Why tourists choose Airbnb: A motivation-based segmentation study underpinned by innovation concepts

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

Every night, hundreds of thousands of tourists choose not to stay in a traditional tourism accommodation establishment, such as a hotel, and instead pay to stay in the residence of a stranger, found online via the company Airbnb. Airbnb is an online platform through which ordinary people rent out their spaces as accommodation for tourists. Established in 2008, Airbnb has grown very rapidly over the past several years, to the point that it is now often discussed in terms of its current or future impacts on the traditional accommodation sector.

Given its recent emergence, only limited research has so far examined Airbnb. In particular, few researchers have explored the important question of why so many tourists use the service. Consequently, the purpose of this study was to investigate why tourists choose to stay in Airbnb accommodations. The study centred on exploring the pull motivations that attract tourists to Airbnb, segmenting Airbnb users in accordance with these motivations, and then profiling the resulting segments. Airbnb choice also was more generally explored by examining numerous additional variables, including elements of Airbnb's brand personality, the communication channels influencing awareness and initial use of Airbnb, Airbnb's possible role as a substitute for traditional accommodations, and satisfaction and loyalty towards Airbnb. Finally, the performance expectations of Airbnb were compared with different classes of hotels in order to assess Airbnb's potential weaknesses and thereby provide a more complete picture of Airbnb choice.

This research was guided primarily by concepts associated with disruptive innovation and the diffusion of innovations. Disruptive innovation describes a process through which new products, which underperform in comparison with existing products' key attributes, encroach upon a market by introducing an alternative package of benefits generally centred around being cheaper, simpler, smaller and/or more convenient. This framework provides a natural lens through which to view the rise of Airbnb, as traditional accommodations seemingly outperform Airbnb in many key areas, but Airbnb tends to be cheaper and offer some additional alternative benefits. The diffusion of innovations is a broad field examining topics related to how and why innovations spread and are adopted. Most relevant for this study, the diffusion of innovations literature has shown that an innovation's "relative advantage" and its "compatibility" with adopters directly influence its adoption, and communication channels play a fundamental role in the spread of innovations.

The research instrument used for this study was a ten-minute online survey that was completed by tourists who had stayed in an Airbnb accommodation during the previous year. Respondents were recruited through various sampling frames, with most of the final sample coming from Facebook and Mechanical Turk. Over 900 completed surveys were received. The analysis involved an exploratory factor analysis that revealed relationships between the motivational items considered, followed by a cluster analysis that divided the respondents into distinct market segments. A variety of other descriptive and inferential statistics also were used to profile the segments and to conduct additional analyses of the data.

The survey included 17 different motivational items related to the choice of Airbnb, and the exploratory factor analysis grouped them into five factors – *Interaction*, *Home benefits*, *Novelty*, *Sharing economy ethos*, and *Local authenticity* – with two additional important items ('low cost' and 'location convenience') excluded due to a lack of inter-item correlations. Looking at the aggregate levels of agreement with the different motivations, respondents indicated that they were most strongly attracted to Airbnb by its practical attributes, and

somewhat less so by its experiential attributes. The cluster analysis divided the respondents into five segments – *Money savers*, *Home seekers*, *Collaborative consumers*, *Pragmatic novelty seekers*, and *Interactive novelty seekers* – based on their relative levels of agreement with the different motivations. When comparing Airbnb's expected performance along various attributes with that of different hotel classes, it was found that Airbnb was generally expected to outperform budget hotels/motels, underperform upscale hotels, and have mixed outcomes compared to mid-range hotels. Other important findings from the study include that the majority of respondents had used Airbnb as a substitute for hotels, and traditional and electronic word-of-mouth were the primary communication channels influencing Airbnb awareness and adoption.

Numerous practical and conceptual implications of the findings are discussed. In particular, the comparative levels of agreement with the different motivations were examined to highlight the importance of practical considerations in driving Airbnb choice. Additionally, Airbnb's marketing strategy is critiqued as inconsistent with many guests' primary motivations for using the service. The motivational characteristics and broader profiles of the five segments are discussed to provide direct marketing implications for Airbnb, its hosts, and traditional accommodations. Airbnb's performance expectations are shown to indicate some, but not complete, consistency with the concept of disruptive innovation, while also demonstrating the value in using a demand-side perspective to assess the concept. This study additionally questions Airbnb's claim that it complements rather than competes with hotels, and more broadly demonstrates that Airbnb presents a genuine threat to the traditional accommodation sector. Areas for potential future research also are described.

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Dedication

For Sophia and James,
my most welcome and beloved disruptions.

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List of Abbreviations

AHLA: American Hotel and Lodging Association

B&B: Bed-and-breakfast

eWOM: Electronic word-of-mouth communication

KMO: Kaiser-Meyer-Olkin measure of sampling adequacy

MTurk: Mechanical Turk

OTA: Online travel agency

PSR: Peer-to-peer short-term rental

WOM: Word-of-mouth communication

1. INTRODUCTION

Last night, over 500,000 tourists chose not to stay in a traditional tourism accommodation establishment, such as a hotel, hostel, or bed-and-breakfast (B&B), but rather paid to stay in the residence of an ordinary person they did not previously know, arranged online via the company Airbnb (Tsotsis, 2015). The basic phenomenon of tourists staying in rooms rented out informally by locals has existed for centuries, but the internet has revolutionized this practice and allowed it to scale to previously unfathomable levels by facilitating virtual markets where communication and trust can be established between hosts and their prospective guests (Guttentag, 2015). The internet has already been recognized as significantly impacting various aspects of the tourism accommodation industry, such as the booking process (e.g., Kim & Kim, 2004), customer reviews (e.g., Ye, Law, Gu, & Chen, 2011), and marketing (e.g., Murphy & Kielgast, 2008), but the rise of Airbnb and other similar "peer-to-peer short-term rental" (PSR) services may mark a more qualitatively transformative innovation in the industry. Like the introduction of the first grand, opulent hotels several centuries ago, or the first global industrialized hotel chains in the mid-twentieth century (Economist, 2013b; Levy-Bonvin, 2003; Sandoval-Strausz, 2007), the ascendance of PSRs seems to be altering the entire tourism accommodation landscape.

One can immediately understand the appeal of grand hotels in an era when tourist accommodation previously had consisted of primarily simple and often ramshackle inns where alcohol consumption was a key feature (Economist, 2013b; Sandoval-Strausz, 2007). Likewise, one can easily appreciate the appeal of a familiar hotel chain in an age when one had limited information regarding a destination's varied and unknown accommodations (Maney, 2014). In contrast, if told about Airbnb when it was established in 2008, most people probably would have

doubted the viability of a company based around tourists paying to lodge with strangers. In comparison with traditional accommodations, Airbnb accommodations exhibit numerous glaring weaknesses; most notably, guests must entrust a (generally unlicensed) stranger to guarantee the quality, cleanliness, and security of the place where they will be sleeping, instead of simply relying upon an established formal enterprise that is likely associated with a familiar global brand. Airbnb nevertheless has quickly become incredibly popular, and it continues to grow rapidly. This success raises the obvious question of why so many tourists are opting for Airbnb over traditional accommodations.

A small number of academic researchers have begun the process of investigating this question: Lamb (2011) used qualitative methods to explore motivations of Airbnb (and CouchSurfing) users; Guttentag (2015) presented a conceptual overview of Airbnb and its presumed key appeals from the perspective of disruptive innovation; and Tussyadiah (2015) and Tussyadiah and Pesonen (2015) surveyed PSR users on their motivations for using PSRs, rooting their analyses in the collaborative consumption literature. Some (non-academic) industry research has also begun examining why tourists choose Airbnb. The tourism research company Phocuswright surveyed PSR users on their choice to use PSRs (Hennessey, 2014; Quinby & Gasdia, 2014), and the research arm of the financial services company Morgan Stanley conducted a consumer survey looking at motivations for using Airbnb as part of an investigation of Airbnb's potential impacts on hotels and online travel agencies (Nowak et al., 2015). These studies highlight various reasons why tourists may choose Airbnb, such as its low price and perceived authenticity, thereby providing some valuable initial insights into this line of inquiry.

