

An Exploratory Study on Drivers and Deterrents of Collaborative Consumption in Travel¹

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Abstract

Due to the rise of businesses utilizing the sharing economy concept, it is important to better understand the motivational factors that drive and hinder collaborative consumption in the travel and tourism marketplace. Based on responses from 754 adult travellers residing in the US, drivers and deterrents of the use of peer-to-peer accommodation rental services were identified. Factors that deter the use of peer-to-peer accommodation rental services include lack of trust, lack of efficacy with regards to technology, and lack of economic benefits. The motivations that drive the use of peer-to-peer accommodation include the societal aspects of sustainability and community, as well as economic benefits. Based on the empirical evidence, this study suggests several propositions for future studies and implications for tourism destinations and hospitality businesses on how to manage collaborative consumption.

Keywords: collaborative consumption, sharing economy, peer-to-peer accommodation, the mesh, peer-to-peer rental.

1 Introduction

In recent years, the phenomenon of sharing economy has emerged in the travel and tourism marketplace. ICT enables the development of this socio-economic model by facilitating the creation and sustenance of online peer communities. The increasing connectivity, propagated by online social network platforms, allows people to share access to products and services among each other. Belk (2014) explains this phenomenon as collaborative consumption, where people coordinate “the acquisition and distribution of a resource for a fee or other compensation” (p. 1597). Similarly, referring to it as market-mediated access-based consumption, Bardhi and Eckhardt (2012) explain the domain of collaborative consumption as consumers gaining access to goods and services by paying for the experience of temporarily accessing them, highlighting that no ownership is transferred in these transactions.

Businesses leveraging the sharing economy have flourished. Companies such as Airbnb and Uber develop scalable platforms empowering individuals to distribute and share access to excess capacity of accommodation (e.g., spare rooms) and transportation (e.g., cars or bicycles sitting idle) with one another. They act as a matchmaker by creating a global network connecting individuals with underused

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assets and others who are willing to pay for using them and, in so doing, allocating resources where they are needed (Economist, 2013). Revenues generated from the sharing economy have surpassed US\$3.5 billion in 2013 with growth exceeding 25%, making it a disruptive economic force (Geron, 2013).

Many believe that the sharing economy is an appealing alternative for consumers due to its economic benefits (i.e., low cost), which was considered important after the global economic crisis (Bardhi & Eckhardt, 2012; Walsh, 2010). However, Botsman and Rogers (2011) argue that collaborative consumption is driven by motivations that extend beyond cost-savings. Gansky (2010) suggests the changing consumers' attitude towards consumption as a motivational factor that drives the sharing economy. Consumers are willing to try out new brands (Gansky, 2010) and are more open to new ways of accessing what they need (Botsman & Rogers, 2011; Bardhi & Eckhardt, 2012). Additionally, consumers are increasingly aware of the pressure that (over)consumption can pose to the environment. The idea of sharing idle capacity to reduce environmental concerns, the renewed belief in the importance of community, and cost-consciousness move consumers towards the practice of sharing, openness and collaboration (Botsman & Rogers, 2011; Walsh, 2011). Hence, it is suggested that collaborative consumption will continue to grow even when the economy is fully recovered.

The sprouting business model presents opportunities and challenges for travel and hospitality business as well as tourism destinations. According to a study by HR&A Advisors (Geron, 2012), travellers utilising Airbnb spent a total of US \$56 million in San Francisco, CA over the course of one year, generating income that is crucial to the local residents. On the other hand, the rise of such businesses also poses a critical question as to whether it creates a new market in the travel industry or replaces existing one (i.e., serves as a substitute to the established accommodation sector). Additionally, it is also important to assess the longevity of such business model given the ever-changing business environment in travel. To provide answers to this research issue, it is important to identify the motivational factors that drive or hinder travellers from engaging in collaborative consumption and to assess the potential impacts of this business model in creating a new tourism and hospitality market. Hence, using peer-to-peer accommodation rental services as a context, the goals of this study are threefold: (1) to identify the market characteristics of collaborative consumption (i.e., who the users are and how they are different from non-users), (2) to assess the motivational factors that drive collaborative consumption among users, and (3) to assess the deterrents of collaborative consumption among non-users.

