Role of trust
and perceived
value in ODRS

# To grab or not to grab? The role of trust and perceived value in on-demand ridesharing services

Eugene Cheng-Xi Aw, Norazlyn Kamal Basha and Siew Imm Ng

*Department of Management and Marketing, Faculty of Economics and Management,
Universiti Putra Malaysia, Serdang, Malaysia, and*

Murali Sambasivan

*Taylor's Business School, Taylor's University, Subang Jaya, Malaysia and
Thiagarajar School of Management, Madurai, India*

## Abstract

**Purpose** – The purpose of this paper is to empirically test the antecedents and outcome of perceived value and trust toward on-demand ridesharing services (ODRS). The antecedents are perceived innovativeness, perceived personalization, perceived usefulness of rating system and service personal values. The outcome is the continuance intention toward ODRS. This study also aims to uncover the mediating role of trust and the moderating role of technology readiness.

**Design/methodology/approach** – The ODRS considered in this research are Grab and Uber in the context of Malaysia. A questionnaire was constructed, and responses were obtained from 280 Malaysian consumers who have experienced ODRS. The authors tested the framework using partial least square structural equation modeling technique.

**Findings** – The result indicates several significant relationships: perceived personalization, perceived usefulness of rating system and service personal values significantly influence perceived value and trust; trust mediates the relationships between perceived personalization, perceived usefulness of rating system, service personal values and perceived value; perceived value significantly influences continuance intention; and technology readiness moderates the relationship between perceived personalization and perceived value.

**Originality/value** – The current study adds significantly to the body of knowledge about ODRS by examining the direct determinants of trust and perceived value, and exhibiting how trust mediates the mechanism. This study also illustrates the interplay of moderator (technology readiness) and perceived value.

**Keywords** Malaysia, Trust, PLS-SEM, Continuance intention, Perceived value, On-demand ridesharing services

**Paper type** Research paper

## Introduction

Following the rise of digital technology, the sharing economy has expanded to an unprecedented scale, with many businesses either transforming or emerging into this novel business model. Frentken and Schor (2017, pg. 4) define sharing economy as a phenomenon where "consumers granting each other temporary access to under-utilized physical assets ('idle capacity'), possibly for money." One of the most popular kinds of shared services, on-demand ridesharing services (ODRS), which is an alternative to traditional taxi and private vehicles, has engendered a spree of "drive less, ride more" behavior. ODRS are taxi-like services that leverage the use of mobile applications to match available drivers and passengers. Several known advantages of ODRS include a reduction in dependency on car ownership and traffic congestion rates, cost savings, convenience and environmental care (Belk, 2014).

Reports by Google revealed that the estimated worth of the on-demand ridesharing market in Southeast Asia was $13.1bn in 2025 (Minter, 2017), positioning Malaysia as a significant potential market. To date, Malaysia's ODRS industry is dominated by two firms,

Grab and Uber, which are locked in fierce priced-based competition (Lim, 2016) that is likely unsustainable in the long run. Concurrently, several new e-hailing companies, such as MyCar and JomRides, have emerged in the market. Despite enjoying the first-mover advantage, Uber can no longer hold its monopolistic position in the market since Grab's entry. Most recently, Grab claimed a 95 percent market share in third-party taxi-hailing apps and over 50 percent in private vehicle-hailing in Southeast Asia (Grab, 2017a), posing an obvious threat to Uber. From the environmental and societal perspectives, ODRS has been a potential solution for excessive car ownership (third highest level of car ownership globally) as well as an alternative that complements public transportation networks in Malaysia (Hsien, 2017; Nielson, 2014). Hence, researching consumer behavior in relation to ODRS in the context of a developing country like Malaysia is indeed needed for business, environmental and societal sustainability.

For ODRS firms to remain competitive and sustainable, critical performance factors other than price must be understood. Devising marketing policies based solely on perceived quality and satisfaction has obvious limitations (Mencarelli and Riviere, 2015); therefore, capitalizing on perceived value is a viable alternative for ODRS firms to achieve competitive advantage. Perceived value, a concept covering both utilitarian and affection elements, has been deemed as the foundation of all relational exchange activities, including acceptance of app-based technology services (Fullerton et al., 2017; Wu et al., 2014). Meanwhile, ODRS have been involved in several trust-breaching issues, such as data privacy and passenger safety, which continue to plague this emerging industry (Chee, 2018; Papadopoulou et al., 2001). However, trust, as a key determinant of sharing economy participation, is largely overlooked in the current sharing economy literature (Cheng, 2016; Möhlmann, 2015), making it crucial for ODRS firms to understand how to build trust and deliver greater perceived value in order to sustain customer acquisition and retention.

A literature review suggested that studies pertinent to the sharing economy can be classified into two different streams, namely, organizational-level studies and individual-level studies. Generally, the former focuses on the application, practice and integration of sharing economy concept in organizations as well as the traditional business model (Mair and Reischauer, 2018; Dreyer et al., 2017; Pedersen and Netter, 2015). Thus, so far, organizational-level studies have raised ample attention from researchers but individual-level studies remain under-researched (Lee et al., 2018). In particular, few studies have been dedicated to consumer behavior in shared services due to the phenomenon's short history (Min et al., 2018). Currently, existing studies have built on theoretical models from the technology field, such as the technology acceptance model (TAM) in examining intention to use shared services (Wang et al., 2018; Min et al., 2018). Although these studies are theoretically sound and valuable as pioneering studies in related areas, further work is needed to examine the continuance intention instead of the initial intention to participate in the sharing economy. Recent studies have shown that trust and perceived benefits/values are important predictors for shared services' adoption and loyalty (Hawlitschek et al., 2018; Yang et al., 2017; Zhu et al., 2017; Hamari et al., 2016; Möhlmann, 2015). However, previous studies did not explicitly exhibit the antecedents driving trust and value perception, creating an interesting gap to be addressed in this study because practitioners not only need to know the value customers seek, but also to understand how to form trust and perceived value.

Furthermore, although the basic functions of an ODRS application appear easy to use, not everyone, including young adults, is technology-savvy and appreciates the innovative features. For example, Goldsmith and Freiden (2004) delineated that not all consumers are ready for and appreciate personalization. In a similar vein, Min et al. (2018) showed that complexity in the Uber mobile application negatively influences perceived ease of use and usefulness, which eventually leads to an unfavorable attitude and lower future usage intention.

Role of trust
and perceived
value in ODRS

The authors further acknowledged the importance of individual characteristics in using ridesharing applications and urged future studies to investigate the role of technology readiness in the ridesharing services context. This gap motivated the present study to explore how technology readiness can influence the relationship between service attributes (i.e. personalization) and perceived value. The proposition is based on the premise that innovative service characteristics (i.e. personalization) can only turn into value if consumers can comprehend them well.

Thus, the questions addressed in this research are:

*RQ1.* What are the antecedents of trust and perceived value toward ODRS?

*RQ2.* What is the role of trust in forming perceived value?

*RQ3.* Do individual differences (technology readiness) play a role in forming value perception?

Answers to these questions may provide valuable insights for marketers on consumer behavior, service system design and customer relationship management, which are crucial for service firms' profitability and sustainability. Also, despite significant market opportunities in developing countries, past literature in this area primarily focuses on developed countries, which may result in an inappropriate generalization. This study was conducted in Malaysia, a fast-developing nation among the ASEAN countries.

The contributions of this research are twofold. First, this study proposes and empirically validates a framework that explains the antecedents of trust and perceived value toward ODRS among Malaysian consumers. The framework goes beyond price to understand the factors that drive value perception. Second, this study investigates the mediating role of trust and the moderating role of technology readiness to provide a more in-depth view to the antecedent-outcome mechanism. As a technology-based service, the level of consumers' technology readiness is vital for the success of ODRS and thus considered in this study. Due to ODRS' nature of service and experiential attributes, this study uses a post-consumption lens to better understand consumer perception and continuance intention.

This paper is presented in four sections. The first section conducts a thorough review of the literature on ODRS, which provided the basis for the study's proposed hypotheses. The next section discusses methodology, followed by a discussion and the study's implications in the third section. The paper's concluding section discusses the study's limitation with future directions for research.

## Theoretical foundations

Relying on the foundation of the means-end chain theory (Gutman, 1982; Woodruff, 1997) and ODRS' characteristics, this study addresses how perceived service attributes and service personal values influence customers' continuance intention toward ODRS. Zeithaml (1988) and Woodruff and Gardial (1996) manifested the application of means-end model in capturing the essence of customer value. The means-end approach to customer value stresses the role of offering's attributes and consequences derived from engagement with the offering (Woodruff and Gardial, 1996). The means-end chain theory postulates that decision making in consumption is influenced by connections among product attributes, perceived consequences of consumption and consumers' personal values.

In general, products and services possess a bundle of implicit and explicit attributes such as packaging, brand name, and quality (Muellera and Szolnokib, 2010; Keller, 1999). Consumers have preferences for certain attributes as they deliver different personal desired consequences (Bagozzi and Dholakia, 1999). Consequences can be manifested by perceived value that results from the consumption of a product or service (Sheth *et al.*, 1991). It has been asserted that attributes serve as cues for the consequences they deliver, and product attributes are direct determinants of consequences (Wang and Yu, 2016; Min *et al.*, 2012).

For instance, Zeithaml (1988) has evidenced perceived value (Consequence) as a direct outcome of perceived service quality (Attribute). In the context of this study, besides offering lower prices than taxi services, ODRS flaunt their innovative technology, personalized trips, decent after-trip services and quality control through their rating/ feedback system (Grab, 2017b; Quinn, 2016). Therefore, this study considers perceived innovativeness, perceived personalization and perceived usefulness of ODRS' rating system as contributing attributes (means) for creating perceived value and trust.

The means-end chain theory can be understood from two perspectives, the bottom-up and the top-down approaches (Brunsø et al., 2004). As shown in the attributes–consequences link, the bottom-up route is directed by external input (product perception). In contrast, the top-down approach is driven by stable individual differences in personal values (Brunsø et al., 2004). An individual values system has long been determined as an influencer of consumer behaviour (Rokeach, 1973). Personal values communicate the importance of products and services for consumers and are therefore considered an important variable in understanding consumer purchasing behaviors (Lages and Fernandes, 2005). Recent studies have advocated that personal values serve as a foundation of perceived service value and perceived quality (Thuy et al., 2016; Hau and Thuy, 2012; Ladhari et al., 2011). Based on this premise, this study integrates personal values as determinants of perceived value and trust in the research model (Figure 1).

