Fraud abroad

GDP per capita, online customer reviews and vacation rental unit booking rates in the sharing economy

Jake David Hoskins
Department of Marketing, Bill and Vieve Gore School of Business, Westminster College, Salt Lake City, Utah, USA, and

Ryan Leick
Department of Aviation, Bill and Vieve Gore School of Business, Westminster College, Salt Lake City, Utah, USA

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Abstract

Purpose – This study aims to investigate a sharing economy context, where vacation rental units that are owned and operated by individuals throughout the world are rented out through a common website: vrbo.com. It is posited that gross domestic product (GDP) per capita, a common indicator of the level of economic development of a nation, will impact the likelihood that prospective travelers will choose to book accommodations in the sharing economy channel (vs traditional hotels). The role of online customer reviews in this process is investigated as well, building upon a significant body of extant research which shows their level of customer decision influence.

Design/methodology/approach – An empirical analysis is conducted using data from the website Vacation Rentals By Owner on 1,940 rental listings across 97 countries.

Findings – GDP per capita serves as risk deterrent to prospective travelers, making the sharing economy an acceptable alternative to traditional hotels for the average traveler. It is also found that the total number of online customer reviews (OCR volume) is a signal of popularity to prospective travelers, while the average star rating of those online customer reviews (OCR valence) is instead a signal of accommodation quality.

Originality/value – This study adds to a growing agenda of research investigating the effect of online customer reviews on consumer decisions, with a particularly focus on the burgeoning sharing economy. The findings help to explain when the sharing economy may serve as a stronger disruptive threat to incumbent offerings. It also provides the following key insights for managers: sharing economy rental units in developed nations are more successful in driving booking activity, managers should look to promote volume of online customer reviews and positive online customer reviews are particularly influential for sharing economy rental booking rates in less developed nations.

Keywords Online consumer behaviour, Services marketing, Tourism marketing, International marketing, Quantitative research, Word-of-mouth marketing

Paper type Research paper

Introduction

Traveling to a developing country incurs considerable real risk for consumers (Bianchi, 2006). Perceptions of the risk level are heavily influenced by an individual's own experiences and the surrounding culture of their home location associated with this travel (Lepp and Gibson, 2008). Travelers from developed nations are more likely to perceive travel to developing nations as particularly risky in nature (Reisinger and Mavondo, 2005). Managers in the tourism and hospitality industry may find it worthwhile to look for ways to

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strategically reduce risk perceptions to promote booking likelihood among prospective travelers.

Traveler apprehension may be even higher in the emerging sharing economy channel. While new services in this channel have largely revolutionized industries such as tourism through leveraging the ability for consumers to "share" with other consumers for a fee, these offerings are not well regulated, and it is difficult for consumers to tell which producers are of quality and which are not (Belk, 2014; Koopman *et al.*, 2014; Sundararajan, 2013). The choice to utilize the sharing economy channel as a whole for tourism activities itself is an uncertain and difficult consumer choice which follows typical new product adoption and diffusion processes (Peres *et al.*, 2010; Zervas *et al.*, 2017). Compared to established traditional channel global brand offerings (such as hotel giants like Marriott) in the tourism sector, sharing economy offerings may suffer from lower brand awareness and traveler concerns about the quality of the provided accommodations (Akaka and Alden, 2010; Davvetas *et al.*, 2015).

This study looks to investigate how gross domestic product (GDP) per capita of a nation may affect tourist migration from the traditional hotel channel to the sharing economy channel. It is already established that country-level indicators are important criteria for travelers when choosing among prospective international locations (Lepp and Gibson, 2003). GDP Per Capita is a commonly utilized and understood indicator of a nation's overall financial well-being (Maddison, 1983), which is strongly associated with a host of other general well-being factors (Barro, 1991; Gylfason, 2001; Levine and Zervos, 1998). GDP Per Capita rates and annual tourism rates are thus intrinsically related and have a dual-causal relationship (Seetanah, 2011). Tourists are scared away from less developed nations due to higher risk perceptions, expectations of lesser quality accommodations and experiences and stigmatization of the country's poorer population as being lazy, uneducated and unwilling to take positive steps to improve their financial situations (Johnson *et al.*, 2011; Reutter *et al.*, 2009). The first theoretical prediction is that adoption of the sharing economy channel will be more prevalent in higher GDP-per-capita nations where stigmatization of the local populations and tourism risk perceptions are lower. In low-GDP-per-capita nations, traditional hotels that enjoy global brand status may be better positioned to defend their incumbent status as these brands can better distance their offerings from the stigmatized nation and its local population.

We then move on to investigate what differentiates the success rate of individual rental units within the sharing economy context by identifying that external sources of information as valuable for consumers. Online customer reviews may provide key informational cues to assist consumer decisions during travel planning. Indeed, online customer reviews have been found to be very persuasive across a wide range of industry contexts in influencing consumer decisions and driving sales outcomes (Floyd *et al.*, 2014; Gruner *et al.*, 2014). We build on existing signaling theory arguments that establish:

- the total number of online customer reviews (OCR volume) as a signal of popularity; and
- the average star rating of those online customer reviews (OCR valence) as a signal of quality (Khare *et al.*, 2011; Viglia *et al.*, 2014).

We go on to argue that OCR volume will be equally important in driving rental listing success across all international nations of interest, as listing popularity is an important cue to aid in promoting market acceptance of the new sharing economy channel as a whole. Meanwhile, the quality signal provided by high OCR valence will be more important in driving individual rental unit booking rates within less developed nations where tourists

may perceive risks of travel to be higher. These relationships between online customer reviews and booking rate success within the sharing economy context represent the second core contribution of this work.

Predictions are tested using a unique dataset that includes online review information and booking rates for nearly 2,000 individual rental units across 97 countries collected from vrbo.com (Vacation Rentals By Owner). This website is a major player in the growing sharing economy and is international in nature, but primarily serves American and other developed nation tourists. Regression models estimate the level of influence of both OCR volume and OCR valence in driving booking rates. Contributions to theory, implications for managers, and opportunities for future research are discussed after the presentation of the results.

Literature review

The rise of the sharing economy

The sharing economy has grown rapidly in recent years as consumers have increasingly understood that many items are more efficiently rented than owned while producers have found ways to efficiently add value in rental and consumer-to-consumer transactional markets (Belk, 2014). Growth in consumer-to-consumer communication capabilities through digital and mobile technologies has been crucial in allowing the sharing economy sector to emerge (Bilaski, 2012). Broad social trends toward the revenue based "sharing", rather than the strict ownership of, certain products and services have aided the development and growth of the sharing economy sector, as well (Martin, 2016; Oskam and Boswijk, 2016). The emergence of the sharing economy has been accompanied by a host of academic research attention which seeks to understand how these innovative market sectors are impacting existing firms and consumers (Cheng, 2016). Peer-to-peer sharing of travel accommodations (which is just one segment of the broader sharing economy) has received significant scholarly interest in recent years, with over 70 such published articles from 2010-2016 on this topic alone (Prayag and Ozanne, 2018).