2 Literature Review

2.1 Personal Innovativeness and Collaborative Consumption

Understanding the characteristics of consumers who participate in collaborative consumption will provide a better understanding of the market and its behavioural patterns. Demographic characteristics are associated with the market of the sharing economy. For example, Olson (2013) shows that younger demographics find collaborative consumption appealing (32% of Gen X and 24% of Millennials, in contrast to 15% of Baby Boomer). Even though it seems counterintuitive, she also

shows that consumers with higher income levels are more likely to participate in collaborative consumption. Collaborative consumption is characterized as innovative and on-trend (Botsman & Rogers, 2010; Walsh, 2011); a reinvention of what it means to be a citizen (Buczynski, 2013). Hence, the diffusion of collaborative consumption can be associated with personal innovativeness traits, which explain consumers' proneness to try out new things, products, ideas, technologies, etc. Indeed, literature in marketing and management emphasizes the importance of lead users (i.e., those who are ahead of an important marketplace trend), suggesting them as a valuable resource for development, adoption, and diffusion of new products and services (von Hippel, 1986). In line with diffusion theory (Rogers & Shoemaker, 1971), it is suggested that there are always some consumers that perceive the need for new products earlier than others. These innovative consumers expect high benefits from new products and services and tend to adopt new products and services more heavily and quickly than others (Urban & von Hippel, 1988). Therefore, it is suggested that consumers who participate in collaborative consumption are more innovative.

Based on the abstraction level of the traits, the measurement of personal innovativeness is differentiated into general and domain-specific innovativeness (DSI) (Goldsmith & Hofacker, 1991). DSI reflects consumers' tendency to adopt new products within a specific domain of interest (e.g., product category). Past research confirms that DSI is more predictive of a particular behaviour than the general innovativeness traits (Agarwal & Prasad, 1998; Goldsmith, Freiden, & Eastman, 1995). Therefore, DSI should be applied to travel/tourism and ICT domains in order to predict travel-related behaviour involving the use of ICT. For example, Couture et al. (2013) show that innovativeness in the domain of tourism positively influences online behaviour, which includes number of visits to travel websites, average time between visits, online travel purchase, and other behaviours when using travel websites. Therefore, it can be suggested that users of collaborative consumption have high innovativeness traits in the domain of tourism. Perceived innovativeness in the domain of ICT is defined as an individual's willingness to try out, or experiment with, new technologies (Agarwal & Prasad, 1998). Empirical evidence from e-commerce research indicates the predominance of this variable as a predictor of online behaviours (Goldsmith & Lafferty, 2001). For example, San-Martín and Herrero (2012) suggest that innovativeness in ICT influences traveller's intention to make a reservation for rural accommodation online. Therefore, it can be suggested that users of collaborative consumption have high innovativeness traits in the domain of ICT.

2.2 The Motivational Factors for Collaborative Consumption

In a market report on collaborative economy, Owyang (2013) suggests three drivers of collaborative consumption: societal (e.g., increasing population density, drive for sustainability, desire for community, etc.), economic (e.g., monetize excess inventory, increase financial flexibility, etc.), and technology (e.g., social networking, mobile devices, and payment system). From the consumers' perspective, several motivations underlying participation in collaborative consumption have been suggested, despite supported by anecdotal evidence. The global economic crisis caused consumers to rethink their values (Gansky, 2010), to be more mindful with their spending habits, and to be more resourceful (Comunispac/Ogilvy, 2011). In an increasingly liquid society where the relationship between attachment to material possession and

wellbeing has become problematic, what is valued are ever changing (Bardhi & Eckhardt, 2012; Botsman & Rogers, 2010). The movement towards collaborative consumption is driven by the increasing value of access as an alternative mode of consumption, as opposed to ownership (Bardhi & Eckhardt, 2012; Botsman & Rogers, 2010). That is, collaborative consumption is perceived as offering more value with less cost (Botsman & Rogers, 2010; Gansky, 2010; Lamberton & Rose, 2012; Sacks, 2011). In summary, consumers are motivated to participate in collaborative consumption for its economic benefits (i.e., cost-savings for better value).