## Hypotheses development

### Perceived innovativeness

Perceived innovativeness refers to consumers' overall innovativeness assessment toward services (Lowe and Alpert, 2015). Although innovation empowers firms to improvise and advance their offerings, innovation needs to be perceived as innovative to benefit the firms' customers (Cass and Carlson, 2012; Kunz et al., 2011). According to Murat et al. (2013), innovation in the service industry results in customer value because it is the company's
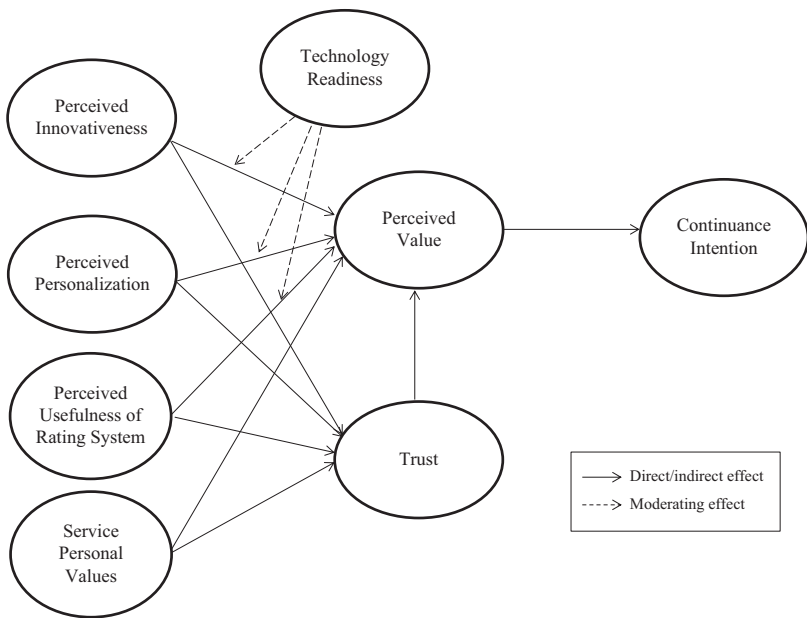


**Figure 1.**
Research model

Role of trust
and perceived
value in ODRS

effort spent on thinking from a customer's perspective. Lowe and Alpert (2015) demonstrated the direct impacts of consumers' perceived innovativeness on utilitarian and hedonic evaluation. To clarify, higher perceived innovativeness signifies that a service carries attributes of uniqueness, which simulates affective responses like emotional value, and relative advantage, which evokes utilitarian responses such as functional value and monetary value (Lowe and Alpert, 2015). Similarly, building upon this idea, Leckie *et al.* (2018) illustrated the importance of service innovativeness in forming overall value evaluation of the services, customer engagement and loyalty.

Besides, it is well documented that a firm's innovative image may influence its credibility and trustworthiness (Aaker, 2007; Keller and Aaker, 1998). For instance, Cass and Carlson (2012) found that perceived website innovativeness is an important predictor of consumers' trust. The authors further clarified that perceived website innovativeness is relevant to the concepts of uniqueness and usefulness, and these embedded attributes engender trust toward a website. At the individual level, Zolfagharian and Paswan (2009) found that service innovativeness correlates with controllability and predictability, implying that service innovativeness allows consumers to have more perceived control of the service outcomes and less sense of uncertainty. Thus, customers who perceived ODRS as innovative are more likely to establish greater perceived value and trust. Based on the above reasoning, the following hypotheses are proposed:

*H1.* Perceived innovativeness has a positive relationship with perceived value.

*H2.* Perceived innovativeness has a positive relationship with trust.

### Perceived personalization
Perceived personalization is defined as the process of individualizing service by using an individual's information to provide refined benefits (Shen and Ball, 2009) and facilitate interaction with customers, which ultimately aims to achieve customer satisfaction (Komiak and Benbasat, 2006). Coupled with both advancement in mobile technologies and GPS-enabled mobile devices, ODRS have been empowered to offer personalized services based on users' identities, preferences and geographic locations. Empirical evidence indicates that perceived service quality and satisfaction increase when personalized services are offered (Mittal and Lassar, 1996), with the belief that services that fit customers' unique needs are better than standardized services (Ball *et al.*, 2006). Lee (2015) found that personalized service helps to reduce customers' cognitive effort and generate socialness. Through personalization, ODRS firms can better predict customers' behavior and meet their needs (Doney and Cannon, 1997), which, in turn, enable customers to have a more effortless and enjoyable riding experience. In addition, offering personalized service signifies that firms are making idiosyncratic investments, thereby creating an image of a believable, caring relationship and a willingness to sacrifice (Ganesan, 1994). This study posits that service personalization offered by ODRS firms influence customers' value evaluation and trust. Therefore, this study hypothesizes that:

*H3.* Perceived personalization has a positive relationship with perceived value.

*H4.* Perceived personalization has a positive relationship with trust.

### Perceived usefulness of rating system
This study applied the perceived usefulness construct from technology literature in examining the effect of the ODRS rating system on perceived value. Perceived usefulness has been proven to be a robust construct in addressing information system acceptance and ODRS participation (Min *et al.*, 2018; Wang *et al.*, 2018; Venkatesh and Davis, 2000),

rendering it suitable to be used in examining the perceived helpfulness of the ODRS rating system. Perceived usefulness is defined as a user's ex-post expectations and beliefs in system effectiveness (Bhattacherjee, 2001). Ratings and reviews are important for service judgment in light of the service characteristics of heterogeneity and intangibility (Racherla and Friske, 2012). Based on a value-based adoption model, perceived usefulness has been identified as a benefit component that positively influences perceived value (Kim *et al.*, 2007). A useful rating system is expected to deliver decent perceived value gained, such as reducing the need for cognitive effort, increasing ride efficiency, and creating a worry-free and socially recognized riding environment. Also, a useful rating system used in shared services can build customer trust by minimizing the risk involved and facilitating decision making (Ert *et al.*, 2016). The typical understanding is that the provision of crowd-sourced information (reviews and ratings) will result in people's safety when interacting with strangers by providing sufficient information prior to the rides. Particularly, it can be argued that the mere presence of a rating system is insufficient to create value and trust, and instead, the perception of usefulness is the key because rating systems are neither perfectly objective, accurate, nor transparent (CHAFEA, 2017; Fullerton *et al.*, 2017). It is therefore proposed that customers may perceive higher value gained and trust only if the rating system is perceived to be useful. Thus, it is hypothesized that:

*H5.* Perceived usefulness of rating system has a positive relationship with perceived value.

*H6.* Perceived usefulness of rating system has a positive relationship with trust.

*Service personal values*
Personal values can be exhibited and fulfilled through the use of services (Homer and Kahle, 1988). Service personal values are defined as customers' total evaluation of the service depending on the perceived achievement in terms of personal values (Lages and Fernandes, 2005). Service personal values are built on three dimensions: value to a peaceful life (VPL), value to social recognition (VSR) and value to social integration (VSI) (Lages and Fernandes, 2005). VPL is under the self-oriented level while VSR and VSI are under the social-oriented level. VPL refers to an evaluation of whether a service promotes a pleasurable life, brings or improves tranquillity, safety and/or harmony. VSR refers to an individual's assessment of whether the service helps in gaining respect from others, solidifying social recognition and status, and achieving a more fulfilled and stimulating life. VSI refers to a judgment of whether the service improves relationships at a social, professional or family level.

According to the means-end chain theory (Gutman, 1982), personal values refer to the end states of an individual's existence, which provides an understanding of how consumers perceive the self-relevant outcomes of product use and consumption. Taking the perspective of top-down information processing, superordinate goals (personal values) guide behavioral routines (Brunsø *et al.*, 2004). As personal values sit atop the hierarchy in the means-end chain, they are posited to be the drivers of concomitant judgment and behavioral outcomes such as perceived value, satisfaction, loyalty (Hau and Thuy, 2012; Durvasula *et al.*, 2011; Ledden *et al.*, 2007; Lages and Fernandes, 2005) and, possibly, trust. As trust is a behavioral outcome engendered after experiencing ODRS, it logically links service personal values as its determinant. As Homer and Kahle (1988) argued, behaviors serve to show an individual's values. ODRS customers are more likely to trust the service if it promotes desirable personal values such as safety and social integration.

In short, service personal values serve as the "guiding principles in people's lives" (Schwartz, 1994) and the standard from which belief, attitude and behavior are established (Lages and Fernandes, 2005; Carlson and Kacmar, 2000; Madrigal and Kahle, 1994). Therefore, it is proposed that service personal values drive consumers to trust and to

evaluate ODRS based on how well it fits their personal values. Based on the reasoning above, the following hypotheses are formed:

*H7.* Service personal values have a positive relationship with perceived value.

*H8.* Service personal values have a positive relationship with trust.

## Perceived value

Perceived value provides competitive advantage, which eventually leads to companies' long-term success (Day, 2000; Woodruff, 1997; Ravald and Grönroos, 1996). In this study, perceived value refers to consumers' perception toward subjective worthiness of service consumption (Babin *et al.*, 1994). According to Sweeney and Soutar (2001), four components reflect perceived value: functional, monetary, emotional and social. Functional value refers to the practical utilities provided by ODRS through their expected performance and perceived quality. Monetary value refers to the utility ODRS provides in proportion to the overall costs. Emotional value is the psychological need and utility generated by ODRS through feelings or affective states. Lastly, social value is the social utility delivered by ODRS through enhancing individual's social self-concept. Previous studies on shared services have established the relationship between perceived benefits and adopting intention. For instance, Zhu *et al.* (2017) evidenced the positive correlation between perceived value and adopting intention on ridesharing application. Consumers will establish an attachment to a service when the service delivers value that meets their needs (Sheth *et al.*, 1991). Therefore, this study posits that perceived value will positively influence continuance intention on ODRS:

*H9.* Perceived value has a positive relationship with continuance intention.

