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# Understanding repurchase intention of Airbnb consumers: perceived authenticity, electronic word-of-mouth, and price sensitivity

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#### **ABSTRACT**

The purpose of this paper is to extend the research on consumer repurchase intention, perceived value, and perceived risk into the realm of the peer-to-peer economy, specifically in the context of Airbnb. A total of 395 surveys were collected in Canada and the United States. The results showed that perceived risk negatively impacts Airbnb consumers' perceived value and repurchase intention while perceived value positively enhances their repurchase intention. Interestingly, price sensitivity was found not to reduce customers' perceived risk but can improve their perceived value and positively influences them to repurchase the Airbnb products. Perceived authenticity was found to have a significant effect in reducing Airbnb consumers' perceived risk and positively influencing their perceived value. Electronic word-of-mouth has a positive effect on repurchase intention as well as perceived value whereas it negatively affects perceived risk. Theoretical and managerial implications are discussed and future study directions are offered.

#### **ARTICLE HISTORY**

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#### **KEYWORDS**

Repurchase intention; Airbnb; prospect theory; means—end chain (MEC) theory; peer-to-peer economy

#### Introduction

Web 2.0 has reshaped the way in which consumers buy products and services (Cheung, Chan, & Limayem, 2005), not only in terms of how transactions are conducted, but also in terms of the nature of the buyers and sellers. Travelers today can rent private rooms or entire places for a short-term period, where they might have a better opportunity to mingle with local people and experience their lives, and a number of platforms have made this easy and relatively safe. Among the platforms that offer the matching services for these buyers and sellers, the most representative is Airbnb, a peer-to-peer transaction-based online marketplace that matches hosts who wish to share their spare space with travelers who are looking for accommodation (The Economist, 2013).

Ferocious debates have occurred as a result of the growing popularity of Airbnb (e.g. Dickerson, 2015; Folger, 2014). Extreme opinions, either strongly supportive or strongly opposed, can be found in various media reports (e.g. in *The New York Times, The Economist*), and economists' blogs (e.g. Tom Slee, 2013). Nevertheless, Airbnb continues to gain popularity at an astonishing rate at the global level, with the total number of users increasing to over 25 million by 2016, hosted in more than 34,000 cities and 190 countries (Airbnb, 2015). Although commercial operators like managers of

boutique hotels and hostels, as well as owners of multiple units, at times resort to using Airbnb to fill rooms (Kessler, 2015), Airbnb generally shows a unique characteristic as it offers a transaction between individuals and the sharing of the host's private sphere. Indeed, to preserve its vision of the Airbnb community, the company tends to periodically remove listings that appear to be controlled by such commercial operators (Bhattacharya, 2016).

Increasing attention is being paid to the peer-to-peer economy in tourism research (Tussyadiah & Pesonen, 2015). However, terms used in related studies like sharing economy, collaborative consumption, access-based consumption, and so on fail to fully reveal the essence of collaborative consumption. There is a need for further studies under the umbrella of collaborative consumption to recognize the diversity of this phenomenon (Dredge & Gyimóthy, 2015). To date, attention has focused particularly on the study of motivations of hosts and guests as well as their satisfaction with the experience, whereas little focus has been on the tourism-related factors associated with online peer-to-peer repurchasing behaviors such as perceived authenticity, a characteristic not generally found with general online repurchasing behaviors. Therefore, this study proposes a research framework that draws on two theories: prospect theory and means -end chain (MEC) theory.

Table 1. Overview of reviewed online repurchase studies.

			Mothodologo		Tis di	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Study Wu & Chang (2007)	Risk attitude, online shopping experience, evaluation-based SAT, emotion-based SAT, RI	Adaptation-level theory; attribution theory	Pilot tested with 45 undergraduate students, 7-point scale	303.486 questionnaires (Taiwan)	Risk attitude directly influences online shopping experience, SAT and RI; SAT would enhance RI when consumers are characterized as having higher risk preference	SEM /AMOS 5.0 Cluster analysis /SPSS12.0
An et al. (2010)	Perceived risk, travel SAT, RI, four types of risk: natural disaster risk; physical risk; political risk; poli	Expectation— performance inconsistency theory	On sight questionnaire collection at a model global airline company; 5-point scale	253/270 international air routes passengers (South Korea)	Performance risk most significantly influences SAT while political risk has no effects on SAT. Natural disaster risk affects RI most significantly while physical risk has no significant influence. Travel SAT pocitivals in the page 181	T test, ANOVA, Regression
Ha, Janda, & Muthaly (2010)	SAT, trust, adjusted expectation, positive attitude, RI	SAT model; attribution theory	In-depth discussion with 42 online shoppers; focus group with 23 online shoppers; 5-noint scale	514/1500 paper questionnaires via marketing research firm	positively mindence in: The mediating effects of adjusted expectations, trust and positive attitude were found between SAT and RI.	Armstrong &,Overton, 1977's method of non-response bias, SEM /PLS
Wen, Prybutok, & Xu (2011)	PEU, Confirmation, Trust, PU, SAT, Perceived enjoyment, RI	TAM; Expectation- Confirmation Model (ECM); Flow theory	2 scholars verify items; six PhD students pretest; paper-based questionnaire, 5-point scale	214/230 college students (US)	No direct relationship between trust and R. Direct relationship between SAT/ PU/ Enjoyment and R. Postpurchase stage, utilitarian factors are more valuable in predicting R.	CFA, SEM/LISREL 8.72
Chiu, Fang, Cheng, & Yen (2013)	Psychological contract violation, switching cost, SAT, trust, RI	Expectancy– disconfirmation model; equity theory	Pilor-tested with 20 graduate students, online survey posted on BBS, 7-point scale	162 PChome online customers (Taiwan)	Psychological contract violation is negatively associated with SAT and trust. SAT is positively associated with buyers' RI. A higher level of switching cost diminished SAT's effect on RI.	SEM, PLS /SmartPLS 2.0
Chiu et al. (2014)	utilitarian value, hedonic value, perceived risk, RI	Prospect theory; Means-end chain (MEC) theory	Pretest with 20 graduate students; Pretest with 168 online customers, 7-point scale	782 Yahoo!Kimo online shopping customers. 40 random \$10 incentive (Taiwan)	No significant difference in terms of gender, age or education; Utilitarian and hedonic values have direct effects on RI. Perceived risk is a negative determinant of RI and a moderator between hedonic as well as utilitarian value and RI	Z-test, PLS, SEM/SmartPLS 2.0
Fang et al. (2014)	Perceived effectiveness of e-commerce institutional mechanisms (PEEIN), trust, SAT, RI	Prospect theory; Sociological and organizational theories of trust	Pilot test with 12 staff and 10 students; two parts of the survey: general perceptions and recall method;	362/865 University personnel/ students	PEEIM negatively moderates the relationship between trust in an online vendor and RI, as it decreases the importance of trust for promoting repurchase behavior; PEEIM positively moderates the relationship between SAT and trust as it enhances the customer's reliance on past transaction experience with the vendor to reevaluate trust in the vendor.	Armstrong & Overton, 1977's method of non-response bias, EFA, PLS, SEM /AMOS7.0
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Analytical techniques	Harman's one factor test, SEM /SmartPLS 2.0	CFA; SEM /LISREL	CFA, SEM /SmartPLS 2.0
Findings	Online shopping habit acts as a moderator of both customers SAT and adjusted expectations, whereas online shopping experience can be considered a key driver for customer SAT. Direct effect of SAT on RI.	887/1016 online consumer The relative importance of the three (Taiwan) types of costs on PV and RI is found; information searching cost has the greatest effect; PV positively influences online RI.	Trust in intermediary has significant influence on trust in online sellers; Trust in intermediary, trust in online sellers and SAT significantly affect RI.
Sampling	204/1000 questionnaires (Taiwan)	887/1016 online consumer (Taiwan)	242/255 university students (China)
Methodology	Mailed survey, 7-point scale	Purposive sampling on two websites; questionnaire developed in English, translated into Chinese for distribution; 5-point scale	Survey developed in English then translated into Chinese, 7-point scale
Theoretical framework	Self-perception theory, psychology, attitude-behavior model, Contingency theory	Consumer behavior theory; elaboration likelihood model; cognitive dissonance theory; theory of psychological reactance	Initial trust building model; Expectation—confirmation theory; D&M IS success model
Constructs	Online shopping experience & habit, customer SAT, adjusted expectations, RI	Perceived value; 3 types of transaction costs: information searching cost; moral hazard cost; specific asset investment; RI	Trust in intermediary, trust in online sellers, SAT, RI, etc.
Study	Lin & Lekhawipat (2014)	Wu et al. (2014)	Jia, Cegielski, & Zhang (2014)

SAT - satisfaction; RI - repurchase intention; SEM - structural equation modelling; ANOVA - analysis of variance; PLS -partial least squares; PEU - perceived ease of use; PU - perceived usefulness; CFA - confirmatory factor analysis; PV - perceived value; PR - perceived risk; D&M IS success model - DeLone and McLean information system success model.