While sharing economy and traditional sector firms generally attempt to differentiate from one another to reduce competitive overlaps (Weber, 2014), growth of the sharing economy has led to significant competitive impacts on traditional players in broader industry segments: for example, the entry of Airbnb has led to significant price cuts, loss of profits and revenue decreases by traditional hotels, with particularly strong competitive impacts on lower and middle tier hotels (Aznar *et al.*, 2017; Fang *et al.*, 2016; Guttentag and Smith, 2017; Zervas *et al.*, 2017). It is important to note that sharing economy offerings have only had significant competitive impacts on industry incumbents after overcoming initial hurdles of consumer awareness, trust and market acceptance of the innovative offering (Aznar *et al.*, 2016; Choi *et al.*, 2015; Stepaniuk, 2014). More established host sites (such as Airbnb) seem to be more effective in crossing these hurdles, allowing their individual listings to be more successful overall and to pose a larger threat to industry incumbents (Liang *et al.*, 2017; Wang and Nicolau, 2017).

In summing up the core reason for exploding growth in sharing economy sectors, Sundararajan (2013, p. 2) proclaims that "it's no longer sufficient if you leverage digital technologies to rationalize and optimize your internal production. If your business relies on a model of consumption that is inefficient for your consumers, chances are that there's already a new sharing economy marketplace that is looking to streamline it for them." Some researchers have theorized that strong strategic response by industry incumbents could potentially overturn these competitive effects in the long run, as well. Specifically, large hotels could leverage their large informational advantages and more cost efficient structures

over smaller entrants and adjust their current business models to create more value for travelers (Forgacs and Dimanche, 2016; Sigala, 2015). However, evidence of such successful incumbent response has not yet surfaced.

Consumer adoption of sharing economy innovations

The choice to adopt sharing economy innovations inherently infers a shift away from a traditional option in the category. In investigating the emergence and growth of Airbnb, Zervas *et al.* (2017) noted that the choices of when and if to adopt the sharing economy innovation are related to individual differences in a way that is consistent with the well-established literature on new product diffusion processes. New products (whether these are incremental innovations or more breakthrough innovations like the introduction of an entirely new business model to a market) tend to follow a diffusion process, whereby some consumers are more eager to adopt quickly than others (Peres *et al.*, 2010). Moreover, in markets where network effects are present, there is an increased risk of a new product diffusion chasm in which too few consumers become aware of and spread the innovation to other consumers through word-of-mouth processes, which in turn can cause the new product to fail to achieve market acceptance (Lee and O'Connor, 2003). This applies to the sharing economy channel as the website or app that drives the revenue side of the business becomes more salient and available to consumers as a larger share of consumers use the sharing economy service.

Sharing economy offerings and elevated transaction risk

The emergence of the sharing economy has led consumers to experience elevated purchase risk. Through the disruption of stable and mature industries, sharing economy innovations allow for mass entry of many small producers that have considerably less established standardization, reputation, and regulatory control than traditional large share incumbents (Koopman *et al.*, 2014). Regulation of the emerging platforms within the sharing economy remains relatively sparse, as governments are having trouble classifying these industry entrants and thus discerning the best policy approaches (Dyal-Chand, 2015; Jonas, 2015). It may become difficult for consumers to judge which sharing economy producers are of quality and which are not when compared to traditional sector offerings (Koopman *et al.*, 2014). There is evidence as well that sharing economy channel entry can have deleterious effects on the safety and suitability of surrounding areas, due to the promotion of more transient populations (Gurran and Phibbs, 2017; Lee, 2016).

Empirical evidence from academic inquiries has supported this perspective about consumer purchase risk levels in the sharing economy sector. Consumers increasingly look for signals of quality to assist in their purchase decisions in these sectors. For example, price levels and booking rates for Airbnb accommodations in the sharing economy sector are strongly influenced by how trustworthy the owner's personal profile photo is rated to be by prospective guests (Ert *et al.*, 2016). Two more core factors that drive consumers' likelihood to engage in the purchase of a sharing economy offering are the levels of perceived familiarity and trust with the producer (Möhlmann, 2015). Risk perceptions also exist on the side of producers. Guest reservations from those with black sounding names are significantly less likely to be accepted by Airbnb owners than white sounding name reservations (Edelman *et al.*, 2017). Together, despite the increasing growth and market acceptance, sharing economy sector offerings are a space in which risk perceptions on the side of the buyer and the seller may both be elevated.

It is important to concede here that not all research suggests that a sharing economy offering will be disadvantaged in the face of traditional sector offerings. Indeed, when

compared to traditional hotels, accommodations through the sharing economy channel may be perceived as a more authentic tourist experience, which could be desirable to certain consumers (Jiang *et al.*, 2017; Steylaerts and O'Dubhgaill, 2012). Sharing economy offerings also may provide consumer value through cost savings, household amenities, and a more personalized connection between the producer and consumer (Guttentag, 2015; Ronzhyn, 2013). Yet, the more authentic and realistic local life experience provided by a sharing economy accommodation, which may be desired by a niche group of consumers, could be seen as a negative attribute by the mainstream market of prospective travelers who fear potentially troublesome interactions with local homeowners and communities (Molz, 2012).

Country-level factors as sources of tourist destination risk

Country specific risk factors are particularly relevant in the domain of tourism industries as they materially impact an individual consumer's likelihood to travel abroad (Quintal *et al.*, 2010), thus impacting country-level tourism activity (Hoti *et al.*, 2007). Seven major risk factors affect the risk associated with international tourism: "health, political instability, terrorism, strange food, cultural barriers, a nation's political and religious dogma, and crime" (Lepp and Gibson, 2003). Much of the perceived risk of traveling to a certain country, is attributed to recent or noticeable events that relate to one of these seven factors. For example, updates to country-level risk ratings post-booking often lead to cancelations and changing of travel plans away from the destination in question (Kozak *et al.*, 2007). Certain localized events, like a major terrorist attack or a disease outbreak, can have particularly damaging impacts on the desirability of specific tourist destinations (Cossens and Gin, 1995; Pizam and Smith, 2000; Sönmez *et al.*, 1999).

Interpretations of country tourism risk vary significantly among individuals and can be attributed to their background and experiences. The likelihood to consider traveling to nations that are deemed more risky in nature is an individual level trait and is positively associated with whether the person had traveled internationally, prior to the decision (Lepp and Gibson, 2008). Familiarity with a specific destination (which can be gained through prior visits or through recommendations from a friend) also help to reduce the perceived risks of international travel (Lepp and Gibson, 2003). When the culture of the destination location is considerably different from that of the prospective traveler's, perceived risk increases substantially (Reisinger and Mavondo, 2005).

Gross domestic product per capita as an indicator of country level tourism risk

A common country-level factor indicating a general level of financial well-being is GDP per capita, which estimates the average level of income per resident of the nation (Maddison, 1983). Increased economic development has a number of measurable positive impacts on the well-being of the nation, such as: more stable political climates (Barro, 1991), better functioning financial systems (Levine and Zervos, 1998), a stronger tendency to invest in education of the public (Gylfason, 2001), an increased ability to mitigate damage from natural disasters (Toya and Skidmore, 2007) and the ability to reduce environmental damage from industrial activities (Selden and Song, 1994). Together, the relationship between economic development and general well-being of a nation spills over into tourist markets. Seetanah (2011) found through a rigorous broad scale empirical analysis that there is a dual-causal relationship between economic development and tourist activity. The economy is able to grow more when more tourists frequent the nation, but the presence of a strong economy in the first place is an important step in reducing risk perceptions and driving tourist activity.