## Trust

In the sharing economy context, trust refers to trust in the provider of a shared service and to the other users one is sharing with (Möhlmann, 2015). To sustain and promote the use of shared services, facilitating trust among strangers is an indispensable yet challenging link for all types of sharing platforms because both customers and service providers are exposed to potential user opportunism (Horton and Zeckhauser, 2016). A considerable part of ODRS operates in an online mediated environment which carries attributes such as non-recurring relationships, temporary sharing of personal property and interactions with strangers, resulting in pervading implications of trust (Mittendorf, 2018). Relative high risk, uncertainty and interdependence that prevail in the sharing economy have rendered trust more important than ever before.

Möhlmann (2015) indicated that trust is a significant predictor of satisfaction in the use of shared services. Trust in platforms and peers has also been found to influence intention to consume or supply a resource (Hawlitschek *et al.*, 2016). However, existing studies regarding trust in the sharing economy were tested in the AirBnb service context. The concept of trust should be further tested in the ODRS context due to the different nature of the services, such as consumer involvement. Importantly, studies on antecedents of trust in the sharing economy are scarce (Huurne *et al.*, 2017; Cheng, 2016; Möhlmann, 2015), motivating the need for this study to quantify the factors influencing trust in the ODRS context.

Generally, trust is deemed to grant a good feeling, increases users' confidence in service providers and enhances the impression of security in service use (Wirtz and Lwin, 2009). Extant studies in the online commerce and service context have provided empirical supports for the role of trust as a precursor to perceived value (Ponte *et al.*, 2015; Kim *et al.*, 2012; Zhu and Chen, 2012). According to Sirdeshmukh *et al.* (2002), trust forms value by: providing

relational benefits derived from interacting with service providers who are competent, benevolent toward the consumer and devoted to dealing with exchange problems; and alleviating exchange uncertainty in an ongoing exchange relationship. In addition, perceived trust has been found to reduce the risk, time and effort required in a transaction, thus raising satisfaction and perceived value (Saleem *et al.*, 2017; Kim *et al.*, 2012). It is expected that trust would lead to greater perceived value gained by providing a reliable, enjoyable, confident and effortless ride experience.

Integrating the reasoning presented above, one can reasonably put forward that perceived attributes, such as innovativeness, personalization, usefulness of rating system and service personal values, are the means to enhance customers' trust and perceived value toward ODRS. Notably, while perceived service attributes and personal values are important in forming perceived value, arguably, trust is responsible as a mediator in explaining the value formation process. Therefore, this study posits that service attributes and personal values will help to establish trust, and, in turn, deliver a greater perception of value gained from service consumption.

Thus, it is hypothesized that:

*H10.* Trust has a positive relationship with perceived value.

*H11.* Trust mediates the relationship between perceived innovativeness and perceived value.

*H12.* Trust mediates the relationship between perceived personalization and perceived value.

*H13.* Trust mediates the relationship between perceived usefulness of rating system and perceived value.

*H14.* Trust mediates the relationship between service personal values and perceived value.

### Moderating role of technology readiness

Technology readiness is an overall state of mind resulting from a configuration of mental contributors (innovativeness and optimism) and inhibitors (discomfort and insecurity), which collectively determine predisposition to use new technologies (Parasuraman and Colby, 2015). First, innovativeness refers to people's tendency to be a technology pioneer and thought leader. Second, optimism is people's positive view of technology, believing that it offers people enhanced control, flexibility and efficiency in their lives. Third, discomfort measures people's perceived lack of control over technology and feelings of being overwhelmed by it. Fourth, insecurity captures people's distrust of technology and skepticism about its ability to work properly. An individual who possesses higher traits of optimism and innovativeness and lower traits of discomfort and insecurity is more likely to adopt a new technology.

High technology readiness is expected to affect the strength of the relationship between ODRS' attributes and perceived value. Wang *et al.* (2017) proposed that individual differences can result in different service technology evaluation. Innovativeness in technology can positively influence both utilitarian attitude and hedonic attitude (Lowe and Alpert, 2015). However, innovative technology can also evoke a negative feeling like anxiety (Meuter *et al.*, 2003). A recent review of the literature on this subject has indicated technology readiness as a determinant of consumers' cognitive and affective evaluations toward technology services (Ferreira *et al.*, 2014). Consumers with high technology readiness tend to use innovative functions more variously and frequently, eventually leading to greater satisfaction and continuance intention (Son and Han, 2011). For instance, innovativeness exhibited in technology readiness increases the perceived ease of use of technology innovation (Chen, 2019). In contrast, consumers with low technology readiness distrust innovative technology and underestimate its functionality and usefulness (Lu *et al.*, 2012). For this reason, it is

Role of trust
and perceived
value in ODRS

posited that a high level of technology readiness is needed for ODRS innovativeness to be transferred into a favorable value perception because innovative features in ODRS will only be used thoroughly and perceived as enjoyable for customers with high technology readiness.

The effect of personalization on perceived value may be contingent on differences in customers' psychological, behavioral characteristics and experiences (Rose *et al.*, 2011). Correspondingly, mixed results have been found between the relationship of perceived personalization and users' response (Lee *et al.*, 2015), suggesting that higher personalization may not necessarily result in higher value. Sometimes, some consumers are restricted by their competence from effectively interacting with technology-based services, which results in different evaluations of service experiences (Lin and Hsieh, 2007). For instance, Wang *et al.* (2017) found that the relationship between performance expectancy and future behavior toward a service provider is weaker for Eastern culture, attributing to their conservative nature and cautiousness toward new technologies. In ODRS, personalization may be perceived as a potential threat rather than value for customers with low technology readiness as it requires customers to provide personal information. Therefore, the positive effect of perceived personalization on perceived value is not constantly true; rather, it is likely to be augmented or weakened based on one's technology readiness.

While insecurity captures people's distrust of technology *per se*, Dong *et al.* (2007) suggested that distrust can be transferred, i.e. customers' distrust in ODRS' technology is expected to transfer to the service providers (drivers). This is aggravated by the lack of government regulation for ODRS. It has been demonstrated that customers with high technology readiness are optimistic and open to new technology, thus exhibiting greater trust in consumer-to-consumer business platforms (Lu *et al.*, 2012). However, customers with low technology readiness not only tend to be skeptical about the ODRS platform, but also their service core, the service providers. In response to such circumstances, the online rating system allows customers to rate their drivers after rides and also access drivers' ratings before taking rides. Drivers who obtain lower than the threshold rating are banned from offering the service. Here, the online rating system presents as an important means to mitigate perceived risk and increase confidence. Hence, it is expected that the effect of a perceived usefulness rating system on perceived value will be amplified for customers with low technology readiness.

Based on the arguments above, this study hypothesizes that:

*H15a.* Technology readiness moderates the relationship between perceived innovativeness and perceived value: when technology readiness is high, the relationship between perceived innovativeness and perceived value is stronger.

*H15b.* Technology readiness moderates the relationship between perceived personalization and perceived value: when technology readiness is high, the relationship between perceived personalization and perceived value is stronger.

*H15c.* Technology readiness moderates the relationship between perceived usefulness of rating system and perceived value: when technology readiness is low, the relationship between perceived usefulness of rating system and perceived value is stronger.

## Methodology
### Sample and data collection
Difficulty in compiling a complete sampling frame for ODRS users prompts the selection of non-probability sampling (Sarstedt *et al.*, 2018). Particularly, judgment sampling design was selected as it is suitable under the condition where a limited number or category of people possesses the required information (Sekaran and Bougie, 2016). In this study, the primary focus

is to examine continuance intention rather than adoption intention; thus, only Malaysians above 18 years old with experience in using ODRS were included. The minimum sample size was 126, based on a calculation using G*Power software, with $f^2 = 0.15$, $\alpha = 0.05$ and Power $= 0.85$ (Faul *et al.*, 2007). In a one month time frame, questionnaires were distributed through face-to-face administration in Kuala Lumpur, the capital of Malaysia. Eventually, 293 responses were collected. However, 13 responses were discarded due to incomplete answers, resulting in 280 usable responses. In terms of sample characteristics, 54 percent of the respondents were female. Approximately, 71 percent of respondents were less than 30 years old and 55 percent of respondents had incomes of less than RM 2,000 (US$1 = RM 4).

*Measures*
Measurements used in this study were adapted from previous studies with minor changes in the wording to suit the target context: perceived innovativeness was adopted from Lowe and Alpert (2015); measurement of perceived personalization was adopted from Ball *et al.* (2006); measurement of perceived usefulness of rating system was adopted from Saeed and Abdinnour-Helm (2008); measurement of service personal values was adopted from Lages and Fernandes (2005); and Walsh *et al.*'s (2014) PERVAL-short scale was adopted to measure perceived value. In addition, Bhattacherjee's (2001) measurement of continuance intention was adopted and Parasuraman and Colby's (2015) technology readiness index was used to measure technology readiness level.

Different scales were used to assess the predictor and criterion variables for the purpose of minimizing the common method bias (Podsakoff *et al.*, 2003). In this study, exogenous constructs were measured using five-point Likert scales while endogenous constructs were measured using seven-point Likert scales. In addition, this study tried to reduce the risk of common method bias by assuring anonymity and stressing the importance of honest answers (MacKenzie and Podsakoff, 2012).

*Data analysis*
This study used partial least square structural equation modeling (PLS-SEM) to analyze the research model because it is better suited for prediction-oriented, complex, and incremental models (Sarstedt *et al.*, 2014), which characterized the research model in the present study. Also, this study involved formatively measured constructs that can be better handled by PLS-SEM (Hair *et al.*, 2017). The two-stage analytical procedure proposed by Anderson and Gerbing (1988) was followed. Statistical remedies were conducted to examine the threat of substantial common method bias. First, the Harman single factor test (Podsakoff *et al.*, 2003) revealed that the largest variance explained by the first factor was 25.55 percent of the total variance (must be less than 50 percent). Second, the correlation matrix procedure (Bagozzi *et al.*, 1991) showed that the highest inter-construct correlation was 0.660, which was below 0.90, the threshold value. Hence, common method bias was not significant in this data set.

