

Article

Uncovering the Providers' Continuance Intention of Participation in the Sharing Economy: A Moderated Mediation Model

Jiang Jiang ¹, Rui Feng ¹ and Eldon Y. Li ^{2,3,*}

¹ College of Business Administration, Shanghai Business School, Shanghai 201400, China; allenajj@126.com (J.J.); ruifeng080730@163.com (R.F.)

² Department of Information Management, National Chung Cheng University, Chiayi, Taiwan 621301

³ School of Economics and Management, Tongji University, Shanghai 201900, China

* Correspondence: eli@calpoly.edu

Abstract: The sharing economy has evolved into a promising business concept that enables individuals to share their idle resources, improving resource utilization efficiency commercially. Recently, it has gained enormous academic attention. However, little concern has been given to the behavior of individual providers on the supply side. This paper aims to uncover the motivational and trust-based providers' continuance intention of participation in the context of peer-to-peer ride-sharing services. Based on the survey data from 202 providers and the partial least-square analysis, we confirm the mediating effect of attitude in the relationships between participation continuance intention; trust; and three motivational dimensions: economic benefits, social–hedonic value, and sustainability. We further confirm the moderating effects of innovativeness using PROCESS. The results show that economic benefits, social–hedonic value, and sustainability significantly affect providers' participation continuance intention. Moreover, attitudes toward the sharing economy play a complementary partial-mediating role in the relationships from economic benefits and social–hedonic value to participation continuance intention, which is negatively moderated by innovativeness. Trust does not significantly affect providers' attitude toward the sharing economy and participation continuance intention in the peer-to-peer ride-sharing context.

Keywords: sharing economy; motivation; trust; innovativeness; intention; participation continuance

Citation: Jiang, J.; Feng, R.; Li, E.Y. Uncovering the Providers' Continuance Intention of Participation in Sharing Economy: A Moderated Mediation Model. *Sustainability* **2021**, *13*, x. <https://doi.org/10.3390/xxxxx>

Academic Editor: Ermanno Tortia

Received: 21 March 2021

Accepted: 28 April 2021

Published: date

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Submitted for possible open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Fueled by the use of internet-facilitated sharing systems and the pursuit of sustainable development, the sharing economy (SE) as a social–economic model has become a pervasive novel business model [1]. The SE enables non-ownership-based sharing activities in the forms of lending, renting, bartering, and swapping of tangible (e.g., car, bicycle, land, clothes, space, etc.) or intangible goods and services (e.g., rides, skill, time, money, wireless networks, etc.) [2,3]. Within the SE, individuals can register as service providers to start micro-businesses with fewer market barriers, lower risks, and few changes in their current lifestyles [4]. According to China's State Information Center [5], the SE market's transaction volume in China has a noticeable growth trend every year, and it reaches 3,377.3 billion in 2020, with an increase of 2.9% over the previous year despite the impact of COVID-19. The number of participants in the SE is about 830 million, including 84 million service providers. The SE plays a necessary role in promoting economic development and improving the employment situation

Despite the numerous potentials of SE, inadequate acceptance and adoption, and the lack of resources such as customer base, money, trusted branding, etc., have prevented the SE model from scaling up its economy and becoming mainstream [6]. Evidence sug-

gests that while many providers accept the SE model, some are loath to continue participating in the SE because of a high degree of social distance and product involvement [7], economic and political risks [8], and privacy concerns [9]. As a critical mass of trustworthy providers is necessary for attracting consumers [15], the SE's development relies heavily on providers' continuous participation [10]. Therefore, engendering providers' participation continuance is critical to the sustainable development of SE. To address this research issue, it is crucial to identify the formation patterns of providers' participation continuance in the SE.

The literature on the SE is inundated with research into why individuals do or do not participate in the sharing acts, but it mainly focuses on the demand-side users (e.g., [11,12]). Despite the providers also being users of SE platforms and just as motivated to participate, very few have explored the behavioral process of the providers (e.g., [13,14]). Furthermore, as shown in Table A1 existing provider-focused studies mainly devote themselves to the accommodation sharing situation. For example, Lee et al. [15] studied the antecedents of hosts' organizational citizenship behavior toward Airbnb and other peer hosts. The three studies focusing on the ride-sharing situation are Wilhelms et al. [16], Böcker and Meelen [17], and Guo et al. [18]. Specifically, Wilhelms et al. [16] used the means–end chain theory based on the interviews to identify providers' motivations for P2P ride-sharing services. Böcker and Meelen [17] compared the providers' importance ratings with those of the consumers. Guo et al. [18] researched the antecedents of trust and its direct effect on the providers' intentions. The empirical studies on the effects of motivations or other antecedents on providers' behavioral intentions are extremely scarce. Research has indicated that the SE's underlying motivations may be perceived as economic, ecological, hedonic, or social value [17]. All these dimensions of motivations have been empirically examined in the studies from the consumer's perspective [19]. Whether all these dimensions also act as driving factors for providers' participation continuance intention in the ride-sharing situation needs more empirical examination. Besides motivations, trust is considered a fundamental predictor of participation in SE [14]. So far, how trust affects providers' attitudes and intentions in the context of peer-to-peer (P2P) ride-sharing has not been adequately explored. Furthermore, recent work has indicated that SE is an innovative and on-trend alternative consumption model. Participants' innovativeness (or trend orientation) directly affects the adoption of this new model [20]. Nevertheless, the effects of providers' innovativeness have not been explored sufficiently.

As a result, this study examines the impacts of motivations and trust on providers' participation continuance intention. The study explores the mediation effect of attitude in the relationships of motivations, trust, and participation continuance intention. It further examines whether innovativeness could enhance or weaken the mediating effects of attitude. The direct effects on participation continuance intention are controlled by three demographical variables: age, gender, and education. In this study, the P2P ride-sharing scheme is selected as the context since it has been touted as the most active and popular business model of the SE [16]. Theoretically, this study adopts the volitional model [21], self-determination theory [22], and commitment–trust theory [23] to explain a conceptual research model that consists of motivation, trust, attitude, and intention, and that attitude–intention link is moderated by innovativeness. This study is one of the first studies to uncover the providers' motivation-based and trust-centric intentions of participation continuance and consider their innovativeness.

The remainder of this paper is organized as follows. First, we review the prior relevant literature and postulate hypotheses to develop a conceptual model. Then, the research methodology is introduced to validate the conceptual model and discuss the results. Finally, we present conclusions and implications, followed by limitations and future research.

2. Literature Review

2.1. Sharing Economy as a Disruptive Economic Model

Consumer research has witnessed a flurry of sharing-related practices [3]. However, the research on the sharing phenomenon is still sparse. Many different terms are used to epitomize the essence of sharing-based consumption. Among those terms are “sharing economy” [3], “shared consumption” [24], “collaborative consumption” [25], “internet-mediated sharing” [26], “commercial sharing system” [27], “access-based consumption” [28], “peer-to-peer networks of consumption” [29], and “non-ownership mode of consumption” [30]. Past research has used some of these terms interchangeably [31]. So far, there is “no general agreement about what to call them” [32] (p. 20). One thing for sure is that the demand-side users do not own the products or services in the context of the SE.

The SE is often discussed together with collaborative consumption, a context “in which one or more persons consume economic goods or services in the process of engaging in joint activities with one or more others” [33] (p. 614). Botsman and Rogers [34] define the SE as a socioeconomic groundswell based on organized activities of sharing, bartering, lending, trading, renting, gifting, and swapping. According to Belk [3] (p. 1597), SE is “people coordinating the acquisition and supply of a resource for a fee or other compensation”. These two most-cited definitions of the SE center on the participants [35]. More specifically, some researchers define the SE more narrowly, limiting the SE to a P2P category. Barnes and Mattsson [36] (p. 200) define SE as “resources (such as space, money, goods, skills, and services) between individuals, who may be both suppliers and consumers”. Since this paper focuses on the commercial exchange of access to goods or services between individuals, we define SE as “*an economy where individuals perform peer-to-peer sharing of access to goods or services for economic benefits, such as money or other compensations, through an online marketplace and social networking technologies.*”

As the definition implies, besides the prevalently digital nature and the pro-social characteristic of pure sharing, the SE is also considered pseudo-sharing due to the compensation aspect [3]. Within the SE, the traditional business model of “companies owning” and “consumers using” is disrupted [37]. Peers are granted opportunities to offer and obtain goods or services from each other through market-mediated platforms. Individuals act as users or providers [37,38]. For providers, the SE offers economic benefits by providing them with opportunities to act as micro-entrepreneurs, reducing the burden of ownership, and sharing the fixed cost of holding [26]. For users, it offers increased convenience because they can obtain access to goods (or services) with lower cost in times of need and brings them chances to experience and test items before their own consumption decisions [10,39]. For both the providers and users, the SE brings more opportunities for them to interact with each other and connect with local communities [26,36]. Additionally, the core feature of the SE is that it is a “possible form of purchase reduction without usage reduction” [27] (p. 4216). It satisfies consumers’ demand without any new resource-consuming production. Because of its advantage of unlocking the inherent underused values of resources, the SE has been touted as a sustainable economic model [34,39].