An increasing awareness of environmental pressure drives people to find ways to use resources more efficiently in order to have a more sustainable society (Gansky, 2010). Indeed, since inefficient use of natural and human resources causes environmental harms, resource redistribution approach was born to offer an economic and social framework that enhances sustainability by efficiently deploying excess capacity of resources. Collaborative consumption is believed to help reduce the negative impacts on the environment because it reduces the development of new products and the consumption of raw materials (Botsman & Rogers, 2010; Walsh 2011). For consumers with a greater preference towards greener consumption, collaborative consumption can be considered a manifestation of sustainable behaviour.

Since social network and collaboration fuel collaborative consumption, direct peer-to-peer interactions and the sharing of personal experiences allow participants to create and maintain social connections with others. Participating in collaborative consumption is an opportunity to make new friends and to develop meaningful connections (Botsman & Rogers, 2010). Collaborative consumption platforms not only help strangers to meet and communicate online, they also allow individuals and communities to meet physically. Peer-to-peer accommodation rentals such as Airbnb foster direct interactions between hosts and guests (i.e., by sharing personal experiences), allowing travellers to connect with local communities. Additionally, due to the increasing importance of reputation in the era of peer-to-peer reviews (i.e., where consumers and producers are publicly rated for their service performance), collaborative consumption is a new way for people to gain recognition and reputation capital (Botsman & Rogers, 2010), to ensure that one “can be trusted” in the social marketplace. Guests and hosts rate each other on Airbnb, making it a big incentive to deliver good experience and, hence, to accumulate trustworthiness and reputation. Therefore, it is suggested that social connection and reputation motivate consumers to engage in collaborative consumption.

To date, empirical studies verifying the suggested motivational factors for collaborative consumption are extremely limited. One notable study by Hamari, Sjöklint, and Ukkonen (2013) suggests the motivations driving people to participate in online collaborative consumption with a consideration of self-determination theory, previous studies on parallel sharing, and context-specific adjustment (i.e., subjects were users of Sharetribe, $N = 156$). They conceptualize and test four drivers of attitude towards and behavioural intention for collaborative consumption: sustainability, enjoyment, reputation, and economic benefits. The results from this study show that the factors of enjoyment and economic benefits significantly affect behavioural intention for collaborative consumption, while sustainability and enjoyment drive attitude towards collaborative consumption.

2.3 Barriers to Collaborative Consumption

Owyang (2013) suggests several challenges associated with the collaborative economy concept, which stem from perceived disruption of existing regulation, lack of trust between peer-to-peer users, lack of reputation and standard, opposition from existing businesses, and uncertainty over the longevity of the business models. Further, Olson (2013) suggests trust as the most cited barrier to collaborative consumption, which includes the basic mistrust among strangers and concerns for privacy. As suggested by Botsman and Rogers (2010), collaborative consumption implies trusting strangers to a varying degree. To use peer-to-peer accommodation is to believe that it is safe to spend some times at the guest room of a perfect stranger. Furthermore, Keymolen (2013) argues that the mediation of ICT brings forth new complexities to trust relations in the context of collaborative consumption. The central role of ICT in mediating collaborative consumption implies “trust through technology,” which results in interpersonal system trust that is built and shaped by ICT. Indeed, in the context of collaborative commerce, technology trust plays a significant role in companies’ willingness collaborate (e.g., Ratnasingam, 2004). Therefore, as a deterrent of collaborative consumption, lack of trust can be rooted from trust relations among users (i.e., interpersonal trust between buyers and sellers), trust relations between users and technology (e.g., trust with the payment systems), and trust relations between users and the company (e.g., perceived uncertainty and regulatory issues).

Another deterrent is associated with the perceived utility of collaborative consumption. Sacks (2011) provides anecdotal evidence that collaborative consumption is preferred by consumers because it allows access to a desired product with lower costs. From their study on motion picture file sharing systems, Hennig-Thurau, Henning, and Sattler (2007) confirm that consumers find the sharing economy attractive when they perceive that the benefits outweigh the cost. Hence, it can be suggested that the perceived lack of economic benefits (i.e., lack of cost-savings) prevents consumers from participating in collaborative consumption (Buczynski, 2013). Consistent with this suggestion, Olson (2013) also shows that consumers are concerned of receiving bad quality products and services and that the value from collaborative consumption is not worth the effort. Finally, as collaborative consumption is enabled by ICT, consumers’ adoption of collaborative consumption can be influenced by the characteristics of technology. For example, in the context of collaborative commerce, ease of use, complexity and trialability of the technology systems (as suggested in innovation diffusion theory; Rogers, 2003) are considered important adoption factors that allow multiple users to interact, collaborate, and transact with each other using an online platform (e.g., Chong, Ooi, & Sohal, 2009; Park, Suh, & Lee, 2004). Comparably, consumers will not participate in collaborative consumption if they find the technology systems too complex. In other words, lack of technology efficacy deters consumers from participating in collaborative consumption.