However, this existing research also suffers from numerous noteworthy limitations that leave a need for a more comprehensive and focused look at Airbnb choice. To begin, this body

of research is simply quite meager, consisting of just one peer-reviewed empirical study (Tussyadiah & Pesonen, 2015), complemented by a conceptual paper (Guttentag, 2015), a conference proceedings paper (Tussyadiah, 2015), an unpublished Master's thesis (Lamb, 2011), and two industry reports (Quinby & Gasdia, 2014; Nowak et al., 2015). Additionally, the studies tend to be limited in the breadth of possible motivations they consider. Tussyadiah (2015) and Tussyadiah and Pesonen (2015) consider seemingly important factors related to collaborative consumption, but their use of this viewpoint restricts their perspective such that they fail to explicitly include some potentially important factors like authenticity. Lamb (2011), in contrast, was explicitly focused on authenticity, but this focus limited the consideration of other motivations. Also, the industry studies by Phocuswright and Morgan Stanley (Nowak et al., 2015; Quinby & Gasdia, 2014) both seemingly devoted considerably more attention to the practical benefits of PSRs over the experiential appeals. Moreover, the studies by Tussyadiah (2015), Tussyadiah and Pesonen (2015), and Quinby and Gasdia (2014) examined PSRs in general, instead of a specific PSR company like Airbnb. This broader scope may have obfuscated findings due to diversity among PSR services. Finally, probably owing at least in part to the distinct approaches and different motivations considered, these studies have reached somewhat incongruent conclusions. Tussyadiah (2015) and Nowak et al. (2015) found Airbnb (or PSR) users were primarily attracted by economic savings, Lamb (2011) determined Airbnb users were primarily driven by the desire for authentic interpersonal experiences, and Quinby and Gasdia (2014) found PSR users were primarily attracted by access to household amenities.

All of these studies also have portrayed Airbnb (or PSR) guests as forming a single, homogeneous group, thereby failing to consider the likelihood that, as with many other consumer populations, Airbnb users can be divided into numerous market segments based on their reasons

for choosing the service. In fact, Airbnb listings are quite varied and the potential appeals of Airbnb include both practical advantages and experiential facets that may not generally go hand-in-hand, so the Airbnb market seems particularly suited for segmentation. There is a long history of tourism researchers using purchase motivation as a basis for market segmentation, and various researchers have applied segmentation to tourism accommodation markets. However, no researchers have yet segmented Airbnb (or PSR) users.

Beyond guests' motivations for choosing Airbnb, there are numerous other important and mostly unanswered questions relating to the broader question of why tourists choose Airbnb. To begin, Guttentag (2015) portrayed Airbnb as a disruptive innovation, which has implications for understanding its strengths and weaknesses from the consumer perspective, but neither he nor anyone else has tested this claim empirically. Additionally, one of the most consequential questions birthed from Airbnb's emergence is whether guests use it as a substitute for existing accommodations. This question has very direct implications for existing accommodation enterprises and destinations more generally. Prior analyses of this question have primarily taken a supply-side perspective (Neeser, 2015; Zervas, Proserpio, & Byers, 2015b), with the Morgan Stanley report (Nowak et al., 2015) providing the sole demand-side analysis. Furthermore, comprehensively understanding Airbnb adoption requires an understanding of the communication channels through which information and opinions about Airbnb spread. Likewise, understanding repeat Airbnb usage requires an understanding of satisfaction and loyalty towards Airbnb. Very little research has so far considered these topics.

1.1. Research purpose, design, and questions

To help fill these substantial knowledge gaps, the purpose of this study was to investigate why tourists choose to stay in Airbnb accommodations instead of traditional accommodation options (like hotels). The study involved surveying previous Airbnb guests, who were located through multiple online sampling frames. The research instrument was an online questionnaire consisting primarily of multiple choice and Likert scale questions. The analysis centred on a post-hoc cluster analysis of Airbnb guests, based on their motivations for using the service. A variety of other descriptive and inferential statistics also were employed to further examine the segments that were identified and to explore the question of Airbnb choice more broadly.

This study focused on answering four primary research questions:

1. What are tourists' motivations for choosing Airbnb over traditional accommodations?
2. Are there different segments of Airbnb guests, based on their motivations for choosing the service?
3. What are the characteristics of these potential segments, and of Airbnb users more generally, with regards to relevant variables including demographics, trip and accommodation characteristics, Airbnb usage, substitution for traditional accommodations, Airbnb satisfaction and loyalty, and influential communication channels?
4. In comparison with hotels, how do guests expect Airbnb to perform along various key accommodation attributes (as an indicator of Airbnb's status as a disruptive innovation)?

The first three research questions are all directly linked, as they focus on investigating guests' motivations for choosing Airbnb and examining motivation-based segments of Airbnb users. However, focusing on motivations merely highlights the (typically positive) reasons why guests

choose Airbnb, while neglecting the potential weaknesses of Airbnb that guests are apparently willing to tolerate. Guests' perceptions of these weaknesses are important for understanding the choice of Airbnb within the broader context of tourism accommodation. Consequently, the fourth research question highlights Airbnb's potential weaknesses, thereby complementing the other three questions to provide a more holistic overall analysis of why tourists choose Airbnb.

1.2. Conceptual underpinnings

Because existing research on Airbnb choice is so limited, this study is exploratory in nature and draws on numerous relevant concepts and areas of literature. Nonetheless, this study is chiefly underpinned by concepts associated with disruptive innovation and the diffusion of innovations. Disruptive innovation, proposed and popularised by Clayton Christensen in several seminal works (Christensen, 1997; Christensen & Raynor, 2003), outlines a process through which new products, which underperform in comparison with existing products' key attributes, encroach upon an existing market by introducing an alternative package of benefits generally centred around being cheaper, simpler, smaller and/or more convenient. This framework provides a seemingly natural lens through which to view the rise of Airbnb, as traditional accommodations may outperform Airbnb in many key areas, but Airbnb tends to be cheaper and offer some additional alternative benefits (Guttentag, 2015). The diffusion of innovations is a broad field that examines a wide range of topics related to how and why innovations spread and are adopted. This study focuses on a few key topics within the diffusion literature, including the innovation attributes of "relative advantage" and "compatibility," which directly influence user adoption, and the role different communication channels play in spreading information and opinions about an innovation.

1.3. Research contributions

This study offers a combination of practical, conceptual, and methodological contributions. On a practical level, a better understanding of why tourists choose Airbnb and the different motivation-based segments that comprise the Airbnb market should prove valuable for a variety of stakeholders. Market segmentation is essentially a strategic tool that can provide competitive advantage by guiding marketing practices (Dolnicar, 2008). The segments identified and profiled in this study offer valuable marketing insights for Airbnb, its hosts, and competing accommodation firms. Only with a clear understanding of consumers' reasons for choosing Airbnb can these various entities make informed decisions regarding how best to market towards Airbnb's users, and even whether or not such marketing efforts are worthwhile. The findings also are useful for destination marketing organizations and other tourism firms, as Airbnb guests' potential motivations for using the service (e.g., seeking local authenticity) may highlight more general characteristics of their consumer preferences. Additionally, Airbnb and hotels' expected performance along various accommodation attributes offers important insights regarding the strengths and weaknesses of both Airbnb and hotels. These findings have direct practical implications for both marketing and product development.

Furthermore, the findings regarding the potential use of Airbnb as a substitute for other types of accommodation should increase understandings of Airbnb's impact on the traditional accommodation sector. The substitution question is currently a topic of significant debate within the industry, so such knowledge will help the traditional accommodation sector to more accurately assess the threat that Airbnb poses, and in turn the importance of actively responding to Airbnb's emergence. Moreover, these findings offer an indication of Airbnb's value to local

destinations, because if Airbnb primarily facilitates new travel then its benefits for destinations will be far greater than if Airbnb is instead simply permitting tourists to pay less for lodging. Also, in many jurisdictions Airbnb does not yet charge the accommodation taxes that traditional accommodations often levy, and this issue is intertwined with broader questions about Airbnb's legality that have led to regulatory disputes with local governments across the world (Airbnb, 2016g; Griswold, 2015a). A clearer understanding of the substitution question will permit local governments to better gauge the extent of lost tax revenue and will help them make more informed decisions regarding potential policy changes to regulate Airbnb.

In addition to such practical contributions, this study also offers conceptual value. Airbnb represents part of the broader "sharing economy," and researchers are just starting to understand why consumers participate in this new form of commerce. Therefore, this research furthers the nascent understandings of motivations to use sharing economy services. Moreover, virtually no research has segmented sharing economy users, so this research helps demonstrate the potential presence of different motivation-based segments within the sharing economy. This study additionally contributes to the understanding of evolving trends within tourism, particularly with regards to accommodation choice and the appeal of non-traditional tourism accommodation. Also, much of the accommodation choice literature has not been rooted in established conceptual foundations, and researchers have yet to widely apply the ideas of disruptive innovation or the diffusion of innovations to empirical investigations of accommodation choice. Consequently, this research is helping to inject new conceptual ideas into the study of accommodation choice, while simultaneously expanding considerations of disruptive innovation and the diffusion of innovations by applying them to a new area of study. In fact, with very few exceptions (Guttentag, 2015; Hjalager, 2014), the concept of disruptive innovation has received scant

attention in any area of tourism research, so this work helps demonstrate the potential value of this concept as a lens through which to examine tourism innovations. Moreover, this study explores disruptive innovation from a demand-side perspective, which is a wanting area within the disruptive innovation literature.