2.2. Why Individuals Participate in the Sharing Economy

Next to the semantic analysis of the SE, scholars have examined the antecedents explaining why individuals participate in the SE. So far, prior research has identified a multitude of motivations and suggests that the positive sharing attitude is largely shaped by three antecedents: sustainability, social-hedonic value, and economic benefits [25,26]. Furthermore, trust [40], individuals’ traits or values [41], familiarity, past experience, knowledge, and behavioral control [40,42], among others, are essential in attitude and intention formation. Individuals’ traits or values include innovativeness, variety seeking, trend orientation, and trend affinity [42], materialism [26,43], price consciousness and price sensitivity [41,44], and environmental consciousness [10].

An overview of antecedents for participation in the SE reveals that most of the previous studies on the SE discuss different application scenarios, including the accommodation marketplace [14] and ride-sharing programs [18], among others. Antecedents for

participation in the SE seem to vary by application scenario [17,37]. For example, the desire to meet new people and the wish to share the inward world are identified as important motivations in the context of peer-to-peer accommodation [45,46]. However, Bardhi and Eckhardt [2] indicate that for individuals who participate in Zipcar's ride-sharing programs, they neither emphasize pro-social motives nor are willing to engage in community building beyond the market exchange. Mohlmann [40] finds that community belonging has a positive impact on the likelihood of participating again in ride-sharing services, but it exerts no significant effect on the accommodation scheme.

Except for the specific context, the nature of the product also matters when explaining the sharing phenomenon. Research focusing on the physical options finds that in addition to the economic and social reasons common to non-physical services [31], environmental concerns and practical values are also important antecedents [47]. In contrast, McArthur's [37] study of a non-profit "landshare" scheme finds that the most common motivation for participation is the need for social connection, while financial saving is the least prevalent reason. Conversely, Milanova and Maas [31] find that commercial sharing of intangible insurance is predominantly financially motivated.

Finally, motivations for SE participation appear to be different when role-heterogeneity is concerned. On the supply side, Bucher et al. [26] find that social-hedonic, moral, and monetary motives are keys to explaining providers' attitudes toward sharing. In contrast, research focusing on the demand side indicates that using shared options is determined by self-interest and utilitarianism [2]. Lawson et al. [10] find that economic benefits are the most prevalent motivation that entices consumers' willingness to access products through socially networked short-term rentals. Cost-saving and utility are the antecedents of satisfaction with a shared option and more important than community belonging [40]. Such inconclusiveness of research outcomes suggests that sharing behavior is multi-faceted and defining a single typology is unfeasible [37]. Furthermore, the reasons for participation in the SE should be context-dependent and role-based, and the related research is in its infancy stage [31,37].

3. Hypotheses Development and Proposed Model

Previous studies have indicated that through providing sharing services, providers can gain more incomes [16,26,48]; establish new social ties [26,46,48]; and experience a sense of enjoyment [26]. Moreover, the issue of sustainability is increasingly important in the SE context. The value associated with SE activities is connected to the environmental causes [25,49] as the SE helps reduce the negative effect of resource consumption on the environment by maximizing the usage of a given product. Based on self-determination theory (SDT), the dimensions of motivations can be classified into two types: extrinsic and intrinsic [22,50]. Extrinsic motivations are associated with external factors, such as monetary gain [25]. Intrinsic motivations include enjoyment that emerged from the activity itself and value derived from appropriate behavior that complies with norms [51]. Following the work of Hamari et al. [25] and Bucher et al. [26], we consider economic benefits (EB) as extrinsic motivation, and social-hedonic value (SHV) and sustainability (SUS) as intrinsic motivations. Furthermore, trust has been conceptualized as a fundamental antecedent of individuals' participation in SE [46]. As the SE is a disruptive business model, the participant's innovativeness can foster SE participation [27]. Therefore, this research attempts to investigate the effects of both trust and innovativeness on participation continuance intention (PCI).

3.1. Economic Benefits

According to rational choice theory and related studies [52–54], individuals are more likely to participate in the SE when the costs of a shared option are minimized, and the benefits are maximized [55,56]. SE allows providers to become micro-entrepreneurs,

bringing them more income and sharing the fixed costs of their shareable assets with others. As previous studies discussed, monetary value is a key determinant of attitude and intention. Hamari et al. [25] verify that economic benefits directly influence the intention to participate in SE. Moreover, Wilhelms et al. [16] use the means–end chain analysis and qualitatively summarize that economic interest is one of the motivations driving providers' decision to participate in ride-sharing. Hence, we hypothesize:

Hypothesis 1a. *Providers' perceived economic benefits positively influence attitudes toward the sharing economy.*

Hypothesis 1b. *Providers' perceived economic benefits positively influence participation continuance intention.*

3.2. Social–Hedonic Value

Prior research has identified community belonging as a determinant of consumption behavior [57]. Community belonging is embodied in the desire to be part of a group of like-minded people [58,59]. Providing a shared option brings an opportunity to make new connections [34], a key driver for sharing activities [3]. Specifically, the positive effect of the desire to make friends on the intention to share accommodations is verified by Kim et al. [46]. Wilhelms et al. [16] provide qualitative evidence that helping others is one of the motivations for providers' participation in ride-sharing.

Furthermore, research also reveals that enjoyment significantly impacts sharing behavior, such as knowledge sharing online [60]. This perceived enjoyment has a significant positive effect on both attitude and behavioral intention toward SE [25]. Bucher et al. [26] sum up the fun and social value as social–hedonic motives and advocate that they have significant positive effects on attitude toward SE. Therefore, we hypothesize:

Hypothesis 2a. *Providers' perceived social–hedonic value positively influences attitudes toward the sharing economy.*

Hypothesis 2b. *Providers' perceived social–hedonic value positively influences participation continuance intention.*

3.3. Sustainability

Driven by the increasing awareness of environmental pressure, individuals are inclined to use resources more effectively. Individuals' attitudes toward sustainability-oriented practices are motivated by the values of environmental benefits [61,62]. Individuals with a higher level of environmental consciousness are more likely to exhibit environmentally friendly behaviors [63], such as requesting and giving behaviors [64]. Sharing solutions are generally believed to be advantageous to the environment compared with non-sharing solutions, since sharing resources can optimize resource use [10,65,66]. Participation in the SE has been regarded as a highly ecological sustainable practice [2,34,67]. Böcker and Meelen [17] indicate that environmental motivations play critical roles in joining ride-sharing for the providers. Meanwhile, Wilhelms et al. [16] identify perceived sustainability as a predictor for peer providers' ride-sharing intentions. Hence, we hypothesize the following:

Hypothesis 3a. *Providers' perceived sustainability positively influences attitudes toward the sharing economy.*

Hypothesis 3b. *Providers' perceived sustainability positively influences participation continuance intention.*

3.4. Trust

Although a variety of definitions and operational measures have been used for trust, there exists a widely accepted notion suggesting that “trust occurs when one party has confidence in an exchange partner’s reliability and integrity” [23] (p. 23). In the SE context, trust is a principal determinant in nurturing relationships between peer providers and users [40,48]. It can be measured by the institution-based trust (trust in platforms) and disposition to trust (trust in providers or users) [68]. Research has provided evidence for the negative effect of lack of trust [42,69] and the positive effect of trust [46,68] on the attitude and intention to participate in SE. More specifically, Kim et al. [46] find that hosts with a high level of trust in the platform tend to have high intentions to share accommodations with others. Therefore, we hypothesize as follows.

Hypothesis 4a. *Providers’ trust positively influences attitudes toward the sharing economy.*

Hypothesis 4b. *Providers’ trust positively influences participation continuance intention.*

3.5. The Mediating Effect of Attitude toward Sharing Economy

Research has corroborated that beliefs influence intention through positive affectivity [70]. According to the theory of reason action (TRA), behavioral attitude is posited to fully mediate the belief–intention link [71]. However, alternative models have provided empirical evidence showing beliefs to impact intention directly [72]. Based on these works, Bagozzi [21] proposed a volitional model, arguing that intention is a direct and indirect outcome of expectancy–value judgments, with the indirect effect occurring through affectivity toward the act. That is, the intention is a function of both rational beliefs about the consequences of the act (expectancy) and the evaluations of those consequences (value). It is further mediated by emotional reactions toward the act. In the SE context, Hamari et al. [25] note that motivations directly affect sharing attitude and behavioral intention. Amirkiaee and Evangelopoulos [47] focus on the trust–intention link and validate the partial mediating role of attitude in this link under the ride-sharing context. However, they both have not distinguished the roles of users or providers. According to the volitional model, we posit that motivations and trust have direct and indirect (through attitude) effects on PCI. Therefore, the hypotheses are as follows.