3 Methodology

Due to the recent emergence of this research topic and the limited empirical support for the motivational factors underlying collaborative consumption, in order to achieve

the three research goals, this study applies an exploratory approach to gauge the drivers and deterrents for collaborative consumption. Following the definition provided by Belk (2014), this study focuses on peer-to-peer accommodation rentals (such as Airbnb) and excludes free peer-to-peer accommodation (such as Couchsurfing) and other forms of nonreciprocal, uncompensated social sharing practices. An online survey was administered to capture responses from adult travellers residing in the US. A questionnaire was designed to explore both drivers and deterrents for collaborative consumption. A list of motivational factors was developed from evidence as suggested in literature and the media consisting of 16 items corresponding to economic benefits, sustainability, social connection, reputation, enjoyment, and other benefit factors. Similarly, a list of potential deterrents was developed, consisting of 12 items representing trust, privacy and security, self-efficacy, cost-savings, and other practical issues. Responses were presented as a five-point Likert-type scale from 1–Strongly Disagree to 5–Strongly Agree. Additionally, open-ended questions were also integrated for respondents to articulate additional factors that are not included in the questionnaire. In order to explain the market characteristics, demographic variables (i.e., gender, age, education and income levels), travel frequency, and domain-specific innovativeness scale, adapted from Goldsmith and Hofacker (1991) and applied in the domains of travel and tourism as well as the domain of ICT (Agarwal & Prasad, 1998), were included in the questionnaire.

The questionnaire was distributed through Amazon Mechanical Turk to target adults who made at least one leisure trip in the past six months. The survey was conducted for about five hours on August 24, 2014, resulting in 799 responses. Exploratory factor analyses were utilized to identify the drivers of and deterrents to collaborative consumption in the accommodation sector. Additionally, textual responses to open ended questions were analysed using content analysis to identify other factors that drive or deter collaborative consumption. Several independent-samples *t*-tests and *chi*-square tests were utilized to identify differences between users and non-users in order to distinguish the characteristics of the market.

4 Results and Discussion

A total of 799 adults completed the survey, 61% of them are male and 39% female. Respondents are relatively young, with 53% of them between the ages of 25-34 years, 22% of them are 24 years old or younger, and 15% between the ages of 35-44 years. About 38% respondents have a 4-year college degree and 30% have some college education without a formal degree. A little more than 14% respondents reside in California, 9% in Florida, 5.5% in New York, 5.5% in Texas and the rest of respondents reside in other states within the US. About 61% of respondents have an annual income of less than US \$60,000, with 15% in the range of \$40,000-\$49,999 and 15% in the range of \$30,000-\$39,999. Out of 799 respondents, 754 of them stated that they have taken at least an overnight trip for leisure and tourism purposes within the last six months. Among these, the majority (599 travellers, 80%) have not used peer-to-peer rentals; only 155 travellers (20%) indicated that they have used peer-to-peer rentals before.

4.1 Market Characteristics

Based on *chi*-square tests on the demographic characteristics between users and non-users of peer-to-peer accommodation rentals, no significant differences were found in terms of gender and age (in contrast to Olson, 2013). Significant differences were found in terms of education (i.e., users are more educated than non-users, $\chi^2 = 29.79$, $df = 7$, $sig. = .00$) and income (i.e., users have a higher income compared to non-users, $\chi^2 = 19.89$, $df = 14$, $sig. = .00$; consistent with Olson, 2013). This finding indicates that the market of the sharing economy in the travel industry consists of more educated consumers with higher income. Hence, based on the demographic characteristics alone, it can be suggested that collaborative consumption may imply more than just offering a low cost solution for travellers. Consumers who are well educated may have a greater awareness of the value in collaborative consumption. In terms of travel frequency, users travel more often than non-users ($\chi^2 = 50.37$, $df = 3$, $sig. = .00$) with 24% users travel more than three times a year and 51% travel 2–3 times a year, compared to 11% and 39% for non-users, respectively. In terms of accommodation choices, the majority in both groups (79% users and 83% non-users) indicated that they stay at hotels with known brands (such as Hilton and Marriott), more users stay at independent and boutique hotels (43%, compared to 27% non-users), and more users stay at timeshares or condo rentals (26%, compared to 11% non-users) during traveling. This suggests that consumers of peer-to-peer accommodation rentals are more open to use different types of accommodation other than hotels with established brands. Thus, they may be more accustomed to different quality standards and experiences.