Finally, this study offers methodological contributions as well. The somewhat uncommon use of multiple online sampling frames demonstrates the value in combining different sampling frames and the capacity that the internet provides for accessing hard-to-reach populations. Additionally, one of the sampling frames used was Mechanical Turk, which has become increasingly popular in the social sciences (Berinsky, Huber, & Lens, 2012), but has only been employed by a very limited number of tourism researchers (Shim, Vargas, & Santos, 2014; Tussyadiah, 2015; Tussyadiah & Pesonen, 2015). This study also proposes a new analytical approach for assessing whether a product qualifies as a disruptive innovation. Whereas previous forays into this area have been based on general market research analysis and/or input from industry experts (e.g., Hüsig, Hipp, & Dowling, 2005; Keller & Hüsig, 2009; Rafii & Kampas, 2002; Sainio & Puumalainen, 2007), this study's method is seemingly the first to be based on consumer perceptions.

2. LITERATURE REVIEW

2.1. Airbnb

2.1.1. A general overview of Airbnb

Airbnb describes itself as "a trusted community marketplace for people to list, discover, and book unique accommodations around the world" (Airbnb, 2016a). It is essentially an online platform through which ordinary people rent out their spaces as accommodation for tourists. These accommodations typically involve an entire home (such as an apartment or house), or a private room in a residence where the host is also present. Additionally, a very small percentage of Airbnb listings are shared rooms (e.g., a guest may sleep on a futon in the living room) or exotic accommodations like igloos and tree houses. Airbnb's diverse inventory also ranges from very modest to extremely luxurious.

Airbnb does not provide a clear breakdown of its listings, but a 2012 company fact sheet stated 57% of its listings were entire homes, 41% were private rooms, and 2% were shared spaces (Airbnb, 2012a). More recent independent analyses of data extracted from the Airbnb website have confirmed this general breakdown. For example, Slee (2013) found 56% of New York City Airbnb listings were for entire homes, and Clampet (2014) reported that two-thirds of New York City Airbnb listings with at least one review were entire homes. Also, as of February 2016, data for 32 major global cities extracted from Airbnb's website and presented on the website insideairbnb.com, indicated an average of 64% of the cities' Airbnb listings were for entire homes, 34% were for private rooms, and 2% were for shared spaces. Airbnb operators (i.e., "hosts") may rent their primary residence, a second home, or even operate one or more Airbnb listings as permanent short-term rentals. Roughly 80 to 90% of Airbnb hosts rent their primary residences (Airbnb, 2016b), but accommodations offered by (seemingly "professional")

hosts with multiple rentals represent a proportionally larger share of Airbnb's total listings and bookings (Clampet, 2014; Coldwell, 2016; O'Neill & Ouyang, 2016; Popper, 2015; Schneiderman, 2014; Slee, 2014).

The Airbnb website (www.airbnb.com) is quite straightforward: a prospective guest searches based on destination, travel dates, and party size; the website then returns a list of available spaces that can be refined by attributes like price, neighbourhood, and amenities; and then individual listings can be selected for greater detail, which includes a description, photographs, and reviews from previous guests. When interested in a listing, the tourist generally sends the host a reservation request and/or message in order to express interest, possibly ask questions, and often provide information about the travel party. The host then may respond and ask any questions of the tourist, or if a reservation request has been made then the host can accept or reject the request. Payments are made through the Airbnb website, and the company charges guests a 6 to 12% fee and hosts a 3% fee (Airbnb, 2016k, 2016l).

Airbnb has leveraged the internet to revolutionize the long-existing practice of ordinary people renting accommodations to tourists. This practice has always been limited by the difficulty hosts faced in making their accommodations known to potential guests, and the challenge of establishing the needed trust between hosts and guests. Airbnb has overcome these obstacles by exploiting new internet and mobile technologies. Airbnb's technological infrastructure allows hosts to freely and effortlessly attract bookings from around the world, as the website makes it simple for hosts to post descriptions and photographs of their spaces, communicate with guests, and accept reservations and payments. Likewise, the Airbnb platform allows trust to be established between hosts and guests, primarily via the practice of hosts and guests posting public reviews about each another. Such reputation systems serve the dual

purpose of allowing two parties to learn more about one another before agreeing to a transaction, and creating an incentive for both parties to conduct themselves in an acceptable manner (Jøsang, Ismail, & Boyd, 2007; Resnick, Kuwabara, Zeckhauser, & Friedman, 2000). Additionally, trust is fostered through the direct messaging communication between hosts and guests; through various identity verification techniques (described below); and through users' profiles, which generally include a photograph, descriptive personal information, and reviews from previous hosts.

Airbnb is much more than a simple matchmaking platform like craigslist, as it is directly integrated into numerous aspects of the total transaction process, and as Airbnb has grown it has made a variety of noteworthy service improvements. For example, to further enhance security, Airbnb has introduced numerous available mechanisms for identity verification, including providing an official form of photo identification, authenticating one's phone number, and linking one's Airbnb profile with one's Facebook and LinkedIn accounts (Airbnb 2016j, 2016m, 2016p; Lawler, 2013a). In 2011, Airbnb began offering hosts access to free professional photographers whose pictures are verified with an Airbnb watermark (Airbnb, 2016i, Boyd Myers, 2011). That same year, Airbnb launched a 24-hour telephone hotline that guests or hosts can call to report any issues (Kincaid, 2011). In 2013, Airbnb hired the founder of a major boutique hotel company to serve as its Head of Global Hospitality & Strategy, with the responsibility of improving guest experiences by promoting key standards in areas such as cleanliness, response time, and the accuracy of listing descriptions (Airbnb, 2013d; Geron, 2013b).

More recently, Airbnb tested the use of its own cleaning service (Lawler 2014a); offered free smoke alarms and carbon monoxide detectors to thousands of hosts (Airbnb, 2016c; Tam,

2014); launched an "Instant booking" feature permitting reservations at some rentals to be made immediately, without explicit approval from the host (Airbnb, 2016o; Plautz, 2014); introduced a "Superhost" status badge for especially active and well-reviewed hosts (Airbnb, 2016f) (which should not only help guests with their accommodation selection but should also incentivize optimal service from hosts); and modified the reviewing procedures so as to encourage more honest (i.e., less positive) reviews (Airbnb, 2014c; Rubin, 2014). Airbnb also has spent several years experimenting with the potential to offer various activities and other travel experiences and services (e.g., guided tours, drink tastings, bicycle rentals, and restaurant reservations), and purportedly will launch the initiative formally by the end of 2016 (Lawler, 2014b; Newcomer & Chang, 2016). Additionally, Airbnb has recently made efforts to attract business travellers, who represent just a small share of Airbnb guests, by setting up a dedicated business travel portal with customized search results and expenditure management tools, by partnering with various corporate travel management firms, and by introducing a "Business Travel Ready" badge that can be earned by listings with certain characteristics (e.g., a designated workspace) (Airbnb, 2014d, 2014e, 2014i, 2016n, Dillet, 2015; Taylor, 2016; Terdiman, 2014).

Limited information is available regarding user demographics, but in 2012 Airbnb reported that approximately 40% of its guests were American, with Europeans comprising the majority of the rest (Taylor, 2012). At the time, just over half of its listings were in Europe and just over a quarter were in North America (Taylor, 2012), and in early 2015 the company confirmed that over half of its listings were still located in Europe (Shead, 2015). Also, an Airbnb report on its performance during the summer of 2015 stated that its average guest age was 35 (Airbnb, 2015c), which is consistent with an earlier claim that its average guest age was

36 (Williams, 2014). The summer 2015 report also indicated that 54% of its guests were female (Airbnb, 2015c).

2.1.2. Airbnb's growth and current size

Originally called AirBed and Breakfast, the company was founded by three recent university graduates in mid-2008. The site initially offered only shared spaces and private rooms (but not entire homes), and focused on providing accommodations during major events, but the service quickly evolved into the more widely inclusive accommodation rental service it is today (Airbnb 2016a; Botsman & Rogers, 2010; Rao, 2009). Although popularity was limited early on, by mid-2010 the company's growth trajectory began veering sharply upwards (Airbnb, 2011), and it has continued on this path ever since. In February 2011, Airbnb reached a cumulative total of one million nights booked, by June 2011 Airbnb had booked its second million nights, by January 2012 it had booked a total of five million nights, and by June 2012 it had booked a total of 10 million nights (Taylor, 2012). At this point, probably due to increasing regulatory tensions, Airbnb stopped reporting total room nights booked and began reporting on the total number of guests who had used the service. In July 2014, Airbnb indicated that over 17 million guests had used the service, with over one million guests using it every month (Friedman, 2014); in January 2015 Airbnb reported that 30 million guests had used the service, with nearly 20 million using it in 2014 alone (Chesky, 2015); later in 2015 the company reported that 17 million guests had used Airbnb in just the summer of that year (Airbnb, 2015c); in early 2016 the company was reporting that over 60 million guests had used the service (Airbnb, 2016a); and in the summer of 2016 Airbnb stated that 100 million guests had used the service (Chafkin & Newcomer, 2016).

