests led to more positive evaluative judgments (González-Mansilla *et al.*, 2019).

Study 1 showed that feedback was negatively related to value for money and overall rating. However, Study 2 showed that feedback was positively associated with communication quality, value for money, and attitude. Although the findings of Study 2 mostly supported previous findings that feedback leads to positively evaluative judgment (e.g., Roy *et al.*, 2020; Tussyadiah and Miller, 2019; Xie *et al.*, 2020), Study 1 suggested the negative consequences of feedback in the post-consumption stage. The discordant results between Studies 1 and 2 reflect the nature of AVF: social practices do not necessarily promote positive value co-creation but can instead lead to value-diminishing outcomes (Camilleri and Neuhofer, 2017). Furthermore, considering the sample reviews presented in Table 2, guests may offer feedback on negative service aspects in hopes of receiving better service in the future (Assiouras *et al.*, 2019). Overall, our findings indicated that feedback significantly affected value creation. Consumers thus assumed expanded roles by participating in meaningful value formation.

Communication quality and value for money were positively related to guests' overall ratings in Study 1 and to attitudes in Study 2. In addition, communication quality and value for money partially mediated the effects of personal interaction and feedback on overall ratings in Study 1 and attitudes in Study 2. Congruent with previous work (e.g., Liang *et al.*, 2018; Ozturk *et al.*, 2016; Park and Nicolau, 2019), our findings offered robust support for the mediating roles of communication quality and value for money as mechanisms underlying the associations between AVF and overall evaluations in the Airbnb setting.

## 6.1. Theoretical Implications

Our findings deliver several theoretical contributions. First, this research fills relevant knowledge gaps by examining the three key AVF dimensions and investigating their differential impacts on individuals' evaluative judgments in each consumption stage. Study 1 applied dictionary-based text analysis through a combination of deductive and inductive approaches to determine how the three focal AVF dimensions could be captured. Specifically, after analyzing 586,778 online reviews through deductive and inductive means, our findings highlight information seeking as most common in the pre-consumption stage. Personal interaction often occurs in the consumption stage, and feedback typically applies in the post-consumption stage. Our results extend the literature by empirically detailing key AVF dimensions in each consumption stage.

This study also demonstrates the importance of applying different data sources from extensive textual and survey-based data to capture the holistic aspects of AVF. Our findings contribute to current S-D logic discourse (e.g., González-Mansilla *et al.*, 2019; Johnson and Neuhofer, 2017; Roy *et al.*, 2020) by empirically demonstrating that value can be co-created or co-destroyed in each stage of consumption—specifically when elements of practices become congruent (in the case of value co-creation) or incongruent (in the case of value co-destruction). Our findings reflect the unique nature of AVF in that social practices (e.g., providing feedback or engaging in communication) among multiple parties can generate distinct positive and negative value formation (Echeverri and Skålén, 2011). Thus, we have expanded the scope of AVF by incorporating both positive and negative aspects of Airbnb.

Another contribution of this study lies in our methodological approach: using mixed method and multi-source data to test and validate our hypotheses. By lessening potential threats

to external validity and enhancing generalizability, replication studies are essential when evaluating the proposed external validity of research outcomes (Onwuegbuzie, 2000). Study 1 examined the effects of AVF dimensions on individuals' evaluative judgments (i.e., communication quality, value for money, and overall rating) through a series of multiple linear regression models and mediation analyses. In Study 2, we sought to replicate Study 1's conceptual model with a different data source and research method; that is, we gathered primary data from a consumer panel using an online survey to increase the results' external validity. These findings have also offered rich insight into which AVF dimensions generate communication quality and value for money and consequently establish positive overall evaluations in the three Airbnb consumption stages. Furthermore, by testing the mediating roles of communication quality and value for money, we have mapped a theoretical link between AVF and overall evaluations. The use of multiple data sources and analytical techniques offers a more in-depth understanding of this phenomenon with rich evidence-based on cross-validation.