To assess the degree of innovativeness among users and non-users, domain-specific personal innovativeness scale (Goldsmith & Hofacker, 1991; Agarwal & Prasad, 1998) was adapted into two dimensions: tourism innovativeness and ICT innovativeness. Each construct consists of five items measuring how innovative respondents are compared to their peers in terms of travel and ICT. Using independent-samples *t*-tests, statistically significant difference was found in terms of travel innovativeness between users and non-users (Users: *Mean* = 3.43, *sd* = .88; Non-users: *Mean* = 2.93, *s.d.* = .83; $t = -6.49$, $sig. = .00$); users are more innovative in the travel domain than non-users (e.g., among the first to try out new tourism attractions or travel destinations compared to their friends). Hence, it can be suggested that participating in collaborative consumption in the travel context is relevant to personal travel innovativeness trait, which supports the finding from use pattern of accommodation types (i.e., users are open to new types of travel accommodation). However, in terms of ICT, there is no significant difference between the two groups (Users: *Mean* = 3.61, *sd* = .95; Non-users: *Mean* = 3.50, *s.d.* = .89), both indicating that they are on the innovative side when it comes to trying out new information technology.

4.2 Deterrents of Collaborative Consumption

Exploratory factor analysis (principal component analysis [PCA] with Varimax rotation) was employed to identify the underlying factors that prevented 80% of travellers from using peer-to-peer accommodation. Nine items converged into three factors, labelled as “[Lack of] Trust”, “[Lack of] Efficacy”, and “[Lack of] Economic

Benefits” (see Table 1). The three components explain 74.80% of the total variance. Kaiser-Meyer-Olkin measure of sample adequacy (.78) and Bartlett’s test of sphericity ($\chi^2 = 2472.12$, $df = 36$, $sig. = .00$) indicate that the factor analysis can be useful for this data. Items with loadings of less than .40 were dropped from the analysis. All three factors have Chronbach’s alpha of .70 or more, supporting the reliability of the scales. The first factor that deterred travellers from using peer-to-peer rentals embodies their concerns and distrust towards accommodation hosts and the platform used to communicate and execute the transaction. This is consistent with the issues raised by Olson (2013), Keymolen (2013), and Owyang (2013). Secondly, travellers did not participate in collaborative consumption simply because they did not have enough information to use the system. Thirdly, the hindrance to collaborative consumption in accommodation services was the cost factor. Travellers chose not to use peer-to-peer accommodation because it did not generate enough savings to be considered valuable. This is consistent with previous literature on commercial sharing systems suggesting that consumers will only participate if the benefits outweigh the effort of collaborative consumption (e.g., Hennig-Thurau, Henning, & Sattler, 2007; Lamberton & Rose, 2012)

Table 1. Deterrents to Using Peer-to-Peer Accommodation ($N = 599$)

Factors	Factor Loading	Eigen Value	Cumulative Percent	Chronbach’s Alpha
[Lack of] Trust		2.91	32.34%	.87
...I was concerned about safety.	.88			
...I was concerned about privacy.	.86			
...I did not trust the host(s).	.85			
...I did not trust the online platform to execute the transaction.	.67			
[Lack of] Efficacy		2.02	54.83%	.74
...I did not have enough information about how it works.	.89			
...I did not know what it is.	.85			
...it was not easy to search for the list of vacation rentals online.	.67			
[Lack of] Economic Benefits		1.80	74.80%	.80
...it was more expensive than staying at hotels.	.88			
...it did not save me enough money.	.85			