Hypothesis 5a. *Providers’ attitudes toward the sharing economy positively influence participation continuance intention.*

Hypothesis 5b. *Providers’ attitudes toward the sharing economy mediate the relationships between motivations and participation continuance intention.*

Hypothesis 5c. *Providers’ attitudes toward the SE mediate the relationships between trust and participation continuance intention.*

3.6. The Moderating Effect of Innovativeness

An individual’s innovativeness is known to play an important role in theories of brand loyalty, decision making, preference, and communication [73]. Those who have a higher level of innovativeness are expected to have a higher intention of taking risks and adopting innovations than others [74,75]. This phenomenon has been explained by the diffusion of innovations theory [76]. Research has found that consumers who participate in the SE are more innovative and that the demand for non-ownership services is positively influenced by trend orientation [30]. We posit that this notion could be true for providers. While research has identified the direct effect of innovativeness on the SE, this study examines the moderating effect of innovativeness on the mediating role of attitude in the relationships of PCI with motivations and trust.

Dabholkar and Bagozzi [77] note that the relationship between attitude and intention can be attenuated for consumers who are high in innovativeness. We posit that this view

applies equally to the SE context. That is, individuals with high innovativeness are more likely to continue sharing for the sake of trying new solutions to satisfy the needs of this new consumption model. They have less reliance on their existing attitudes. The effect of attitude toward the SE on PCI is attenuated by innovativeness. Like a second stage moderated mediation model clarified in the research of Edwards and Lambert [78], the innovativeness moderates the second stage path from attitude to PCI in the whole mediation model that comprises relationships from motivations and trust to PCI through attitude. Since the relationship between attitude and PCI would be attenuated among providers who are high in innovativeness, the mediating role of attitude in PCI's relationships with motivations and trust is less important for those high in innovativeness. Therefore, we hypothesize as follows:

Hypothesis 6a. Providers' innovativeness negatively moderates the mediation effect of attitude toward the sharing economy in the relationships between motivations and participation continuance intention.

Hypothesis 6b. Providers' innovativeness negatively moderates the mediation effect of attitude toward the sharing economy in the relationship between trust and participation continuance intention.

Based on the above, we propose a moderated mediation model, as shown in Figure 1.

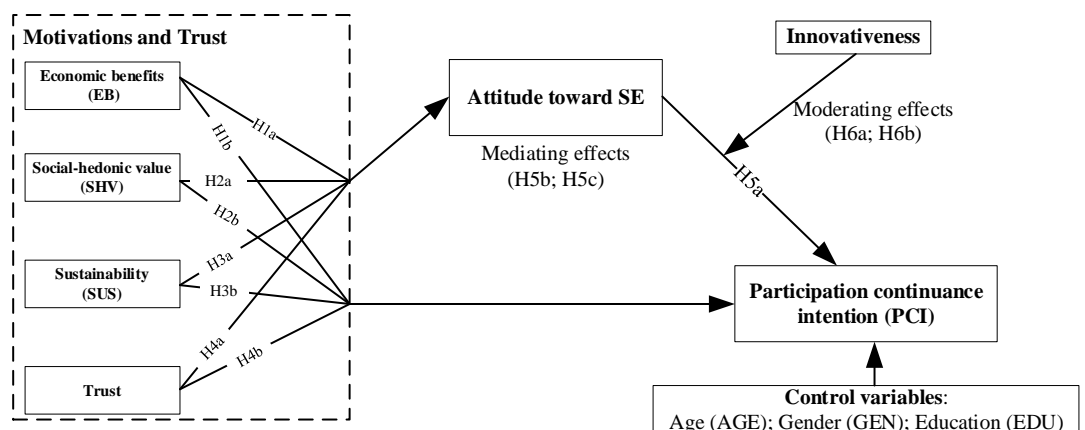


Figure 1. The conceptual model of participation continuance in the sharing economy.

4. Methodology

4.1. Subjects

In China, DiDi's didiglobal.com platform provides the world's leading P2P ride-sharing service. Any provider who registers with DiDi can provide its ride-sharing services. We chose DiDi's Express, Premier, and Hitch service communities for data collection using a web-based survey. The survey invitation letter contains a hyperlink to an online questionnaire website. We limit each respondent to complete one questionnaire using only one unique IP address. As every respondent is anonymous, we assign the IP address as the questionnaire's identification number. Moreover, to ensure the responses' quality, we used a screening criterion to filter the respondents. To qualify for survey participation, every respondent must have provided a P2P ride-sharing service 6 times or more within the past 6 months.

We adopted the participatory research method (Cornwall and Jewkes, 1995) and asked the 2 drivers in the focus group to invite the authors to join 7 driver communities: 5 on QQ.com and 2 on WeChat.com. More communities were identified and joined through the drivers when we were taking DiDi services. Eventually, 12 communities were

identified and joined, 8 on QQ and 4 on WeChat from four major cities: Beijing, Shanghai, Guangzhou, and Shenzhen. We then stayed in these communities for over three months each before we commenced the survey.

4.2. Measurement

To test the hypotheses, we conduct a web-based survey using questionnaires. At the beginning of each questionnaire, we briefly describe the purpose of the survey, the definitions of the SE and P2P ride-sharing, and examples of DiDi services. The first section of the questionnaire contains three demographical questions: age, gender, and education. The second section contains the scale items measuring the seven constructs examined in this research. All constructs are measured by multiple-item scales adapted from previous studies, with the wordings of some items changed to fit the context. After designing the initial questionnaire, a focus group meeting was conducted to check its content validity. The group consists of 4 members: the 2 authors and 2 DiDi drivers. The scale items of these constructs and their sources are exhibited in Table A2. All of the measurement items are based on a five-point Likert scale, ranging from “strongly disagree” to “strongly agree”. Age, gender, and education are coded with ordinal scales.

4.3. Data Collection

To collect the data, we use the web-based survey with a screening criterion to capture the respondents we want. In the online questionnaire, we start by asking each subject the screening question: “How many times have you provided P2P ride-sharing services during the past 6 months?” Those who meet the criterion of 6 times or more services (i.e., at least once a month) were included in the survey. The respondents who fully completed the questionnaires were rewarded with 5 RMB. The survey lasted for 4 weeks in February 2021 and yielded 250 respondents after 2 waves of invitations 2 weeks apart. Among them, 214 met the criterion of 6 times in the last 6 months, with 116 received in the first 2 weeks and 98 in the second 2 weeks. After item-by-item scrutiny, 12 questionnaires (8 in the first wave and 4 in the second wave) were excluded due to their excessive outliers, leaving 202 usable questionnaires for further analyses.

4.4. Common Method Bias

We conducted two analyses to assess the potential common method bias [79]. First, we performed Harman’s single-factor test with principal component analysis. The first factor accounted for 36.754%. A single factor did not emerge from the unrotated solution, suggesting that the bias was not high. Second, as Pavlou et al. [80] suggested, we examined the correlation matrix to find any extremely high correlations (e.g., $r \geq 0.9$), indicating the existence of common method variance. The results show no extremely high correlations. Therefore, we can conclude that the common method variances do not significantly affect the analyses.

4.5. Analysis Methods

As this study aims to predict antecedents’ influence on PCI, using the PLS-SEM method is appropriate [81]. Moreover, the PLS-SEM procedure can model latent constructs under conditions of non-normality and small-to-medium sample sizes with the ratio of the sample size to the number of indicators no less than 5:1 [82]. Our ratio is at least 9:1, allowing us to use PLS-SEM analyses with SmartPLS3.3.2 software.

Following the PLS-SEM analysis literature, the first step in evaluating PLS-SEM results involves examining the measurement model [83]. The measurements’ reliability can be evaluated based on the CR (composite reliability) values [84]. After analyzing reliability, convergent validity can be reviewed through the average variance extracted (AVE) [85]. Concerning the discriminant validity, the results can be obtained by the criterion of

Fornell–Larcker [85] and HTMT evaluation (heterotrait–monotrait) [86]. When the reliability and validity are confirmed, the basic mediation model deposited in Figure 1 can be developed and evaluated using 5000 bootstrapping samples [87]. The structural model's explanatory capacity can be evaluated using the R^2 values, which reflect the explained variance of the dependent constructs [83].

As for the moderated mediation effects, data are analyzed using SPSS 20. We adopted model 14 of the PROCESS macro from Hayes [88], with 95% confidence intervals judging the significance and 5000 bootstrap samples. Four moderated mediation models are established for the four antecedent variables. The three motivations and trust are independent variables; attitude toward the SE is the mediator; innovativeness is the moderator; PCI is the dependent variable. When one antecedent variable is set as the independent variable, the other three antecedents are set as control variables. In this part, the attitude's conditional indirect effects under the three levels of innovativeness (one standard deviation below the mean, the mean, and one standard deviation above the mean) and the index of moderated mediation effect will be evaluated.