*Measurement model analysis: first-order constructs level*
Convergent validity, discriminant validity and construct reliability were assessed in the measurement model analysis. As shown in Table I, all composite reliability (CR) values exceeded the threshold value of 0.70 (Hair *et al.*, 2017). All item loadings of the first-order constructs were above the cut-off value of 0.708. All average variance extracted (AVE) values were greater than 0.50 (Hair *et al.*, 2017). Therefore, the constructs in this study met the requirement for internal reliability and convergent validity. The discriminant validity was assessed using the HTMT criteria (Henseler *et al.*, 2015). As shown in Table II, all values passed the criterion of HTMT scores (HTMT < 0.90) (Gold *et al.*, 2001), indicating the establishment of discriminant validity.

| First-order constructs | Indicators | Scale | Loading | CR | AVE |
|---|---|---|---|---|---|
| Perceived innovativeness | PI1 | Reflective | 0.948 | 0.936 | 0.880 |
| | PI2 | | 0.928 | | |
| Perceived personalization | PP1 | Reflective | 0.816 | 0.868 | 0.686 |
| | PP2 | | 0.865 | | |
| | PP3 | | 0.803 | | |
| Perceived usefulness of rating system | PU1 | Reflective | 0.754 | 0.876 | 0.639 |
| | PU2 | | 0.816 | | |
| | PU3 | | 0.801 | | |
| | PU4 | | 0.826 | | |
| Value to peaceful life | VPL1 | Reflective | 0.823 | 0.896 | 0.684 |
| | VPL2 | | 0.794 | | |
| | VPL3 | | 0.858 | | |
| | VPL4 | | 0.831 | | |
| Value to social recognition | VSR1 | Reflective | 0.779 | 0.869 | 0.570 |
| | VSR2 | | 0.782 | | |
| | VSR3 | | 0.722 | | |
| | VSR4 | | 0.787 | | |
| | VSR5 | | 0.701 | | |
| Value to social integration | VSI1 | Reflective | 0.871 | 0.916 | 0.783 |
| | VSI2 | | 0.903 | | |
| | VSI3 | | 0.881 | | |
| Functional value | FUNC1 | Reflective | 0.903 | 0.942 | 0.844 |
| | FUNC2 | | 0.937 | | |
| | FUNC3 | | 0.916 | | |
| Monetary value | MON1 | Reflective | 0.887 | 0.931 | 0.818 |
| | MON2 | | 0.927 | | |
| | MON3 | | 0.900 | | |
| Emotional value | EMO1 | Reflective | 0.883 | 0.924 | 0.801 |
| | EMO2 | | 0.923 | | |
| | EMO3 | | 0.870 | | |
| Social value | SOC1 | Reflective | 0.906 | 0.944 | 0.849 |
| | SOC2 | | 0.941 | | |
| | SOC3 | | 0.917 | | |
| Trust | TRU1 | Reflective | 0.734 | 0.887 | 0.567 |
| | TRU2 | | 0.750 | | |
| | TRU3 | | 0.760 | | |
| | TRU4 | | 0.747 | | |
| | TRU5 | | 0.741 | | |
| | TRU6 | | 0.785 | | |
| Innovativeness | INNO1 | Reflective | 0.744 | 0.891 | 0.672 |
| | INNO2 | | 0.844 | | |
| | INNO3 | | 0.863 | | |
| | INNO4 | | 0.824 | | |
| Optimism | OPT1 | Reflective | 0.768 | 0.896 | 0.683 |
| | OPT2 | | 0.845 | | |
| | OPT3 | | 0.857 | | |
| | OPT4 | | 0.834 | | |
| Discomfort | DIS1 | Reflective | 0.671 | 0.840 | 0.569 |
| | DIS2 | | 0.765 | | |
| | DIS3 | | 0.800 | | |
| | DIS4 | | 0.777 | | |

*(continued)*

**Table I.**
Reliability and convergent validity for first-order constructs

| First-order constructs | Indicators | Scale | Loading | CR | AVE |
|---|---|---|---|---|---|
| Insecurity | INS1 | Reflective | 0.764 | 0.893 | 0.676 |
| | INS2 | | 0.863 | | |
| | INS3 | | 0.836 | | |
| | INS4 | | 0.822 | | |
| Continuance Intention | INT1 | Reflective | 0.933 | 0.939 | 0.837 |
| | INT2 | | 0.940 | | |
| | INT3 | | 0.871 | | |

**Table I.**

**Notes:** AVE, average variance extracted; CR, composite reliability

*Measurement model: second-order constructs level*
This study modeled service personal values and technology readiness as formative second-order constructs that consist of three and four first-order reflective constructs, respectively. A two-stage approach suggested by Ringle *et al.* (2012) was followed. As illustrated in Table III, all formative measures yield path coefficients above the threshold of 0.70, implying that all formatively measured constructs had sufficient degrees of convergent validity (Hair *et al.*, 2017). VIF values of all dimensions were below the threshold value of 3.30 (Diamantopoulos and Siguaw, 2006); hence, collinearity was not a critical issue in the formative measurement model. Subsequently, the significance and relevance of the outer weights were assessed. All formative indicators were significant except for the values for social integration, discomfort and insecurity. However, Hair *et al.* (2017) suggested that a formative indicator should be retained even if its weight is not significant if the item loading was more than 0.50. Therefore, none of the formative indicators were deleted.

For perceived value, which was modeled as a reflective–reflective second-order construct, convergent validity and reliability were assessed (Hair *et al.*, 2017). The recommended value for loadings was set at 0.708, the AVE at 0.50 and the CR at 0.70. As shown in Table III, all criteria were fulfilled.

*Structural model*
Before assessing the structural model, a collinearity test was conducted to assess the presence of highly correlated constructs. The highest VIF value of all constructs was 1.571 (below the suggested threshold of 3.30) (Diamantopoulos and Siguaw, 2006), indicating the absence of multicollinearity effects.

Model fit was measured using the standardized root mean square residual (SRMR) value (Henseler *et al.*, 2016). The model's SRMR value of 0.065 was below the threshold of 0.08, indicating sufficient model fit. Subsequently, this study examined Stone–Geisser's $Q^2$ by applying blindfolding procedure with a pre-specified distance of six (Geisser, 1974; Stone, 1974). All endogenous construct exhibited $Q^2$ values above zero (ranging from 0.12 to 0.40), indicating sufficient predictive relevance of the model. This study took a further step to evaluate predictive validity (out-of-sample prediction) using cross-validation with holdout samples. According to Hair *et al.* (2019), only the model's key endogenous construct's indicators should be focused when interpreting PLSpredict results. The $Q^2_{Predict}$ values were positive; thus, the model offered appropriate predictive performance. Next, the result exhibited that RMSE and MAE values for the PLS analysis were all lower than the LM, thus indicating high predictive power (Hair *et al.*, 2019) (see Table AI).

As shown in Table IV, perceived personalization, perceived usefulness of the rating system, service personal values and trust significantly influenced perceived value ($R^2 = 33.60$ percent).

| | CI | DIS | EMO | FUNC | INNO | INS | VPL | MON | OPT | SOC | VSR | VSI | PI | PP | PU | TRU |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CI | | | | | | | | | | | | | | | | |
| DIS | 0.386 | | | | | | | | | | | | | | | |
| EMO | 0.648 | 0.410 | | | | | | | | | | | | | | |
| FUNC | 0.634 | 0.403 | 0.819 | | | | | | | | | | | | | |
| INNO | 0.473 | 0.646 | 0.569 | 0.620 | | | | | | | | | | | | |
| INS | 0.353 | 0.740 | 0.323 | 0.427 | 0.738 | | | | | | | | | | | |
| VPL | 0.271 | 0.050 | 0.302 | 0.260 | 0.195 | 0.188 | | | | | | | | | | |
| MON | 0.640 | 0.355 | 0.803 | 0.888 | 0.590 | 0.409 | 0.355 | | | | | | | | | |
| OPT | 0.599 | 0.655 | 0.612 | 0.630 | 0.777 | 0.600 | 0.184 | 0.632 | | | | | | | | |
| SOC | 0.589 | 0.268 | 0.719 | 0.762 | 0.525 | 0.314 | 0.301 | 0.789 | 0.595 | | | | | | | |
| VSR | 0.265 | 0.101 | 0.243 | 0.205 | 0.125 | 0.056 | 0.526 | 0.217 | 0.215 | 0.290 | | | | | | |
| VSI | 0.230 | 0.082 | 0.223 | 0.147 | 0.130 | 0.069 | 0.640 | 0.211 | 0.129 | 0.176 | 0.422 | | | | | |
| PI | 0.197 | 0.075 | 0.154 | 0.213 | 0.100 | 0.046 | 0.150 | 0.211 | 0.057 | 0.034 | 0.122 | 0.104 | | | | |
| PP | 0.284 | 0.158 | 0.244 | 0.297 | 0.192 | 0.074 | 0.252 | 0.382 | 0.109 | 0.211 | 0.216 | 0.185 | 0.632 | | | |
| PU | 0.432 | 0.126 | 0.427 | 0.478 | 0.263 | 0.167 | 0.150 | 0.473 | 0.279 | 0.447 | 0.073 | 0.147 | 0.252 | 0.322 | | |
| TRU | 0.659 | 0.132 | 0.465 | 0.432 | 0.331 | 0.175 | 0.306 | 0.498 | 0.285 | 0.454 | 0.311 | 0.129 | 0.223 | 0.438 | 0.424 | |

**Notes:** HTMT < 0.90 (Gold et al., 2001); PI, perceived innovativeness; PP, perceived personalization; PU, perceived usefulness of rating system; EMO, emotional value; FUNC, functional value; SOC, social value; MON, monetary value; TRU, trust; INT, continuance intention; DIS, discomfort; INS, insecurity; INNO, innovativeness; OPT, optimism; VPL, value to peaceful life; VSR, value to social recognition; VSI, value to social integration