## 6.2. Managerial Implications

This study has several practical implications. First, findings indicate that an Airbnb accommodation offers positive and negative values through information seeking, personal interaction, and feedback, all of which contribute to enriched consumers' evaluative judgment. As such, managerial actions (e.g., improving verification procedures for accommodation listings and hosts, implementing multichannel communication, adopting hygiene ratings amid the pandemic, and building effective service recovery systems) should be tailored to the emerging nature of value formation.

Our findings surprisingly revealed that information seeking could lead to a negative rating in Study 1 and negative attitudes in Study 2. Thus, it is crucial to narrow the gaps between expectations created by information seeking and actual experiences to avoid disappointment and confusion among consumers. Adopting proper systems to manage host behavior and overall accommodation quality is critical to P2P platforms' ongoing success. From a platform perspective, during the COVID-19 pandemic, hygiene and safety ratings could be added to post-service evaluations. Airbnb should recommend the most relevant accommodations or experiential programs to consumers based on individuals' prior transaction data. Airbnb could obtain a vast amount of unstructured consumer data through innovative technologies (e.g., social media monitoring, natural language processing, text analytics). In addition, Airbnb hosts should encourage guests to publish short videos, stories, and live videos so that potential customers can better understand a listing's properties before purchase. Social media live streams (e.g., Facebook Live, Instagram Live) can build positive value formation by interactively engaging potential guests. It would also be advantageous for hosts to portray their amenities accurately and to encourage guests to leave comments about their stays.

Our findings further demonstrate that personal interaction is essential to value formation. Given the prominent role of social value, Airbnb and its hosts should offer consumers opportunities to engage with residents and other guests to boost social value during their stay. Airbnb should further extend partnerships with local vendors or organizations to forge community relationships. By ensuring that locals are part of the Airbnb ecosystem, guests can enjoy local experiences involving more diverse products and services. Airbnb hosts could continue integrating community events and developing programs to encourage guests' involvement (e.g., resident-guided sightseeing tours and exclusive dining experiences at

neighborhood restaurants). Review comments from Study 1 suggested that hosts were significant actors during guests' on-site experiences. Hosts should aim to establish a hospitable relationship with guests by providing personalized services. Additionally, hosts should remember that immediate responses to guests' inquiries can ensure effective communication and increase the value for money. We, therefore, recommend that Airbnb and its hosts adopt seamless, multichannel communication to promote exemplary personal interaction throughout guests' experiences.

In addition, the significant effects of feedback in value creation imply that consumers not only consume services and products but also assume wider roles by participating in meaningful value formation even after their consumption experiences. Hosts should thus review guests' comments to improve their accommodation quality. Because positive review feedback and high ratings are vital to the success of platform providers and hosts, Airbnb and its hosts should take additional steps to mitigate negative reviews. These parties could also establish service recovery systems through consumer education. For instance, consumers should be aware of available complaint mediums (e.g., text messages and telephone contact) to make the complaint process easy and within their control (Kim and So, 2022).

## 7. Limitations and Future Research

Despite the abovementioned contributions, this research has several limitations. First, we examined three key AVF dimensions. Future studies could consider other AVF dimensions such as helping (Echeverri and Skålén, 2011) and responsible behavior (Yi and Gong, 2013). Second, individuals' online reviews may not fully reflect their consumption experiences owing to self-selection bias—hence our decision to adopt a multi-study approach to validate the findings of



Study 1 and improve results' external validity by using a different sample in Study 2. Finally, other scholars could also consider adopting similar multimethod approaches to ensure the robustness of their results.