5. Results

5.1. Profile of Participants

Table 1 exhibits the demographic profile of the participated providers. These providers of P2P ride-sharing services are mostly male, less-educated, and young (20–39 years old). This finding is consistent with those reported in previous studies [26].

Table 1. Demographic information of providers.

Variable	Specification	N = 202	Percent	Variable	Specification	N = 202	Percent
Gender	Male	159	78.71%	Age	Until 20	0	0
	Female	43	21.29%		20–29	85	42.08%
Education	High school or lower	61	30.20%		30–39	90	44.55%
	2–3 years of college	85	42.08%		40–49	25	12.38%
	4 years of college	50	24.75%		50 and older	2	0.99%
	Graduate school	6	2.97%				

5.2. Measurement Model

As shown in Table 2, the CR values are all higher than the threshold of 0.7, which suggests good reliability. Convergent validity is achieved because all the values of AVEs are above the threshold of 0.5 (see Table 2). Furthermore, the results indicate that the square root of the AVE from every construct is larger than its correlations with all other variables across the related columns and rows, meeting the criterion for discriminant validity recommended by Fornell–Larcker [85]. Moreover, all the values of HTMT are below 0.9 (see Table 3). It is concluded that the study's measurements feature sufficient evidence of discriminant validity [85].

Table 2. CR, AVE, and Fornell–Larcker criterion.

	CR	AVE	EB	SHV	SUS	Trust	Attitude	PCI	Innovativeness
EB	0.875	0.700	0.837						
SHV	0.891	0.733	0.374	0.856					
SUS	0.859	0.670	0.621	0.260	0.819				
Trust	0.838	0.638	−0.158	−0.222	−0.130	0.799			
Attitude	0.871	0.693	0.661	0.637	0.459	−0.199	0.833		
PCI	0.894	0.737	0.706	0.492	0.598	−0.126	0.667	0.859	

Innovative- ness	0.906	0.764	0.316	0.545	0.346	-0.118	0.479	0.455	0.874
---------------------	-------	-------	-------	-------	-------	--------	-------	-------	--------------

Notes: the square roots of the AVEs are bold on the diagonal.

Table 3. Heterotrait–monotrait ratio of correlations (HTMT).

	EB	SHV	SUS	Trust	Attitude	PCI	Innovativeness
EB							
SHV	0.455						
SUS	0.809	0.343					
Trust	0.158	0.236	0.145				
Attitude	0.841	0.795	0.594	0.202			
PCI	0.877	0.595	0.760	0.124	0.821		
Innovativeness	0.463	0.701	0.498	0.112	0.680	0.619	

5.3. Structural Model

Table 4 shows the results of structural equation analysis based on the whole sample. The motivations, trust, and control variables explain 62.3% of the variance in PCI (R_{PCI}^2) and 61.6% of the variance in attitude toward the SE ($R_{Attitude}^2$). The obtained path coefficients and levels of significance exhibit that six hypotheses (i.e., H1a, H1b, H2a, H2b, H3b, and H5a) are statistically supported with a significance level of 0.05. In contrast, H3a, H4a, and H4b are not supported. The control variables have no significant effects on PCI.

For the mediating roles of attitude toward SE, not all indirect effects are significant. Table 4 indicates that attitude toward SE plays a complementary partial-mediating role for EB→PCI, and SHV→PCI, but not SUS→PCI. Neither the direct or indirect effects of trust on PCI are significant. Hence, H5b is partially supported, but H5c is not at all.

Table 4. Results of the direct and indirect effects using PLS-SEM analysis.

Direct effects				Indirect effects via attitude toward SE			
Paths	β	T-Value	P-Value	Paths	β	T-Value	P-Value
H1a: EB→Attitude*	0.454	5.683	0.000*	H5b1: EB→Attitude→PCI*	0.106	2.489	0.013*
H2a: SHV→Attitude*	0.448	7.692	0.000*	H5b2: SHV→Attitude→PCI*	0.105	2.439	0.015*
H3a: SUS→Attitude	0.058	0.726	0.468	H5b3: SUS→Attitude→PCI	0.014	0.676	0.499
H4a: Trust→Attitude	-0.020	0.531	0.595	H5c Trust→Attitude→PCI	-0.005	0.501	0.616
H1b: EB→PCI*	0.336	4.243	0.000*	Effects of the control variables			
H2b: SHV→PCI*	0.172	2.317	0.021*	Paths	β	T-Value	P-Value
H3b: SUS→PCI*	0.248	3.765	0.000*	AGE→PCI	-0.064	1.341	0.180
H4b: Trust→PCI	0.044	0.857	0.391	GEN→PCI	-0.009	0.195	0.846
H5a: Attitude→PCI*	0.234	2.664	0.008*	EDU→PCI	-0.029	0.511	0.609

* Hypothesis is supported at $p < 0.05$. The results of significant paths are bold.

5.4. Moderated Mediation Analysis

As shown in Table 5, the PROCESS macro results indicate that the significant levels of direct effects are consistent with the PLS-SEM analysis results in Table 4. Moreover, the interaction between attitude and innovativeness has a significantly negative effect on PCI. When the innovativeness level is higher, the indirect effect of attitude is smaller for all paths from EB, SHV, SUS, and trust to PCI (see the arrow directions in Table 5). The moderated mediation effects are all negative: EB→Attitude→PCI is -0.055, SHV→Attitude→PCI is -0.054, SUS→Attitude→PCI is -0.013, and Trust→Attitude→PCI is -0.0002. The 95% confidence interval (LLCI, ULCI) is estimated to determine the significance level. If the interval does not contain zero value, the effect is significant at $p < 0.05$. The moderated mediation effects of EB→Attitude→PCI and SHV→Attitude→PCI are significant, but

those of SUS→Attitude→PCI and Trust→Attitude→PCI are not, according to the confidence intervals in Table 5. Hence, H6a is partially supported, but H6b is not.

Table 5. Results of moderated mediation effects with innovativeness as the moderator.

Predictors	Attitude toward the SE ($R^2 = 0.727$)					PCI ($R^2 = 0.755$)				
	β	SE	<i>t</i> -value	<i>p</i> -value	[LLCI,ULCI]	β	SE	<i>t</i> -value	<i>p</i> -value	[LLCI,ULCI]
Constant	0.433	0.335	1.296	0.197	[-0.226,1.093]	-1.651	0.496	-3.325	0.001	[-2.630,-0.671]
Attitude (toward the SE)						0.530	0.146	3.633	0.000	[0.242,0.818]
Innovativeness						0.641	0.167	3.835	0.000	[0.311,0.971]
Attitude × Innovativeness						-0.137	0.042	-3.293	0.001	[-0.220,-0.055]
EB	0.401	0.063	6.387	0.000	[0.277,0.525]	0.325	0.071	4.575	0.000	[0.185,0.464]
SHV	0.392	0.045	8.670	0.000	[0.303,0.482]	0.123	0.059	2.071	0.040	[0.006, 0.240]
SUS	0.095	0.061	1.553	0.122	[-0.026,0.215]	0.292	0.064	4.554	0.000	[0.166, 0.419]
Trust	0.002	0.047	0.036	0.972	[-0.092,0.095]	0.035	0.049	0.723	0.471	[-0.061, 0.131]
EB→Attitude→PCI										
Conditional Indirect Effects	Innova-tiveness level	Effect	Boot SE	[Boot LLCI, Boot ULCI]	Innova-tiveness level	Effect	Boot SE	[Boot LLCI, Boot ULCI]		
	2.267 ↓	0.088 ↑	0.034	[0.029,0.163]	2.267 ↓	0.086 ↑	0.033	[0.028,0.158]		
	3.490 ↓	0.020 ↑	0.032	[-0.042,0.086]	3.490 ↓	0.020 ↑	0.032	[-0.039,0.089]		
	4.713 ↓	-0.047 ↑	0.047	[-0.144,0.041]	4.713 ↓	-0.046 ↑	0.045	[-0.136,0.044]		
Moderated Mediation Effect		-0.055	0.021	[-0.102,-0.021]		-0.054	0.019	[-0.094,-0.022]		
SUS→Attitude→PCI										
Conditional Indirect Effects	Innova-tiveness level	Effect	Boot SE	[Boot LLCI, Boot ULCI]	Innova-tiveness level	Effect	Boot SE	[Boot LLCI, Boot ULCI]		
	2.267 ↓	0.021 ↑	0.017	[-0.004,0.066]	2.267 ↓	0.0004 ↑	0.010	[-0.019,0.020]		
	3.490 ↓	0.005 ↑	0.010	[-0.007,0.038]	3.490 ↓	0.0001 ↑	0.004	[-0.007,0.010]		
	4.713 ↓	-0.011 ↑	0.016	[-0.068,0.007]	4.713 ↓	-0.0002 ↑	0.007	[-0.017,0.014]		
Moderated Mediation Effect		-0.013	0.011	[-0.043,0.002]		-0.0002	0.006	[-0.013,0.013]		
Trust→Attitude→PCI										

6. Discussion and Conclusion

This study investigates how individuals are motivated to provide P2P ride-sharing services. Results show that EB, SHV, and SUS are important drivers for peer providers' attitudes and continuous intention toward the SE.