**Table II.**
Discriminant validity

| Constructs | Items | Scale | Convergent Validity | Weights | VIF | t-value weights | sig |
|---|---|---|---|---|---|---|---|
| Service personal values | Value to peaceful life | Formative | 0.847 | 0.755 | 1.596 | 3.820** | 0.000 |
| | Value to social recognition | | | 0.361 | 1.288 | 1.978* | 0.048 |
| | Value to social integration | | | 0.046 | 1.465 | 0.199 | 0.843 |
| Technology readiness | Innovativeness | Formative | 0.834 | 0.502 | 2.200 | 4.336** | 0.000 |
| | Optimism | | | 0.664 | 1.931 | 6.835** | 0.000 |
| | Discomfort | | | −0.045 | 1.766 | 0.455 | 0.649 |
| | Insecurity | | | −0.067 | 1.980 | 0.628 | 0.530 |
| | | | Convergent validity | Loading | CR | | |
| Perceived value | FUNC | Reflective | 0.768 | 0.912 | 0.936 | | |
| | MON | | | 0.912 | | | |
| | EMO | | | 0.867 | | | |
| | SOC | | | 0.854 | | | |

**Notes:** *$p < 0.05$; **$p < 0.01$

**Table III.**
Measurement model for second-order constructs

| Hypothesis | Relationship | Std. $\beta$ | t-value | $f^2$ | Confidence interval | Decision |
|---|---|---|---|---|---|---|
| H1 | PI→PV | −0.047 | 0.795[ins] | 0.001 | [−0.147, 0.048] | Unsupported |
| H2 | PI→TRU | 0.071 | 1.323[ins] | 0.001 | [−0.049, 0.188] | Unsupported |
| H3 | PP→PV | 0.150 | 2.090* | 0.004 | [0.031, 0.203] | Supported |
| H4 | PP→TRU | 0.192 | 2.627** | 0.063 | [0.015, 0.254] | Supported |
| H5 | PU→PV | 0.350 | 6.124** | 0.149 | [0.254, 0.441] | Supported |
| H6 | PU→TRU | 0.158 | 2.456** | 0.090 | [0.042, 0.255] | Supported |
| H7 | SPV→PV | 0.190 | 3.562** | 0.048 | [0.096, 0.273] | Supported |
| H8 | SPV→TRU | 0.246 | 3.825** | 0.067 | [0.131, 0.346] | Supported |
| H9 | PV→INT | 0.639 | 13.255** | 0.688 | [0.548, 0.709] | Supported |
| H10 | TRU→PV | 0.240 | 3.822** | 0.094 | [0.137, 0.344] | Supported |
| H11 | PI→TRU→PV | 0.017 | 0.949[ins] | – | [−0.035, 0.015] | Unsupported |
| H12 | PP→TRU→PV | 0.035 | 1.854* | – | [0.008, 0.070] | Supported |
| H13 | PU→TRU→PV | 0.038 | 2.205* | – | [0.014, 0.071] | Supported |
| H14 | SPV→TRU→PV | 0.059 | 2.486** | – | [0.028, 0.107] | Supported |

**Notes:** ins, insignificant. *$p < 0.05$; **$p < 0.01$

**Table IV.**
Hypotheses testing for direct and indirect effects

Besides, perceived personalization, perceived usefulness of the rating system and service personal values significantly influenced trust ($R^2 = 25.50$ percent). Perceived value had a significant positive relationship with continuance intention ($R^2 = 40.8$ percent). This study further assessed the $f^2$ effect size. Following Cohen's (1988) guideline, $f^2$ values of 0.02, 0.15, and 0.35 represent small, medium and large effects, respectively. Most of the exogenous variables revealed effect sizes ranging from small to medium.

This study tested the hypothesized mediation effects using a bias-corrected bootstrapping of indirect effects (Preacher and Hayes, 2008). As exhibited in Table IV, all 95% bootstrapping confidence intervals do not straddle a 0 in between, indicating that trust mediates the relationships between antecedents (perceived personalization, perceived usefulness of rating system, service personal values) and perceived value. Therefore, all direct and mediation hypotheses were supported except H1, H2 and H11.

Role of trust
and perceived
value in ODRS

*Moderation effects*
This study tested the moderation hypotheses using two-stage approach as it yields highest power and is suitable for handling formative moderator (Henseler and Chin, 2010). As shown in Table V, technology readiness only moderates the relationship between perceived personalization and perceived value ($\beta = 0.167$, $t = 2.593$, $p < 0.05$). As Dawson (2014) suggested, the interaction effect were plotted to further elaborate the moderating phenomenon. As shown in Figure 2, the positive relationship between perceived personalization and perceived value is stronger under conditions of high technology readiness. This result was as hypothesized, supporting *H15b*.

## Discussion and implications
The main question addressed in this research is: What are the critical antecedents that build perceived value and trust toward ODRS? In the process of addressing this question, this research has identified some interesting results. First, contrary to past research (Lin *et al.*, 2013; Chang and Tu, 2005; Yi and La, 2004), this study has found that the relationship between perceived innovativeness and perceived value is not significant. One plausible reason is that customers may perceive ODRS as innovative, but its core remains a taxi-like service, thus hardly innovative enough for customers to perceive great value gained from this new way of taking a taxi. According to Meyers-Levy and Tybout (1989), an innovation perceived as highly congruent or one that assimilates with existing alternatives is unlikely to result in a particularly positive response. In addition, the effect of perceived innovativeness on trust is not significant, implying a paradox in which newness is not necessary to build trust but possibly does the opposite due to the extra uncertainty involved.

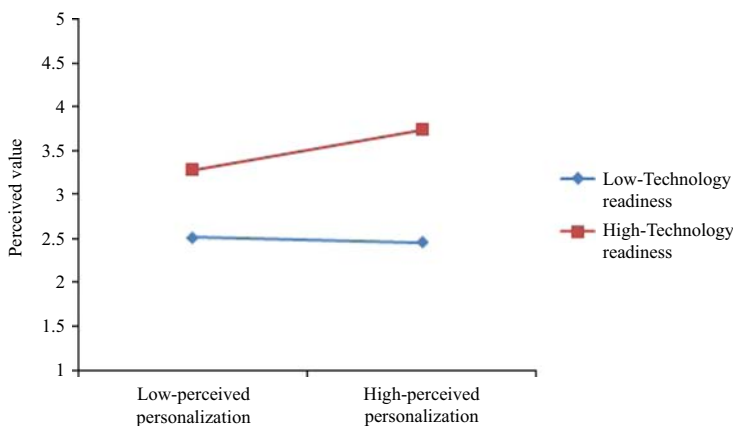| Hypothesis | Relationship | Std. $\beta$ | $t$-value | Decision | |
|---|---|---|---|---|---|
| *H15a* | PI×TR→PV | −0.065[ins] | 1.242 | Unsupported | |
| *H15b* | PP×TR→PV | 0.167** | 2.593 | Supported | **Table V.** |
| *H15c* | PU×TR→PV | 0.022[ins] | 0.543 | Unsupported | Hypotheses testing for |
| **Notes:** ins, insignificant. **$p < 0.01$ | | | | | moderation effects |



**Figure 2.**
Moderating role of technology readiness between perceived personalization and perceived value

Second, perceived personalization is significant in influencing perceived value, which supports the findings of earlier studies (Lee, 2015; Liang *et al.*, 2012). In addition, the direct effect of perceived personalization on trust and the indirect effect of perceived personalization on perceived value through trust are significant, suggesting the effect of perceived personalization on perceived value is partly transmitted through trust. Personalization attaches a greater psychological comfort to relationships (Ball *et al.*, 2006), making customers to think that ODRS firms pay attention to and care for them, thereby forming trust toward the service firm and eventually enhancing value assessment.

Third, this study has demonstrated the perceived usefulness of the ODRS' rating system as a determinant of perceived value and trust. Providing the rating system is perceived as useful, it serves the purpose as a trust building tool, which makes sharing with strangers less risky and more appealing (Frentken and Schor, 2017), and thus helps to provide greater values like quality and a worry-free ride experience. The significant mediating effect suggests trust as a factor that accounted for the effect of perceived usefulness of the rating system on perceived value.

Fourth, service personal values positively influence perceived value. This finding confirms the conclusion of earlier studies (Hau and Thuy, 2012; Ledden *et al.*, 2007). Moreover, service personal values are found to be a predictor of trust and trust mediates the relationship between service personal values and perceived value. Personal values as the desired end states in the means-end hierarchy can be influential in an individual's decision-making process. Unlike previous studies, this study found only a significantly important service personal values dimension in the ODRS context. ODRS customers subjectively evaluate the value gained from services used and build trust based on achievement in terms of personal values, specifically the value of a peaceful life. Hence, the result illustrates that delivering a safe and stable service is of utmost importance in forming value perception and trust.

Fifth, as Min *et al.* (2018) advanced, the evidence this study found points to the important role of technology readiness in the ODRS context. Of more importance, technology readiness not only affects intention in pre-adoption condition, but also plays a crucial part in forming value perception after the adoption of ODRS. The result lends support to Wang *et al.*'s (2017) idea that technology readiness influences service evaluation. Under the condition of high technology readiness, the relationship between perceived personalization and perceived value has been found to be stronger. To clarify, personalization is more likely to transform into desired perceived value for customers who can fully understand and feel secure when using it. This situation is especially true given that many personalized features in ODRS' mobile applications often raise security concerns due to the requirements of customers' personal data. Customers with high technology readiness are more trusting toward technology, willing to explore new features, and able to enjoy personalization features instead of feeling insecure and uncomfortable (Parasuraman, 2000). Thus, personalization is more likely to be a value enhancer for customers with high technology readiness in the ODRS context.

*Theoretical implications*
First, this study has gone some way toward enhancing our understanding on determinants of the continuance intention on ODRS. Previous studies have mainly approached the consumers' motivation to participate in the sharing economy through the TAM. However, the TAM was originally designed for information system acceptance in organizational settings, rendering it rather unsuitable for voluntary based setting (i.e. use of ODRS). This study attempts to enrich the understanding of the area beyond the TAM perspective by employing the means-end chain theory. In this way, this study takes a value-centric stance and addresses the largely untested inter-relationships among trust, perceived value and continuance intention in shared service context.