Specifically using the peer-to-peer context of Airbnb, it focuses on consumer repurchase intention (RI), perceived value (PV) and perceived risk (PR). Three antecedents - perceived authenticity (PA); electronic wordof-mouth (eWoM), and price sensitivity (PS) - were identified based on a content analysis. The three main objectives of the study are to (1) explore the effects of the three antecedents on PV, PR, and on consumers' RI: (2) examine the mediating roles of PV and PR on the relationships between the extrinsic product cues and RI; and (3) investigate the relationships between PV, PR, and RI.

#### Literature review

# The peer-to-peer economy

Studies on the peer-to-peer economy can be found in many different disciplines and they are labeled variously. Most typical are "collaborative consumption" and "sharing economy" (Botsman & Rogers, 2010), but so far there is no clear distinction between these terms (Dredge & Gyimóthy, 2015). Many researchers discuss collaborative consumption together with the sharing economy. However, these two concepts should be distinguished because their actors and transaction types are not necessarily the same. Specifically, actors in collaborative consumption can be an individual, a group of people, or a company with fee-based transactions, whereas the sharing economy refers to individual peers and the emphasis is on sharing behaviors, originally with no fees. Airbnb combines these two approaches and therefore the term "peer-to-peer economy" was deemed to be a more appropriate descriptor when specifically referring to Airbnb services.

Felson and Spaeth (1978, p. 614) defined the act of collaborative consumption as "events in which one or more persons consume economic goods or services in the process of engaging in joint activities with one or more others". However, Belk (2013) critiques their definition as too broad and reflecting neither the acquisition nor the distribution of the resource. He offers his own definition of collaborative consumption as a process to obtain and dispense a resource by people for a fee or other compensations. Botsman and Rogers (2010, p. xv), on the other hand, define the term as "an activity that includes traditional sharing, bartering, lending, trading, renting, gifting, and swapping". However, these definitions are still too vague and confound the concepts of marketplace exchange, gift giving, and sharing. Moreover, neither Belk (2013) nor Botsman and Rogers (2010) clarified who the actors would be in this type of consumption.

In order to address these shortcomings, we propose the following definition:

The trading between individuals (normally strangers) via an online matching platform that offers a private room/apartment online match booking service for a fee by a company that also charges a service fee.

#### Studies on Airbnb

Research on the Airbnb concept is very limited and recent (mainly 2014-2016), addressing a variety of issues (Table 1). Some studies focused on the supply side, including the hosts' motivation for listing their properties on Airbnb (Ikkala, 2014; Stern, 2014), host performance (Li, Moreno, & Zhang, 2015), legal issues (Edelman & Geradin, 2015; Lee, 2016), the Airbnb platform system (Ert, Fleischer, & Magen, 2015; Fradkin, Grewal, Holtz, & Pearson, 2014), or Airbnb's branding strategies (Yannopoulou, Moufahim, & Bian, 2013), while others explored the impact of Airbnb on the hotel industry (Neeser, Peitz, & Stuhler, 2015; Zervas, Proserpio, & Byers, 2014), on the local community (Guttentag, 2013), or on tourism-related employment (Fang, Ye, & Law, 2015).

A few studies also explored the consumer view of the Airbnb experiences. Guttentag (2013) categorized Airbnb as a disruptive innovation. He found that low cost is the main draw for people participating in Airbnb, although the perception that Airbnb offers cheaper accommodation has been in part challenged by Lane and Woodworth's (2016) study showing that in some of the major United States (US) markets, it is not always the lower-priced option. The average daily rate of Airbnb rooms was higher than that of the hotels. Tussyadiah (2015) explored the drivers and deterrents of the use of peer-to-peer accommodation rental services from the consumers' perspective. She found that lack of trust, lack of efficacy with regards to technology, and economic costs are the factors that restrain the use of peer-to-peer accommodation rental services. Sustainability, community, and financial benefits are the main drivers of collaborative consumption in the accommodation sector, which is also supported by the results of Tussyadiah and Pesonen (2016).

To summarize, the studies on Airbnb have broadly touched on different areas, but none so far have addressed what factors influence Airbnb consumers' repurchasing behavior. Furthermore, much of the work to date has been qualitative in nature, whereas this study will take a quantitative approach.

#### Online repurchase studies

This study explores online RI and defines it as Airbnb consumers' self-reported likelihood of repeat purchasing accommodation on www.Airbnb.com. Several previous studies have explored RI in the online context, while various antecedents as well as research models were examined (see Table 1 for a brief summary of the literature).

Among the reviewed articles, satisfaction seems to dominate the online RI studies. However, in the realm of the peer-to-peer economy, satisfaction alone may not necessarily predict RI because there may be a need to differentiate between the satisfaction with the website/platform and the satisfaction with the peer seller. Moreover, satisfaction may be reflected by consumers in different ways. For example, Chiu, Wang, Fang, and Huang (2014) explored the relationships between utilitarian value, hedonic value, PR, and RI, finding that RI was significantly influenced by the first three while PR also had a powerful effect on the utilitarian and hedonic values. This shows that value and risk may be effective in predicting RI. Wu, Chen, Chen, and Cheng (2014) also showed that satisfaction is not the only way to predict RI. They examined the interactions between PV, transaction costs, and RI. It was found that PV exerts a positive influence on RI. In addition, they noted the positive impacts of the three types of transaction costs on PV and RI. In other words, evidence from the literature suggests that satisfaction is not the only way to predict intentions to repurchase in the online context. Therefore, in order to avoid complications and cross measurement of satisfaction, a separate study was carried out on satisfaction while this paper focuses on the interaction of PV, PR, and RI. Furthermore, as shown in Table 1, in terms of the external factors, no known tourism-related constructs have been investigated in the context of online RI. In an effort to enrich the extant literature, this study incorporates effective antecedents in the field of tourism and consumer behavior to build a theoretical framework based on the initial model of the relationship between PV, PR, and RI.

# Theoretical framework and model development

# Theoretical background

When making a decision, people are consciously or unconsciously comparing the statistical properties of PV and PR (Christopoulos, Tobler, Bossaerts, Dolan, & Schultz, 2009). Generally, alternatives with higher value are preferred when all other things are equal. Nevertheless, the introduction of risk will influence the expected value, modulating the subjective evaluation of the decision, no matter whether it is satisfactory or not. Pires, Stanton, and Eckford (2004) suggested that the behavior intention of consumers could be explored as a consequence of a decision-making process with evaluation of value and risk. Since Airbnb is a thirdparty platform that offers online matching services for accommodations between sellers and buyers, risk might be a very important factor that influences their behavior intention. However, consumers must also see value in this kind of peer-to-peer economy given Airbnb's exponential growth. Therefore, the interaction between value and risk seems to be important in terms of predicting RI in this context.

The theory on risk, namely prospect theory, introduced by Kahneman and Tversky (1979), suggests that attitudes towards PR will vary based on how consumers set their reference points. For example, when confronted with the possibility of high risk, the consumer's PV diminishes more compared with the increase of PR when faced with a high-value proposition. This interaction between risk and value leading to behavior can be applied when Airbnb consumers consider repurchasing Airbnb accommodation. In this case, their PR would more likely affect the PV of this transaction and therefore directly or indirectly result in different repurchasing behaviors. Thus, PR was investigated in this study due to its relatively strong risk-value/intention mechanism suggested by prospect theory.

MEC theory suggests that consumers link and form their cognition of something through a combination of the attributes of the object and their goals, which has been widely applied to explore consumer behaviors in literature (Olson & Reynolds, 2001; Walker & Olson, 1991). It demonstrates that there are hierarchical relationships from the means (extrinsic factors) and the ends (PV) to the outcomes (RI) (Gutman, 1982). Value is the result of the cognition process that is completed by a mental transformation with a functional consequence and a psychosocial consequence, generating the estimated value of a product or service as a guide to how consumers are expected to behave (Gutman, 1982; Parks & Guay, 2009). In other words, value is the final goal that triggers behavior (Chiu et al., 2014). Therefore, behavior intention can be revealed by certain attributes or values (Reynolds & Gutman, 1988).

Based on Gutman's (1982) MEC theory and Kahneman and Tversky's (1979) prospect theory, which theoretically support the framework of the initial model, this study proposes the mediating effects of PV

and PR between extrinsic factors and RI. The adoption of these two theories to build a consumer behavior model has been shown to be reliable in previous studies. For example, Chiu et al. (2014) bridged prospect theory and MEC theory to explore the relationships between utilitarian value, hedonic value, PR, and RI, and found that there were significant influences of utilitarian value, hedonic value, and PR on RI as well as powerful effects of PR on those two values. RI was examined rather than repurchase behavior because intention is considered as the best immediate antecedent in the relationship between attitude and behavior based on the theory of reasoned action (Ajzen & Fishbein, 1977).

# **Proposed model**

As illustrated in Figure 1, the proposed model consists of the three dependent variables PV, PR, and RI, with PR influencing PV and both resulting in RI. Zeithaml (1988) and MEC theory suggest that various external cues would be used by consumers to form the perceptions of the product's value, thereby affecting their RI. To identify those external cues, a content analysis was conducted on Facebook, Twitter, and Fodors (www. fodors.com is a forum that offers tourism products/ travel review discussions among its members). Search phrases used were "why you used Airbnb" or "why you don't/won't use Airbnb". We then used Leximancer, a software program that analyzes text and identifies high level concepts by creating linkages between words. The powerful interactive visualizations and data exports allow for actionable insights to be developed. More details are available at www.leximan cer.com.