Firstly, EB and SHV affect PCI directly and indirectly. This finding is consistent with the work of Bucher et al. [26], empirically showing that the EB and SHV do matter to providers' attitudes. Moreover, this study adds empirical evidence to the qualitative findings of Wilhelms et al. [16], in which the self-centered motives of economic interests and quality of life are the dominating drivers for individuals' decision to participate in the SE as providers. Our data further uncovers the significant direct effects of EB and SHV on PCI and the mediating role of attitude toward the SE. It implies that financial benefits, cost-effectiveness, social ties, and enjoyment are important for motivating providers to continue sharing with others.

Secondly, SUS directly affects PCI, but not attitude toward SE. It implies that if individuals perceive ride-sharing services as environmentally beneficial activities, they are willing to continue serving as providers, but the ecological aspect has less influence on the attitude.

Finally, although Kim et al. [46] report that individuals who have a high level of trust in the sharing platform tend to have high intentions to share accommodations with others, our analysis shows that trust does not show any significant influence on the attitude and continuous intention of providers in the context of P2P ride-sharing. It could be attributed to the supply-side context of this study, in which providers have absolute control of their

cars in the process of services, contrary to the users. Whether they trust the platform and users is not that important in this context.

Regarding the moderating effect of innovativeness, the mediation effect of attitude on the relationships between EB→PCI and SHV→PCI is negatively and significantly moderated by innovativeness. A high degree of innovativeness helps to accelerate the direct transformation from economic benefits and social–hedonic value to participation continuance intention, regardless of the attitude levels.

6.1. Theoretical Implications

Previous research on SE indicates that providers may be motivated by many factors, including economic gains, sustainability, enjoyment, social motives, and trust [17,46,48]. This study contributes to the literature in the following ways.

First, it focuses on PCI and extends previous studies of the influential factors to understand the behavior intention toward providers' sharing activities. Specifically, it explores the motivation-based and trust-centric formation patterns of PCI through analyzing the direct, mediation, and moderated mediation effects. The findings enrich the literature by providing a more comprehensive understanding of providers' PCI in the P2P ride-sharing context.

Second, to the best of our knowledge, this paper is one of the first empirical studies to identify a comprehensive attitudinal model, which considers provider's roles. As previously discussed, most extant studies have focused on the user's role [40,89–91] or an unspecified role [25,36,47], but not the provider's role. In this study, we examined the effects of three types of motivations and trust on attitude and PCI among providers. This study offers future research on the direction to reveal different behavioral patterns of participants in the SE system.

Third, when explaining the causal relationships between antecedents, attitude, and behavioral intention, most prior SE research followed the theory of planned behavior [25,42,92] or the theory of reasoned action [36,71,93]. Few have devoted efforts to validate the volitional model, which integrates cognition's direct effect on the intention with the indirect effect through attitude in the same model. This study adapted the volitional model and used the bootstrapping approach to analyze the direct and indirect effects of motivations and trust on PCI. Although the empirical data in this study do not fully support the model, the results provide a theoretical basis for the providers' behavioral decision-making process and help confirm the volitional model's validity in predicting the providers' sharing behaviors.

Finally, although prior research has utilized the diffusion of innovations theory to explain the direct effect of individuals' innovativeness on participation in SE [30], very few studies have explicitly explained whether innovativeness exerts moderating effects. This study further confirms that PCI is less reliant on positive attitudes among highly innovative participants [77]. Additionally, we discover the moderating effect of innovativeness over the mediation role of attitude. This finding suggests that individuals' traits may be exploited in the future to obtain further insight into the formation patterns of PCI.

6.2. Practical Implications

This paper explores the formation pattern of providers' PCI in the context of P2P ride-sharing. For managers of P2P ride-sharing services, the findings of this study provide some relevant insights. While considering the moderating effect of providers' innovativeness, we provide holistic assessments of the effect of motivations and trust on providers' PCI. Each motivation affects PCI significantly, indicating that marketers should consider all the motivations in this study in their marketing programs. Given that the body of SE knowledge is in its infancy stage, our conceptual effort is of great importance, validating each variable's relative importance and identifying the formation pattern of providers' PCI. The study elucidates how providers with different levels of innovativeness decide to

continue providing P2P ride-sharing services. It offers some directions for marketers to allocate limited corporate resources for improving SE performance.

First, economic motivation has the strongest total effect on continuous intention toward granting access to shared-car services. SE marketers should offer more economic benefits of P2P ride-sharing services to providers through the best pricing mechanism, order recommendation mechanism, and benefits sharing mechanism based on optimal supply chain decisions. In addition, SE marketers should also actively publicize the economic benefits of providing ride-sharing services. Reporting providers' monthly income improvement or inviting them to make videos explaining how ride-sharing services improve their life may be helpful.

Second, the attitude toward the SE has a significant effect on PCI, and it can effectively bridge the paths $EB \rightarrow PCI$ and $SHV \rightarrow PCI$. Nurturing a positive attitude toward the SE is of high importance in promoting providers' PCI. To expand beyond the budget-conscious market, it is critical to convey the economic, social, and hedonic appeals of providing P2P ride-sharing services, which might help providers develop a positive attitude and further enhance PCI. Besides emphasizing the economic benefits of providing ride-sharing services, SE marketers should develop promotional events to demonstrate the social-hedonic values. For example, the marketers can share some video stories on the APP's main page about providers' interactions with consumers from all walks of life and how they improve their happiness through the experience of service provision.

Third, considering that SUS is a significant direct predictor for providers' PCI, promoting P2P ride-sharing services as a key to environmental sustainability would help SE marketers to increase competitive advantages. SE marketers can disseminate the seriousness of the current environmental problems and the need for providing and using shared services. They should pay attention to guiding people to enhance their environmental sensitivity.

Finally, marketing to the right target segment is advantageous, and the interplay between attitude and innovativeness seems very promising. When providers have not formed a positive attitude toward SE, innovative providers who are early technology adopters might be the right groups deserving the marketing resources. Managers should heighten the notion that providers are blessed with new ways to turn "idle properties" into income.

Regarding the social implications, SE is a promising concept to alleviate the contradiction between economic development and environmental sustainability. Managers of public or non-profit organizations might gain insights from this study to strategically foster the providers' acceptance of SE through highlighting the economic and environmental benefits of providing underutilized possessions to share.

6.3. Limitations and Future Research

There are several limitations to this study. First, this study focuses on a ride-sharing service in the P2P context, and the respondents are individuals who had experience in providing ride-sharing services in China. Although we believe that Chinese SE participants differ not much from those in other nations, cross-cultural studies are needed to confirm this issue in the future. Additionally, the development levels of the sharing economy differ from one nation to another. We caution the readers that the conclusions we have drawn in this study may not be generalizable in other countries. Further research should investigate the role of culture in the relationships between determinants and PCI in the SE with global samples.

Second, this study uses experienced samples for analysis. The findings might be different from those who are unfamiliar with SE. As attracting newcomers to the SE is as critical as participation continuance, it deserves further investigation.

Third, the data in this paper were collected after the peak of the COVID-19 pandemic. During that period, the ride-sharing services have been back to normal operations but still

under the pandemic threat. Thus, further longitudinal studies in the post-pandemic period are needed to compare the differences in SE impacts caused by the pandemic.

Forth, obtaining data from the providers of ride-sharing services is relatively difficult. In the limited time, we have tried our best to obtain this limited sample size of 202. Expanding the sample to generalize the conclusions is worth pursuing in the future.

Finally, this study assessed the effect of motivations (i.e., EB, SHV, SUS) on attitude and PCI. According to Roberts et al. [94], under certain conditions, extrinsic motivations (such as external incentives) undermine characteristics of intrinsic motivation and displace intrinsic motivations. This phenomenon is known as the “crowding out effect”. This effect is observable more for complicated rather than simple tasks [95]. Future research might address the interdependencies between the extrinsic motivations and intrinsic motivations more specifically to see whether it applies to the SE context.

Author Contributions: Conceptualization, J.J. and E.Y.L.; supervision, E.Y.L.; methodology, E.Y.L.; software, J.J.; validation, J.J. and E.Y.L.; investigation, J.J.; data curation, J.J.; writing—original draft preparation, J.J. and R.F.; visualization, J.J. and R.F.; writing—review and editing, R.F. and E.Y.L. All authors have read and agreed to the published version of the manuscript.

Funding: This research was partially supported by the Ministry of Science and Technology in Taiwan under Grant No. 108-2410-H-194-106-MY3.

Data Availability Statement: Not applicable.

Conflicts of Interest: The authors declare no conflicts of interest.