Role of trust
and perceived
value in ODRS

Second, the novel contribution of the present study stems from exploring the factors influencing trust and perceived value. Although previous research has highlighted the importance of trust and perceived value, the factors that constitute the formation of trust and perceived value are missing in the literature. Grounded in the means-end chain theory, this study not only exhibits the effects of service attributes, but also delineates the role of personal values in influencing trust and perceived value. Third, testing the mediating effect of trust in the relationship between service attributes, personal values, and perceived value adds to the growing body of knowledge on the role of trust, specifically in the shared service context. The significant mediating effects found suggest that trust should be considered when future research aims to explain factors influencing perceived value.

Fourth, previous research has called for the inclusion of individual differences, especially technology readiness in investigating shared service participation. Contemporary shared services are information technology-based and thus technology readiness should play a significant role in the perceived value formation process. Previous studies have mainly emphasized on the direct impact of technology readiness on product adoption. This study is one of the first attempts to thoroughly examine the moderating effect of technology readiness in the post-adoption context. Specifically, this study delineates the significant moderating effect of technology readiness in the relationship between perceived personalization and perceived value, widening the knowledge on technology readiness in a post-adoption context. Finally, previous research has mainly focused on adopting intention. This study extends the literature by investigating the continuance intention, which better reflect the post-consumption experience and sustainability of ODRS.

### Managerial implications

First, in achieving greater perceived value gained and customers' trust, the findings show that ODRS firms should prioritize perceived personalization and perceived usefulness of rating system. ODRS should move toward humanization in servicing customers, devoting more to the improvement of personalized communication with the appropriate use of customer information. Besides, it has been shown that the ratings are generally inflated and not very accurate (Filippas *et al.*, 2017). Therefore, in order to strengthen the level of trust among users, ODRS firms may consider creating a system environment that encourages honest and in-depth ratings, wider rating participation and allows user reviews to be accessible by others. Also, constant monitoring and filtering users of either drivers or riders, based on their performance, should never be overlooked.

Second, ODRS firms, such as Uber and Grab, can develop and improvise their services to appeal to their target market's personal values. The findings suggest that service providers should emphasize the specific value of a peaceful life in their service offerings to improve the value outcome and customer trust. The personal value of a peaceful life can be achieved by making the services more convenient, safe, and enjoyable. Besides, continuously improvement in applications' ease of use, meticulous driver selection and pro-customer assistant features are critical to create a safe and worry-free ridesharing service.

Third, as the relationship between perceived personalization and perceived value is stronger when customers have high technology readiness, managers are advised to devise personalization strategies carefully and consider customer acceptability. ODRS firms should make personalization features optional as they are beneficial to customers with a higher degree of technology readiness. High personalization may not be desired by certain customers due to the sacrifice of their information privacy. However, personalization appears to be the right approach for younger generation as they are more likely to have high technology readiness, and thus this group of customers is the key target market for future sustainability of the ODRS industry.

## Conclusions

This study has certain limitations. First, this research sourced respondents from a single country (Malaysia), thus hindering the ability to generalize the findings to populations of other countries. A comparative study between countries can offer better insights. Second, this research was based on a cross-section survey, in which exposure and outcome are simultaneously assessed. A longitudinal study is suggested as value perception and its antecedents may change over time. Third, the dimensions of personal values and perceived values can be further explored using the mixed-method or qualitative approach to capture the richness and validity of the construct conceptualization in this context. Fourth, future studies are suggested to examine the subject from the perspective of intrinsic motivation, such as anti-consumption attitude, and extrinsic motivation, like marketing tools to promote the use of ODRS. Lastly, future research is suggested to test the construct of perceived innovativeness with a different scale that can better reflect the multiple dimensions of service innovativeness. Ridesharing services has emerged as a viable alternative to transportation that fulfills the needs of the consumers of today. As the size of the industry has continued to grow, so has the magnitude of its economic and social impacts. Hence, much more needs to be done to understand the complex economic, regulatory and technological issues surrounding the industry. The current study indeed provides the first step in understanding the interplay of consumer mechanisms that drive the sustainability of this unique service.

## References

Aaker, D.A. (2007), "Innovation: brand it or lose it", *California Management Review*, Vol. 50 No. 1, pp. 8-24.

Anderson, J.C. and Gerbing, D.W. (1988), "Structural equation modeling in practice: a review and recommended two-step approach", *Psychological Bulletin*, Vol. 103 No. 3, pp. 411-423.

Babin, B.J., Darden, W.R. and Griffin, M. (1994), "Work and/or fun: measuring hedonic and utilitarian shopping value", *Journal of Consumer Research*, Vol. 20 No. 4, pp. 644-656.

Bagozzi, R.P. and Dholakia, U. (1999), "Goal setting and goal striving in consumer behavior", *Journal of Marketing*, Vol. 63 No. 4, pp. 19-32.

Bagozzi, R.P., Yi, Y. and Phillips, L.W. (1991), "Assessing construct validity in organizational research", *Administrative Science Quarterly*, Vol. 36 No. 3, pp. 421-458.

Ball, D., Coelho, P.S. and Vilares, M.J. (2006), "Service personalization and loyalty", *Journal of Services Marketing*, Vol. 20 No. 6, pp. 391-403.

Belk, R. (2014), "You are what you can access: sharing and collaborative consumption online", *Journal of Business Research*, Vol. 67 No. 8, pp. 1595-1600.

Bhattacherjee, A. (2001), "Understanding information systems continuance: an expectation confirmation model", *MIS Quarterly*, Vol. 25 No. 3, pp. 351-370.

Brunsø, K., Scholderer, J. and Grunert, K.G. (2004), "Closing the gap between values and behaviour – a means-end theory of lifestyle", *Journal of Business Research*, Vol. 57 No. 6, pp. 665-670.

Carlson, D.S. and Kacmar, K.M. (2000), "Work–family conflict in the organization: do life role values make a difference?", *Journal of Management*, Vol. 26 No. 5, pp. 1031-1054.

Cass, A.O. and Carlson, J. (2012), "An e-retailing assessment of perceived website-service innovativeness: implications for website quality evaluations, trust, loyalty and word of mouth", *Australasian Marketing Journal*, Vol. 20 No. 1, pp. 28-36.

CHAFEA (2017), "Exploratory study of consumer issues in online peer-to-peer platform markets – final report", available at: www.bi.edu/globalassets/forskning/h2020/ps2share_platform-analysis-paper_final.pdf (accessed March 18, 2018).

Role of trust
and perceived
value in ODRS

Chang, C.H. and Tu, C.Y. (2005), "Exploring store image, customer satisfaction and customer loyalty relationship: evidence from Taiwanese hypermarket industry", *Journal of American Academy of Business*, Vol. 7 No. 2, pp. 197-202.

Chee, F.M. (2018), "An Uber ethical dilemma: examining the social issues at stake", *Journal of Information, Communication and Ethics in Society*, Vol. 16 No. 3, pp. 261-274.

Chen, N.H. (2019), "Extending a TAM–TTF model with perceptions toward telematics adoption", *Asia Pacific Journal of Marketing and Logistics*, Vol. 31 No. 1, pp. 37-54.

Cheng, M. (2016), "Sharing economy: a review and agenda for future research", *International Journal of Hospitality Management*, Vol. 57, pp. 60-70.

Cohen, J. (1988), *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed., Erlbaum, Hillsdale, NJ.

Dawson, J.F. (2014), "Moderation in management research: what, why, when and how", *Journal of Business and Psychology*, Vol. 29 No. 1, pp. 1-19.

Day, G.S. (2000), "Managing market relationships", *Journal of the Academy of Marketing Science*, Vol. 28 No. 1, pp. 24-30.

Diamantopoulos, A. and Siguaw, D. (2006), "Formative versus reflective indicators in organizational measure development: a comparison and empirical illustration", *British Journal of Management*, Vol. 17 No. 4, pp. 263-282.

Doney, P.M. and Cannon, J.P. (1997), "An examination of the nature of trust in buyer–seller relationships", *Journal of Marketing*, Vol. 61 No. 2, pp. 35-51.

Dong, C., Russello, G. and Dulay, N. (2007), "Trust transfer in distributed systems", in Etalle, S. and Marsh, S. (Eds), *Trust Management, IFIPTM 2007, IFIP International Federation for Information Processing*, Vol. 238, Springer, Boston, MA, pp. 17-29.

Dreyer, B., Lüdeke-Freund, F., Hamann, R. and Faccer, K. (2017), "Upsides and downsides of the sharing economy: collaborative consumption business models' stakeholder value impacts and their relationship to context", *Technological Forecasting and Social Change*, Vol. 125, pp. 87-104.

Durvasula, S., Lysonski, S. and Madhavi, A.D. (2011), "Beyond service attributes: do personal values matter?", *Journal of Services Marketing*, Vol. 25 No. 1, pp. 33-46.

Ert, E., Fleischer, A. and Magen, N. (2016), "Trust and reputation in the sharing economy: the role of personal photos in Airbnb", *Tourism Management*, Vol. 55, pp. 62-73.

Faul, F., Erdfelder, E., Lang, A.-G. and Buchner, A. (2007), "G*Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences", *Behavior Research Methods*, Vol. 39 No. 2, pp. 175-191.

Ferreira, J.B., da Rocha, A. and da Silva, J.F. (2014), "Impacts of technology readiness on emotions and cognition in Brazil", *Journal of Business Research*, Vol. 67 No. 5, pp. 865-873.

Filippas, A., Horton, J.J. and Golden, J.M. (2017), *Reputation in the Long-Run*, NYU Stern School of Business, New York, NY.

Frentken, K. and Schor, J. (2017), "Putting the sharing economy into perspective", *Environmental Innovation and Societal Transitions*, Vol. 23, pp. 3-10.

Fullerton, S., Brooksbank, R. and Neale, L. (2017), "Consumer perspectives on the ethics of an array of technology-based marketing strategies: an exploratory study", *Asia Pacific Journal of Marketing and Logistics*, Vol. 29 No. 5, pp. 1079-1096.

Ganesan, S. (1994), "Determinants of long-term orientation in buyer-seller relationships", *Journal of Marketing*, Vol. 58 No. 2, pp. 1-19.

Geisser, S. (1974), "A predictive approach to the random effects model", *Biometrika*, Vol. 61 No. 1, pp. 101-107.

Gold, A.H., Malhotra, A. and Segars, A.H. (2001), "Knowledge management: an organizational capabilities perspective", *Journal of Management*, Vol. 18 No. 1, pp. 185-214.