Stigmatization of developing country populations and traditional accommodations preference

A higher GDP per capita may indicate more favorable living and tourist conditions for a number of reasons, but it may also influence tourist perceptions about the local people. Low-GDP-per-capita nations are more prone to be stigmatized by prospective travelers. Stigmatization is a process by which consumers come to form negative associations about a certain group which affects evaluations of the output from those individuals (Hudson and Okhuysen, 2009; Vergne, 2012). Stigmatization is known to commonly occur when evaluating the efforts and offerings of lower status individuals in society (Correll and Benard, 2006). This effect persists across numerous contexts: famous pitchers receive more favorable strike calls from umpires in Major League Baseball (Kim and King, 2014), white founders receive more funding on crowdsourcing platforms than black founders (Younkin and Kuppuswamy, 2017), women's contributions are often discounted in group work (Foschi, 1996), and foreign born status decreases the likelihood of interview offers by recruiters (Rooth, 2010). One such factor that may influence status and thus the likelihood of stigmatization is relative income levels: those with higher incomes tend to view themselves as higher status than those with lower incomes, and stigmatize lower income people as a group (Johnson *et al.*, 2011). Indeed, those living in poverty report that they feel stigmatized by the rest of society as being lazy and unwilling to take steps to improve their life situations (Reutter *et al.*, 2009).

Sharing economy rental units located in nations stigmatized by prospective travelers for being low income thus risk lower booking success rates. These rental units are rented from consumers-to-consumers and are often private standalone residences (as opposed to being part of a comprehensive resort property) and thus may be more closely associated with the stigmatized local population than traditional hotels (Molz, 2012).

By contrast, traditional hotels benefit from global brand status, which helps them achieve dominant market positions predicated on high brand awareness, universal consumer appeal, and iconic global status (Davvetas *et al.*, 2015; Lee *et al.*, 2008), such as Marriott and Hilton. These globally recognized brands achieve consistent production quality (along with a reputation for this consistency among consumers), which should allow them to operate successfully across both non-stigmatized and stigmatized nations on the basis of their global brand image and processes (Akaka and Alden, 2010; Beverland *et al.*, 2007).

It is our first proposition that risks associated with booking accommodations through the sharing economy channel, coupled with the risks of traveling to a less developed nation, will deter tourists. Sharing economy offerings will be more acceptable to prospective tourists if those accommodations are located in more developed nations. In a less developed nation, tourists may be drawn to more traditional accommodations, such as a hotel, to distance themselves from the local population which they stigmatize for being poor. This expectation is solidified in *H1* and then pictured in Figure 1:

H1. GDP per capita of a nation will have a positive effect on the booking rates of sharing economy vacation rental units.

Figure 1 also establishes (via the shading) that this study focuses solely on the sharing economy context (and not on the traditional hotel context). The theoretical development from this point forward focuses exclusively on the sharing economy context and what may impact booking rate success differences among individual rental units within this market channel.

The influence of external information sources on consumer decision processes

External information sources will be particularly influential in driving a traveler's accommodation choice within the sharing economy context. Online sources of information can be acquired quickly and easily (Klein, 1998) and can help to provide valuable information about the prospective purchase decision (Ueltschy *et al.*, 2004; Weathers *et al.*, 2007). Exposure to the information provided from Uganda's official tourist website was found to positively influence perceptions and intentions to travel to the country compared to a control group (Lepp *et al.*, 2011). It is common for consumers to place more decision weight on reviews provided by other consumers about the product or service experience, as this information is perceived as highly authentic in nature (Angelis *et al.*, 2012; Gopinath *et al.*, 2013). By contrast, the presence of hotel manager responses to guests' prior reviews has a negative impact on the intention to book a hotel (Mauri and Minazzi, 2013).

The impact of online customer review volume

The most influential sources of information are those which are trusted by consumers (Dickinger, 2011; Ha, 2004; Ladhari and Michaud, 2015). Online customer reviews are one of the most trusted sources of outside information that assists in the consumer decision process (Manchanda *et al.*, 2015). An increased volume, or the cumulative count, of online customer reviews has been found to positively influence product sales across a wide variety of industry contexts (Gruner *et al.*, 2014; Liu, 2006; Saboo *et al.*, 2015), including in the hotel booking contexts (Zhao *et al.*, 2015).

While evidence suggests that consumers actively read some reviews when engaging in purchase consideration (Chevalier and Mayzlin, 2006), it is important to note that the acquisition of information does represent a cost to consumers (Broilo *et al.*, 2016). Indeed, not all information derived from online customer reviews is equal. Filieri and McLeay (2014) found that when assessing a traveler's propensity to utilize review information in a travel purchase decision, prospective travelers rely on information from OCR's that is relevant, accurate and adds information above and beyond what was known before reading the review. By contrast, prospective travelers are not nearly as worried about how complete information provided in the OCR is or the amount of available information provided.

Consumers often focus on simple decision cues to reduce effort exerted and to ease the processing of online customer review information (Gottschalk and Mafael, 2017; Rooderkerk and Pauwels, 2016). Two of the most common decisions cues utilized by consumers are OCR volume (the total cumulative number of reviews written about the product) and OCR valence (the average star rating of all prior reviews written about the product), due to their simplicity and ease-of-processing (Khare *et al.*, 2011). In the context

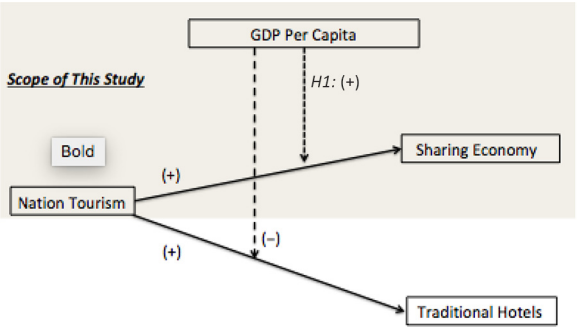

Figure 1.
Conceptual model of GDP per capita impact on tourist migration to sharing economy vs traditional hotels

of hotel bookings, Viglia *et al.* (2014) conceptualized OCR volume as an estimate of the hotel's popularity and OCR valence as an estimate of the hotel's quality, showing that both variables significantly predicted booking rates.

The importance of OCR volume is due to a number of factors. Engagement with the online community is generally found to improve the strength of customer relationships with the organization (Hollebeek *et al.*, 2014). Moreover, a high volume of online reviews is an indicator that the offering has been deemed acceptable and even popular among a sizeable base of customers in the market (Dhar and Chang, 2009; Duan *et al.*, 2008; Wu and Wu, 2016). The presence of more online customer reviews has been shown to be particularly important in influencing consumer booking decisions for hotel or vacation accommodations (Gretzel and Yoo, 2008; Sparks and Browning, 2011), as online review volume can increase awareness of the market offering and bring it to prominence among prospective customers.

However, OCR volume serves only as a signal of product popularity, not of product quality (Cui *et al.*, 2012; Khare *et al.*, 2011; Viglia *et al.*, 2014). This is an important distinction as the base of prospective travelers concerned about the riskiness of a prospective destination may be only partially persuaded by the count of online reviews, and may also look to the sentiment within those reviews for clues about travel safety (Zhang *et al.*, 2010). The popularity of a specific vacation rental unit, as evidenced by the volume of OCR's, is expected to thus have an equivalent positive impact on booking rates, regardless of the development level of the nation:

H2. A higher OCR volume will have an equivalent positive impact on booking rates of sharing economy vacation rental units across low and highly developed countries.