Expanding in parallel with the number of guests, Airbnb's listings have multiplied rapidly as well: Airbnb had 50,000 listings in late 2010 (Caulfield, 2010), 200,000 listings by mid-2012 (Economist, 2012), 300,000 listings by early 2013 (Geron, 2013a), 500,000 listings by late 2013 (Lawler, 2013b), 800,000 listings by the fall of 2014 (Perez, 2014), over one million listings by the end of 2014 (Griswold, 2014), and over two million listings by early 2016 (Airbnb, 2016a), spanning nearly every country in the world (Airbnb 2016a). Although one must keep in mind that Airbnb's occupancy percentage is lower than hotels', and Airbnb's listings are not all permanently available, it is still remarkable to note that Airbnb now offers more rooms than even the world's largest hotel companies (Baker, M., 2015). In financial terms, Airbnb remains a private company, which complicates value estimations. A funding round in late 2015 allocated equity to investors based on a valuation of USD $25.5 billion (Alba, 2015), but such investment valuations tend to exaggerate the true value of a company (Frier & Newcomer, 2015).

2.1.3. Airbnb's impacts on the traditional accommodation industry

Given Airbnb's rapidly expanding popularity, it is increasingly being perceived as a potential threat to traditional accommodations. However, the extent of this threat is a matter of much debate, as to date only very limited research has estimated Airbnb's impact on traditional accommodations. Numerous hotel industry leaders and analysts have voiced skepticism over Airbnb's potential impacts, arguing that the company is inconsequentially small, it serves a distinct vacation rental and homestay market, it appeals primarily to adventurous young budget travellers, and it fails to attract the more lucrative business travel market (e.g., Anderson, 2012; Carr, 2013; Chesters, 2015; DePillis, 2016; Grant, 2013a, 2013b; Hill, 2013; Marcin, 2014; Mayock, 2013; Oates, 2014; O'Connor, 2014; Solomon, 2014; Vivion, 2014; Weed, 2015).

Indeed, Airbnb contends that it complements rather than competes with hotels by attracting a different type of tourist (Lawler, 2012; Conley, 2014), thereby "making the pie bigger" rather than "taking a slice of the pie" (Shankland, 2013). Moreover, in the U.S. hotels have recently performed very well despite Airbnb's emergence (Griswold, 2015b; Solomon, 2014).

On the other hand, others have suggested that traditional accommodations will indeed be significantly impacted by Airbnb, noting that Airbnb is growing rapidly, improving its services in order to appeal to a wider base, and drawing from a market to which hotels also cater (e.g., Guttentag, 2015; Habeeb, 2014; Hendrie, 2014; Kurtz, 2014; May, 2015; Mourier, 2014; Oates, 2014; Singh, 2013; Tsuruoka, 2015; Watkins, 2014). Moreover, the perceived threat of Airbnb is arguably demonstrated by an increase in industry leaders and groups speaking out and lobbying against Airbnb (e.g., Bhatti, 2014; Edwards, 2013; Fickenscher, 2013; Hutchison, 2015; Karmin, 2013; Kelly, 2014; Meyer, 2015; O'Neill, 2014; Thomas, 2014).

2.1.4. Airbnb's regulatory issues

When members of the traditional accommodation industry criticize Airbnb, they generally complain about Airbnb not operating on a "level playing field." Despite Airbnb's massive current size, its accommodations actually are illegal in many jurisdictions due to zoning laws and other ordinances that prohibit unlicensed short-term rentals. For example, without special permits, whole-home rentals of under 30 days are prohibited in places including New York City (Whitehouse, 2015), Los Angeles (Morris, 2015b), Vancouver (Gallagher, 2014), New Orleans (where the minimum increases to 60 days in the French Quarter) (Sayre, 2014), and Denver (Nowicki, 2014). Additionally, in many jurisdictions Airbnb is not yet collecting the

accommodation taxes that traditional accommodations generally charge (Airbnb, 2016g), and which are often earmarked for tourism promotion (Mak, 2006).

Such issues were mostly trivial not long ago when the PSR market was much smaller, but now that the practice has exploded in popularity, (mostly municipal) government bodies across the globe are wrestling with the question of how best to respond to this new phenomenon. The regulatory landscape is evolving quickly, with new developments in one destination or another seemingly every week, from Amsterdam (Zech, 2014) to Aspen (Wackerle, 2014), from Boston (Vaccaro, 2014) to Berlin (Vasagar, 2014), from Chicago (Elahi, 2015) to Charlotte (Stoogenke, 2015), and from Denver (Allen, 2014) to Dallas (Nicholson, 2013). As evidenced by Airbnb's widespread use, enforcement of the prohibitory regulations tends to be limited and based on responding to formal complaints, and most jurisdictions appear more focused on updating their regulatory regimes than cracking down on violations. Airbnb is predictably very involved in these regulatory discussions, participating in hearings (Jorgensen, 2015), and financing lobbying efforts (Mesh, 2014) and public relations campaigns (Pressler, 2014). Numerous destinations are taking steps towards formalizing, regulating, and taxing PSRs, such as San Francisco (Said, 2014), London (Coldwell, 2015), Paris (Faget, 2015), Amsterdam (Zech, 2014), Portland (Culverwell, 2014), and Nashville (Garrison, 2015). These destinations often are introducing new PSR rules as a way to regulate the industry, such as requiring hosts to register with the city, limiting whole-home rentals to a certain number of nights per year, and limiting the number of guests at any given time (Garrison, 2015; Said, 2014). In contrast, other destinations, including New York City (Hawkins, 2015), Berlin (Hinckley, 2016), and Barcelona (Pellicer, 2014), are more strongly opposing PSRs. Nevertheless, the general trend seems to be the former model of formalization, regulation, and taxation.

2.1.5. The broader PSR market and the sharing economy

Airbnb is the most prominent PSR company, but there are myriad other businesses offering services of varying similarity. There are numerous smaller competitors offering essentially identical services, including Wimdu, 9flats, and Roomorama, plus niche companies like Onefinestay, which solely offers upscale listings. There are also numerous major companies, including HomeAway (and its subsidiary VRBO), HouseTrip, Vacation Rentals, and FlipKey (a subsidiary of TripAdvisor), which function somewhat similarly to Airbnb but focus chiefly on vacation homes instead of primary residences, and tend to be located more in traditional vacation rental markets instead of the urban areas where the first category of PSRs are more concentrated (Schaal, 2013a). Nonetheless, there is considerable overlap between the two categories; for example, Airbnb lists countless rentals outside of major cities and seems to be increasingly expanding into vacation rental markets (Schaal, 2013b), and HomeAway lists countless rentals within major cities. Also, some traditional B&Bs are listed on websites in both categories, and sometimes the same rental is even listed on numerous websites spanning both categories. In fact, in early 2016 it was reported that about ten to 15% of HomeAway's rentals are also listed on Airbnb (Vranica, 2016). Beyond these global PSR companies, there are also countless destination-specific companies that offer short-term residential accommodations to tourists, and often handle some of the management duties like booking guests. For example, numerous companies of this nature operate in Paris, such as Paris Attitude, Paris Perfect, and Paristay. Finally, although not technically PSRs, there are various "hospitality networks" in which hosts offer tourists shared accommodation free of charge, with CouchSurfing being the most prominent.

Even more broadly, Airbnb and other PSR companies represent part of the "sharing economy" (often also called the "collaborative economy" or "collaborative consumption"). The sharing economy has no established definition, and actually refers to two similar yet distinct practices. The first involves consumers maintaining access to goods and services without actually owning them, and examples of this phenomenon include Zipcar and bike-share members maintaining access to cars and bikes, Netflix members maintaining access to movies, and Spotify members maintaining access to music. The second type of sharing economy activity involves ordinary individuals renting out or otherwise offering access to their underused assets, and examples of this include individuals offering lodging through Airbnb, taxi rides through UberX, or personal loans through Prosper. Also, internet and mobile technology is generally viewed as a central component of the sharing economy, as it facilitates the communication, trust, and distribution that has enabled these practices to rapidly grow in popularity in recent years (Belk, 2014; Botsman & Rogers, 2010; Economist, 2013a; Sacks, 2011). There is little question that the global economic recession that began in 2008 served as a sort of catalyst for the sharing economy (Russell, 2013; Temperton, 2014), but it is also rooted in ideas related to sustainable consumption and community connectedness (Botsman & Rogers, 2010; Chase, 2015; Gansky, 2010; PricewaterhouseCooper, 2015).