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## The Effects of Actor Value Formation (AVF) on Consumers' Evaluative judgments

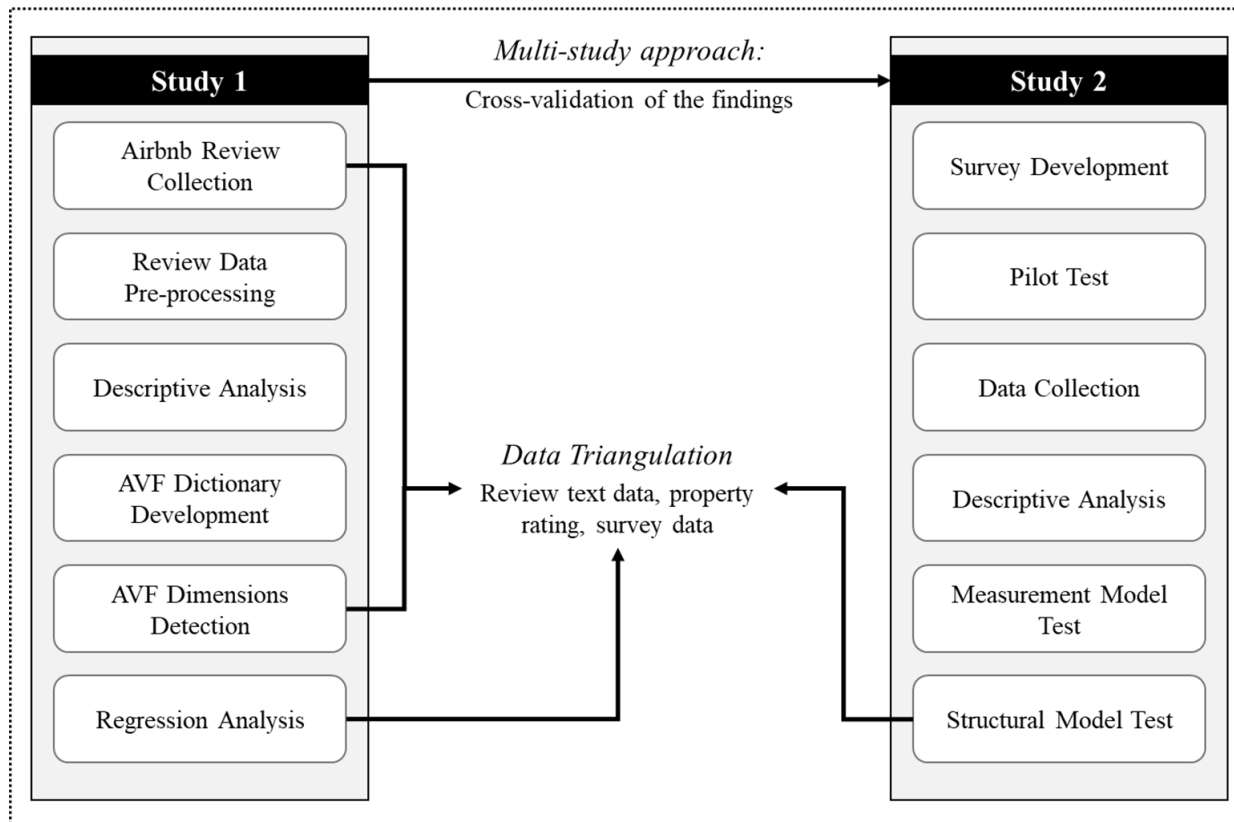
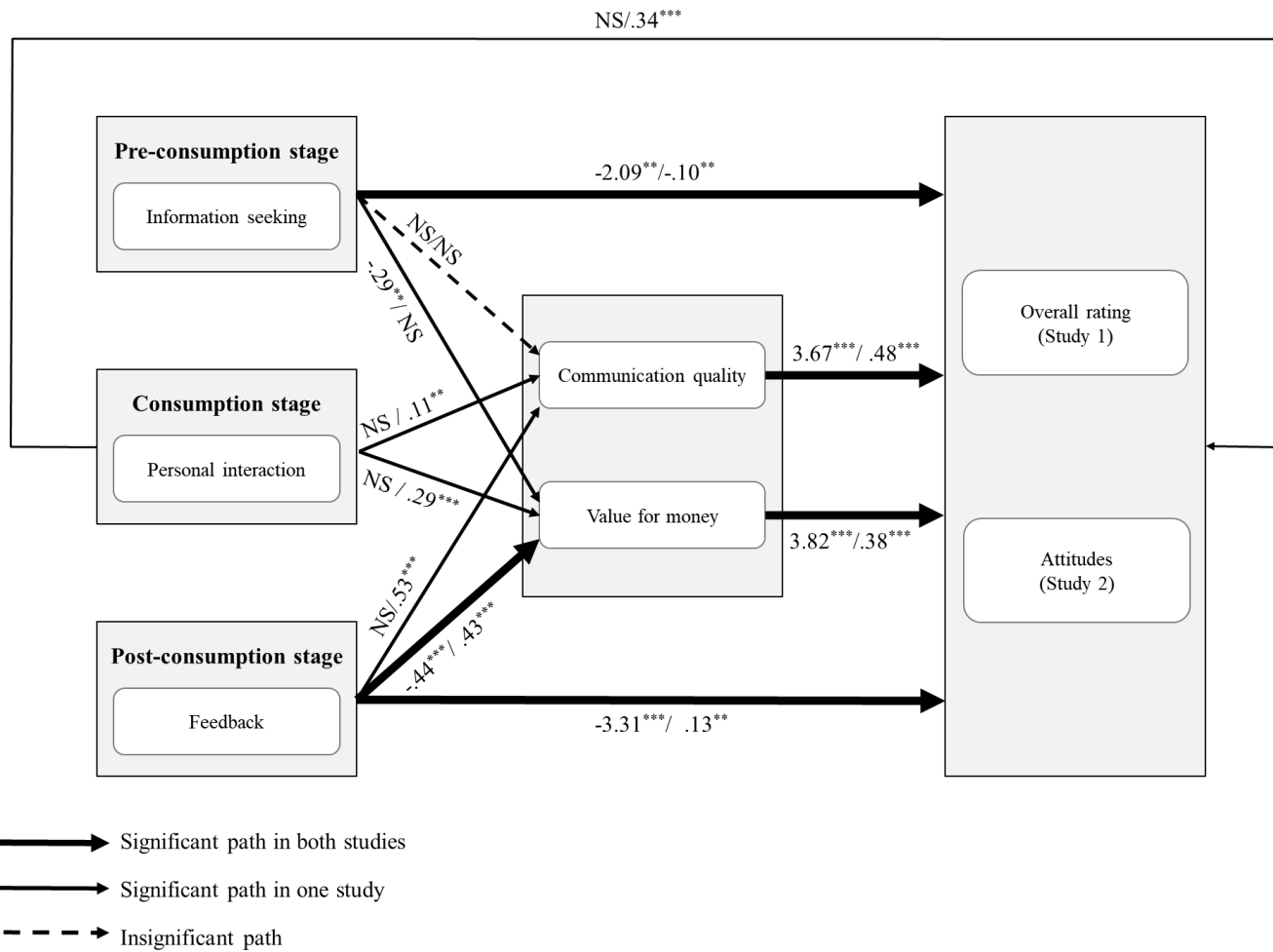