The impact of online customer review valence

OCR valence also positively influences sales and other firm performance outcomes such as stock returns (Chevalier and Mayzlin, 2006; Luo, 2009). Valence, which can be defined as the average level of positivity expressed toward the market offering, serves as a particularly important quality signal to consumers, serving to reduce the perceived risk of the purchase decision at hand (Basuroy *et al.*, 2006; Bruce *et al.*, 2012). The aggregation of a simple overall valence score allows consumers to easily process the average consumer sentiment toward the product offering and is thus an influential decision cue (Camilleri, 2017; Filieri, 2016; Kostyk *et al.*, 2017).

A higher average valence is found to be important in driving performance across a wide variety of industry contexts (Floyd *et al.*, 2014), including traditional tourism contexts such as hotel booking activity (Filieri, 2015; Mauri and Minazzi, 2013; Sparks and Browning, 2011; Tsao *et al.*, 2015). The presence of negative online reviews damages product quality perceptions, while positive information improves perceptions (Lee *et al.*, 2008). Valence is particularly influential during the early stages of the consumer buying process (Lee *et al.*, 2015), increases the effectiveness of related marketing expenditures (Gopinath *et al.*, 2014), and is found to have a higher magnitude impact than OCR volume, in most cases (Chintagunta *et al.*, 2010).

An emerging line of research demonstrates OCR valence is particularly important in circumstances when the perceived risk of purchase is increased. For example, OCR valence has been found to be more influential in driving sales for niche products than for mainstream products, as niche products are perceived as higher risk (Dellarocas *et al.*, 2010; Zhu and Zhang, 2010). For similar reasons, positive online review valence is more influential in driving sales for low equity brands when compared with high equity brands (Ho-Dac *et al.*, 2013).

Based on the notion that OCR valence is particularly important in driving consumer decisions when perceived risk is higher, coupled with the notion that travel to developing nations is perceived as more risky by prospective travelers, we predict the following in the context of the international tourism sharing economy industry:

H3. A higher average OCR valence will be more (less) influential on booking rates of sharing economy vacation rental units in less (more) developed countries.

The summation of expectations related to the impact of GDP per capita and online customer reviews on booking rates in the sharing economy context is presented in Figure 2. *H1* predicts that higher GDP per capita will increase booking rates for rental units. This prediction replicates the expectation presented in Figure 1 (that higher GDP per capita will increase acceptance of the sharing economy channel and drive more booking activity in this channel as opposed to traditional hotels). *H2* indicates that OCR volume will have a consistent positive impact on booking rates across all host nations, while *H3* predicts that OCR valence will have a more significant positive impact on booking rates in less developed nations relative to more developed nations.

Methodology

Data sources and sample identification

Rental listing and online customer review data were collected from a leading vacation rental website, www.vrbo.com. This website serves over two million vacation rental units in locations worldwide. This website is a predominant player in the rapidly growing sharing economy, which is the range of alternative, mostly consumer-to-consumer traded, market offerings in many service industries that are growing rapidly (Zervas *et al.*, 2017). The website allows individuals to list properties (i.e. condominiums, single family homes, townhomes, etc.) to be rented out to travelers. It was selected as the central source of data for this study because of its strong international presence and its discrete focus on vacation rentals, allowing for the theoretical predictions to be empirically tested.

The first step in data collection was to choose nations of interest for study inclusion. Aggregate counts of rental listings per country were collected on November 24, 2015. In total, the website was found to serve at least one rental listing in 199 nations at the time of data collection. The five countries with the highest number of listings served were as follows: USA (348,290), France (166,499), Spain (101,723), Italy (94,695) and Croatia (49,079). To avoid including nations with insufficient rental listings, the sample were restricted to include nations with at least 200 total rental listings (97 of the 199 nations fit this criteria).

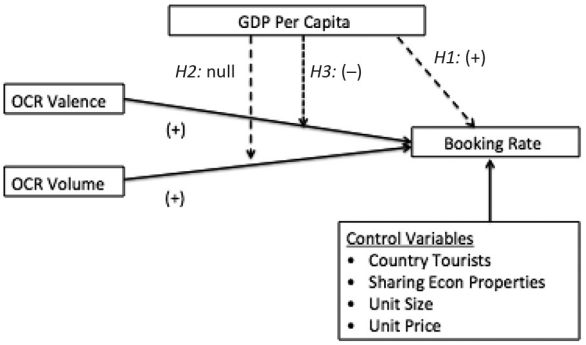

Figure 2.
Conceptual model of hypothesized relationships related to GDP per capita, online customer reviews and booking rates in the sharing economy context

The next step in the process was to identify individual listings for study inclusion. Twenty randomly selected rental listings from each of the 97 qualifying nations were chosen to be included in the study, for an overall sample size of 1,940 rental listings. A simple search was conducted on www.vrbo.com with the country name only, no additional filters applied, to randomly identify 20 rental listings from each nation. Data on the first 20 returned rental listings were collected for study inclusion.

To account for potential search return effects (Johnson *et al.*, 2004), the search return order from 1 (first) to 20 (last) was collected as well to check for any resulting sample bias. This variable (*Search Return*) is completely uncorrelated with nearly all of the other variables of interest and is insignificant when included in the regression models, indicating that the approach taken indeed did lead to a randomized sample of rental listings. In other words, return order with an unfiltered search appears completely uncorrelated with the rental listing popularity. This control variable is therefore excluded from the analysis for purposes of parsimony. Individual rental listing data were hand collected by the authors of this study between December 2, 2015, and April 6, 2016.

Additional country-level data were also collected. These additional data were all collected on April 6, 2016. The most recent available years' country-level GDP per capita and the number of tourists to have visited the country were both collected from http://data.worldbank.org, which is a trusted and reliable source of country-level data.

Levels of analysis

Analysis is conducted at two levels of aggregation. Analysis is first conducted at the country level to test *H1*: that higher GDP per capita will drive booking activity in the sharing economy channel. This analysis allows us to directly test the conceptual model established in Figure 1. After establishing support for Figure 1 with the nation level analysis, we then proceed to the more nuanced rental unit listing analysis, effectively investigating the larger range of relationships of interest within the sharing economy context presented in Figure 2.

Variables

Dependent variables. Bookings (90) is the dependent variable of interest for the rental unit-level analysis and it is measured as the number of days booked out of the prospective 90 days from time of data collection. This information is collected using the "availability calendar" provided on the website for each rental listing. To check the robustness of this dependent variable, *Bookings (30)*, the number of days booked out of the prospective 30 days, was also collected and is tested as an alternative dependent variable. It is correlated with the chosen DV at a very high level (0.86).

The dependent variable for the country-level analysis is calculated by taking the cumulative number of booked days across the prospective 90 day period across all sharing economy rental units in the nation of interest. This is essentially the same variable as *Bookings (90)*, but is aggregated to the nation level.