2.1.6. Existing Airbnb research

Given Airbnb's recent emergence, research on the service is naturally very limited, although it is increasingly attracting attention from researchers in tourism and other fields. In fact, much of the research available today was published during the course of this study. Also, much of the available academic research still consists of studies published as working papers, conference

proceedings, and other such documents, rather than peer-reviewed journal articles. Additionally, a sizeable portion of Airbnb research has been published by various industry entities, rather than by academics.

2.1.6.1. Research on why tourists choose Airbnb

A handful of studies have begun the process of understanding why tourists choose Airbnb. To begin, in his unpublished Master's thesis, Lamb (2011) used phenomenological life-world interviews to examine the motivations behind CouchSurfing and Airbnb hosts and guests, focusing on their desire for authentic interpersonal experiences. He found that Airbnb guests were primarily attracted to the service by their desire for such experiences, but Lamb also noted financial savings played a small role. Lamb's predetermined focus on authentic interpersonal experiences permitted a rich examination of that topic, but it also prevented a more comprehensive assessment of the motivations behind Airbnb use. Also, Lamb's study devoted comparatively more attention to CouchSurfing than Airbnb, and only involved a handful of interviews with Airbnb guests.

Guttentag (2015) examined Airbnb through the conceptual lens of disruptive innovation, and he proposed three key appeals of Airbnb based on a review of the relevant academic and media literature – price, household amenities, and authenticity. However, Guttentag's paper is conceptual rather than empirical, so no data beyond a cost comparison of Airbnb and hotels are offered to support the three motivating factors he proposes.

Tussyadiah (2015) surveyed PSR users on their motivations for using PSRs, focusing on motivations drawn from the collaborative consumption literature. An exploratory factor analysis grouped these motivations into three factors – Sustainability, Community, and Economic

Benefits. She found that all three factors had an influence, with Economic Benefits being the most significant. However, Tussyadiah's grounding in the collaborative consumption literature may have restricted the scope of her analysis, as she devoted significant attention to matters of sustainability but failed to consider practical motivations beyond cost or to explicitly consider authenticity (which she found some respondents mentioned in an open-ended item). Also, Tussyadiah only surveyed U.S. users and she investigated the use of PSRs in general, instead of just Airbnb. Because some major PSR companies offer primarily second homes that are located in traditional vacation rental markets, these services' appeal may be distinct from Airbnb's.

In a somewhat similar study, Tussyadiah and Pesonen (2015) examined motivations to use PSRs among American and Finnish users. The authors used 12 motivation statements rooted in the collaborative consumption literature, and an exploratory factor analysis revealed two factors – Social Appeal and Economic Appeal – plus several items (including location convenience and search efficiency) that did not load onto either factor. However, the authors did not indicate the strength of agreement with the different motivational factors, but rather used the factor scores as independent variables in a multiple regression looking at how PSR use impacts different travel decisions. Also, this study exhibits some of the same limitations as the Tussyadiah (2015) study, namely that practical benefits were not broadly considered, authenticity was not explicitly included, and the respondents were users of any PSR service.

Quinby and Gasdia (2014), working for the tourism research company Phocuswright, surveyed PSR users and found the top three reasons they chose PSRs were home-like amenities, more space, and better value, in that order (Hennessey, 2014). However, like the studies by Tussyadiah (2015) and Tussyadiah and Pesonen (2015), Quinby and Gasdia (2014) looked at PSRs in general instead of Airbnb specifically.

Nowak et al. (2015), working for the financial services company Morgan Stanley, surveyed U.S. and European travellers in order to gauge Airbnb's potential threat to hotels and online travel agencies. The respondents who had used Airbnb within the previous year were asked about the factors that led them to use Airbnb, and 55% indicated "cheaper price," 35% indicated "location," 31% indicated "authentic experience," 25% indicated "own kitchen," 24% indicated "uniqueness of unit," 23% indicated "easy to use app/site," and 17% indicated "large party accommodation." However, this study examined total Airbnb use instead of the choice to use Airbnb on a specific trip, which may have complicated the findings because one's reasons to use Airbnb may vary between different trips (e.g., a leisure trip versus a business trip).

Finally, Airbnb has produced economic impact reports focusing on about two dozen different major worldwide destinations, and these reports provide occasional insights into why guests choose Airbnb. Numerous reports have indicated that roughly 90% of Airbnb guests were looking to "live like a local" (Airbnb, 2013a, 2013b, 2014b, 2014g, 2014h, 2014j, 2015b, 2015d, 2015e, 2015f, 2015g, 2015h, 2016q, 2016r), a couple of reports stated that roughly 80% of Airbnb guests used it because the location was more convenient than that of a comparable hotel (Airbnb, 2014j, 2015f), and several reports claimed that about 80 to 90% of Airbnb guests chose it for the amenities (Airbnb, 2015e, 2015f, 2015h). However, in addition to potential biases with research commissioned by Airbnb, it is difficult to interpret patterns between the reports because they are not perfectly consistent in the variables covered, making it unclear if some findings are being excluded from some reports.

2.1.6.2. Research on Airbnb's impacts on traditional accommodations

The majority of the extant research looking at Airbnb's impacts on traditional accommodations has taken a supply-side perspective. Most notably, Zervas et al. (2015b) examined the relation between changes in the volume of Airbnb listings and hotel revenues in Texas. The researchers concluded that a 10% increase in Airbnb listings corresponded with a 0.37% decrease in hotel room revenue, a function of both occupancy and, to an even greater degree, rate decreases. The authors also found that the impacts were greater at lower-end hotels, independent hotels, and hotels that did not cater to business travellers. In an unpublished Master's thesis, Neeser (2015) replicated Zervas et al.'s (2015b) approach to examine Airbnb's impacts in Norway, Sweden, and Finland. Neeser found that Airbnb appeared to negatively impact hotels' average daily rates, but did not impact revenue per available room (the product of occupancy percentage and average daily rate), leading him to surmise that hotels were reducing rates in an effort to maintain occupancy levels.

Several industry groups have also examined Airbnb's impacts on hotels. Lane and Woodworth (2016), working for the commercial real estate company CBRE, examined U.S. Airbnb and hotel data, and found that Airbnb demand represented (a growing) 1.4% of hotel demand, which nearly encompassed the entire 2.05% long-term average level of hotel demand growth. The authors also found that Airbnb's footprint was notably larger in major urban markets. The authors concluded that Airbnb would impact hotels primarily by limiting price premiums during peak periods and stifling inventory growth. In another industry report, which had been commissioned by the Hotel Association of New York City, the tourism research firm HVS (2015) estimated that in the 12 months ending August 2015 Airbnb resulted in a direct loss of $451 million for New York City hotels, and an overall loss to the city of $2.1 billion once

various other indirect impacts were included (e.g., tax loss and construction loss). The $451 million figure was based on data extracted from the Airbnb website, but it questionably presumed that every single dollar spent on Airbnb accommodation would have otherwise been spent in a hotel (Mayock, 2015). In a third industry study, the hotel performance tracking firm STR compared Manhattan hotel data and Airbnb data, and found no clear evidence that Airbnb was cannibalizing hotel customers or undermining hotel pricing power even on very high occupancy "compression" nights (Haywood, 2016; Haywood, Hoyt, Wilson, Hennis, & Alvarado, 2016). Finally, in a fairly simple analysis, Swig (2014), a hospitality consultant, looked at San Francisco hotel occupancy rates from the first five months of 2014 and found weekday rates to be up and weekend rates to be down, which he suggested was due to Airbnb and other PSR companies because weekend occupancies are driven more by leisure (non-business) tourists, who are more likely to use PSRs.

The Morgan Stanley study described previously (Nowak et al., 2015) is seemingly the only (non-Airbnb) research that has taken a demand-side view of Airbnb substitution, as it asked Airbnb users to indicate any number of accommodation alternatives Airbnb had replaced. Hotel was indicated by 42% of the respondents, B&B by 36%, friends/family by 31%, extended stay hotel by 30%, other vacation rental by 22%, corporate apartment by 19%, and another rental site like HomeAway or VRBO by 19%. Also, 4% claimed they would not have otherwise taken the trip without Airbnb. Even though more respondents indicated "hotel" than anything else, the study concluded that Airbnb would have only a limited impact on hotels due to its focus on longer-duration leisure travellers instead of the short-stay business travellers that are central to hotel demand. However, the previously discussed focus on total Airbnb use instead of a single trip may have been confusing for respondents. Also, only guests who had used Airbnb for leisure

were included in this substitution analysis, and the response categories were not ideal (e.g., hostels seemingly were not included, and there is little clear distinction between vacation rentals and rentals sites like HomeAway and VRBO).