Figure 1. Methodological Overview



Note: \*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ ; Study 1 results/Study 2 results.

Figure 2. Results of Studies 1 and 2

Table 1. Actor Value Formation Dictionary

Dimensions	Operational definitions	Items (Yi and Gong, 2013)	Keywords from validated scales	Frequent terms in reviews	Final keywords
Information seeking	The purposive activity of attempting to acquire information in the pre-consumption stage (Fodness and Murray, 1997).	I have asked others for information on what this service offers. I have searched for information on where this service is located. I have paid attention to how others behave to use this service well.	Ask Explore Question Search Seek	Discover Explore Question Request Review	Ask Explore Question Review Search
Personal interaction	An interpersonal relationship between customers and service providers in the consumption stage (Chen and Xie, 2017).	I was friendly to the employee. I was kind to the employee. I was polite to the employee. I was courteous to the employee. I didn't act rudely to the employee.	Courteous Friendly Kind Polite Welcome	Accommodate Appreciable Greet Hospitable Welcome	Accommodate Appreciable Greet Hospitable Welcome
Feedback	Solicited and unsolicited information that customers provide to employees, which helps employees and firms to improve the service creation process in the post-consumption stage (Yi and Gong, 2013).	If I have a useful idea on how to improve service, I let the employee know. When I receive good service from the employee, I comment about it. When I experience a problem, I let the employee know about it.	Assess Comment Evaluate Judge Let know	Feedback Estimate Explain Evaluate Respond	Assess Feedback Estimate Explain Evaluate