Appendix A

Table A1. Summary of main studies analyzing providers’ participation behavior.

Author [Reference number], Year	Type of shared good or service	Research method	Main related findings
Bucher et al. [26], 2016	No specification	Qualitative and quantitative	(1) Social–hedonic motives have the largest impact on providers’ sharing attitude, followed by moral motives and monetary motives. (2) Providers’ sharing attitude has a strong influence on sharing intention. (3) Providers’ sociability strongly affects the social–hedonic motives and moral motives. (4) Providers’ volunteering is the second strongest predictor of moral and social–hedonic motives. (5) Providers’ materialism has a significantly positive impact on monetary motives.
Wilhelms et al. [16], 2017	Ride	Qualitative	(1) Motivations that drive providers participating in peer-to-peer ride-sharing are economic interest (“earn”), quality of life (“enjoy”), helping others (“enrich”), and sustainability (“enhance”).
Böcker and Meelen [17], 2017	Ride and Accommodation	Quantitative	(1) Based on a stated preference survey, they find that compared with consumers who require access to shared options, providers give more importance to economic motivations; (2) No significant differences in social and environmental motivations between users and providers are observed.
Benoit et al. [48], 2017	No specification	Qualitative	(1) Peer-provider’s motives are economic benefits, entrepreneurial freedom, and social motives. (2) The main activities performed by providers are providing access to underutilized assets, acting as customer contact employees, and providing personalized service.

Kim et al. [46], 2018	Accommodation	Quantitative	<p>(1) Enjoying helping others, shared narratives, the desire to make friends, and reciprocity are positively related with CouchSurfing hosts' intention to share accommodations.</p> <p>(2) When hosts have a high level of trust in Couchsurfing, the antecedents' direct effects on the intention to share their accommodations are mitigated.</p>
Alrawadieh and Alrawadieh [98], 2018	Accommodation	Qualitative	<p>(1) Reasons that motivate providers to start their activities in the accommodation sharing sector are the desire for economic benefits, the desire for cultural interaction, and escaping from unemployment.</p>
Malazizi et al. [8], 2018	Accommodation	Quantitative	<p>(1) Financial risk and safety and security risks have significantly negative effects on providers' satisfaction and continuance intention to use Airbnb.</p> <p>(2) Psychological risk is significantly and positively related to satisfaction, continuance intention to use, and intention to recommend.</p> <p>(3) Political risk has significantly negative effects on continuance intention to use and intention to recommend.</p> <p>(4) Satisfaction is positively associated with continuance intention to use and intention to recommend.</p>
Lutz et al. [9], 2018	Accommodation	Quantitative	<p>(1) Hosts' online and physical privacy concerns do not have significant direct effects on sharing frequency, but they have significant indirect effects on sharing frequency through trust and monetary benefits.</p> <p>(2) Privacy assurances positively affect trusting beliefs and reduce online privacy concerns.</p>
Sung et al. [99], 2018	Accommodation	Quantitative	<p>(1) Economic benefits, social relationships, network effect, and sustainability have a significant positive effect on providers' attitudes, which further drives behavioral intention.</p>
Lee et al. [15], 2019	Accommodation	Quantitative	<p>(1) Airbnb's information sharing with its hosts and hosts' outcome expectations have significantly positive effects on their attachment to Airbnb, but the empowerment given to hosts has a negative impact.</p> <p>(2) Self-disclosure and similarity among hosts have positive effects on hosts' attachment toward peer hosts.</p> <p>(3) Hosts' attachment to Airbnb has a significant direct effect on their organizational citizenship behavior toward Airbnb and an indirect effect through psychological ownership.</p> <p>(4) Hosts' attachment to peer hosts only significantly affects their organizational citizenship behavior toward peer hosts.</p>
Wang et al. [28], 2019	Accommodation	Quantitative	<p>(1) Technical antecedents including system quality, service quality, and information quality are the strongest determinant of hosts' trust in the platform.</p> <p>(2) Social enablers, including user experience, social utility of sharing, and social value orientation also positively related to hosts' trust.</p> <p>(3) Extrinsic rewards and perceived effectiveness of privacy policy are precursors to hosts' trust, further promoting continuance intention.</p>
Sarkar et al. [100], 2020	Accommodation	Quantitative	<p>(1) Gender ratio, black population, and professional, scientific, and technical services (PSTS) employment are positively associated with property density that is the indicator of host participation.</p> <p>(2) Young dependency ratio and owner-occupied households with a mortgage are negatively associated with host participation.</p> <p>(3) Attitude toward greener consumption is positively associated with host participation.</p>
Guo et al. [18], 2020	Ride	Quantitative	<p>(1) The feedback mechanism, driver protection, and dispute resolution are positively related to the driver's institution-based trust.</p> <p>(2) Drivers' perceived risk is negatively associated with calculative-based trust, while perceived benefits exert positive impacts.</p> <p>(3) Institution-based trust and calculative-based trust have a positive impact on drivers' intention to participate.</p>
Gerwe et al. [13], 2020	Accommodation	Quantitative	<p>(1) Industry growth and the availability of underused assets increase the entry of hosts who have little face-to-face interaction with guests, while the strictness of regulation decreases their entry.</p>

		(2) The entry of hosts with high face-to-face interaction with guests is not affected by these factors.
Li and Wang [14], 2020	Accommodation Quantitative	(1) Hosts' perceived personal safety system, property safety system, and online review system significantly and positively affect their trust in the sharing platform, which further positively drives trust in consumers.

Table A2. Measures and scales.

Constructs	Items	Sources
Economic benefits	1. Providing P2P RSS in Didi helps my finances.	Barnes and Mattsson [36]
	2. Providing P2P RSS in Didi benefits me financially.	Bucher et al. [26]
	3. Providing P2P RSS in Didi is cost-effective.	Hamari et al. [25]
Social-hedonic value	1. While providing P2P RSS in DiDi, I experienced pleasure.	Barnes and Mattsson [36]
	2. Providing P2P RSS in DiDi allows me to be part of a group of like-minded people.	Bucher et al. [26]
	3. Providing P2P RSS in DiDi makes me feel part of a community.	Mohlmann [40]
Sustainability	1. I feel as if I am contributing to the environment by providing P2P CSS in DiDi	Barnes and Mattsson [36]
	2. Providing P2P RSS in DiDi is environmentally-friendly	Mohlmann [40]
	3. Providing P2P RSS in DiDi is ecological	Hamari et al. [25]
Attitude toward SE	1. I find providing P2P RSS in DiDi to be a wise move	Hamari et al. [25]
	2. I think providing P2P RSS in DiDi is a positive thing	Bucher et al. [26]
	3. Overall, providing P2P RSS in DiDi makes sense	Ajzen [92]
Participation continuance intention	1. I intend to continue providing P2P RSS for DiDi	
	2. I intend to provide P2P RSS only for DiDi rather than for other platforms	Bhattacharjee [96]
	3. If I could, I would like to continue providing P2P RSS for DiDi	Sun et al. [97]
Trust	1. The DiDi platform is trustworthy	Liang et al. [68]
	2. The P2P RSS users in DiDi are trustworthy	Lee et al. [89]
	3. Overall, the DiDi platform and users are trustworthy	
Innovativeness	1. I prefer to seek new ideas and experiences.	Dabholkar and Bagozzi [77]
	2. I like to experience novelty and change in my daily routine.	Moeller and Wittkowski [30]
	3. It is interesting for me to exploit the newest consumer goods.	

Note: RSS is ride-sharing services

References

- Chang, W.L.; Wang, J.Y. Mine is yours? Using sentiment analysis to explore the degree of risk in the sharing economy. *Electron. Commer. Res. Appl.* **2018**, *28*, 141–158.
- Bardhi, F.; Eckhardt, G.M. Access-based consumption: The case of car sharing. *J. Consum. Res.* **2012**, *39*, 881–898.
- Belk, R. You are what you can access: Sharing and collaborative consumption online. *J. Bus. Res.* **2014**, *67*, 1595–1600.
- Weber, T.A. Product Pricing in a Peer-to-Peer Economy. *J. Manag. Inf. Syst.* **2016**, *33*, 573–596.
- The State Information Center. Available online: <http://www.sic.gov.cn/News/557/10779.htm> (accessed on 6 March 2021).
- Piscicelli, L.; Cooper, T.; Fisher, T. The role of values in collaborative consumption: Insights from a product-service system for lending and borrowing in the UK. *J. Clean. Prod.* **2015**, *97*, 21–29.
- Schreiner, N.; Pick, D.; Kenning, P. To share or not to share? Explaining willingness to share in the context of social distance. *J. Consum. Behav.* **2018**, *17*, 366–378.
- Malazizi, N.; Alipour, H.; Olya, H. Risk perceptions of Airbnb hosts: Evidence from a Mediterranean Island. *Sustainability* **2018**, *10*, 1–23.
- Lutz, C.; Hoffmann, C.P.; Bucher, E.; Fieseler, C. The role of privacy concerns in the sharing economy. *Inf. Commun. Soc.* **2018**, *21*, 1472–1492.
- Lawson, S.J.; Gleim, M.R.; Perren, R.; Hwang, J. Freedom from ownership: An exploration of access-based consumption. *J. Bus. Res.* **2016**, *69*, 2615–2623.
- Alzamora-Ruiz, J.; Guerrero-Medina, C.; Martinez-Fiestas, M.; Serida-Nishimura, J. Why People Participate in Collaborative Consumption: An Exploratory Study of Motivating Factors in a Latin American Economy. *Sustainability* **2020**, *12*, 25.