From the overall means, Efficacy factor seemed to be the main barrier to using peer-to-peer accommodation rentals ($Mean = 3.27$, $s.d. = .99$), followed by Trust ($Mean = 3.00$, $s.d. = .89$) and Economic Benefits ($Mean = 2.82$, $s.d. = .82$). Hence, an increase in users’ familiarity with the platform and/or the community within the sharing economy may reduce the barrier to collaborative consumption. From responses to the open-ended question, a few respondents mentioned their scepticism associated with the legal standing of such businesses (i.e., due to cases of legal disputes between Airbnb hosts, property owners and guests as well as lack of clear government regulation). Hence, they chose not to engage in collaborative consumption for the ease of mind of “staying out of trouble” when they are away from home. When asked

about their future intention to stay at peer-to-peer rentals, non-users indicated that it is unlikely for them to use it in the future ($Mean = 2.89, s.d. = .85$).

4.3 Drivers of Collaborative Consumption

Exploratory factor analysis was also employed to identify the drivers of collaborative consumption among users. Three underlying factors emerged and are labelled as “Sustainability”, “Community”, and “Economic Benefits” (see Table 2). Items with loadings of less than .40 and items with loadings of .40 or more on two or more components were dropped from the analysis. The three components explain 73.37% of the total variance. Kaiser-Meyer-Olkin measure of sample adequacy (.82) and Bartlett’s test of sphericity ($\chi^2 = 973.51, df = 55, sig. = .00$) indicate that the factor analysis can be useful for this data. Chronbach’s alpha of .70 or more supports the reliability of all three scales.

Table 2. Motivations to Use Peer-to-Peer Accommodation ($N = 155$)

Factors	Factor Loading	Eigen Value	Cumulative Percent	Chronbach’s Alpha
Sustainability		3.68	33.49%	.92
...I would like to reduce the consumption of energy and other resources while traveling.	.93			
...I would like to be a more socially responsible traveller.	.93			
...I would like to reduce the negative impacts of travel on the environment.	.91			
...I would like to support the local economy.	.71			
...it was a more sustainable business model.	.65			
Community		2.39	55.20%	.82
...I would like to have a more meaningful interaction with the hosts.	.84			
...I would like to get to know people from the local neighbourhoods.	.83			
...I would like to get insiders’ tips on local attractions.	.79			
Economic Benefits		2.00	73.37%	.73
...it saved me money.	.85			
...it helped me lower my travel cost.	.84			
...I would like to have higher quality accommodation with less money.	.73			

First, collaborative consumption was driven by the motivation to be more responsible travellers, to reduce the negative impacts of travel on the environment, to use resources more responsibly, and to support local economy. This is consistent with the suggestions from Bostman and Rogers (2010) and Gansky (2010). Secondly, collaborative consumption was driven by social motivations to get to know, interact

and connect with local communities in a more meaningful way, which is consistent with Bostman and Rogers (2010). The two motivational factors are consistent with Owyang's (2013) suggestion on the societal drivers of collaborative consumption. Finally, getting quality accommodation with less cost drove travellers to choose peer-to-peer rentals, which is consistent with suggestions from literature (Bostman & Rogers, 2010; Gansky, 2010; Lamberton & Rose, 2012; Owyang, 2013; Sacks, 2011).

From the overall means, users indicated that the highest motivation was the Economic Benefits factor ($Mean = 4.24, s.d. = .57$). The other two factors were only slightly different (Community, $Mean = 3.40, s.d. = .95$; Sustainability, $Mean = 3.37, s.d. = .90$). While respondents recognized the motivations to connect with others as well as to protect the environment as the drivers of collaborative consumption, the cost-savings factor is still a dominant reason to engage in peer-to-peer consumption. From responses to the open-ended question, one reason to use peer-to-peer rentals was to have an authentic experience by staying with locals and, hence, adopting local lifestyle. Users stated that it is highly likely for them to use peer-to-peer rentals again in the future ($Mean = 4.24, s.d. = .78$).