Finally, Airbnb's economic impact reports have frequently stated that around 30% of its guests would not have otherwise visited a destination or stayed as long without Airbnb. However, combining these two separate statements into a single category makes it impossible to know the first percentage (of guests who would not have otherwise visited a destination). This figure importantly helps signal the degree to which Airbnb is being used as a substitute for existing forms of accommodation. Also, as was mentioned earlier, there may be potential biases in research commissioned by Airbnb, and its reports are not consistent in the findings that are highlighted.

2.1.6.3. Other Airbnb research

Other findings related to Airbnb use have been presented in some of the studies already mentioned. Tussyadiah and Pesonen's (2015) research found PSR users largely agreed that the use of PSRs increased the number of destinations they considered visiting, their frequency of travel, their length of stay, and the travel activities in which they participated. Tussyadiah's (2015) research also examined non-users and found the greatest barriers to PSR use were a lack of trust, a lack of efficacy, and a lack of economic benefits. The Morgan Stanley study (Nowak et al., 2015) examined barriers to Airbnb use as well, and found the key barriers were lack of awareness, privacy concerns, safety concerns, and uncertainty regarding the logistics. The study also found Airbnb guests tended to have longer lengths of stay than hotel guests, with 51% of Airbnb guests staying three to five nights, in comparison with 33% of hotel guests, and just 7%

of Airbnb guests spending one night, in comparison with 25% of hotel guests. The study additionally found satisfaction with Airbnb to be quite high, with 55% of respondents indicating they were "very satisfied" with their experience and 36% indicating they were "satisfied." Moreover, this study found that Airbnb users skewed wealthier than non-users. Likewise, research by Goldman Sachs found that PSR usage was much higher among age groups younger than 45 and among the income groups spanning $70,000 to $119,999. This study also found that of people who had used PSR accommodation in the previous five years, 40% still preferred traditional hotels, whereas 36% preferred PSRs (Verhage, 2016).

Additional research on Airbnb guests was conducted by Cowen Group Inc., a financial services company (Ray, 2016; Verhage, 2016b). The Cowen Group's survey study of U.S. travellers, similar to the Morgan Stanley study, found satisfaction with Airbnb was quite high, with 63% of leisure users and 51% of business guests indicating they found Airbnb to be more satisfactory than a hotel stay. Nevertheless, the survey also found that virtually all Airbnb users had also used a hotel in the previous year, and hotels actually accounted for nearly 70% of Airbnb users' tourism accommodation nights. The survey additionally found that repeat Airbnb usage was quite common, with over 75% of respondents who had used Airbnb three to five years ago also using it within the previous year. Moreover, the study found that 44% of Airbnb users were "very likely" and 38% were "likely" to recommend Airbnb to a friend, family member, or colleague.

Research on Airbnb reviews has been conducted by Zervas, Prosperio, and Byers (2015a), who examined Airbnb accommodation ratings and found them to be exceedingly positive in comparison with ratings on TripAdvisor (looking first at all properties, then just vacation rentals, and then just properties listed on both sites). The authors surmised that the

importance of positive reviews for an Airbnb host may prompt various strategies to avoid negative reviews (beyond simply promoting guest satisfaction). Reviews also were examined by Díaz Armas, Gutiérrez Taño, and García Rodríguez (2015), who compared Airbnb and TripAdvisor reviews for several major cities and found that Airbnb properties uniformly received higher reviews, which prompted the authors to conclude satisfaction is higher in Airbnb accommodations. Additionally, Tussyadiah and Zach (2015) performed a comparative analysis on the content of hotel and PSR reviews in Portland, and found that hotel reviews tended to focus on staff, service, amenities, and location convenience, whereas PSR reviews tended to focus on the quality of the homes and hosts, the overall experience of the stay, and the desirability of the location.

Research on Airbnb hosts has been conducted by Ikkala and Lampinen (2014), who investigated how money influences the social exchange for Airbnb hosts. Also, Karlsson and Dolnicar (2016) examined hosts' motivations for using Airbnb, and found they were driven chiefly by income, social interaction, and sharing. Edelman and Luca (2014) investigated possible racial discrimination against Airbnb hosts and found that non-black hosts charged about 12% more than black hosts for equivalent rentals. Somewhat similarly, Wang, Xi, and Gilheany (2015) found that Asian Airbnb hosts in California earned 20% less than white hosts for similar rentals. Furthermore, Ert, Fleischer, and Magen (2016) examined Airbnb data and performed a choice experiment to analyze the importance of the trustworthiness perceived in a host's profile photo, and the authors found greater inferred trustworthiness was associated with higher prices and a greater likelihood of being chosen by potential guests. Additionally, Li, Moreno, and Zhang (2015) compared "nonprofessional" with "professional" hosts (with the latter referring to hosts operating two or more listings) and found the professionals tended to earn more revenue

per room, have higher occupancy levels, and were less likely to exit the market. Lee et al. (2015) examined which features of Airbnb accommodations were associated with sales in major U.S. markets. They found that, in addition to basic attributes like price and amenities, "social features," including host responsiveness and the number of reviews, also were significantly associated with sales. Tussyadiah (2016) examined the biographical descriptions posted by Airbnb hosts in New York and clustered them into five segments ("global citizen," "local expert," "personable," "established," and "creative") based on characteristics of their self-presentation. Finally, Hill, D. (2015), an Airbnb employee, summarized the company's efforts to craft an algorithm that would provide hosts with pricing suggestions. He noted that the factors most highly correlated with what a guest would pay were sleeping capacity, whether the rental is for an entire home or a private room, the type of property (e.g., apartment or house), and the quantity of reviews.

Some researchers have also looked more generally at Airbnb and its impacts. Yannopoulou, Moufahim, and Bian (2013) conducted a discourse analysis on the brand identities of Airbnb and CouchSurfing using the two services' websites and social media, and the authors identified themes such as interpersonal discourse and authenticity. Richard and Cleveland (2016) wrote a proposition paper suggesting established hotel chains have an opportunity to enter the PSR market with branded lodging marketplaces in which guests are given certain product features and quality assurances typical of traditional accommodations. Mansfeldt (2015) interviewed Airbnb hosts and guests in Denmark to examine the spatial, relational, and experiential "in-betweenness" of the Airbnb experience, noting that guests exhibit both "touristy" and "non-touristy" preferences, and the host-guest relationship can vary between strictly professional and more intimate. Oskam and Boswijk (2016) conducted a Delphi study

that looked five years into the future, predicting the evolution of Airbnb and the broader tourism accommodation sector, and outlining four different scenarios characterized by varying levels of Airbnb growth and imposed regulation. Finally, Fang, Ye, and Law (2015) examined Idaho Airbnb listing data, tourism employment data, and various other factors to estimate Airbnb's overall impact on tourism employment. The authors concluded that Airbnb can benefit tourism employment by growing the tourism economy, but they also acknowledged that this effect would be somewhat mitigated if Airbnb use grows to the point that it negatively impacts hotel employment.

Numerous authors have additionally discussed the regulatory issues surrounding Airbnb, often in addition to other PSR companies or the broader sharing economy (e.g., Gottlieb, 2013; Guttentag, 2015; Horton, 2014; Jefferson-Jones, 2015; Kaplan & Nadler, 2015; Miller, 2014; Rauch & Schleicher, 2015). Finally, as has been mentioned, Airbnb has conducted and commissioned numerous economic impact studies in key markets, of course focusing on the service's economic contributions. These studies have underscored that, as compared to the average tourist, Airbnb guests tend to spend more money, stay longer, and are particularly likely to patronize local neighbourhood businesses outside of a tourist core (Airbnb, 2016b).

2.2. Motivation-based market segmentation

The emerging body of literature on Airbnb still offers only limited insight into understanding Airbnb users. These individuals are inevitably heterogeneous in countless different and potentially noteworthy ways, ranging from straightforward differences like age to more complex differences like their emotional connection to Airbnb. Segmentation is the process by which a market is divided into various groups that are internally similar in a meaningful way.

Segmentation serves as a "key strategic instrument for tourism marketing" (Dolnicar, 2012, p. 31), which provides tourism marketers with actionable insights on targeting, positioning, and competitive analysis (Dolinicar, 2012). Segmentation can be either a priori or post-hoc (also often called "a posteriori" or "data-driven"). In a priori segmentation, subjects are categorized based upon pre-determined knowledge of the groups, such as demographic variables like nationality. In post-hoc segmentation, quantitative data analysis techniques are used to generate a classification system based upon a collection of different variables (Bigné, Gnoth, & Andreu, 2008; Dolnicar, 2002). Post-hoc segmentation studies often focus on consumers' purchase motivations (Bigné et al., 2008).