12. Martinez-Gonzalez, J.A.; Parra-Lopez, E.; Barrientos-Baez, A. Young Consumers' Intention to Participate in the Sharing Economy: An Integrated Model. *Sustainability* **2021**, *13*.
13. Gerwe, O.; Silva, R.; de Castro, J. Entry of Providers Onto a Sharing Economy Platform: Macro-Level Factors and Social Interaction. *Entrep. Theory Prac.* **2020**, *24*.
14. Li, L.W.; Wang, W. The Effects of Online Trust-Building Mechanisms on Trust in the Sharing Economy: The Perspective of Providers. *Sustainability* **2020**, *12*, 14.
15. Lee, H.; Yang, S.B.; Koo, C. Exploring the effect of Airbnb hosts' attachment and psychological ownership in the sharing economy. *Tour. Manag.* **2019**, *70*, 284–294.
16. Wilhelms, M.P.; Henkel, S.; Falk, T. To earn is not enough: A means-end analysis to uncover peer-providers' participation motives in peer-to-peer carsharing. *Technol. Forecast. Soc. Change* **2017**, *125*, 38–47.
17. Böcker, L.; Meelen, T. Sharing for people, planet or profit? Analysing motivations for intended sharing economy participation. *Environ. Innov. Soc. Trans.* **2017**, *23*, 28–39.
18. Guo, J.Y.; Lin, J.B.; Li, L. Building users' intention to participate in a sharing economy with institutional and calculative mechanisms: An empirical investigation of DiDi in China. *Inf. Technol. Dev.* **2017**, *25*.
19. Lee, S.; Kim, D.Y. The effect of hedonic and utilitarian values on satisfaction and loyalty of Airbnb users. *Int. J. Contemp. Hosp. Manag.* **2018**, *30*, 1332–1351.
20. Guttentag, D.; Smith, S.; Potwarka, L.; Havitz, M. Why tourists choose Airbnb: A motivation-based segmentation study. *J. Travel Res.* **2018**, *57*, 342–359.
21. Bagozzi, R.P. A field investigation of causal relations among cognitions, affect, intentions, and behavior. *J. Mark. Res.* **1982**, *19*, 562–583.
22. Deci, E.L.; Ryan, R.M. *Intrinsic Motivation and Self-Determination in Human Behavior*; Plenum: New York, NY, USA, 1985.
23. Morgan, R.M.; Hunt, S.D. The commitment-trust theory of relationship marketing. *J. Mark.* **1994**, *58*, 20–38.
24. Roos, D.; Hahn, R. Does shared consumption affect consumers' values, attitudes, and norms? A panel study. *J. Bus. Res.* **2017**, *77*, 113–123.
25. Hamari, J.; Sjöklint, M.; Ukkonen, A. The sharing economy: Why people participate in collaborative consumption. *J. Assoc. for Inf. Sci. Technol.* **2016**, *67*, 2047–2059.
26. Bucher, E.; Fieseler, C.; Lutz, C. What's mine is yours (for a nominal fee)-exploring the spectrum of utilitarian to altruistic motives for Internet-mediated sharing. *Comput. Human Behav.* **2016**, *62*, 316–326.
27. Akbar, P.; Mai, R.; Hoffmann, S. When do materialistic consumers join commercial sharing systems. *J. Bus. Res.* **2016**, *69*, 4215–4224.
28. Wang, Y.C.; Asaad, Y.; Filieri, R. What Makes Hosts Trust Airbnb? Antecedents of Hosts' Trust toward Airbnb and Its Impact on Continuance Intention. *J. Travel Res.* **2020**, *59*, 686–703.
29. Karlsson, L.; Kemperman, A.; Dolnicar, S. May I sleep in your bed? Getting permission to book. *Ann. Tou. Res.* **2017**, *62*, 1–12.
30. Moeller, S.; Wittkowski, K. The burdens of ownership: Reasons for preferring renting. *Manag. Serv. Quality An Int. J.* **2010**, *20*, 176–191.
31. Milanova, V.; Maas, P. Sharing intangibles: Uncovering individual motives for engagement in a sharing service setting. *J. Bus. Res.* **2017**, *75*, 159–171.
32. Perren, R.; Kozinets, R.V. Lateral exchange markets: How social platforms operate in a networked economy. *J. Mark.* **2018**, *82*, 20–36.
33. Felson, M.; Spaeth, J.L. Community structure and collaborative consumption: A routine activity approach. *Am. Behav. Sci.* **1978**, *21*, 614–624.
34. Botsman, R.; Rogers, R. *What's Mine Is Yours: The Rise of Collaborative Consumption*; Harper Collins: New York, NY, USA, 2010.
35. Chen, H.; Phang, C.W.; Zhang, C.H. Inviting strangers to participate in collaborative consumption through mobile APP. *Int. J. Human Comput. Interact.* **2017**, *33*, 523–535.
36. Barnes, S.J.; Mattsson, J. Understanding collaborative consumption: Test of a theoretical model. *Technol. Forecast. Soc. Change* **2017**, *118*, 281–292.
37. McArthur, E. Many-to-many exchange without money: Why people share their resources. *Consum. Mark. Cult.* **2015**, *18*, 239–256.
38. Barnes, S.J.; Mattsson, J. Understanding current and future issues in collaborative consumption: A four-stage Delphi study. *Technol. Forecast. Soc. Change* **2016**, *104*, 200–211.
39. Tussyadiah, I.P.; Pesonen, J. Impacts of peer-to-peer accommodation use on travel patterns. *J. Travel Res.* **2015**, *55*, 1022–1040.
40. Mohlmann, M. Collaborative consumption: Determinants of satisfaction and the likelihood of using a sharing economy option again. *J. Consum. Behav.* **2015**, *14*, 193–207.
41. Liang, L.J.; Choi, H.S.C.; Joppe, M. Understanding repurchase intention of Airbnb consumers: Perceived authenticity, electronic word-of-mouth, and price sensitivity. *J. Trav. Tour. Mark.* **2018**, *35*, 73–89.
42. So, K.K.F.; Oh, H.; Min, S. Motivations and constraints of Airbnb consumers: Findings from a mixed-methods approach. *Tour. Manag.* **2018**, *67*, 224–236.
43. Davidson, A.; Habibi, M.R.; Laroche, M. Materialism and the sharing economy: A cross-cultural study of American and Indian consumers. *J. Bus. Res.* **2018**, *82*, 364–372.