The Leximancer results indicated that there were three main themes among the collected discussions, identified as PA, eWoM and PS. Based on Zeithaml (1988) and Baur (1960), external cues are expected to have an influence on PV, PR, and RI, resulting in the proposed model shown in Figure 1.

In order to confirm a model derived from the reviewed literature and based on fundamental theories, it is necessary to conduct quantitative research (Sekaran, 2003). This approach is typical of an explanatory study that seeks theoretical reasoning.

#### PV and PR

Kashyap and Bojanic (2000) suggest that all definitions of PV refer to some form of trade-off between what the consumer gives up (price, sacrifice) and what the consumer receives (utility, quality, benefits). PV is also defined as the overall evaluation of the net value (benefits) of a product or service based on consumer perception (Bolton & Drew, 1991; Sweeney & Soutar, 2001). This study adopts the views of Sweeney and Soutar (2001), defining PV as the consumers' overall assessment of the net values of booking accommodations via Airbnb and their PV, which are affected by PR, PS, eWoM, and PA.

The relationship between PV and RI has been studied and confirmed in consumer behavior research (Grewal, Monroe, & Krishnan, 1998; Kuo, Wu, & Deng, 2009). Moreover, it was found that higher PV would lead to willingness to pay (Dodds & Monroe, 1985). Within the repurchasing behavior studies, PV was found to positively influence consumers' RI (Chiu et al., 2014; Wu et al., 2014).

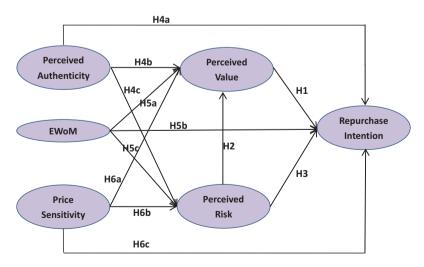


Figure 1. Model of repurchase intention for Airbnb.

H: hypothesis.

PR is defined in terms of uncertainty and consequence (Baur, 1960) in that it increases with higher levels of uncertainty and/or the chance of greater associated negative consequences (Oglethorpe & Monroe, 1987). Furthermore, product intangibility increases consumers' perception of risk, but in the online environment "an elevated perception of risk ... is merely triggered by consumers' concerns about their privacy, the security of their purchases and the security of the system through which their transactions are completed" (Eggert, 2006, p. 553). Even though researchers had defined PR in slightly different ways, its components have been consistently described as one's belief in possible negative results that would happen from a transaction. (Kim, Ferrin, & Rao, 2008). In fact, Airbnb consumers have no choice but to estimate the risk of this transaction from the available information and communications because they cannot experience the actual service before arriving at the property. In this sense, the PR of Airbnb consumers plays a crucial role in their repurchasing decision-making. Therefore, Kim et al. (2008) and Forsythe, Liu, Shannon, and Gardner (2006)'s definition of PR was adopted because Airbnb includes the sharing of the private sphere. PR in the Airbnb context is referred to as Airbnb consumers' belief in possible negative results that may happen after they book rooms via Airbnb.

Higher risks have been shown to lead to lower RI (An, Lee, & Noh, 2010; Vijayasarathy & Jones, 2000; Wu & Chang, 2007). Wu and Chang found that risk attitude directly influences online RI, identifying four types of risk (natural disaster risk, physical risk, political risk and performance risk). An, Lee and Noh (2010) explored tourist's RI for traveling and found that it was most affected by natural disaster risk. According to Chiu et al. (2014), PR is a negative determinant of RI. Regarding the relationship between PR and PV, PR is perceived as an antecedent of PV in most of the previous consumer behavior studies (Agarwal & Teas, 2001; Chang & Tseng, 2013; Chen & Dubinsky, 2003; Sweeney, Soutar, & Johnson, 1999).

To summarize, PV is a positive determinant of RI, while PR is an antecedent that influences both PV and RI. Thus, the hypotheses (Hs) relating to PV, PR, and RI were proposed as follows:

H1: There is a negative relationship between perceived risk and perceived value.

**H2:** There is a positive relationship between perceived value and repurchase intention in Airbnb.

**H3:** There is a negative relationship between perceived risk and repurchase intention in Airbnb.

#### PA

Since MacCannell's (1973) seminal work on authenticity, the concept has been widely investigated in tourism research (Chhabra, Healy, & Sills, 2003; Ramkissoon & Uysal, 2011). Wang (1999) argued that this concept is problematic and clarified that in tourism studies, there are two main types of authenticity: the objectiverelated authenticity (objective authenticity and constructive authenticity) and activity-related authenticity (existential authenticity) whereby objective authenticity refers to genuineness or the realness of things, and existential authenticity to human nature (Steiner & Reisinger, 2006). Grayson and Martinec (2004, p. 298) argued that authenticity is "a social construction that may change due to different evaluators' perceptions and interpretations of the place, situation, person, or object". As previous studies on Airbnb suggested that seeking local living experiences may be a main attraction for Airbnb consumers (Guttentag, Yannopoulou et al., 2013), this study focused on existential authenticity. Thus, this study adopts Grayson and Martinec's (2004) definition, referring to PA as the perceptions of Airbnb consumers' cognitive recognition of "real" experiences of staying in an Airbnb place, which will change due to evaluators' perceptions.

Ramkissoon and Uysal (2011) found that PA positively and significantly influenced the cultural behavioral intentions of tourists on the island of Mauritius. Authenticity is also used as a brand characteristic by Couchsurfing and Airbnb (Yannopoulou et al., 2013). Lunardo and Guerinet (2007) found that PA influences the purchasing behaviors of young consumers in wine consumption. Tussyadiah and Pesonen (2015), with a focus on peer-to-peer accommodation services in the US and Finland, found that travelers' desire for interactions with locals and authentic experiences result in a change in their traveling behavior. This led to the following hypothesis:

**H4a:** Perceived authenticity increases consumers' repurchasing intention with regard to Airbnb.

Kovács, Carroll, and Lehman (2013) empirically tested the relationship between consumers' PA of a restaurant and the corresponding value ratings. They found that the more authentic consumers perceived it to be, the higher the value rating assigned even when they controlled for a lower quality of restaurant. Therefore, it is believed that authenticity increases a consumer's value ratings. Chen (2009, p. 65) made it clear that "people seek out... authenticity... to validate worth". Based on these findings, the following hypothesis was proposed: H4b: Perceived authenticity increases the consumers' perceived value with regard to Airbnb.

Cova and Cova (2002) mentioned that lack of product quality cues (e.g. origins, materials, producing procedures) increases consumers' physical risks regarding a product. They surmised that consumers perceived those products to be not authentic and thus buying those products was risky. Lunardo and Guerinet (2007) used originality and projection as two dimensions of authenticity to measure its effects on PR, perceived price, and purchase intentions of young consumers. Using a combination of qualitative and quantitative methods, they found that authenticity decreases PR. Therefore the following hypothesis was proposed:

**H4c:** Perceived authenticity decreases the consumers' perceived risk with regard to Airbnb.

#### eWoM

eWoM is defined as any words or discussions regarding certain goods, a service, or enterprise, either positive or negative, and that is accessible by anyone online (Hennig-Thurau, Gwinner, Walsh, & Gremler, 2004). Litvin, Goldsmith, and Pan (2008) adapted Westbrook's (1987, p. 461) definition of WOM to the electronic world as "all informal communications directed at consumers through Internet-based technology related to the usage or characteristics of particular goods and services, or their sellers". This study adopted the latter definition, referring to eWoM as all informal communications by Airbnb consumers through the Internet related to the usage or characteristics of booking and living in Airbnb accommodations.

The eWoM construct has played a central role in behavioral social network sites (SNS)-related research over the last five years. It is especially important in this context because the product/service researched is intangible, that is, its quality is hard to evaluate before consumption. Therefore, consumers will try to seek references through eWoM before making decisions. Several studies support that eWoM is positively related to PV. For example, Gruen, Osmonbekov, and Czaplewski (2006) explored the relationship between eWoM, customer PV, and their loyalty intentions, and found a direct positive influence of eWoM on PV. Cheung, Luo, Sia, and Chen (2009) suggested that eWOM has informational and normative influences on consumers' beliefs and conformity and can therefore affect their PV of products. Based on these studies, the following hypothesis was proposed:

**H5a:** eWOM increases consumers' perceived value of Airbnb.

Evidence was also found to support the relationship between eWOM and RI (Boulding, Kalra, Staelin, & Zeithaml, 1993). Employing an online survey, Mauri and Minazzi (2013) confirmed that there is a positive correlation between the hotel purchasing intention and eWOM, while an exploratory study by Keaveney and Parthasarathy (2001) indicated that eWOM positively increases RI, leading to the following hypothesis:

**H5b:** eWOM increases consumers' repurchase intention with regard to Airbnb.

As previous studies suggested (Cheung et al., 2009; Hung & Li, 2007), eWOM is one of the most influential ways to decrease consumers' PR by providing advice through the online community. Hung and Li (2007) suggest that eWOM can effectively strengthen brand knowledge, leading to lower customer PR of the product by decreasing the incident of being deceived. Recently, Wu (2014) found evidence regarding the relationship between eWOM and PR in the context of hospitality. Therefore, based on the findings of the previous studies, a hypothesis was proposed as follows:

**H5c:** eWOM decreases consumers' perceived risk with regard to Airbnb.

# PS

Price has been widely recognized as a determining factor that influences consumers' behavior intentions (Chang & Wildt, 1994; Kim & Kim, 2004; Moon, Chadee, & Tikoo, 2008; Yoon, 2002). However, the price differences between similar products leads to various reconsiderations by consumers. For example, product A is price X, which is relatively lower than its comparable market price. In this scenario, the RI of consumers will be increased based on the normal price theories. However, in the scenario where there is a product B at price Y where price Y is much cheaper than price X, consumers' RI might be increased if they are sensitive to price. This means consumers will react differently to different price levels, regardless of the other factors. This is supported by Masiero and Nicolau's (2012) study which found that PS plays a complicated role in affecting tourists as they choose between tourism products.