Country factors. GDP per capita is the per capita GDP of the country in which the rental unit is located, and is used as the basis of the median split approach to our regression analysis. High- and low-GDP nations are identified through a simple median analysis: all nations with a per capita GDP of $13,453.68 or above are considered high GDP, while low-GDP nations have a per capita level of $13,453.67 or less. This is a widely used economic indicator that generally estimates the level of economic development and well-being of a nation (Dritsakis, 2004). A higher GDP per capita may indicate a higher average standard of living, less poverty and thus less perceived risk for a vacationer. Therefore, *H1* predicts that

the main effect impact of GDP per capita on rental booking rates is likely to be positive (which is to be tested by a coefficient difference test between the constant terms in the low- vs high-GDP rental unit regression equation).

Country tourists is measured as the number of international tourists that the country receives. It is intended to account for the popularity of the country as a vacation destination. Intuition suggests that a higher number of tourists likely leads to higher booking rates for the individual sharing economy rental listings in that country. This is a particularly important control variable as this allows us to more rigorously empirically test the underlying argument that, holding nation tourism levels constant, GDP per capita rates will impact booking activity in the sharing economy (vs traditional channel options such as hotels). This variable is present in both the country and rental unit-level analyses.

Sharing econ properties is measured as the number of sharing economy channel rental units available in the country. One may expect that more sharing economy properties available may lead to more within channel competition, thus depressing booking rates for individual units (Alavi and Yasin, 2000). However, an alternative view is that more properties available in the sharing economy that is alternative to traditional hotels may lead to a greater channel acceptance by potential tourists (Liang *et al.*, 2017; Wang and Nicolau, 2017). Together, the expected impact of the number of sharing economy properties available on rental listing booking rates is a bit unclear.

Rental unit factors. *Unit size* of the rental unit is accounted for by the number of guests it is claimed to be able to sleep in it. It is unclear a priori whether larger or smaller rental units may be more popular. While larger tourist groups could theoretically benefit from pooled resources, they may also suffer from a more complex set of decision processes (Decrop, 2005; Nanda *et al.*, 2007). An aggregated average of this variable is used in the country-level analysis as well.

Unit price of the rental unit is calculated as the average price per night of the rental unit divided by the number of people it sleeps. Its expected effect is unclear as a higher price point could send a quality signal, while it could also deter bookings due to being a lower value (Kirmani and Rao, 2000). The nation unit price average is used in the country-level analysis.

Online review factors. The number of online customer reviews written about the rental unit (*OCR volume*) is used to test *H2*: a higher OCR volume would lead to a higher booking rate for the rental unit, regardless of the level of economic development in the nation housing that unit. The direct impact of OCR volume on booking rates is tested by the main effect in each of the regression equations, while a coefficient comparison test is also run to determine if the impact is equivalent or different across the high and low GDP conditions.

H3, that the average star rating of online customer reviews would be more influential for units located in less developed countries, is tested with the next variable of interest: *OCR valence*. This variable is measured as the average rating (1 = low, 5 = high) among online reviews written about the rental unit. The main effect in each regression equation allows for a test of the impact of OCR valence on booking rates and a coefficient comparison test determines if this impact is equivalent across units located in high- vs low-GDP-per-capita nations.

Variable descriptions and summary of statistics and correlations for each of these variables are provided in Tables I and II, respectively.

The sample shows that the average unit is booked at just over one-third of its capacity (35.58 out of 90 days). The average unit is located in a nation with per capita GDP of $23,439.32, national total tourist counts of 10.6 million and sharing economy channel property counts of 11,692.90. The average rental unit sleeps about six people and costs $42.28 per person per night (i.e. $253.68 for a room that sleeps six). A typical rental unit had received just under ten online customer reviews with a high average

rating of 4.83 (out of 5.00). All of these variables are heavily skewed right, which motivates a logging of the variables in the analysis to follow.

Models and estimation

Ordinary least squares regression models are used to test the hypothesized relationships of interest. Model 1 analyzes the data at the country level to initially test *H1*: that GDP per capita influence the booking activity in the sharing economy (as opposed to traditional accommodations such as hotels). Model 1 takes the following form [presented in equation (1) below], where the dependent variable outcome $Sharing\ Econ\ Booking_i$ is the total number of days booked over the prospective 90 period for all rental units in nation i. The effects of the right hand side variables (Country Tourists [. . .] Unit Price) are captured by the coefficient estimates of $\beta_1 \ldots \beta_4$, α_0 is a constant term and ε_i is the idiosyncratic error associated with nation i:

Model 1:

$$LN\ Sharing\ Econ\ Bookings_i = \alpha_0 + \beta_1 LN\ Country\ Tourists_1 + \beta_2 LN\ GDP\ Per\ Capita_2 + \beta_3 LN\ Unit\ Size_3 + \beta_4 LN\ Unit\ Price_4 + \varepsilon_i$$

Analysis is then conducted at the individual rental unit level to re-validate the initial test of *H1* and to then test *H2* (that OCR volume will have a consistent impact on booking rates across high and low GDP per capita contexts) and *H3* (that OCR valence will have a stronger positive impact on booking rates in low GDP per capita contexts). Model 2 includes rental units located in low-GDP-per-capita nations only and takes the following form [presented in

Variable	Description
Bookings (90)	Number of days booked out of the prospective 90 days
GDP per capita	Per capita GDP of the rental unit's location country
Country tourists	Number of international tourists for the country
Sharing econ properties	Number of sharing economy rental units available in the country
Unit size	Size of the rental unit based on the number of people that can sleep
Unit price	Average price per night of the rental unit divided by number it sleeps
OCR volume	Number of online customer reviews received by the rental unit
OCR valence	Average rating among online customer reviews for the rental unit

Table I.
Variable descriptions

Variable	Mean	SD	1	2	3	4	5	6	7
1. Bookings (90)	35.58	29.99	1						
2. GDP per capita	23,439.32	21,334.16	*0.15*	1					
3. Country tourists	1.06×10^7	1.56×10^6	−0.02	*0.23*	1				
4. Sharing econ properties	11,692.90	41,151.52	0.03	*0.25*	*0.70*	1			
5. Unit size	6.32	3.71	0.00	−0.01	−0.03	−0.03	1		
6. Unit price	42.28	43.10	*0.11*	*0.05*	*−0.11*	−0.03	−0.03	1	
7. OCR volume	9.92	16.00	*0.29*	*0.05*	*0.06*	*0.06*	0.02	0.04	1
8. OCR valence	4.83	0.35	*0.15*	0.01	*−0.07*	0.05	0.05	*0.13*	*0.14*

Table II.
Descriptive statistics and correlations

Note: Italic data indicate statistical significance, $p < 0.05$

equation (2) below], where the dependent variable outcome *Booking* 90_i is the number of days booked over the prospective 90 period for rental unit *i*, the effects of the right hand side variables (Country Tourists [. . .] Valence) are captured by the coefficient estimates of $\beta_1 \ldots \beta_6$, α_0 is a constant term and ε_i is the idiosyncratic error associated with rental unit *i*:

Model 2:

$$LN\ Bookings\ 90_i = \alpha_0 + \beta_1 LN\ Country\ Tourists_1 + \beta_2 LN\ Sharing\ Econ\ Properties_2 + \beta_3 LN\ Unit\ Size_3 + \beta_4 LN\ Unit\ Price_4 + \beta_5 LN\ OCR\ Volume_5 + \beta_6 LN\ OCR\ Valence_6 + \varepsilon_i\ if\ GDP\ Per\ Capita < \$13,453.68$$

Model 3 takes the same form as the prior equation, while including only rental units located in high per capita GDP nations:

Model 3:

$$LN\ Bookings\ 90_i = \alpha_0 + \beta_1 LN\ Country\ Tourists_1 + \beta_2 LN\ Sharing\ Econ\ Properties_2 + \beta_3 LN\ Unit\ Size_3 + \beta_4 LN\ Unit\ Price_4 + \beta_5 LN\ OCR\ Volume_5 + \beta_6 LN\ OCR\ Valence_6 + \varepsilon_i\ if\ GDP\ Per\ Capita > \$13,453.67$$

Results

Country-level results

The country-level results are reported in Table III. Regression coefficients are presented with the standard error values in parentheses directly below. Coefficients that are statistically significant are bolded and marked with an indicator relating to the relative level of significance (more details on these indicators are provided in the table descriptive text as well). Results are discussed following the presentation of the table below.