44. Lindblom, A.; Lindblom, T.; Wechtler, H. Collaborative consumption as C2C trading: Analyzing the effects of materialism and price consciousness. *J. Retail. Consum. Serv.* **2018**, *44*, 244–252.
45. Karlsson, L.; Dolnicar, S. Someone's been sleeping in my bed. *Ann. Tou. Res.* **2016**, *58*, 159–162.
46. Kim, S.; Lee, K.Y.; Koo, C.; Yang, S.B. Examining the influencing factors of intention to share accommodations in online hospitality exchange networks. *J. Trav. Tour. Mark.* **2018**, *35*, 16–31.
47. Amiriaee, S.Y.; Evangelopoulos, N. Why do people rideshare? An experimental study. *Transp. Res. Part F Traff. Psychol. Behav.* **2018**, *55*, 9–24.
48. Benoit, S.; Baker, T.L.; Bolton, R.N.; Gruber, T.; Kandampully, J. A triadic framework for collaborative consumption (CC): Motives, activities and resources & capabilities of actors. *J. Bus. Res.* **2017**, *79*, 219–227.
49. Edbring, E.G.; Lehner, M.; Mont, O. Exploring consumer attitudes to alternative models of consumption: Motivations and barriers. *J. Clean. Product.* **2016**, *123*, 5–15.
50. Kuem, J.; Khansa, L.; Kim, S.S. Prominence and Engagement: Different Mechanisms Regulating Continuance and Contribution in Online Communities. *J. Manag. Inf. Syst.* **2020**, *37*, 162–190.
51. Lindenberg, S. Intrinsic motivation in a new light. *Kyklos* **2001**, *54*, 317–342.
52. Yen, H.R.; Hu, P.J.-H.; Hsu, S.H.-Y.; Li, E.Y. A multilevel approach to examine employees' loyal use of ERP systems in organizations. *J. Manag. Inf. Syst.* **2015**, *32*, 144–178.
53. Fararo, T.J. *Rational Choice Theory*; Sage: Thousand Oaks, CA, USA, 1993.
54. Au, Y.A.; Kauffman, R.J. What do you know? Rational expectations in information technology adoption and investment. *J. Manag. Inf. Syst.* **2003**, *20*, 49–76.
55. Sinha, R.K.; Mandel, N. Preventing digital music piracy: The carrot or the stick? *J. Mark.* **2008**, *72*, 1–15.
56. Hennig-Thurau, T.; Henning, V.; Sattler, H. Consumer file sharing of motion pictures. *J. Mark.* **2007**, *71*, 1–18.
57. Närvänen, E.; Kartastenpää, E.; Kuusela, H. Online lifestyle consumption community dynamics: A practice-based analysis. *J. Consum. Behav.* **2013**, *12*, 358–369.
58. Albinsson, P.A.; Perera, B.Y. Alternative marketplaces in the 21st century: Building community through sharing events. *J. Consum. Behav.* **2012**, *11*, 303–315.
59. Belk, R. Sharing. *J. Consum. Res.* **2010**, *36*, 715–734.
60. Xu, B.; Li, D. An empirical study of the motivations for content contribution and community participation in Wikipedia. *Inf. Manag.* **2015**, *52*, 275–286.
61. Black, I.R.; Cherrier, H. Anti-consumption as part of living a sustainable lifestyle: Daily practices, contextual motivations and subjective values. *J. Consum. Behav.* **2010**, *9*, 437–453.
62. Guiot, D.; Roux, D. A second-hand shoppers' motivation scale: Antecedents, consequences, and implications for retailers. *J. Retail.* **2010**, *86*, 355–371.
63. Hartmann, P.; Apaolaza-Ibanez, V. Consumer attitude and purchase intention toward green energy brands: The roles of psychological benefits and environmental concern. *J. Bus. Res.* **2012**, *65*, 1254–1263.
64. Martin, C.J.; Upham, P. Grassroots social innovation and the mobilisation of values in collaborative consumption: A conceptual model. *J. Clean. Product.* **2016**, *134*, 204–213.
65. Grybaitė, V.; Stankevičienė, J. Motives for participation in the sharing economy—evidence from Lithuania. *Econ. Manag.* **2016**, *8*, 7–17.
66. Bowen, F.E.; Bansal, P.; Slawinski, N. Scale matters: The scale of environmental issues in corporate collective actions. *Strateg. Manag. J.* **2018**, *39*, 1411–1436.
67. Prothero, A.; Dobscha, S.; Freund, J.; Kilbourne, W.E.; Luchs, M.G.; Ozanne, L.K.; Thøgersen, J. Sustainable consumption: Opportunities for consumer research and public policy. *J. Public Policy Mark.* **2011**, *30*, 31–38.
68. Liang, L.J.; Choi, H.C.; Joppe, M. Exploring the relationship between satisfaction, trust and switching intention, repurchase intention in the context of Airbnb. *Int. J. Hosp. Manag.* **2018**, *69*, 41–48.
69. Tussyadiah, I.P.; Pesonen, J. Drivers and barriers of peer-to-peer accommodation stay—an exploratory study with American and Finnish travellers. *Curr. Issues Tour.* **2018**, *21*, 703–720.
70. Bulgurcu, B.; Cavusoglu, H.; Benbasat, I. Information security policy compliance: An empirical study of rationality-based beliefs and information security awareness. *Mis Q.* **2010**, *34*, 523–548.
71. Fishbein, M.; Ajzen, I. *Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research*; Addison-Wesley: Reading, MA, USA, 1975.
72. Triandis, H.C. *Interpersonal Behavior*; Brooks/Cole: Monterey, CA, USA, 1977.
73. Hirschman, E.C. Innovativeness, novelty seeking, and consumer creativity. *J. Consum. Res.* **1980**, *7*, 283–295.
74. Sun, Y.; Jeyaraj, A. Information technology adoption and continuance: A longitudinal study of individuals' behavioral intentions. *Inf. Manag.* **2013**, *50*, 457–465.
75. Lambert-Pandraud, R.; Laurent, G. Why do older consumers buy older brands? The role of attachment and declining innovativeness. *J. Mark.* **2010**, *74*, 104–121.
76. Rogers, E.M. *Diffusion of Innovations*, 1st ed.; Free Press of Glencoe: New York, NY, USA, 1962.
77. Dabholkar, P.A.; Bagozzi, R.P. An attitudinal model of technology-based self-service: Moderating effects of consumer traits and situational factors. *J. Acad. Mark. Sci.* **2002**, *30*, 184–201.

78. Edwards, J.R.; Lambert, L.S. Methods for integrating moderation and mediation: A general analytical framework using moderated path analysis. *Psychol. Methods* **2007**, *12*, 1–22.
79. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.Y.; Podsakoff, N.P. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *J. Appl. Psychol.* **2003**, *88*, 879–903.
80. Pavlou, P.A.; Liang, H.G.; Xue, Y.J. Understanding and mitigating uncertainty in online exchange relationships: A principal-agent perspective. *Mis Q.* **2007**, *31*, 105–136.
81. Li, E.Y.; Liao, C.H.; Yen, H.R. Co-authorship networks and research impact: A social capital perspective. *Res. Policy* **2013**, *42*, 1515–1530.
82. Chin, W.W.; Marcolin, B.L.; Newsted, P.R. A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Inf. Syst. Res.* **2003**, *14*, 189–217.
83. Hair, J.F.; Risher, J.J.; Sarstedt, M.; Ringle, C.M. When to use and how to report the results of PLS-SEM. *Eur. Bus. Rev.* **2019**, *31*, 2–24.
84. Hair, J.F.; Hult, G.T.M.; Ringle, C.M.; Sarstedt, M. *A Primer on Partial Least Squares Structural Equation Modeling*; Sage: Thousand Oaks, CA, USA, 2014.
85. Fornell, C.; Larcker, D.F. Evaluating structural equation models with unobservable variables and measurement error. *J. Mark. Res.* **1981**, *18*, 39–50.
86. Henseler, J.; Ringle, C.M.; Sarstedt, M. A new criterion for assessing discriminant validity in variance-based structural equation modeling. *J. Acad. Mark. Sci.* **2015**, *43*, 115–135.
87. Henseler, J.; Ringle, C.M.; Sarstedt, M. Testing measurement invariance of composites using partial least squares. *Int. Mark. Rev.* **2016**, *33*, 405–431.
88. Hayes, A.F. *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*; The Guilford Press: New York, NY, USA, 2013.
89. Lee, Z.W.Y.; Chan, T.K.H.; Balaji, M.S.; Chong, A.Y.L. Why people participate in the sharing economy: An empirical investigation of Uber. *Internet Res.* **2018**, *28*, 829–850.
90. Tussyadiah, I.P. Factors of satisfaction and intention to use peer-to-peer accommodation. *Int. J. Hosp. Manag.* **2016**, *55*, 70–80.
91. Zhu, G.; So, K.K.F.; Hudson, S. Inside the sharing economy: Understanding consumer motivations behind the adoption of mobile applications. *Int. J. Contemp. Hosp. Manag.* **2017**, *29*, 2218–2239.
92. Ajzen, I. The theory of planned behavior. *Organ. Behav. Human Decis. Proc.* **1991**, *50*, 179–211.
93. Ajzen, I.; Fishbein, M. *Understanding Attitudes and Predicting Social Behavior*; Prentice Hall: Englewood Cliffs, NJ, USA, 1980.
94. Roberts, J.A.; Hann, I.H.; Slaughter, S.A. Understanding the motivations, participation, and performance of open source software developers: A longitudinal study of the Apache projects. *Manag. Sci.* **2006**, *52*, 984–999.
95. Deci, E.L.; Koestner, R.; Ryan, R.M. A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychol. Bull.* **1999**, *125*, 627–668.
96. Bhattacharjee, A. Understanding information systems continuance: An expectation-confirmation model. *Mis Q.* **2001**, *25*, 351–370.
97. Sun, Y.; Fang, Y.; Lim, K.H. Understanding sustained participation in transactional virtual communities. *Decis. Support Syst.* **2012**, *53*, 12–22.
98. Alrawadieh, Z.; Alrawadieh, Z. Exploring entrepreneurship in the sharing accommodation sector: Empirical evidence from a developing country. *Tour. Manag. Perspect.* **2018**, *28*, 179–188.
99. Sung, E.; Kim, H.; Lee, D. Why do people consume and provide sharing economy accommodation? A sustainability perspective. *Sustainability* **2018**, *10*, 1–17.
100. Sarkar, A.; Koohikamali, M.; Pick, J.B. Spatial and socioeconomic analysis of host participation in the sharing economy Airbnb in New York City. *Inf. Technol. People* **2020**, *33*, 983–1009.