According to Goldsmith and Newell (1997), PS measures the differences in how consumers react to the price levels and the alteration of the price. Erdem, Swait, and Louviere (2002) explored the relationship between brand credibility and consumer PS and found that it is decreased by brand credibility. They refer to

PS as a consumer's consideration of the price when evaluating something's worthiness or utility. Since Airbnb stresses a "home" much more than a low price in their marketing and branding strategy, it would be interesting to see how consumers react to the price differences compared with other types of accommodations. To achieve this goal, this study adopts Erdem et al.'s (2002) definition of PS, namely the importance attached to price in an Airbnb consumer's valuation of the overall attractiveness and utility of Airbnb's accommodation.

Previous studies indicate that higher PS negatively influences a consumer's PV, while lower PS is positively related to PV (Kashyap & Bojanic, 2000; Zeithaml, 1988). In other words, when consumers are very sensitive to the price of their accommodations, they tend to perceive more value in choosing Airbnb. This leads to the following hypothesis:

**H6a:** Consumers' price sensitivity increases their perceived value with regard to Airbnb.

PS was also found to influence a consumer's PR of a product. Bearden and Shimp (1982) conducted two field experiments to examine the influence of different price levels, reputation, and warranty of a product on the PR associated with it. Two aspects of risk, namely financial risk and performance risk, were found to have direct effects on PR, leading to the following hypothesis:

**H6b:** Consumers' price sensitivity decreases their perceived risk with regard to Airbnb.

Finally, there is little doubt that being sensitive to different prices might influence RI. For example, Chen, Monroe, and Lou (1998) suggested that buyers would have stronger intentions to purchase a cheaper product than one with the same function at a higher price. These findings were supported by Grewal et al.'s (1998) conceptual model of the effects of the (reference) prices on PV and behavior intentions. Therefore, the following hypothesis was proposed:

**H6c:** Consumers' price sensitivity increases their repurchase intention with regard to Airbnb.

# Methodology

#### Research design and sampling

Airbnb consumers who are aged 18 years or older, reside in Canada or the US, and had booked and stayed in Airbnb accommodation at least once were eligible for this study. A panel member database in North America was chosen in cooperation with a research company as reaching Airbnb consumers directly is very difficult and costly. A survey with items measuring all of the proposed constructs and demographic questions was developed. All items used a 5-point Likert scale, ranging from "1 = strongly disagree" to "5 = strongly agree". The items were all adopted from the literature with minor changes to suit the context of this study. Four items from Ramkissoon and Uysal (2011) were chosen to measure PA while five items to measure eWoM were adapted from Jalilvand and Samiei (2012). The items from Irani and Hanzaee (2011) to measure PS were adapted to the Airbnb context. PV was measured using the items employed by Sweeney and Soutar (2001), while the items to measure PR were adapted from Forsythe et al. (2006). See Table 2 for all items and their factor loadings.

In order to increase content validity of the study and reliability of the questionnaire, a pretest was carried out with 10 graduate students who had used Airbnb prior to the distribution of the final survey link. Minor changes including wording and question sequencing were made as a result of the pretest.

Invitation letters were sent to the panel members of the specified database to obtain their agreement to participate in the study. Since qualified participants were incentivized by the research company, potential malice respondents were taken into consideration. To reduce the possibility of disingenuous data, two identical but opposite questions (Q12-1 "I cannot trust Airbnb" and Q12-7 "Airbnb is trustworthy") were integrated into the survey.

Responses from a total of 584 qualified panel members were collected over a period of one month (mainly in January 2015). A further 189 were eliminated because they either showed contradictions in answering Q12-1 and Q12-7, answered all guestions the same, or skipped too many questions. Therefore, only 395 surveys were retained for the analysis of this study.

# **Data analysis**

Various statistical methods were used to examine the relationships among the mentioned constructs. First, frequency analysis was conducted to summarize the demographic information of the sample via SPSS 22.0. Anderson and Gerbing (1988, p. 411) argued that "the ability to do this [estimation] in a one-step analysis approach, however, [it] does not necessarily mean that

Table 2. All items used in survey.

Items	Factor loadings	Standard deviation	Mean
Perceived Authenticity			
Living in an Airbnb place represents local ways of life.	0.871	0.835	4.02
Living in an Airbnb place represents the local community.	0.846	0.798	4.06
An Airbnb place offers a feeling of a real home for my trip.	0.801	0.785	4.10
Living in an Airbnb place allows for interaction with the local community. Electronic Word-of-Mouth	0.707	0.770	4.02
I often read other tourists' online reviews to find out whether Airbnb makes a good impression on others.	0.842	0.883	4.17
To make sure I choose the right Airbnb place, I often read other tourists' online reviews	0.818	0.806	4.34
I often consult other tourists' online reviews to help choose a good Airbnb place.	0.810	0.99	3.99
I frequently gather information from tourists' online reviews before I choose to book an Airbnb place.	0.769	0.816	4.08
If I don't read tourists' online reviews when purchasing an Airbnb place, I worry about my decision. Price Sensitivity	0.532	1.224	3.61
I don't mind paying more to try and stay in an Airbnb place.	0.540	0.941	3.36
I am less willing to purchase the Airbnb place if I think that it will be expensive.	0.746	0.949	3.67
I am more willing to purchase the Airbnb place if I think it is cheaper than a hotel room.	0.861	0.849	4.05
A good lodging experience with Airbnb is worth paying a lot of money for.	0.440	0.948	3.35
In general, the price or cost of purchasing an Airbnb place is important to me. Perceived Value	0.861	0.769	4.10
Airbnb places are reasonably priced.	0.883	0.688	3.93
Airbnb places offer value for money.	0.842	0.666	4.01
Airbnb places are good products for the price.	0.829	0.676	4.01
Airbnb places are economical.	0.736	0.874	3.95
I enjoy living in Airbnb places.	0.730	0.773	4.11
Airbnb places have a consistent quality.	0.497	0.934	3.55
Living in an Airbnb place would help me make more friends. Perceived Risk	0.607	1.057	3.65
I cannot trust Airbnb.	0.690	1.081	1.85
I may not successfully get into the house.	0.910	0.833	2.58
I cannot examine the quality of the Airbnb place.	0.790	0.960	2.88
I may have problems when living in a stranger's house.	0.708	1.038	2.75
It's too complicated to use Airbnb.  Repurchase Intention	0.613	1.214	1.99
I will purchase rooms via Airbnb again	0.70	0.909	4.09

it is the preferred way to accomplish the model building task ... there is much to gain in theory testing and the assessment of construct validity from separate estimation", and proposed a two-step procedure to analyze a proposed model. Thus, confirmatory factor

analysis (CFA) was employed to identify the validity of the measuring items via Amos 21.0. Next, structural equation modeling (SEM) was performed using Amos 21.0 to examine the model fit since it was a theoretical model.

# Scale validity and reliability

In order to increase validity of the scales, both measurements of PV and PR only focused on one dimension. A total of 27 scale items were used in the survey; seven were found to have low loadings (below 0.7) on their corresponding construct and therefore were discarded during the reliability analysis. A further four items were discarded as they showed cross loadings with the other items and lowered the cumulative variances during the CFA, even though their factor loadings were higher than 0.7. All validated measuring items are listed in Table 3. The CR values range from 0.664 to 0.836. Discriminant validity and convergent validity were tested (Table 4). According to Fornell and Larcker (1981), when the square root of the average variance explained (AVE) from a construct is larger than the correlations shared between the construct and other constructs in the model then they are discriminant from each other. Convergent validity was achieved because all values of AVE are above 0.5 (Hair, Anderson, Tatham, & Black, 1998).

The reliability of constructs was examined using composite reliability (CR). CR was used rather than Cronbach's Alpha, which was critiqued by Peterson and Kim (2013) as being explored as "a lower bound" and hence may not be efficient to demonstrate true reliability when this is a multi-factor model. They suggested CR as a popular alternative coefficient alpha, which is usually calculated as part of SEM. A CR value of 0.7 or higher suggests good reliability (Churchill, 1979; Hair et al., 1998) (see Table 3). Discriminant validity is established when both maximum shared variance (MSV) and average shared squared variance (ASV) are lower than AVE for all constructs (Hair, Black, Babin, Anderson, & Tatham, 2006).