Goldsmith, R.E. and Freiden, J.B. (2004), "Have it your way: consumer attitudes toward personalized marketing", *Marketing Intelligence & Planning*, Vol. 22 No. 2, pp. 228-239.

Grab (2017a), "Grab expands global R&D capabilities with two new R&D centres in Bangalore and Ho Chi Minh city", available at: www.grab.com/my/press/tech-product/grab-expands-rd-capabilities/ (accessed December 21, 2017).

Grab (2017b), "Thank your lucky stars: How Grab's star rating works", available at: www.grab.com/my/blog/driver/thank-your-lucky-stars/ (accessed December 21, 2017).

Gutman, J. (1982), "A means-end chain model based on consumer categorization processes", *Journal of Marketing*, Vol. 46 No. 2, pp. 60-72.

Hair, J.F., Hult, G.T.M., Ringle, C.M. and Sarstedt, M. (2017), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, 2nd ed., SAGE Publications, Thousand Oaks, CA.

Hair, J.F., Risher, J.J., Sarstedt, M. and Ringle, C.M. (2019), "When to use and how to report the results of PLS-SEM", *European Business Review*, Vol. 31 No. 1, pp. 2-24.

Hamari, J., Sjöklint, M. and Ukkonen, A. (2016), "The sharing economy: why people participate in collaborative consumption", *Journal of The Association for Information Science and Technology*, Vol. 67 No. 9, pp. 2047-2059.

Hau, L.N. and Thuy, P.N. (2012), "Impact of service personal values on service value and customer loyalty: a cross-service industry study", *Service Business*, Vol. 6 No. 2, pp. 137-155.

Hawlitschek, F., Teubner, T. and Gimpel, H. (2018), "Consumer motives for peer-to-peer sharing", *Journal of Cleaner Production*, Vol. 204, pp. 144-157.

Hawlitschek, F., Teubner, T. and Weinhardt, C. (2016), "Trust in the Sharing Economy", *Die Unternehmung-Swiss Journal of Business Research and Practice*, Vol. 70 No. 1, pp. 26-44.

Henseler, J. and Chin, W.W. (2010), "A comparison of approaches for the analysis of interaction effects between latent variables using partial least squares path modeling", *Structural Equation Modeling*, Vol. 17 No. 1, pp. 82-109.

Henseler, J., Ringle, C.M. and Sarstedt, M. (2015), "A new criterion for assessing discriminant validity in variance-based structural equation modeling", *Journal of the Academy of Marketing Science*, Vol. 43 No. 1, pp. 115-135.

Henseler, J., Hubona, G.S. and Ray, P.A. (2016), "Using PLS path modeling in new technology research: updated guidelines", *Industrial Management & Data Systems*, Vol. 116 No. 1, pp. 1-19.

Homer, P.M. and Kahle, L.R. (1988), "A structural equation test of the value-attitude-behavior hierarchy", *Journal of Personality and Social Psychology*, Vol. 54 No. 4, pp. 638-646.

Horton, J.J. and Zeckhauser, R.J. (2016), "Owning, using and renting: some simple economics of the 'sharing economy'", Working Paper No. 22029, National Bureau of Economic Research, Cambridge, February 1.

Hsien, A.H. (2017), "Riding on e-hailing services", available at: www.focusmalaysia.my/Property/riding-on-e-hailing-services

Huurne, M., Ronteltap, A., Corten, R. and Buskens, V. (2017), "Antecedents of trust in the sharing economy: a systematic review", *Journal of Consumer Behaviour*, Vol. 16 No. 6, pp. 485-498.

Keller, K. and Aaker, D. (1998), "Corporate-level marketing: the impact of credibility on a company's brand extensions", *Corporate Reputation Review*, Vol. 1 No. 4, pp. 356-378.

Keller, K.L. (1999), "Managing brands for the long run: brand reinforcement and revitalization strategies", *California Management Review*, Vol. 41 No. 3, pp. 102-125.

Kim, H.-W., Chan, H.C. and Gupta, S. (2007), "Value-based adoption of mobile internet: an empirical investigation", *Decision Support Systems*, Vol. 43 No. 1, pp. 111-126.

Kim, H.-W., Xu, Y. and Gupta, S. (2012), "Which is more important in internet shopping, perceived price or trust?", *Electronic Commerce Research and Applications*, Vol. 11 No. 3, pp. 241-252.

Komiak, S.Y.X. and Benbasat, I. (2006), "The effects of personalization and familiarity on trust and adoption of recommendation agents", *MIS Quarterly*, Vol. 30 No. 4, pp. 941-960.

Kunz, W., Schmitt, B. and Meyer, A. (2011), "How does perceived firm innovativeness affect the consumer?", *Journal of Business Research*, Vol. 64 No. 8, pp. 816-822.

Role of trust
and perceived
value in ODRS

Ladhari, R., Pons, F., Bressolles, G. and Zins, M. (2011), "Culture and personal values: how they influence perceived service quality?", *Journal of Business Research*, Vol. 64 No. 9, pp. 951-957.

Lages, L.F. and Fernandes, J.C. (2005), "The SERPVAL scale: A multi-item instrument for measuring service personal values", *Journal of Business Research*, Vol. 58 No. 11, pp. 1562-1572.

Leckie, C., Nyadzayo, M.W. and Johnson, L.W. (2018), "Promoting brand engagement behaviors and loyalty through perceived service value and innovativeness", *Journal of Services Marketing*, Vol. 32 No. 1, pp. 70-82.

Ledden, L., Kalafatis, S.P. and Samouel, P. (2007), "The relationship between personal values and perceived value of education", *Journal of Business Research*, Vol. 60 No. 9, pp. 965-974.

Lee, E. (2015), "Psychological effect of personalized services on customer's website loyalty in fashion-focusing on cognitive efficiency, website socialness, and perceived enjoyment", *Journal of the Korean Society of Clothing and Textiles*, Vol. 39 No. 3, pp. 394-395.

Lee, S., Lee, Y., Lee, J. and Park, J. (2015), "Personalized e-services: consumer privacy concern and information sharing", *Social Behavior and Personality: An International Journal*, Vol. 43 No. 5, pp. 729-740.

Lee, Z.W., Chan, T.K., Balaji, M.S. and Chong, A.Y.L. (2018), "Why people participate in the sharing economy: an empirical investigation of Uber", *Internet Research*, Vol. 28 No. 3, pp. 829-850.

Liang, T.P., Chen, H.Y., Du, T., Turban, E. and Li, Y. (2012), "Effect of personalization on the perceived usefulness of online customer service: a dual-core theory", *Journal of Electronic Commerce Research*, Vol. 13 No. 4, pp. 275-288.

Lim, A. (2016), "Fare cuts by Uber, Grab will hurt sector: taxi body", available at: www.straitstimes. com/singapore/fare-cuts-by-uber-grab-will-hurt-sector-taxi-body (accessed December 25, 2016).

Lin, C., Marshall, D. and Dawson, J. (2013), "How does perceived convenience retailer innovativeness create value for the customer?", *International Journal of Business and Economics*, Vol. 12 No. 2, pp. 171-179.

Lin, C.J.S. and Hsieh, P.L. (2007), "The influence of technology readiness on satisfaction and behavioral intentions toward self-service technologies", *Computers in Human Behavior*, Vol. 23 No. 3, pp. 1597-1615.

Lowe, B. and Alpert, F. (2015), "Forecasting consumer perception of innovativeness", *Technovation*, Vol. 45, pp. 1-14.

Lu, J., Wang, L. and Hayes, L.A. (2012), "How do technology readiness, platform functionality and trust influence C2C user satisfaction?", *Journal of Electronic Commerce Research*, Vol. 13 No. 1, pp. 50-69.

MacKenzie, S.B. and Podsakoff, P.M. (2012), "Common method bias in marketing: causes, mechanisms, and procedural remedies", *Journal of Retailing*, Vol. 88 No. 4, pp. 542-555.

Madrigal, R. and Kahle, L.R. (1994), "Predicting vacation activity preferences on the basis of value-system segmentation", *Journal of Travel Research*, Vol. 32 No. 3, pp. 22-28.

Mair, J. and Reischauer, G. (2018), "Capturing the dynamics of the sharing economy: institutional research on the plural forms and practices of sharing economy organizations", *Technological Forecasting and Social Change*, Vol. 125, pp. 11-20.

Mencarelli, R. and Riviere, A. (2015), "Perceived value in B2B and B2C: a comparative approach and cross-fertilization", *Marketing Theory*, Vol. 15 No. 2, pp. 201-220.

Meuter, M.L., Ostrom, A.L., Bitner, M.J. and Roundtree, R. (2003), "The influence of technology anxiety on consumer use and experiences with self-service technologies", *Journal of Business Research*, Vol. 56 No. 11, pp. 899-906.

Meyers-Levy, J. and Tybout, A.M. (1989), "Schema congruity as a basis for product evaluation", *Journal of Consumer Research*, Vol. 16 No. 1, pp. 39-54.

Min, S., Overby, J.W. and Im, K.S. (2012), "Relationships between desired attributes, consequences and purchase frequency", *Journal of Consumer Marketing*, Vol. 29 No. 6, pp. 423-435.

Min, S., So, K.K.F. and Jeong, M. (2018), "Consumer adoption of the Uber mobile application: insights from diffusion of innovation theory and technology acceptance model", *Journal of Travel & Tourism Marketing*, pp. 1-14, available at: www.tandfonline.com/doi/abs/10.1080/10548408. 2018.1507866?journalCode=wttm20

Minter, A. (2017), "Why Uber's losing to the locals in Asia", available at: www.bloomberg.com/view/ articles/2017-07-27/why-uber-s-losing-to-local-rivals-in-southeast-asia/ (accessed December 21, 2017).

Mittal, B. and Lassar, W.M. (1996), "The role of personalization in service encounters", *Journal of Retailing*, Vol. 72 No. 1, pp. 95-109.

Mittendorf, C. (2018), "Collaborative consumption: the role of familiarity and trust among Millennials", *Journal of Consumer Marketing*, Vol. 35 No. 4, pp. 377-391.