The term motivation has been defined in many different ways, but at its essence refers to the reasons why someone engages in a particular behaviour (Hawkins, Mothersbaugh, & Best, 2007; Lantos, 2011; Mangal, 1995). The tourism literature has generally adopted Dann's (1977, 1981) push-pull motivational framework that recognizes both the internal drives that inspire someone to travel (i.e., "push factors") and the more particular characteristics of a certain travel product that persuade the traveller to choose it (i.e., "pull factors") (Wall & Mathieson, 2006). While conceptually distinct, push and pull factors are often closely interrelated (Kim, Noh, & Jogaratnam, 2007), which is unsurprising because the drives that inspire individuals to travel should tend to align with certain tourism products that can best satisfy those drives. Indeed, numerous studies have found significant relationships between push and pull factors (e.g., Baloglu & Uysal, 1996; Kim, Lee, & Klenosky, 2003; Klenosky, 2002; Pesonen, Komppula, Kronenberg, & Peters, 2011), and numerous segmentation studies have either explicitly (e.g., Kim et al., 2007 Pesonen, 2012) or implicitly (e.g., Boksberger & Laesser, 2009; Hyde & Harman, 2011; Lee, Lee, & Wicks, 2004; Molera & Albaladejo, 2007) combined these two types

of motivations. This study focuses on tourists' choice of Airbnb as pertaining to particular characteristics of Airbnb accommodations, rather than the more abstract reasons why someone travels, and is therefore focused on pull motivations, although several of the motivational items considered are related to push factors.

It should be noted that push motivations are better aligned with a more precise conceptualization of motivation (or motive), common within psychology, consumer behaviour, and some tourism literature, as an inner force or drive to satisfy an internal need (Gnoth, 1999; Hawkins et al., 2007; Lantos, 2011; Coon & Mitterer, 2013). As Dann (1981) even acknowledged, "[Push motivation] deals with tourist motivation *per se*" (p. 190). In contrast, pull motivations are more aligned with the notion that consumers choose a product in order seek certain benefits, and such benefits also serve as a common basis for customer segmentation (Haley, 1968). There is little consensus within the tourism literature regarding the distinction between (pull) motivations and benefits. For example, Frochot and Morrison (2001) argued that benefits can be attribute-based or psychology-based, and in turn suggested segmentation centred on psychological motivations is really a subset of benefit segmentation, meaning many researchers have mistakenly referred to their benefit segmentation studies as motivation segmentation studies. On the other hand, Pesonen (2012) argued that Frochot and Morrison (2001) mistakenly interpreted many motivation statements as benefit statements. The present study is positioned as "motivation-based" because the motivation terminology is somewhat more common than benefit terminology within the tourism literature, and, as was previously mentioned, some of the motivational items used in this study are related to push factors.

Tourism studies segmenting on the basis of motivations (or benefits) have often focused on visitation of either a destination or a particular attraction/event, such as the North Carolina

Zoological Park (Andereck & Caldwell, 1994), Switzerland (Bieger & Laesser, 2002), rural Scotland (Frochot, 2005), Native American cultural heritage sites in Arizona (Nyaupane, White, & Budruk, 2006), a Taiwanese aboriginal festival (Chang, 2006), Amboseli National Park in Kenya (Kibicho, 2006), Kenyan national reserves (Beh & Bruyere, 2007), rural Korea (Park & Yoon, 2009), the Gallipoli battlefields (Hyde & Harman, 2011), rural Pennsylvania (Dong, Wang, Morais, & Brooks, 2013), and The Gambia (Rid, Ezeuduji, & Pröbstl-Haider, 2014). However, the segmentation literature on tourism accommodation appears limited to just a handful of studies (e.g., Liu, Wu, Morrison, & Ling, 2013; Rondan-Cataluña & Rosa-Diaz, 2014; Victorino et al., 2009), and motivation (or benefit) segmentation studies on accommodation choice are even rarer. Lieux, Weaver, and McClearly (1994) used general travel motivations to segment senior U.S. travellers into three groups ("Novelty seeker," "Active enthusiast," and "Reluctant traveller"), and then compared the lodging preferences of each segment. Chung, Oh, Kim, and Han (2004) used benefits sought to segment independent business travellers staying in luxury Seoul hotels into five groups ("Convenience-oriented," "Sophisticated business-oriented," "Seek-few benefits," "Convenience and image-oriented," and "Seek-all-benefits"). Inbakaran and Jackson (2005) used motivations and some other variables to segment visitors to Australian hotel resorts into four groups ("Romantics," "Immersers," "Tasters," and "Veterans"). Finally, Khoo-Lattimore and Prayag (2015) segmented female travellers on "girlfriend getaway" trips into five segments based on their preferences for different accommodation attributes ("Safety conscious," "Safety and amenities driven," "Food and beverage driven," "Safety and activities driven," and "Desirables").

2.3. Tourism accommodation choice

Although only a very limited number of segmentation studies have focused on tourism accommodation choice, myriad researchers have investigated the topic of tourism accommodation choice more broadly. Most of this research has focused on hotel choice, whereas a smaller body of research has focused on the choice to use non-hotel forms of accommodation.

2.3.1. Hotel choice

There exists a fairly substantial literature exploring the reasons why tourists choose one hotel over another. This literature has frequently involved respondents rating the importance of different individual hotel attributes (e.g., Chan & Wong, 2006; Lockyer, 2002, 2005a, 2005b; McCleary, Choi, & Weaver, 1998; McCleary, Weaver, & Hutchinson, 1993; Sohrabi, Vanani, Tahmasebipur, & Fazli, 2012; Tsai, Yeung, & Yim, 2011), and it sometimes focuses on particular types of tourists, such as business travellers (e.g., Buttle & Bok, 1996; Cobanoglu, Corbaci, Moreo, Ekinci, 2003; Fawzy, 2010; Lockyer, 2002; McCleary et al., 1998). A review of the hotel choice literature, and of prior reviews on this topic (Chu & Choi, 2000; Dolnicar & Otter, 2003), reveals a variety of primary attributes that are consistently identified – cleanliness, location, reputation, price, value, service quality (e.g., staff friendliness and helpfulness), room comfort, and security. This literature also has identified various secondary attributes that are noteworthy but tend to be perceived as less important, such as restaurant quality, fitness amenities (e.g., swimming pool or gym), parking facilities, a loyalty program, and the check-in and check-out procedures (Ananth, DeMicco, Moreo, & Howey, 1992; Atkinson, 1988; Buttle & Bok, 1996; Callan & Bowman, 2000; Chan & Wong, 2006; Chow, Garretson, & Kurtz, 1995; Chu & Choi, 2000; Cobanoglu et al., 2003; Conner, 2000; Li, Law, Vu, Rong, & Zhao, 2015;

Lockyer, 2002, 2005a, 2005b; McCleary et al., 1998; Sohrabia et al., 2012; Tsai et al., 2011; Yavas & Babakus, 2003). Finally, this literature has highlighted the importance of some modern attributes, such as internet access and online reservations (Beldona & Cobanoglu, 2007), but these attributes have not yet been widely studied.

Although most hotel choice research has tended to focus on the same general collection of hotel attributes, some researchers have considered less traditional selection factors; for example, Han, Hsu, and Sheu (2010) found that social norms influence intentions to stay at environmentally friendly hotels, and Kim and Perdue (2013) found affective attributes like excitement can influence hotel choice. The hotel selection literature also suggests that trip characteristics influence what tourists look for in their accommodation (Lockyer, 2005a; Lockyer & Roberts, 2009). Likewise, hotel preferences have been shown to be impacted by traveller characteristics, including age (Ananth et al., 1992), nationality (McCleary et al., 1998), gender (Cobanoglu et al., 2003), and trip purpose (Chu & Choi, 2000). Most of the literature on hotel choice has not been rooted in theory, but exceptions include Buttle and Bok's (1996) use of the theory of reasoned action and Han et al.'s (2010) use of the theory of planned behaviour.

2.3.2. Choice to use non-hotel accommodations

Complementing the hotel choice literature, there is a more limited literature on the choice to use non-hotel forms of accommodation, such as B&Bs, homestays, and CouchSurfing. Whereas the hotel choice literature has focused on the choice between different hotel properties, the non-hotel choice literature has focused on the choice to use these alternative forms of accommodation more generally. This literature has tended to highlight the unique nature of the experience tourists have in such accommodations, rather than the more practical attributes that dominate the hotel choice

literature. For example, McIntosh and Siggs (2005) studied alternative accommodation users in New Zealand and found guests enjoyed the unique character and homely feel of the accommodations, the personalized service and personal interaction with the hosts, and the opportunity to receive useful local knowledge from the hosts. Likewise, Stringer (1981) researched Australian guests of British B&Bs and found the guests were drawn by both the experience and the economical price. As the author explained:

> They had been motivated to use bed-and-breakfast facilities by their relatively low cost ... But they also saw the bed-and-breakfast institution as a medium for meeting people and enjoying a personalized and friendly atmosphere. In part this eased the possible stress and loneliness of travel: but it also added authenticity to their experiences, taking them into the "back regions" which tourists are usually denied. (Stringer, 1981, p. 363)

Similar findings, highlighting the importance of interpersonal and authentic experiences, in addition to saving money, have been found in research on homestays, home swaps and CouchSurfing (Andriotis & Agiomirgianakis, 2014; Bialski, 2011; Chen, 2011; Germann Molz, 2013; Jamal, Othman & Muhammad, 2011; Lamb, 2011; Liu, 2012; Steylaerts & O'Dubhghaill, 2011; Wang, 2007). These are topics that will be explored later in greater depth.