The CFA result indicated that the research model is of adequate fit. According to Bentler (1995), the rule that the chi square/degrees of freedom ( $\chi^2$ /df) ratio should be less than 5 ( $\chi^2$ /df = 1.911;  $\chi^2$  = 149.079; df = 78 were achieved for this model) is used to justify the sensitivity of chi-square to a large sample size. The root mean square error of approximation (RMSEA) is 0.048, below the cut-off point of 0.08, indicating a good model fit (Hair et al., 1998). The normed fit index (NFI) and comparative fit index (CFI) are considered to have good model fit when they achieve higher

Table 3. Confirmatory factor analysis for measurement model.

Table 3. Confirmatory factor analysis		isurem	
Items	Factor loadings	AVE	Composite reliability
Perceived Authenticity		0.543	0.820
Living in an Airbnb place represents local ways of life.	0.871		
Living in an Airbnb place represents the local community.	0.846		
An Airbnb place offers a feeling of a real home for my trip.	0.801		
Living in an Airbnb place allows for interaction with the local community.	0.707		
Electronic Word-of-Mouth		0.544	0.826
I often read other tourists' online reviews to find out whether Airbnb makes a good impression on others.	0.842		
To make sure I choose the right Airbnb place, I often read other tourists' online reviews	0.818		
I often consult other tourists' online reviews to help choose a good Airbnb place.	0.810		
frequently gather information from tourists' online reviews before I choose to book an Airbnb place.	0.769		
Price Sensitivity		0.502	$0.664^{3}$
I am more willing to purchase the Airbnb place if I think it is cheaper than a hotel room.	0.861		
In general, the price or cost of purchasing an Airbnb place is important to me.	0.861		
Perceived Value		0.594	0.813
Airbnb places are reasonably priced.	0.883	0.574	0.015
Airbnb places offer value for money.	0.842		
Airbnb places are good products for the price.	0.829		
Perceived Risk		0.719	0.836
I may not get access the booked property.	0.910		
I cannot examine the quality of the Airbnb place.	0.790		
Repurchase Intention			
I will purchase rooms via Airbnb again	0.700		

AVE - Average Variance Explained.

Note: Unpredictable factors may had affected the results of PS, however. evidence show that PS is a reliable construct and have significant effects on PV and RI. The overall CR is 0.664, just below the standard cut point of 0.7, but considering all the other factors, e.g. the item such as "In general, the price of purchasing Airbnb accommodations is important to me", shows an average score over 4 in the dataset, we consider this con-struct is acceptable and should not be deleted.

than 0.90. In this study, NFI = 0.941 and CFI = 0.971. The non-normed fit index (NNFI) is 0.961, which is higher than the cut-off 0.95 for a good model fit as suggested by Hu and Bentler (1999). Based on these indices, the model is concluded to be of an adequate fit.

Results

#### **Demographics of the respondents**

A slight majority (52.2%) of the respondents were female, while age ranged from 18 to 75 years old. More specifically, 31.9% were over 45 years old, while 17.7% were 35-45, 25.6% were 25-34, and 17.7% were under 25 years of age. A majority has university or higher education (58.9%); 26.6% graduated from college/technical school, while 13.9% have high school education or less, 42.8% of the respondents chose a private room on their most recent trip while 40% rented the whole house or apartment. 53.9% of Airbnb consumers stayed short-term (2-4 nights). The main purpose of trips was leisure (66.6%), and they were traveling alone (21.8%) or with their partner (41%).

# Structural model analysis

This study set out to explore the relationships between the extrinsic factors, PV, PR, and RI. Therefore, the proposed model was examined using the SEM method after curve estimation was completed for all relationships. All were statistically lineal to be tested in the variances used in SEM. Common method bias was examined through a common latent factor. No significant change of the loadings was found when this was added to the model, indicating that no obvious common method bias existed in this study.

The result of the SEM analysis is shown in Figure 2. The RMSEA is 0.071, below the cut-off point of 0.08, indicating a good model fit (Hair et al., 1998). The  $\chi^2/df$ ratio of 2.976 ( $\chi^2 = 147.193$ ; df = 81), which is between 1 and 3, indicates a good adjustment of the sensitivity of chi-square to a large sample size (Bentler, 1995). GFI is 0.925, which is close to the suggested point of 0.95, and AGFI is 0.883. NNFI is 0.906, which is higher than the cut-off 0.9 (Hu & Bentler, 1999). Therefore, the measurement model showed satisfactory goodness-of-fit indices. The R-squared of RI is 0.322; in other words, the predictors of RI explain 32.2 % of its variance. Since this study explores human behaviors, it typically has an R-squared lower than 0.5 (Nestor & Schutt, 2015).

Table 4. Validity test.

	CR	AVE	MSV	ASV	PR	PA	EWOM	PS	PV
PR	0.836	0.719	0.099	0.031	0.848				
PA	0.820	0.543	0.398	0.262	-0.090	0.737			
EWOM	0.826	0.544	0.338	0.202	0.067	0.581	0.737		
PS	0.664	0.502	0.305	0.184	0.105	0.552	0.493	0.709	
PV	0.813	0.594	0.398	0.225	-0.315	0.631	0.472	0.422	0.770

CR - composite reliability; AVE - average variance explained; MSV - maximum shared variance; ASV - average shared squared variance; PR - perceived risk; PA - perceived authenticity; EWOM - electronic word-of-mouth; PS - price sensitivity; PV - perceived value.

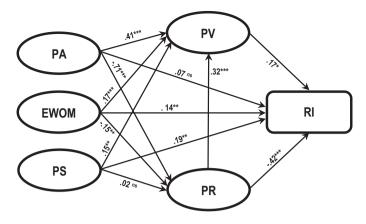


Figure 2. Structural path coefficients.

\*\*\*p < 0.001; \*\*p < 0.01; \*p < 0.05; ns: not significant.

Chi-square = 258.897; p-value = .000; degree of freedom = 87; Chi-square/degree of freedom = 2.976; GFI = .925; AGFI = .883; RMSEA = .071. PR - perceived risk; PA - perceived authenticity; EWOM - electronic word-of-mouth; PS - price sensitivity; PV - perceived value.

Only H4a and H6b were not supported but all of the remaining 10 hypotheses were statistically significant. The hypothesis test results are shown in Table 5. This indicates that the influence of PA on RI was fully mediated by PV and PR, PA did not directly influence RI. However, the mediating effect of PR between PS and RI was not supported. This suggests that a lower price alone cannot alleviate the risks Airbnb consumers perceive but can enhance their PV regarding the next Airbnb transaction (Kwun & Oh, 2004).

The standardized estimates for the following mediating effects ranged from 0.019 to 0.129, and all p-values are significant (p < 0.005), suggesting that the links of extrinsic factors $\rightarrow$ PV/PR $\rightarrow$ Rl are true as theorized. Based on the results, it is confirmed that there were mediating effects between the extrinsic factors and Rl except for PS through PR:

- (1)  $PA \rightarrow PV \rightarrow RI$ ;
- (2) eWOM→PV→RI;
- (3) PS→PV→RI;

Table 5. Results of hypothesis tests.

Hypotheses (Hs)	Standard Regression weight	Support
H1: PR→PV	-0.318***	Yes
H2: PV→RI	0.172*	Yes
H3: PR→ RI	-0.416***	Yes
H4a: PA→ RI	0.069	No
H4b: PA→ PV	0.406***	Yes
H4c: PA→PR	-0.712***	Yes
H5a: eWOM→PV	0.166***	Yes
H5b: eWOM→RI	0.144**	Yes
H5c: eWOM→PR	-0.148**	Yes
H6a: PS→PV	0.153**	Yes
H6b: PS→PR	0.023	No
H6c: PS→ RI	0.186**	Yes

<sup>\*\*\*</sup>p < 0.001; \*\*p < 0.01; \*p < 0.05.

PR - perceived risk; PV - perceived value; RI - repurchase intention; PA - perceived authenticity; eWoM - electronic word-of-mouth; PS - price sensitivity.

- (4)  $PA \rightarrow PR \rightarrow RI$ ; and
- (5) eWOM→PR→RI.