Möhlmann, M. (2015), "Collaborative consumption: determinants of satisfaction and the likelihood of using a sharing economy option again", *Journal of Consumer Behaviour*, Vol. 14 No. 3, pp. 193-207.

Muellera, S. and Szolnokib, G. (2010), "The relative influence of packaging, labeling, branding and sensory attributes on liking and purchase intent: consumers differ in their responsiveness", *Food Quality and Preference*, Vol. 21 No. 7, pp. 774-783.

Murat, Y., Burcu, O. and Omer, S. (2013), "The role of innovation and perceived service quality in creating customer value: a study on employees of a call center establishment", *Journal of Social and Behavioral Sciences*, Vol. 99, pp. 629-635.

Nielson (2014), "Rising middle class will drive global automotive demand in the coming two years", available at: www.nielsen.com/my/en/press-room/2014/rising-middle-class-will-drive-global- automotive-demand.html (accessed April 10, 2018).

Papadopoulou, P., Andreou, A., Kanellis, P. and Martakos, D. (2001), "Trust and relationship building in electronic commerce", *Internet Research*, Vol. 11 No. 4, pp. 322-332.

Parasuraman, A. (2000), "Technology readiness index (TRI): a multiple-item scale to measure readiness to embrace new technologies", *Journal of Service Research*, Vol. 2 No. 4, pp. 307-320.

Parasuraman, A. and Colby, C.L. (2015), "An updated and streamlined technology readiness index: TRI 2.0", *Journal of Service Research*, Vol. 18 No. 1, pp. 59-74.

Pedersen, E.R.G. and Netter, S. (2015), "Collaborative consumption: business model opportunities and barriers for fashion libraries", *Journal of Fashion Marketing and Management*, Vol. 19 No. 3, pp. 258-273.

Podsakoff, P.M., MacKenzie, S.B., Lee, J.Y. and Podsakoff, N.P. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.

Ponte, E.B., Carvajal-Trujillo, E. and Escobar-Rodríguez, T. (2015), "Influence of trust and perceived value on the intention to purchase travel online: integrating the effects of assurance on trust antecedents", *Tourism Management*, Vol. 47, pp. 286-302.

Preacher, K.J. and Hayes, A.F. (2008), "Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models", *Behavior Research Methods*, Vol. 40 No. 3, pp. 879-891.

Quinn, D. (2016), "Introducing trip branding and personalization", available at: www.uber.com/ newsroom/trip-branding/ (accessed February 4, 2017).

Racherla, P. and Friske, W. (2012), "Perceived 'usefulness' of online consumer reviews: an exploratory investigation across three services categories", *Electronic Commerce Research and Applications*, Vol. 11 No. 6, pp. 548-559.

Ravald, A. and Grönroos, C. (1996), "The value concept and relationship", *European Journal of Marketing*, Vol. 30 No. 2, pp. 19-30.

Ringle, C.M., Sarstedt, M. and Straub, D.W. (2012), "A critical look at the use of PLS-SEM in MIS quarterly", *MIS Quarterly*, Vol. 36 No. 1, pp. iii-xiv.

Rokeach, M.J. (1973), *The Nature of Human Values*, The Free Press, New York, NY.

Role of trust
and perceived
value in ODRS

Rose, S., Hair, N. and Clark, M. (2011), "Online customer experience: a review of the business-to consumer online purchase context", *International Journal of Management Reviews*, Vol. 13 No. 1, pp. 24-39.

Saeed, K.A. and Abdinnour-Helm, S. (2008), "Examining the effects of information system characteristics and perceived usefulness on post adoption usage of information systems", *Information & Management*, Vol. 45 No. 6, pp. 376-386.

Saleem, M.A., Zahra, S. and Yaseen, A. (2017), "Impact of service quality and trust on repurchase intentions: the case of Pakistan airline industry", *Asia Pacific Journal of Marketing and Logistics*, Vol. 29 No. 5, pp. 1136-1159.

Sarstedt, M., Ringle, C.M. and Hair, J.F. (2014), "PLS-SEM: looking back and moving forward", *Long Range Planning*, Vol. 47 No. 3, pp. 132-137.

Sarstedt, M., Bengart, P., Shaltoni, A.M. and Lehmann, S. (2018), "The use of sampling methods in advertising research: a gap between theory and practice", *International Journal of Advertising*, Vol. 37 No. 4, pp. 650-663.

Schwartz, S.H. (1994), "Are there universal aspects in the structure and contents of human values?", *Journal of Social Issues*, Vol. 50 No. 4, pp. 19-45.

Sekaran, V. and Bougie, R. (2016), *Research Methods for Business*, 4th ed., Wiley, New York, NY.

Shen, A. and Ball, D.A. (2009), "Is personalization of services always a good thing? Exploring the role of technology-mediated personalization (TMP) in service relationships", *Journal of Service Marketing*, Vol. 23 No. 2, pp. 80-92.

Sheth, J.N., Newman, B.I. and Gross, B.L. (1991), "Why we buy what we buy: a theory of consumption values", *Journal of Business Research*, Vol. 22 No. 2, pp. 159-170.

Sirdeshmukh, D., Singh, J. and Sabol, B. (2002), "Consumer trust, value, and loyalty in relational exchanges", *Journal of Marketing*, Vol. 66 No. 1, pp. 15-37.

Son, M. and Han, K. (2011), "Beyond the technology adoption: technology readiness effects on post-adoption behavior", *Journal of Business Research*, Vol. 64 No. 11, pp. 1178-1182.

Stone, M. (1974), "Cross-validatory choice and assessment of statistical predictions", *Journal of the Royal Statistical Society*, Vol. 36 No. 2, pp. 111-147.

Sweeney, J.C. and Soutar, G.N. (2001), "Consumer perceived value: the development of a multiple item scale", *Journal of Retailing*, Vol. 77 No. 2, pp. 203-220.

Thuy, P.N., Hau, L.N. and Evangelista, F. (2016), "Service value and switching barriers: a personal values perspective", *The Service Industries Journal*, Vol. 36 Nos 3/4, pp. 142-162.

Venkatesh, V. and Davis, F.D. (2000), "A theoretical extension of the technology acceptance model: four longitudinal field studies", *Management Science*, Vol. 46 No. 2, pp. 186-204.

Walsh, G., Shiu, E. and Hassan, L.M. (2014), "Replicating, validating, and reducing the length of the consumer perceived value scale", *Journal of Business Research*, Vol. 67 No. 3, pp. 260-267.

Wang, E.S.T. and Yu, J.R. (2016), "Means–end chain approach for exploring the motivation of ready-to-drink tea consumers", *Asia Pacific Journal of Marketing and Logistics*, Vol. 28 No. 3, pp. 384-394.

Wang, Y., So, K.K.F. and Sparks, B.A. (2017), "Technology readiness and customer satisfaction with travel technologies: a cross-country investigation", *Journal of Travel Research*, Vol. 56 No. 5, pp. 563-577.

Wang, Y., Wang, S., Wang, J., Wei, J. and Wang, C. (2018), "An empirical study of consumers' intention to use ride-sharing services: using an extended technology acceptance model", *Transportation*, pp. 1-19, available at: https://link.springer.com/article/10.1007/s11116-018-9893-4 (accessed November 10, 2018).

Wirtz, J. and Lwin, M.O. (2009), "Regulatory focus theory, trust, and privacy concern", *Journal of Service Research*, Vol. 12 No. 2, pp. 190-207.

Woodruff, R. (1997), "Customer value: the next source for competitive advantage", *Journal of the Academy of Marketing Science*, Vol. 25 No. 2, pp. 139-153.

Woodruff, R.B. and Gardial, S.F. (1996), *Know Your Customer: New Approaches to Understanding Customer Value and Satisfaction*, Blackwell Publications, Cambridge, MA.

Wu, L.Y., Chen, K.Y., Chen, P.Y. and Cheng, S.L. (2014), "Perceived value, transaction cost, and repurchase-intention in online shopping: a relational exchange perspective", *Journal of Business Research*, Vol. 67 No. 1, pp. 2768-2776.

Yang, S., Song, Y., Chen, S. and Xia, X. (2017), "Why are customers loyal in sharing-economy services? A relational benefits perspective", *Journal of Services Marketing*, Vol. 31 No. 1, pp. 48-62.

Yi, Y. and La, S. (2004), "What influences the relationship between customer satisfaction and repurchase intention? Investigating the effects of adjusted expectations and customer loyalty", *Psychology & Marketing*, Vol. 21 No. 5, pp. 351-373.

Zeithaml, V.A. (1988), "Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence", *Journal of Marketing*, Vol. 52 No. 3, pp. 2-22.

Zhu, G., So, K.F.K. and Hudson, S. (2017), "Inside the sharing economy: understanding consumer motivations behind the adoption of mobile application", *International Journal of Contemporary Hospitality Management*, Vol. 29 No. 9, pp. 2218-2239.

Zhu, Y.Q. and Chen, H.G. (2012), "Service fairness and customer satisfaction in internet banking: exploring the mediating effects of trust and customer value", *Internet Research*, Vol. 22 No. 4, pp. 482-498.

Zolfagharian, M.A. and Paswan, A. (2009), "Consumer perceptions of service innovativeness and personal control", *Services Marketing Quarterly*, Vol. 31 No. 1, pp. 89-105.

## Further reading

Kang, H., Shin, W. and Tam, L. (2016), "Differential responses of loyal versus habitual consumers towards mobile site personalization on privacy management", *Computers in Human Behavior*, Vol. 56, pp. 281-288.

## Appendix

|  | RMSE | PLS MAE | $Q^2_{\text{Predict}}$ | RMSE | LM MAE | $Q^2_{\text{Predict}}$ |
|---|---|---|---|---|---|---|
| CI1 | 1.426 | 1.13 | 0.169 | 1.457 | 1.145 | 0.132 |
| CI2 | 1.373 | 1.097 | 0.15 | 1.409 | 1.134 | 0.106 |
| CI3 | 1.423 | 1.15 | 0.11 | 1.453 | 1.176 | 0.072 |

**Table AI.**
Result of PLS-predict

**Corresponding author**
Norazlyn Kamal Basha can be contacted at: norazlyn@upm.edu.my