5 Conclusion and Implication

In order to better explain the phenomenon of collaborative consumption in the context of travel and hospitality, this study explored the market characteristics, the motivational factors that drove the participation in the sharing economy, and the potential impacts of collaborative consumption on travel patterns. The market characteristics for collaborative consumption were derived from comparing groups of users ($N = 155$) and non-users ($N = 599$) in terms of demographic characteristics, travel behaviour, and personal innovativeness. The market for collaborative consumption in the travel context is characterized with highly educated consumers with higher income, who travel more frequently, are more open to different types of accommodation, and are more innovative in the travel domain. The finding suggests that, even though associated with lower cost, peer-to-peer accommodation attracted consumers who are in the high-income bracket. Those participating in collaborative consumption are highly educated, travel more often and use less conventional types of accommodation (e.g., boutique hotels, condo rentals and timeshare, etc.) and, thus, might be accustomed to different standards of quality and experience. This is relevant with their innovativeness trait as they are more open to new offerings in the travel domain. Therefore, the results confirm that collaborative consumption penetrates the market not only as a low cost alternative to accommodation, but more so as a new "mode" of traveling.

Three factors were identified as deterrents to collaborative consumption in the accommodation sector. They are: Trust (i.e., mistrust between strangers, distrust towards technology), Efficacy (i.e., travellers did not know how the system works or found it hard to operate) and Economic Benefits (i.e., lack of cost-savings). The following proposition is suggested:

P1. (Lack of) Trust, (Lack of) Efficacy and (Lack of) Economic Benefits deter participation in collaborative consumption.

Three factors were identified as drivers of collaborative consumption in the accommodation sector. They are: Sustainability (i.e., to travel more responsibly and to reduce negative impacts on the environment), Community (i.e., to develop meaningful social connections) and Economic Benefits (i.e., to get more value with less cost). The following proposition is suggested:

P2. Sustainability, Community and Economic Benefits motives drive participation in collaborative consumption.

Based on the findings, in order to reduce barrier to entry and increase participation, peer-to-peer accommodation businesses need to develop a platform that helps increase trust among users (e.g., with the inclusion of reputation scoring or regulatory measures), to educate the market to increase familiarity with the systems, and to highlight the sustainability and economic benefits from collaborative consumption (e.g., by offering transparent, side by side comparison with competing accommodation businesses). On the other hand, hotel businesses need to rethink their strategies to stay competitive in the market, considering the advantage of collaborative consumption in terms of sustainability, community, and cost-savings. Furthermore, tourism destinations should encourage collaborative consumption to promote a healthy competition in the accommodation sector by setting up necessary regulations in order to optimize its benefits for the local economy and, at the same time, to protect the users (i.e., hosts and guests). Finally, because this research is exploratory in nature, future research should test and verify the propositions in different contexts to support the applicability of the scales and generalizability of the findings in this study. Additionally, other factors such as enjoyment and reputation (from previous literature) that did not converge in this study, as well as authenticity and legal/regulatory concerns (as emerged from the open-ended questions) should be verified further.

References

- Agarwal, R. & Prasad, J. (1998). A conceptual and operational definition of personal innovativeness in the domain of information technology. *Information Systems Research* 9(2): 204-215.
- Algar, R. (2007). Collaborative consumption. *Leisure Report* (April 2007): 16-17.
- Bardhi, F. & Eckhardt, G.M. (2012). Access-based consumption: The case of car-sharing. *Journal of Consumer Research* 39(4): 881-898.
- Belk, R. (2014). You are what you can access: Sharing and collaborative consumption online. *Journal of Business Research* 67(8): 1595-1600.
- Botsman, R. & Rogers, R. (2011). *What's Mine is Yours: The Rise of Collaborative Consumption*. New York, NY: Harper Business.
- Buczynski, B. (2013). *Sharing is Good. How to Save Money, Time and Resources through Collaborative Consumption*. Gabriola Island, BC: New Society Publishers.
- Chong, A. Y.-L., Ooi, K.-B., & Sohal, A. (2009). The relationship between supply chain factors and adoption of e-collaboration tools: An empirical examination. *International Journal of Production Economics* 122(1): 150-160.
- Comunispac/Ogilvy (2011). *Eyes Wide Open, Wallets Half Shut: The Emerging Post-Recession Consumer Consciousness*. White Paper. Retrieved from https://assets.ogilvy.com/truffles_email/eyeswideopen_press/Eyes_wideshut.pdf.