#### **Conclusion**

This study had three objectives: (1) to explore the effects of the three antecedents on PV, PR, and on consumers' RI; (2) to examine the mediating roles of PV and PR on the relationships between the extrinsic product cues and RI; and (3) to investigate the relationships between PV, PR, and RI. The results indicate that Airbnb consumers' sensitivity level to price does not reduce their PR, but their PA and peers' comments do. PS was found to have no significant effects on PR but on PV and RI. It is reasonable to believe that consumers' sensitivity level to price may enhance PV and therefore increase RI, but that it would not necessarily significantly reduce their PR of repurchasing the Airbnb products. These results are in line with Tussyadiah's (2015) findings that economic benefits both drive and restrain collaborative consumption in the accommodation sector. This could be due to many other factors such as the credibility of the sources, which might influence their PS and PR. As Grewal, Gotlieb, and Marmorstein (1994) suggested, the significance level of the relationship between price and PR depends on how the advertised information is communicated. In other words, a cheaper price alone may not necessarily help to relieve Airbnb consumers' PR regarding the next transaction with Airbnb. Although the abatement effect of price on PR is generally expected, there is an exception when the product is regarded as a private consumption that is not credibly recognized by the public (Aqueveque, 2006). That is to say, it is possible to presume that PS

is to some extent irrelevant in terms of its effect on PR estimation as Airbnb is a relatively new platform and transactions are normally private consumptions. However, consumers' sensitivity level to price was found to significantly improve their PV of Airbnb products. In accordance with previous studies (see for example Guttentag, 2013) that found low cost to be the main draw for people participating in Airbnb, this study empirically confirms that price is a critical factor that enhances consumers' PV, but in contrast to the previous studies, it was also found that PA is a more powerful way to enhance PV as well as reduce PR of Airbnb consumers. One possible explanation for this strong effect of PA is that Airbnb consumers are not just concerned about the price, but actually seek the authentic local experience more. This result confirms the findings in previous studies (Lunardo & Guerinet, 2007; Ramkissoon & Uysal, 2011; Tussyadiah & Pesonen, 2015; Yannopoulou et al., 2013) and therefore, PA can be considered the most important factor that affects the PV and PR of Airbnb consumers.

Finally, the initial model exploring the relationships between PV, PR, and RI was found to be statistically supported. This confirms that satisfaction is not the only effective way to explore repurchasing behaviors. This study looked at PV and PR, finding negative influences of PR on PV as well as RI. The negative influences of PR were found not only on PV, but also on RI. Therefore, finding a way to reduce customers' PR would be effective because it would increase PV and RI at the same time.

In conclusion, this research identified and tested three antecedents - PA, eWoM and PS - that influence PV, PR, and RI. The findings can be valuable for tourism researchers as well as industry professionals in terms of understanding Airbnb consumers' repurchasing behavior and changes in tourist demand regarding the search for "authentic" accommodations for their travels.

# **Implications**

Academically, this study extends the application of tourism-related factors to the analysis of online consumer behavior studies. The results indicate that PA plays a critical role in enhancing Airbnb consumers' RI by reducing their PR and increasing their PV. Applying these constructs in a new setting also helps to enrich the literature. Specifically, the exploration of the concept of authenticity provides significant insights for the tourism literature. Distinguished from objective authenticity, this study reveals the effects of existential authenticity on consumer behavior, which emphasizes human nature. Therefore, it is shown that the essence of human individuality should not be neglected in academic and market research. Second, the findings show that PR negatively influences PV and RI, but PV positively influences RI. This proves that the relationships between PV, PR, and RI are as suggested in prospect theory and MEC theory, confirming the effectiveness of this framework. This study supports the validity of the initial model and the relationships between PV, PR, and RI. Therefore, it may be utilized as an initial model when applied in different contexts. Investigating the mediating role of PV and PR may provide a relatively comprehensive understanding of the factors that influence RI.

Several useful implications for practitioners who are interested in enhancing the value of their accommodations by marketing their authentic experience are indicated through the results of this study. First, tourists tend to seek an authentic accommodation experience, and desire to connect to the local hosts by frequenting Airbnb properties. This would be important for Airbnb as well as hotel managers as it shows that tourists tend to seek local experiences by living in the local community, which can significantly influence their PV and PR for the forthcoming repurchasing behavior. Industry managers can try to reconcile the elements of authenticity in their future marketing strategy. At the same time, while offering great service to the customers, hotel managers should also consider how to fulfill the customers' PA needs. Second, consumers' sensitivity to price may not significantly reduce their PR according to our findings but can improve their PV and intentions to repurchase. This can be valuable for the industry professionals when dealing with price strategy. Last but not least, eWOM plays a significant role in terms of its effects on all three constructs of the initial model (PV, PR, and RI). Therefore, it is recommended that industry managers respond in a timely and positive manner to online reviews.

# Limitations and future research direction

The sample is limited to consumers that have previous experience with Airbnb and who reside in Canada or the US. Individuals who have not stayed with Airbnb may have different perceptions of the platform and they may have different experiences with Airbnb, either with the hosts or with the company itself. Therefore, the results should be interpreted as only explaining the majority of Airbnb consumers rather than all individuals. Second, the results may have been influenced by common method bias. Although tests were conducted to test for this bias, potential bias from the researchers in developing the survey still exists. However, several methods like content analysis and

pretest were applied to reduce it as much as possible. Third, this study only focuses on one dimension of the construct PV and PR, whereas they are regarded as multidimensional constructs. Future studies should try to measure different dimensions and compare the differences with this model as well as other geographical areas to extend the generalizability of the model. Finally, future studies should also consider whether there is a comparatively higher rate of sharing accommodation experiences on social network sites for Airbnb consumers. This can be compared with other consumer groups, for example five-diamond hotel guests within the same area. The reason why this study would be interesting is that when people are having a unique experience, they tend to show off to their network circles. Exploring these phenomena may provide significant references for marketing professionals of the hospitality industry.

#### **Disclosure statement**

No potential conflict of interest was reported by the authors.

#### References

- Agarwal, S., & Teas, R. K. (2001). Perceived value: Mediating role of perceived risk. *Journal of Marketing Theory and Practice*, *9*(4), 1–14. doi:10.1080/10696679.2001.11501899
- Airbnb. (2015). About us. Retrieved April 20, 2015, from www. airbnb.com
- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, *84*(5), 888–918. doi:10.1037/0033-2909.84.5.888
- An, M., Lee, C., & Noh, Y. (2010). Risk factors at the travel destination: Their impact on air travel satisfaction and repurchase intention. *Service Business*, 4(2), 155–166. doi:10.1007/s11628-010-0094-2
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, *103*(3), 411–423.
- Aqueveque, C. (2006). Extrinsic cues and perceived risk: The influence of consumption situation. *Journal of Consumer Marketing*, 23(5), 237–247. doi:10.1108/07363760610681646
- Baur, R. A. (1960). Consumer behavior as risk taking. In R. S. Hancock (Ed.), *Dynamic marketing for a changing world*. Chicago, IL: American Marketing Association.
- Bearden, W. O., & Shimp, T. A. (1982). The use of extrinsic cues to facilitate product adoption. *Journal of Marketing Research*, 19(2), 229–239. doi:10.2307/3151623
- Belk, R. W. (2013). Extended self in a digital world. *Journal of Consumer Research*, 40(3), 477–500. doi:10.1086/671052
- Bentler, P. M. (1995). *EQS structural equations program manual*. Los Angeles, CA: Multivariate Software.
- Bhattacharya, A. (2016). Airbnb admits to deleting questionable listings just before releasing rental data. *The Verge*. Retrieved

- February 25, 2016, from http://www.theverge.com/2016/2/25/11116426/airbnb-report-data-purge-new-york-city
- Bolton, R. N., & Drew, J. H. (1991). A multistage model of customers' assessments of service quality and value. *Journal of Consumer Research*, *17*(4), 375–384. doi:10.1086/jcr.1991.17.issue-4
- Botsman, R., & Rogers, R. (2010). What's mine is yours: The rise of collaborative consumption. Harper: Collins.
- Boulding, W., Kalra, A., Staelin, R., & Zeithaml, V. A. (1993). A dynamic process model of service quality: From expectations to behavioral intentions. *Journal of Marketing Research*, 30(1), 7–27. doi:10.2307/3172510
- Chang, E. C., & Tseng, Y. F. (2013). Research note: E-store image, perceived value and perceived risk. *Journal of Business Research*, 66(7), 864–870. doi:10.1016/j.jbusres.2011.06.012
- Chang, T.-Z., & Wildt, A. R. (1994). Price, product information, and purchase intention: An empirical study. *Journal of the Academy of Marketing Science*, *22*(1), 16–27. doi:10.1177/0092070394221002
- Chen, K. K. (2009). Authenticity at burning man. *Contexts*, *8*, 65–67. doi:10.1525/ctx.2009.8.3.65
- Chen, S. F. S., Monroe, K. B., & Lou, Y. C. (1998). The effects of framing price promotion messages on consumers' perceptions and purchase intentions. *Journal of Retailing*, *74*(3), 353–372. doi:10.1016/S0022-4359(99)80100-6
- Chen, Z., & Dubinsky, A. J. (2003). A conceptual model of perceived customer value in e-commerce: A preliminary investigation. *Psychology and Marketing*, *20*(4), 323–347. doi:10.1002/(ISSN)1520-6793
- Cheung, C. M., Chan, G. W., & Limayem, M. (2005). A critical review of online consumer behavior: Empirical research. Journal of Electronic Commerce in Organizations, 3(4), 1–19. doi:10.4018/jeco.2005100101
- Cheung, M. Y., Luo, C., Sia, C. L., & Chen, H. (2009). Credibility of electronic word-of-mouth: Informational and normative determinants of on-line consumer recommendations. *International Journal of Electronic Commerce*, *13*(4), 9–38. doi:10.2753/JEC1086-4415130402
- Chhabra, D., Healy, R., & Sills, E. (2003). Staged authenticity and heritage tourism. *Annals of Tourism Research*, *30*(3), 702–719. doi:10.1016/S0160-7383(03)00044-6
- Chiu, C. M., Fang, Y. H., Cheng, H. L., & Yen, C. (2013). On online repurchase intentions: Antecedents and the moderating role of switching cost. *Human Systems Management*, 32(4), 283–296.
- Chiu, C. M., Wang, E. T., Fang, Y. H., & Huang, H. Y. (2014). Understanding customers' repeat purchase intentions in B2C e-commerce: The roles of utilitarian value, hedonic value and perceived risk. *Information Systems Journal*, *24* (1), 85–114. doi:10.1111/j.1365-2575.2012.00407.x
- Christopoulos, G. I., Tobler, P. N., Bossaerts, P., Dolan, R. J., & Schultz, W. (2009). Neural correlates of value, risk, and risk aversion contributing to decision making under risk. *The Journal of Neuroscience*, *29*(40), 12574–12583. doi:10.1523/JNEUROSCI.2614-09.2009
- Churchill, G. A. Jr. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64–73. doi:10.2307/3150876
- Cova, B., & Cova, V. (2002). Tribal marketing: The tribalization of society and its impact on the conduct of marketing. *European Journal of Marketing*, 36(5–6), 595–620. doi:10.1108/03090560210423023