Table 2. Sample Reviews

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Information seeking	<ul style="list-style-type: none"><li>• She was quick to respond to all our questions before booking the trip. I am already looking forward to our next stay there.</li><li>• The reviews I had read before booking this place were really good so I was beyond excited. Unfortunately, I was disappointed with how far behind schedule we were that day because of no hot water for our showers and late check in.</li></ul>
Personal interaction	<ul style="list-style-type: none"><li>• He was very responsive during our trip. We truly enjoyed our stay and would happily recommend to others.</li><li>• He made sure I had everything I needed during my stay.</li></ul>
Feedback	<ul style="list-style-type: none"><li>• My only feedback is that there were limitations on pool and jacuzzi use and neighborhood noise curfews that should be in the listing description.</li><li>• I am leaving this feedback to let anyone considering renting here know that the space is wonderful, location is central.</li></ul>

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Table 3. Path Estimates

Hypotheses	Paths	Standardized coefficient	SD	<i>t</i> -value	Results
H1a	Information seeking → Communication quality	-.04	.07	-.48	Not supported
H1b	Information seeking → Value for money	-.29**	.12	-2.34	Supported
H1c	Information seeking → Overall rating	-2.09**	.77	-2.72	Supported
H2a	Personal interaction → Communication quality	-.03	.08	-.34	Not supported
H2b	Personal interaction → Value for money	.25 <sup>#</sup>	.13	1.84	Marginally supported
H2c	Personal interaction → Overall rating	.19	.82	.24	Not supported
H3a	Feedback → Communication quality	-.13 <sup>#</sup>	.07	-1.84	Marginally supported
H3b	Feedback → Value for money	-.44***	.12	-3.57	Supported
H3c	Feedback → Overall rating	-3.31***	.76	-4.35	Supported
H4	Communication quality → Overall rating	3.67***	.10	37.54	Supported
H5	Value for money → Overall rating	3.82***	.06	59.95	Supported

Note: *SD* = standard deviation, <sup>#</sup>*p* < 0.10; \**p* < .05; \*\**p* < .01; \*\*\**p* < .001.

Table 4. Construct Reliability and Validity

Latent Variable/Indicators	Standardized factor loading	Mean	SD	$\alpha$	AVE
<i>Information seeking</i>				.74	.66
I asked the host for information about what the host offered.	.80	5.39	1.27		
I searched for information about the location of this accommodation.	.79	5.59	1.16		
I searched for information about other guests' reviews on the accommodation.	.84	5.68	1.18		
<i>Personal interaction</i>				.78	.69
I was friendly to the host.	.86	5.69	1.12		
I was kind to the host.	.81	5.65	1.17		
I was polite to the host.	.82	5.71	1.17		
<i>Feedback</i>				.74	.65
If I had a useful idea on how to improve service, I let the host know.	.80	5.31	1.33		
When I received good service from the host, I commented about it.	.83	5.37	1.39		
When I experienced a problem, I let the host know about it.	.79	5.60	1.28		
<i>Communication quality</i>				.88	.80
The host immediately responded to my requests.	.91	5.41	1.37		
The host correctly responded to my requests.	.87	5.26	1.41		
The host was readily available to my requests.	.91	5.35	1.40		
<i>Value for money</i>				.86	.71
The Airbnb accommodation that I stayed at was reasonably priced.	.84	5.39	1.29		
The Airbnb accommodation that I stayed at offered value for money.	.85	5.30	1.38		
The Airbnb accommodation that I stayed at was economical.	.81	5.39	1.35		
The Airbnb accommodation that I stayed at offered a good product for the price.	.86	5.40	1.42		