The total number of tourists frequenting the nation has a highly significant ($p < 0.001$; beta = 0.759) positive impact on the total booking activity within the sharing economy channel. GDP per capita also has a significant ($p < 0.01$; beta = 0.470) positive impact on total booking activity, indicating initial support for *H1* and validating the conceptual model presented in Figure 1. Holding total tourism constant, GDP per capita serves as a positive

Model	Model 1
N	84
Adj. R^2	0.518
DV	Total Bookings
Sample	All
Constant	*−8.652* ** (2.478)
Country tourists	*0.759* *** (0.117)
GDP per capita	*0.470* ** (0.155)
Unit size	−0.754 (0.754)
Unit price	*1.319* *** (0.356)

Notes: ** $p < 0.01$; *** $p < 0.001$

Table III.
Country-level results

quality signal that may drive prospective travelers to consider utilizing the sharing economy as a viable alternative to traditional hotels. However, in less developed nations, traditional hotels may still seem like the safer option. Average unit size has a null impact, while average price of rental units in the nation has a positive and significant impact ($p < 0.001$; beta = 1.319), perhaps providing support for a quality signaling effect of a higher price point.

Vacation rental unit-level results

The vacation rental unit-level results are reported in Table IV. Results are discussed next.

The GDP per capita of the country's impact on booking rates is accounted for by the constant term in each equation. It is found to be null ($p > 0.1$; beta = 0.270) in the low GDP regression equation and to be positive and significant ($p < 0.05$; beta = 3.552) in the high GDP condition. A coefficient difference test between these two regression estimates is marginally significant ($p < 0.1$; beta = −3.282). Together, the vacation rental unit results reinforce the findings of the country-level results in indicating that higher GDP per capita has a positive impact on booking rates when compared to lower GDP per capita rates. Support is again found for *H1*.

The number of total tourists frequenting the country has a negative and significant impact ($p < 0.05$; beta = −0.121) on sharing economy unit booking rates in the low GDP condition and directionally negative, but insignificant ($p > 0.1$; beta = −0.063) impact in the high GDP condition. A coefficient test between these two is insignificant as well ($p > 0.1$; beta = −0.058). Perhaps larger tourist markets attract the development of more and better hotels, leading to stronger competition from traditional channel alternatives to the sharing economy rental units. Larger tourist markets might also create a flood of competition within the sharing economy channel, depressing individual unit booking rates. More research to investigate these relationships further could be warranted.

The number of sharing economy properties available on the website has an insignificant impact on a single rental unit's booking rates. Perhaps this is due to the volume of units available, indicating both a theoretically positive impact of adoption of the sharing economy channel (which may drive people to list more properties for rent) and a theoretically negative impact of competition (the impact of more competitive alternatives) on individual unit listing success. More research is needed to tease these variables out in more detail moving forward.

Model	Model 2	Model 3	
N	515	571	
Adj. R^2	0.160	0.086	
DV	Bookings (90)	Bookings (90)	
Simple	Low GDP	High GDP	Coefficient Diff. Test
Constant	0.270 (1.067)	*3.552* * (1.522)	*-3.282* **** ($p = 0.074$)
Country tourists	*−0.121* * (0.053)	-0.063 (0.055)	-0.058 ($p = 0.450$)
Sharing econ properties	0.057 (0.057)	0.022 (0.041)	0.035 ($p = 0.659$)
Unit size	−0.117 (0.111)	*0.195* **** (0.112)	*−0.311* **** ($p = 0.058$)
Unit price	0.324 *** (0.081)	0.293 ** (0.099)	0.030 ($p = 0.816$)
OCR volume	*0.328* *** (0.061)	0.340 *** (0.050)	−0.011 ($p = 0.885$)
OCR valence	*1.552* *** (0.434)	-1.109 (0.814)	*2.661* ** ($p = 0.003$)

Notes: *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$; ****$p < 0.1$

Table IV.
Vacation unit-level results

The size of the unit has an insignificant impact in the low GDP condition, while having a marginally significant positive impact ($p < 0.1$; beta = 0.195) in the high GDP condition. The coefficient difference test between these two estimates also indicates unit size is more important in high than in low GDP per capita locations ($p < 0.1$; beta = −0.311), perhaps giving some evidence that larger groups (i.e. families) prefer higher GDP per capita locations for their travels.

Higher priced units enjoy significantly higher booking rates across both low ($p < 0.001$; beta = 0.324) and high ($p < 0.01$; beta = 0.293) GDP locations. Overall, this result seems to indicate the a higher price is effective in signaling quality about the rental listing. Although the coefficient difference test between conditions is insignificant, the magnitude of impact is approximately 10 per cent larger in the low GDP condition. We take this result as evidence that a higher price signals quality of the unit and/or that better quality units are able to command price premiums in this market, and that the effect may be a bit stronger in low GDP per capita contexts.

The inclusion of online customer review information in the regression models significantly improves the predictive capability of the models. The low GDP regression equation see its adjusted R^2 increase from 0.068 to 0.160 when OCR volume and OCR valence are added to the right hand side variable list. The high GDP condition adjusted R^2 increases from 0.004 to 0.086 with the addition of these two variables. We do not report the models without the inclusion of OCR information to save manuscript space, but these control variable only models are available from the authors upon request.

Strong support is found for *H2* as OCR volume is positively associated ($p < 0.001$) with booking rates across both equations. The magnitude of impact is very similar in both conditions as the coefficient is 0.328 in the low GDP condition and 0.340 in the high GDP condition (less than a 4 per cent difference). The coefficient difference test is insignificant, with a very high p-value of 0.885. Rental unit popularity, as evidenced by a high OCR volume, is equally important for improving booking rates across low and high GDP per capita contexts.

Support is also found for *H3*, as a higher average OCR valence is associated with a higher booking rate in the low, but not the high, GDP condition. The impact of OCR Valence on booking rates is positive and highly significant ($p < 0.001$; beta = 1.552) in the low GDP regression equation. By comparison, this impact is directionally negative and not statistically significant ($p > 0.1$; beta = −1.109) in the high GDP regression. The coefficient difference test indicates that the positive impact of OCR Valence on booking rates is significant higher ($p < 0.01$; beta = 2.661) in the low than in the high GDP condition. We take this result as evidence that the quality signal provided by a higher average star rating among prior reviews for the vacation rental unit is more important when that unit is located in a low-GDP-per-capita nation. The quality signal is imperative to overcome the negative risk of traveling to a less developed nation.