- Dickerson, H. T. A. (2015). Airbnb update: The case of the rentcontrolled tenant. Global Travel Industry News. Retrieved April 15, 2015, from http://www.eturbonews.com/54756/ airbnb-update-case-rent-controlled-tenant
- Dodds, W. B., & Monroe, K. B. (1985). The effect of brand and price information on subjective product evaluations. Advances in Consumer Research, 12(1), 85-90.
- Dredge, D., & Gyimóthy, S. (2015). The collaborative economy and tourism: Critical perspectives, questionable claims and silenced voices. Tourism Recreation Research, 40(3), 286-302. doi:10.1080/02508281.2015.1086076
- Edelman, B. G., & Geradin, D. (2015). Efficiencies and regulatory shortcuts: How should we regulate companies like Airbnb and Uber? (Harvard Business School NOM Unit Working Paper), forthcoming, Stanford Technology Law Review. Retrieved from SSRN: http://ssrn.com/abstract=2658603.
- Eggert, A. (2006). Intangibility and perceived risk in online environments. Journal of Marketina Management, 22(5-6). 553-572. doi:10.1362/026725706777978668
- Erdem, T., Swait, J., & Louviere, J. (2002). The impact of brand credibility on consumer price sensitivity. International Journal of Research in Marketing, 19(1), 1–19. doi:10.1016/ S0167-8116(01)00048-9
- Ert, E., Fleischer, A., & Magen, N. (2015). Trust and reputation in the sharing economy: The role of personal photos on Airbnb. Tourism Management, 55, 62-73. doi:10.1016/j. tourman.2016.01.013
- Fang, B., Ye, Q., & Law, R. (2015). Effect of sharing economy on tourism industry employment. Annals of Tourism Research, 57, 264-267. doi:10.1016/j.annals.2015.11.018
- Fang, Y., Qureshi, I., Sun, H., McCole, P., Ramsey, E., & Lim, K. H. (2014). Trust, satisfaction, and online repurchase intention: The moderating role of perceived effectiveness of e-commerce institutional mechanisms. Mis Quarterly, 38(2), 407-427.
- Felson, M., & Spaeth, J. L. (1978). Community structure and collaborative consumption: A routine activity approach. American Behavioral Scientist, 21(4), 614-624.
- Folger, J. (2014). The pros and cons of using Airbnb. Retrieved February 25, 2015, from http://www.investopedia.com/arti cles/personal-finance/032814/pros-and-cons-using-airbnb. asp?performancelayout=true
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. Journal of Marketing Research, 18(3), 382-388. doi:10.2307/3150980
- Forsythe, S., Liu, C., Shannon, D., & Gardner, L. C. (2006). Development of a scale to measure the perceived benefits and risks of online shopping. Journal of Interactive Marketing, 20(2), 55-75. doi:10.1002/dir.20061
- Fradkin, A., Grewal, E., Holtz, D., & Pearson, M. (2014). Reporting bias and reciprocity in online reviews: Evidence from field experiments on Airbnb. Retrieved March 20, 2015, from http://andreyfradkin.com/
- Goldsmith, R. E., & Newell, S. J. (1997). Innovativeness and price sensitivity: Managerial, theoretical and methodological issues. Journal of Product & Brand Management, 6(3), 163-174. doi:10.1108/10610429710175682
- Grayson, K., & Martinec, R. (2004). Consumer perceptions of iconicity and indexicality and their influence on assessments of authentic market offerings. Journal of Consumer Research, 31(2), 296-312. doi:10.1086/422109

- Grewal, D., Gotlieb, J., & Marmorstein, H. (1994). The moderating effects of message framing and source credibility on the price-perceived risk relationship. Journal of Consumer Research, 21(1), 145-153. doi:10.1086/jcr.1994.21.issue-1
- Grewal, D., Monroe, K. B., & Krishnan, R. (1998). The effects of price-comparison advertising on buyers' perceptions of acquisition value, transaction value, and behavioral intentions. The Journal of Marketing, 62(2), 46-59. doi:10.2307/ 1252160
- Gruen, T. W., Osmonbekov, T., & Czaplewski, A. J. (2006). EWOM: The impact of customer-to-customer online know-how exchange on customer value and lovalty. Journal of Business Research, 59(4), 449-456. doi:10.1016/j.jbusres.2005.10.004
- Gutman, J. (1982). A means-end chain model based on consumer categorization processes. The Journal of Marketing, 46(2), 60-72. doi:10.2307/3203341
- Guttentag, D. (2013). Airbnb: Disruptive innovation and the rise of an informal tourism accommodation sector. Current Issues in Tourism, 18(12), 1-26.
- Ha, H. Y., Janda, S., & Muthaly, S. K. (2010). A new understanding of satisfaction model in e-re-purchase situation. European Journal of Marketing, 44(7/8), 997–1016. doi:10.1108/03090561011047490
- Hair, J., Anderson, R., Tatham, R. L., & Black, W. C. (1998). Multivariate data analysis. Englewood Cliffs, NJ: Prentice
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). Multivariate data analysis (Vol. 6). Upper Saddle River, NJ: Pearson Prentice Hall.
- Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet? Journal of Interactive Marketina, 18 (1), 38-52. doi:10.1002/dir.10073
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling: A Multidisciplinary Journal, 6(1), 1-55. doi:10.1080/ 10705519909540118
- Hung, K. H., & Li, S. Y. (2007). The influence of eWOM on virtual consumer communities: Social capital, consumer learning, and behavioral outcomes. Journal of Advertising Research, 47(4), 485-495. doi:10.2501/S002184990707050X
- Ikkala, T. (2014). Monetary network hospitality and sociability: A study of hospitality exchange in the context of Airbnb (Master Thesis). Retrieved from https://helda.helsinki.fi/handle/ 10138/135408
- Irani, N., & Hanzaee, K. H. (2011). The effects of variety-seeking buying tendency and price sensitivity on utilitarian and hedonic value in apparel shopping satisfaction. International Journal of Marketing Studies, 3(3), 89-103. doi:10.5539/ijms.v3n3p89
- Jalilvand, M. R., & Samiei, N. (2012). The impact of electronic word of mouth on a tourism destination choice: Testing the theory of planned behavior (TPB). Internet Research, 22(5), 591-612. doi:10.1108/10662241211271563
- Jia, L., Cegielski, C., & Zhang, Q. (2014). The effect of trust on customers' online repurchase intention in consumer-toconsumer electronic commerce. Journal of Organizational and End User Computing, 26(3), 65–86.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. Journal of the Econometric Society, 47(2), 263-291. doi:10.2307/1914185