- Couture, A., Arcand, M., Sénécal, S., & Oullet, J.-F. (2013, OnlineFirst). The influence of tourism innovativeness on online consumer behavior. *Journal of Travel Research*. DOI: 10.1177/0047287513513159.
- Economist, The (2013). Peer-to-peer rental: The rise of the sharing economy. Retrieved from <http://www.economist.com/news/leaders/21573104-internet-everything-hire-rise-sharing-economy>.
- Gansky, L. (2010). *The Mesh: Why the Future of Business is Sharing*. New York, NY: Portfolio Penguin.
- Geron, T. (2012). Airbnb had \$56 million impact on San Francisco: Study. *Forbes*. Retrieved from <http://www.forbes.com/sites/tomiogeron/2012/11/09/study-airbnb-had-56-million-impact-on-san-francisco/>.
- Geron, T. (2013). Airbnb and the unstoppable rise of the share economy. *Forbes*. Retrieved from <http://www.forbes.com/sites/tomiogeron/2013/01/23/airbnb-and-the-unstoppable-rise-of-the-share-economy/>.
- Goldsmith, R. E. & Freiden, J. B. (1995). The generality/specificity issue in consumer innovativeness research. *Technovation* 15(10): 601-612.
- Goldsmith, R. E. & Hofacker, C. F. (1991). Measuring consumer innovativeness. *Journal of Academy Marketing Science* 19(3): 209-222.
- Goldsmith, R. E., & Lafferty, B. (2001). Innovative Online Buyers. In the Proceedings of the *Annual Conference* (pp. 275-278). Society for Marketing Advances.
- Hamari, J., Sjöklint, M., & Ukkonen, A. (2013). The sharing economy: Why people participate in collaborative consumption. Working Paper. Retrieved from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2271971.
- Hennig-Thurau, T., Henning, V., & Sattler, H. (2007). Consumer file sharing of motion pictures. *Journal of Marketing* 71(4): 1-18.
- Keymolen, E. (2013). Trust and technology in collaborative consumption. Why it is not just about you and me. In Leenes, R. E., & Kosta, E. (Eds.), *Bridging Distances in Technology and Regulation* (pp. 135-150). Oisterwijk: Wolf Legal Publishers.
- Lamberton, C. P. & Rose, R. L. (2012). When ours is better than mine? A framework for understanding and altering participation in commercial sharing systems. *Journal of Marketing* 76(4): 109-125.
- Olson, K. (2013). National Study Quantifies Reality of the “Sharing Economy” Movement. Retrieved from http://www.campbell-mithun.com/678_national-study-quantifies-reality-of-the-sharing-economy-movement.
- Owyang, J. (2013). *The Collaborative Economy: Products, services and market relationships have changed as sharing startups impact business models. To avoid disruption, companies must adopt the Collaborative Economy Value Chain* (A Market Definition Report). Altimeter.
- Park, H., Suh, W., & Lee, H. (2004). A role-driven component-oriented methodology for developing collaborative commerce systems. *Information and Software Technology* 46(12): 819-837.
- Ratnasingam, P. (2004). The impact of collaborative commerce and trust in web services. *Journal of Enterprise Information Management* 17(5): 382-387.
- Rogers, E. M. (2003). *The Diffusion of Innovation* (5th Ed.). New York, NY: Free Press.
- Rogers, E. M. & Shoemaker, F. F. (1971). *Communication of innovations: A cross-cultural approach*. New York, NY: Free Press.
- Sacks, D. (2011). The sharing economy. *Fast Company*. Retrieved from <http://www.fastcompany.com/1747551/sharing-economy>.
- San-Martin, H. & Herrero, A. (2012). Influence of the user’s psychological factors on the online purchase intention in rural tourism: Integrating innovativeness to the UTAUT framework. *Tourism Management* 33 (1): 341-50.
- Urban, G. L. & von Hippel, E. (1988). Lead user analyses for the development of new industrial products. *Management Science* 34(5): 569-582.
- von Hippel, E. (1986). Lead users: A source of novel product concepts. *Management Science* 32(7): 791-805.

Walsh, B. (2011). Today's smart choice: Don't own. Share. *Time*. Retrieved from http://content.time.com/time/specials/packages/article/0,28804,2059521_2059717_2059710,00.html.