<i>Attitude</i>				.91	.85
I was pleased to have stayed at the Airbnb accommodation.	.92	5.30	1.47		
I was satisfied with my overall experience at the Airbnb accommodation.	.92	5.26	1.59		
I enjoyed staying at the Airbnb accommodation.	.93	5.53	1.62		

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*Note: SD = standard deviation; AVE = average variance extracted.*

Table 5. Discriminant Validity

Construct	Fornell-Larcker Criteria						Heterotrait-Monotrait Ratio					
	1	2	3	4	5	6	1	2	3	4	5	6
1. Attitudes	<b>.79</b>											
2. Value for money	.72	<b>.83</b>					.82					
3. Communication quality	.68	.77	<b>.80</b>				.77	.81				
4. Feedback	.57	.60	.62	<b>.89</b>			.69	.75	.78			
5. Personal interaction	.35	.55	.39	.54	<b>.84</b>		.43	.67	.53	.78		
6. Information seeking	.26	.40	.34	.65	.58	<b>.92</b>	.30	.48	.43	.71	.79	

*Note: Bold-faced diagonal elements are the square root of the variance shared between constructs and their measures. Off-diagonal elements represent correlations between constructs*

Table 6. Path Estimates

Hypotheses	Paths	Standardized coefficient	<i>t</i>	<i>f</i> <sup>2</sup>	Confidence interval (95%) bias-corrected	Results
H1a	Information seeking → Communication quality	.03	.62	.001	[-.122, .084]	Not supported
H1b	Information seeking → Value for money	-.01	.18	.001	[-.078, .140]	Not supported
H1c	Information seeking → Attitudes	-.10**	2.72	.033	[-.170, -.029]	Supported
H2a	Personal interaction → Communication quality	.11**	2.67	.061	[.080, .288]	Supported
H2b	Personal interaction → Value for money	.29***	5.91	.134	[.179, .457]	Supported
H2c	Personal interaction → Attitudes	.34***	6.09	.152	[.130, .431]	Supported
H3a	Feedback → Communication quality	.53***	9.20	.278	[.416, .642]	Supported
H3b	Feedback → Value for money	.43***	6.79	.210	[.300, .546]	Supported
H3c	Feedback → Attitudes	.13***	2.76	.102	[.039, .213]	Supported
H4	Communication quality → Attitudes	.48***	6.30	.284	[.318, .619]	Supported
H5	Value for money → Attitudes	.38***	4.90	.196	[.251, .478]	Supported

Note: communication quality:  $R^2 = .685$ ,  $Q^2 = .540$ ; value for money:  $R^2 = .630$ ,  $Q^2 = .437$ ; attitudes:  $R^2 = .797$ ,  $Q^2 = .670$ . \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

Table 7. Mediation Analysis

Hypothesis	Indirect effect path	Indirect effect $\beta$ ( $p$ -value)	Confidence interval (95%) bias-corrected	Results
H6	Information seeking → Communication quality → Attitudes	.02 (.488)	[-.039, .080]	Not supported
H6b	Personal interaction → Communication quality → Attitudes	.11 (.013 <sup>*</sup> )	[.011, .103]	Supported
H6c	Feedback → Communication quality → Attitudes	.25 (.000 <sup>***</sup> )	[.102, .273]	Supported
H7a	Information seeking → Value for money → Attitudes	.00 (.943)	[-.054, .046]	Not supported
H7b	Personal interaction → Value for money → Attitudes	.13 (.002 <sup>**</sup> )	[.061, .226]	Supported
H7c	Feedback → Value for money → Attitudes	.18 (.000 <sup>***</sup> )	[.155, .363]	Supported

Note: <sup>\*</sup>  $p < .05$ ; <sup>\*\*</sup>  $p < .01$ ; <sup>\*\*\*</sup>  $p < .001$ .