Graphed model predictions

We move on now to graph the key the results to demonstrate their magnitude of effect and their resulting relevance to theory and practice.

Figure 3 demonstrates the impact that GDP per capita has on total sharing economy channel booking rate activity via the country-level analysis. After holding other factors (including the number of tourists coming to the nation per year) constant, the sharing economy channel is expected to yield about approximately 221 more total booking days in extremely high than in extremely low–GDP-per-capita nations.

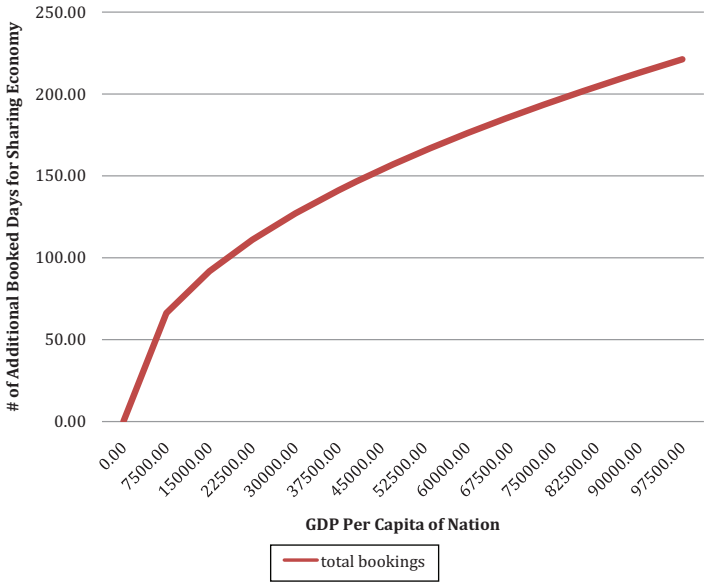

Figure 3.
The impact of GDP per capita on sharing economy channel booking rates

Figure 4 reports the impact of OCR Volume on booking rates. A vacation rental unit in the sharing economy channel with 60 OCRs would expect approximately 3 more booked days over a 90-day period when compared to a unit with just 1 OCR, holding all factors constant. The impact of OCR volume on booking rates is essentially the same regardless of whether the rental unit is located in a low- or high-GDP-per-capita nation.

Figure 5 reports the model predictions in graphical form to demonstrate the comparative magnitude of OCR valence's impact on booking rates across the high and low GDP contexts. The graph shows that OCR valence has a very large magnitude impact on booking rates in low-GDP-per-capita nations: a high rated vacation rental unit (five out of five stars) is estimated to enjoy an average 90-day booking rate of approximately 11 additional days when compared to a low rated (one out of five stars) unit, all other factors held constant. In high-GDP-per-capita nations, an increase in OCR valence has no impact on booking rates.

Robustness checks

Additional robustness checks were conducted, but are not reported to preserve space in the main text of the manuscript. These alternative specifications at the individual rental listing unit included each of the following. One additional specification utilizes 30-day booking rates in place of the chosen 90-day booking rates as the dependent variable of interest. An additional control variable, search return, was also considered to account for potential bias in the sample collection approach. Relative rates of nation tourism and sharing economy properties against a nation's population were also considered. At the country level of analysis, an alternative dependent variable (total dollars) multiplied the reported dependent variable (total bookings) by the average price to estimate total revenue generated. The results are consistent with the main models across each of these alternative specifications at both levels of analysis.

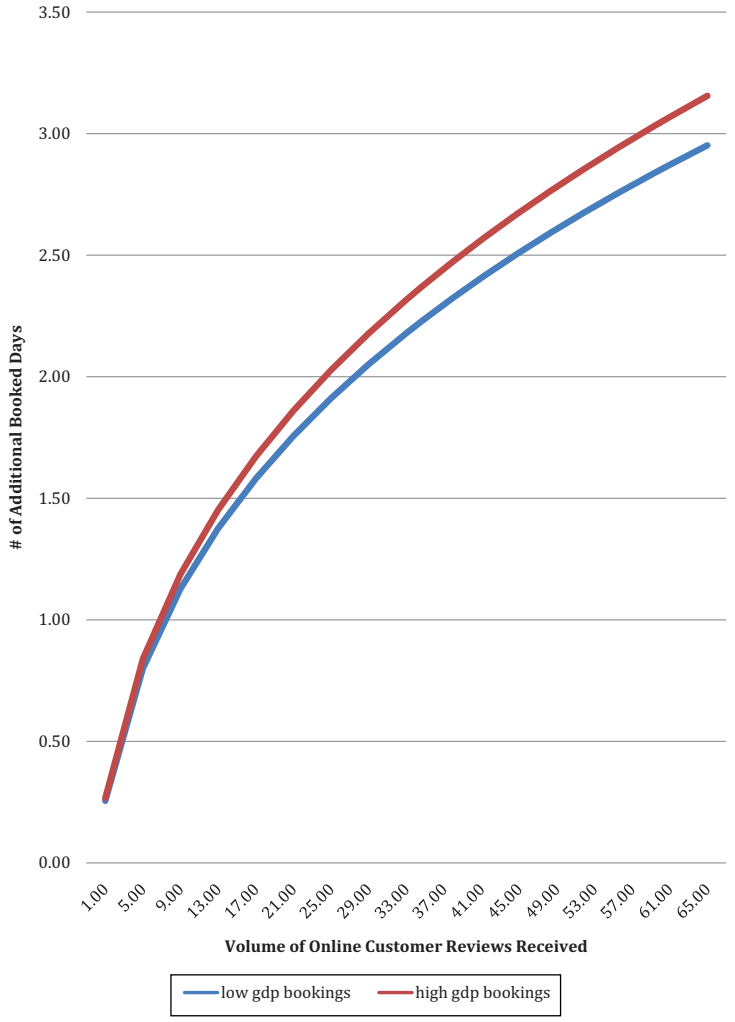

Figure 4.
The impact of OCR volume on bookings for low- and high-GDP properties

Discussions

General discussion

This study investigated the role of nation development (GDP per capita) in driving the adoption of the sharing economy in multiple international locations. It proceeded to also investigate the relationships between online customer review activity and booking rates for individual vacation rental units within the sharing economy channel. Findings indicate that GDP per capita serves as a positive signal for sharing economy vacation rental units and increases their overall channel and individual rental unit booking rate successes. Moreover, online customer reviews also serve to improve booking rates for individual rental units. While a high volume of online customer reviews is a robust indicator of rental unit

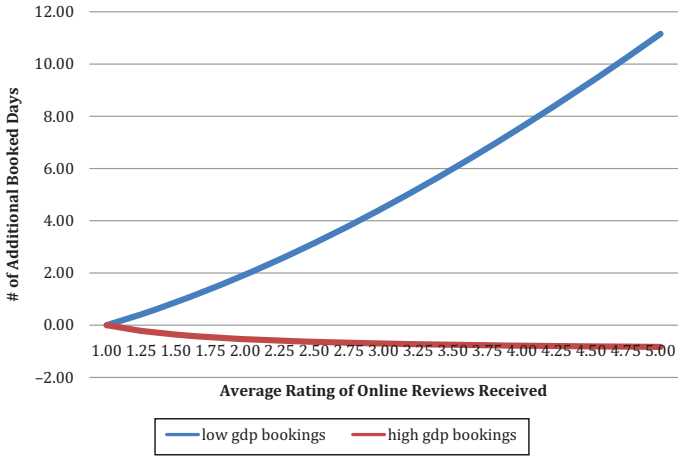

Figure 5.
The impact of OCR valence on bookings for low- and high-GDP properties

popularity that provides a consistent positive impact on booking rates, the average valence of those customer reviews serves as a quality signal that improves booking rates only in low GDP nation locations. Key theoretical contributions are discussed next, followed by an overview of managerial implications, and then a concession of the limitations of our approach that warrant future research attention.