- Kashyap, R., & Bojanic, D. C. (2000). A structural analysis of value, quality, and price perceptions of business and leisure travelers. *Journal of Travel Research*, 39(1), 45–51. doi:10.1177/004728750003900106
- Keaveney, S. M., & Parthasarathy, M. (2001). Customer switching behavior in online services: An exploratory study of the role of selected attitudinal, behavioral, and demographic factors. *Journal of the Academy of Marketing Science*, *29*(4), 374–390. doi:10.1177/03079450094225
- Kessler, S. (2015). To fill rooms, hotels are turning to Airbnb. Fast Company. Retrieved May 6, 2016, from http://www.fastcompany.com/3054570/behind-the-brand/to-fill-rooms-hotels-are-turning-to-airbnb
- Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, 44(2), 544–564. doi:10.1016/j.dss.2007.07.001
- Kim, E. Y., & Kim, Y. K. (2004). Predicting online purchase intentions for clothing products. *European Journal of Marketing*, 38(7), 883–897. doi:10.1108/03090560410539302
- Kovács, B., Carroll, G. R., & Lehman, D. W. (2013). Authenticity and consumer value ratings: Empirical tests from the restaurant domain. *Organization Science*, *25*(2), 458–478. doi:10.1287/orsc.2013.0843
- Kuo, Y. F., Wu, C. M., & Deng, W. J. (2009). The relationships among service quality, perceived value, customer satisfaction, and post-purchase intention in mobile value-added services. *Computers in Human Behavior*, *25*(4), 887–896. doi:10.1016/j.chb.2009.03.003
- Kwun, J. W., & Oh, H. (2004). Effects of brand, price, and risk on customers' value perceptions and behavioral intentions in the restaurant industry. *Journal of Hospitality & Leisure Marketing*, 11(1), 31–49. doi:10.1300/J150v11n01\_03
- Lane, J., & Woodworth, R. M. (2016). The sharing economy checks in: An analysis of Airbnb in the United States. Retrieved February 13, 2016, from http://www.cbrehotels.com/EN/ Research/Pages/An-Analysis-of-Airbnb-in-the-United-States. aspx
- Lee, D. (2016). How Airbnb short-term rentals exacerbate Los Angeles's affordable housing crisis: Analysis and policy recommendations. *Harvard Law & Policy Review*, 10, 229–255.
- Li, J., Moreno, A., & Zhang, D. J. (2015). Agent behavior in the sharing economy: Evidence from Airbnb Retrieved May 6, 2016, from https://deepblue.lib.umich.edu/bitstream/han dle/2027.42/116384/1298\_Li.pdf?sequence=1&isAllowed=y
- Lin, C., & Lekhawipat, W. (2014). Factors affecting online repurchase intention. *Industrial Management & Data Systems*, 114(4), 597–611. doi:10.1108/IMDS-10-2013-0432
- Litvin, S. W., Goldsmith, R. E., & Pan, B. (2008). Electronic word-of-mouth in hospitality and tourism management. *Tourism Management*, *29*(3), 458–468. doi:10.1016/j. tourman.2007.05.011
- Lunardo, R., & Guerinet, R. (2007). The influence of label on wine consumption: Its effects on young consumers' perception of authenticity and purchasing behavior. Bologna, Italy: European Association of Agricultural Economists.
- MacCannell, D. (1973). Staged authenticity: Arrangements of social space in tourist settings. *American Journal of Sociology*, 79(3), 589–603. doi:10.1086/225585
- Masiero, L., & Nicolau, J. L. (2012). Price sensitivity to tourism activities: Looking for determinant factors. *Tourism Economics*, *18*(4), 675–689. doi:10.5367/te.2012.0143

- Mauri, A. G., & Minazzi, R. (2013). Web reviews influence on expectations and purchasing intentions of hotel potential customers. *International Journal of Hospitality Management*, *34*, 99–107. doi:10.1016/j.ijhm.2013.02.012
- Moon, J., Chadee, D., & Tikoo, S. (2008). Culture, product type, and price influences on consumer purchase intention to buy personalized products online. *Journal of Business Research*, *61*(1), 31–39. doi:10.1016/j.jbusres.2006.05.012
- Neeser, D., Peitz, M., & Stuhler, J. (2015). Does Airbnb hurt hotel business: Evidence from the nordic countries (Master degree paper). Retrieved June 6, 2016, from https://www.research gate.net/profile/David\_Neeser/publication/282151529\_ Does\_Airbnb\_Hurt\_Hotel\_Business\_Evidence\_from\_the\_ Nordic Countries/links/5605310e08aea25fce322679.pdf
- Nestor, P. G., & Schutt, R. K. (2015). Research methods in psychology: Investigating human behavior (2nd ed.). Thousand Oaks, CA: Sage.
- Oglethorpe, J. E., & Monroe, K. B. (1987). Risk perception and risk acceptability in consumer behavior: Conceptual issues and an agenda for future research. In *Proceedings of AMA Winter Marketers Educators' Conference*, 255–260.
- Olson, J. C., & Reynolds, T. J. (2001). The means-end approach to understanding consumer decision-making. In T. J. Reynolds & J. C. Olson (Eds.), *Understanding consumer decision-making: The Means-end Approach to Marketing and Advertising Strategy* (pp. 3–20). Mahwah, NJ: Lawrence Erlbaum Associates.
- Parks, L., & Guay, R. P. (2009). Personality, values, and motivation. *Personality and Individual Differences*, 47(7), 675–684. doi:10.1016/j.paid.2009.06.002
- Peterson, R. A., & Kim, Y. (2013). On the relationship between coefficient alpha and composite reliability. *Journal of Applied Psychology*, *98*(1), 194–198. doi:10.1037/a0030767
- Pires, G., Stanton, J., & Eckford, A. (2004). Influences on the perceived risk of purchasing online. *Journal of Consumer Behaviour*, 4(2), 118–131. doi:10.1002/(ISSN)1479-1838
- Ramkissoon, H., & Uysal, M. S. (2011). The effects of perceived authenticity, information search behaviour, motivation and destination imagery on cultural behavioural intentions of tourists. *Current Issues in Tourism*, *14*(6), 537–562. doi:10.1080/13683500.2010.493607
- Reynolds, T. J., & Gutman, J. (1988). Laddering theory, method, analysis, and interpretation. *Journal of Advertising Research*, 28(1), 11–31.
- Sekaran, U. (2003). Research methods for business. New York, NY: Wiley & Sons.
- Slee, T. (2013). Why the sharing economy isn't [blog]. Retrieved August 25, 2014, from http://tomslee.net/2013/08/why-the-sharing-economy-isnt.html
- Steiner, C. J., & Reisinger, Y. (2006). Understanding existential authenticity. *Annals of Tourism Research*, *33*(2), 299–318. doi:10.1016/j.annals.2005.08.002
- Stern, J. (2014). Airbnb benefits from social proof theory. Retrieved February 20, 2015, from www.Josephstern.com
- Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77(2), 203–220. doi:10.1016/S0022-4359(01)00041-0
- Sweeney, J. C., Soutar, G. N., & Johnson, L. W. (1999). The role of perceived risk in the quality-value relationship: A study in a retail environment. *Journal of Retailing*, *75*(1), 77–105. doi:10.1016/S0022-4359(99)80005-0
- The Economist. (2013). The rise of the sharing economy. March: 9 (US). Retrieved September 17, 2014, from http://



- www.economist.com/news/leaders/21573104-interneteverything-hire-rise-sharing-economy
- Tussyadiah, I. P. (2015). An exploratory study on drivers and deterrents of collaborative consumption in travel. In Information and communication technologies in tourism 2015 (pp. 817-830). Switzerland: Springer International Publishing. doi:10.1007/978-3-319-14343-9 59
- Tussyadiah, I. P., & Pesonen, J. (2015). Impacts of peer-to-peer accommodation use on travel patterns. Journal of Travel Research, 1-19.
- Tussyadiah, I. P., & Pesonen, J. (2016). Drivers and barriers of peer-to-peer accommodation stay-an exploratory study with American and Finnish travellers. Current Issues in Tourism (1368-3500), Retrieved from http://www.tandfon line.com/doi/abs/10.1080/13683500.2016.1141180. doi:10.1080/13683500.2016.1141180
- Vijayasarathy, L. R., & Jones, J. M. (2000). Print and internet catalog shopping: Assessing attitudes and intentions. Internet Research, 10(3), 191-202. doi:10.1108/10662240010331948
- Walker, B. A., & Olson, J. C. (1991). Means-end chains: Connecting products with self. Journal of Business Research, 22(2), 111-118. doi:10.1016/0148-2963(91)90045-Y
- Wang, N. (1999). Rethinking authenticity in tourism experience. Annals of Tourism Research, 26(2), 349-370. doi:10.1016/S0160-7383(98)00103-0
- Wen, C., Prybutok, V. R., & Xu, C. (2011). An integrated model for customer online repurchase intention. Journal of Computer Information Systems, 52 (1), 14-23.
- Westbrook, R. A. (1987). Product/consumption-based affective responses and postpurchase processes. Journal of Marketing Research, 24(3), 258-270.

- Wu, L. Y., Chen, K. Y., Chen, P. Y., & Cheng, S. L. (2014). Perceived value, transaction cost, and repurchase-intention in online shopping: A relational exchange perspective. Journal of Business Research, 67(1), 2768-2776. doi:10.1016/j.jbusres.2012.09.007
- Wu, M. H. (2014). Relationships amona source credibility of electronic word of mouth, perceived risk, and consumer behavior on consumer generated media (Masters Theses). 1896-February 2014, Paper 984. Retrieved September 2, 2014, from http://scholarworks.umass.edu/theses/984
- Wu, W. Y., & Chang, M. L. (2007). The role of risk attitude on online shopping: Experience, customer satisfaction, and repurchase intention. Social Behavior and Personality, 35 (4), 453-468. doi:10.2224/sbp.2007.35.4.453
- Yannopoulou, N., Moufahim, M., & Bian, X. (2013). User-generated brands and social media: Couchsurfing and AirBnb. Contemporary Management Research, 9(1), 85–90. doi:10.7903/cmr.11116
- Yoon, S. J. (2002). The antecedents and consequences of trust in online-purchase decisions. Journal of Interactive Marketing, 16(2), 47-63. doi:10.1002/dir.10008
- Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. The Journal of Marketing, 52(3), 2-22. doi:10.2307/ 1251446
- Zervas, G., Proserpio, D., & Byers, J. (2014). The rise of the sharing economy: Estimating the impact of Airbnb on the hotel industry (Boston U. School of Management Research Paper, (2013–16)). Retrieved from SSRN: http://ssrn.com/ abstract=2366898 or http://dx.doi.org/10.2139/ssrn. 2366898