Implementations

Contributions to theory

The first contribution to theory that this study makes is to establish how GDP per capita impacts the likelihood for tourists to choose a sharing economy accommodation as opposed to a traditional channel accommodation option such as a hotel. Because it is deemed riskier to travel to a lower-GDP-per-capita nation on average, the assurance and reliability of the traditional accommodation option is argued to be more attractive to prospective travelers in such a context. Sharing economy options, which included higher transactional risk, may seem particularly risky in less developed nations. The empirical results support this notion as, after controlling for nation level tourism totals, booking rates of vacation rental units in the sharing economy channel are shown to be significantly higher in high-GDP-per-capita nations. These results validate arguments about stigmatization effects and how they transfer to some producers while not transferring to other producers (Hudson and Okhuysen, 2009; Vergne, 2012). In our context, stigmatization of poor countries transfers to damage perceptions of the sharing economy channel, while traditional hotels can leverage global brand advantages (Akaka and Alden, 2010; Davvetas *et al.*, 2015) to diminish risk of stigma transfer.

A second key theoretical contribution of this work is that online customer reviews are shown to be influential on consumer purchase decisions in an industry setting where the purchase decision is of rather high consequence. While most of the online customer review literature has focused on categories like box office movies, books, video games and food purchase, very limited research has focused on situations where a consumer is spending a sizeable amount of money and time toward the consumer decision at hand. This research shows that other consumers remain a trusted source of information for the decision maker in such a context, which contributes to the broader accumulating body of knowledge of when and how OCR's may materially impact purchase decisions (Floyd *et al.*, 2014; Jacobsen, 2018).

Finally, this study builds on an emerging set of literature that shows online customer reviews are more persuasive in certain contexts. This is an important development as it underscores the reason online customer reviews matter: they serve to provide information to assist in the consumer decision making process. However, that information may be more or less valuable to consumers depending on the specific decision circumstances. In the context of this study, it is found that the average OCR valence ratings are particularly influential when a prospective rental unit is located in a developing country, where consumers are likely to perceive higher rates of risk in association with the consumer decision at hand. When GDP per capita is high, OCR valence has no measurable impact on booking rate outcomes. This is because OCR valence is a quality signal, which is only a pertinent source of information in contexts where purchase risk perception are likely to be higher. By contrast, OCR volume, which serves instead as a signal of sharing economy channel popularity, has a consistent positive impact across both low and high GDP per capita conditions. This is because popularity is a key signal to promote market acceptance of new product offerings (Van den Bulte and Joshi, 2007).

Managerial implications

The first managerial implication is related to where sharing economy vacation rental units may be more or less attractive as investment opportunities. Managers of sharing economy rental units are shown to find more success in higher developed tourist destination nations in this research. This is because stigmatization of a poverty stricken nation by prospective travelers leads to negative spillover assessments on the suitability of sharing economy accommodations in these nations. By contrast, traditional hotels that are part of global brand chains are positioned to be more immune to country-level stigmatization effects due to their ability to establish a strategy and image of brand consistency across locations and markets.

The second clear managerial implication arising from this study is that sharing economy vacation rental unit managers should look to promote the generation of online customer reviews. An increase in OCR volume is associated with higher booking rates for vacation rental units. Customer relationship management efforts that encourage and possibly even reward those customers that are willing to provide online customer reviews following their stay could have a substantive impact on the long-term financial success of the rental unit. Promoting the adoption of the sharing economy channel as whole through the generation of more online customer reviews is a crucial strategy for managers to pursue.

The final managerial implication is for rental unit managers in less developed nations to give particular attention to the motivation of strong customer experiences and the generation of positive online customer reviews. The empirical results showed that the booking rate gains to a higher average review valence is considerably higher for developing countries, when compared to more developed nations. Nations that are highly developed have lower perceived risk levels and so the valence of OCR's for the individual rental unit are less influential for prospective renters. Developing nation managers have more to gain from promoting positive OCR's and responding to negative OCR's when permitted.

Limitations

A number of limitations are present in the current study design, which could provide the opportunity for future research extensions. While this study focused on individual rental units in the sharing economy, an additional study could look to determine how the results may differ in a more established tourism industry sector like hotels. It could also be interesting to extend the results to consider additional country factors, such as the level of income inequality. Current metrics consider the average conditions for the nation, which

provide a nice starting point but do not fully capture the differences between the various nations included in the study.

Additional analyses of unstructured data including the content of the textual reviews themselves could help to reveal further insights about guests' experiences with the vacation accommodations (Calheiros *et al.*, 2017). Recent research has begun to tease out different consumer behavioral and firm performance outcomes to the presence of negative versus positive user-generated content (Jun *et al.*, 2017; Prayag *et al.*, 2018). Content analyses of online customer reviews also shows that it is common for the presence of both negative and positive information to be present within a single review comment (Fong *et al.*, 2017). De-aggregated data to consider to consider these additional online review characteristics could add further nuance to the current findings (Rambocas and Pacheco, 2018).

Individual rental listing owners are known to have different levels of success in branding and marketing their offerings (Liu and Mattila, 2017; Pera *et al.*, 2016), which also could perhaps interact with some of the more aggregated effects observed in this study. Future inquiries could allow additional related research questions to be addressed, such as the interactions of consumer characteristics (Aldas-Manzano *et al.*, 2009; Bae and Lee, 2011; Miyazaki and Fernandez, 2001; Park and Lee, 2009) or of professional critic reviews (Kumar *et al.*, 2016).

It is lastly important to concede that our hypotheses rely on the implicit assumption that travel to less developed nations is likely to be perceived as more risky: future research could look to study consumer level risk perceptions to verify the strength of this assumption. Likewise, an examination of whether online customer reviews become more persuasive in certain scenarios leading them to have a stronger impact on booking rates could also be directly examined.

Conclusions

The results of this study indicate that sharing economy tourist offerings are less successful in securing booking activity in low-GDP-per-capita nations, possibly due to underlying risk perceptions by prospective consumers. One may infer that traditional tourist sectors (such as hotels) may expect stronger future prospects in low, rather than high, GDP locations as a result. The risk of the sharing economy channel coupled with the risk of the nation itself may make travelers wary to consider "off the beaten path" options and may push them toward more traditional hotels. For high GDP locations, sharing economy offerings appear to be more desirable alternatives to traditional hotel accommodations. A second core takeaway is that online customer reviews are a crucial promotional tool for owners of vacation rental units in the international sharing economy. A high OCR volume has a consistent positive impact on booking rates by signaling popularity of the sharing economy channel within the market, while a high OCR valence is a crucial quality signal only in low GDP locations, to overcome negative perceptions of travel to those international locations.

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Corresponding author
Jake David Hoskins can be contacted at: hoskinsj3@gmail.com