2.4. Disruptive innovation and the diffusion of innovations

The limited literature on Airbnb choice, combined with the literature on hotel and non-hotel accommodation choice, highlight a variety of motivations that may draw users to Airbnb. However, such literature has largely been atheoretical, partly owing to the absence of any theory directly explaining tourism accommodation choice. To add a conceptual foundation to the present study, different concepts related to innovation were used.

Innovation has been defined in myriad ways (Baregheh, Rowley, & Sambrook, 2009), but all definitions involve a fundamental reference to newness (Johannessen, Olsen, & Lumpkin,

2001). Joseph Schumpeter, an influential Austrian-born economist who published several seminal works in the early twentieth century and is widely recognized as the originator of the economic study of innovation, viewed innovation as the novel combination of existing resources, leading to the introduction of new products, production methods, supply sources, markets, and industry structures (Fagerberg, 2005; Schumpeter, 1934/2007). Schumpeter's notion of innovation clearly influenced the commonly used definition provided by the Organisation for Economic Co-operation and Development in its Oslo Manual for collecting innovation data: "An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations" (OECD, 2005, p. 46). Taking a strictly user perspective, influential works by Zaltman, Duncan, and Holbeck (1973) and Rogers (2003) conceptualized innovation very similarly, as "an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (Rogers, 2003, p. 12).

Using innovation concepts as a perspective for viewing Airbnb is logical because the service undeniably represents one of the more noteworthy recent innovations within the tourism accommodation industry. Also, because Airbnb is such a novel service, the decision to use Airbnb instead of a traditional accommodation option would seemingly represent a different type of decision than, say, choosing between two hotel properties. Even from the perspective of guests who have previously used Airbnb multiple times, the notion of innovation remains highly relevant, as adoption of an innovation should be thought of as a process leading to routine use, rather than a single event (Rogers, 2003).

The innovation literature is immensely broad, but two innovation concepts are particularly germane to the present study – disruptive innovation and the diffusion of

innovations. Disruptive innovation describes the emergence of products that underperform in comparison with incumbent products' prevailing attributes, and the diffusion of innovations broadly examines the spread of innovations as they are increasingly adopted by members of a society. Together, these concepts were used both to provide guidance on variables to consider for this study, and to better understand these different variables.

2.4.1. Disruptive innovation

2.4.1.1. A general overview

As described in seminal works by Christensen (1997) and Christensen and Raynor (2003), a disruptive innovation is a product[1] whose appeal does not derive from improved performance, which one may logically expect, as disruptive innovations rather underperform in comparison with prevailing products' key attribute(s). Nonetheless, disruptive innovations introduce an alternative package of benefits generally centred on being cheaper, simpler, smaller, and/or more convenient. In other words, disruptive innovations are inferior "good enough" products when compared directly to existing competitors, but their unique set of attributes modify the prevailing value proposition in a way that appeals to some consumers. The initial appeal of disruptive innovations is typically small, and early consumers consist of low-end consumers and/or previous non-consumers of the incumbent competing product. Then, the process of disruption involves the disruptive innovation gradually encroaching upon the existing market, at least until the point that it attracts mainstream customers who use the disruptive product as a substitute for the existing product. This process occurs as the disruptive innovation improves over time so that its performance can satisfy the demands of more and more mainstream consumers. The existing products continue improving as well, through what are known as "sustaining innovations" that

[1] The term "product" is being used loosely to refer to a good, service, technology, or business model.

increase performance along traditional performance dimensions, but in time these products end up exceeding the demands of a growing share of the market, leading to a "performance oversupply." Because early on a disruptive innovation appeals to only a small market with minimal profits, it initially tends to be dismissed by leading firms that are content to concentrate on their more profitable market segments. By the time these leading firms recognize the threat posed by the disruptive product, it may be so entrenched in the new market it has created that the previously dominant firms struggle to compete.

It should be noted that disruptiveness is not an intrinsic, absolute characteristic of an innovation. Rather, disruptiveness can only be relative to an incumbent product. Consequently, an innovation can be disruptive in relation to one product, while not being disruptive in relation to another (Christensen, 2006). It is also worth clarifying a widespread misconception regarding disruptive innovation, which is the erroneous application of the term to any exceptionally novel product that "disrupts" a market in a more colloquial sense. This mistake is common, leading to overuse of the expression (Christensen, Raynor, & McDonald, 2015; Schmidt & Druehl, 2008; Yglesias, 2013), and Christensen (2006) has even lamented choosing such an everyday term to refer to such a specific concept. To clarify, "radical" or "discontinuous" innovations are those that exhibit a significant level of "newness," often in terms of revolutionary technological advancements and/or dramatic changes in customer use (Dewar & Dutton, 1986; Veryzer, 1998). Christensen (1997, p. xv) distinguished between the two concepts by categorizing radical innovations as sustaining innovations that improve performance along traditionally valued dimensions, whereas disruptive innovations introduce a new value proposition. This distinction is arguably too rigid, as one could argue that some disruptive innovations are indeed radical, yet the more important point remains that the concepts are based on separate criteria.

Disruption can occur in any economic sector, including tourism, with a recent example being online travel agencies (OTAs) like Expedia (Christensen & Raynor, 2003). OTAs cannot match the personalised service of traditional brick-and-mortar travel agencies, but in exchange they can offer potential convenience and cost-savings (Grossman, 2007; Law, Leung, & Wong, 2004; Mayr & Zins, 2009). Even though tourism researchers have devoted significant attention to the topic of innovation (e.g., Alsos, Eide, & Madsen, 2014; Hall & Williams, 2008; Hjalager, 2010; Peters & Pikkemaat, 2005), only two seem to have explicitly applied the concept of disruptive innovation: Hjalager (2014) explored disruptive and sustaining innovations among Danish rural tourism enterprises, and Guttentag (2015) examined Airbnb using the disruptive innovation framework.

2.4.1.2. Airbnb as a disruptive innovation

As Guttentag (2015) described, the process of disruptive innovation appears to apply very directly to Airbnb. As is characteristic of disruptive innovations, Airbnb seemingly underperforms in comparison with traditional accommodations when considering traditional tourism accommodation performance attributes, as identified in the hotel choice literature. For example, hotel rooms are cleaned daily by professional staff, whereas Airbnb spaces generally are cleaned by the host according to his or her own standards; hotels offer the security of a private, locked room, whereas Airbnb guests often will have an unlicensed stranger present in the same residence; many hotels have brand reputations that assure a certain standard of quality, whereas Airbnb accommodations are only indirectly affiliated with the company; hotel reservations can be made easily and quickly, whereas Airbnb guests often must undertake a more prolonged process of communication with the host; hotels often offer amenities like restaurants,

room service, fitness facilities, business centres, and meetings rooms, which generally will not be available in Airbnb accommodations; hotels very rarely cancel guests' reservations and generally permit no-fee cancellations up until shortly before a stay, whereas cancellations by Airbnb hosts seem more common and are more problematic, plus guest cancellation policies are set by the host and are generally quite strict; hotel guests have 24/7 access to on-site professional staff in the event of any unexpected problems, whereas Airbnb guests must rely on a host who likely has many other responsibilities and may not even be present; hotels provide 24/7 front desk service accustomed to handling late night and early morning check-ins and check-outs, whereas Airbnb guests and hosts must make their own arrangements for key transfers and other steps associated with checking in and out; and, finally, hotels tend to be located in downtown and/or tourist areas, whereas Airbnb accommodations are much more widely dispersed in residential neighbourhoods (although some tourists will perceive this characteristic as an advantage rather than a disadvantage).

Even though Airbnb seemingly underperforms according to many key traditional accommodation attributes, for some consumers traditional accommodations may offer a "performance oversupply" regarding such attributes, meaning these consumers' demands have been exceeded. These individuals therefore may consider a different product with inferior performance, if bolstered by an alternative set of benefits. Indeed, as is typical of disruptive innovations, Airbnb accommodations tend to be cheaper than hotels (Guttentag, 2015; Haywood et al., 2016; Hockenson, 2013) (although some recent research has questioned this common perception (Bird, 2016; Lane & Woodworth, 2016)). Moreover, Airbnb accommodations may provide for a more unique and authentic experience, they may offer useful household amenities (e.g., a refrigerator, washing machine, and dryer) not typically available in traditional

accommodations, and they may offer more space than traditional accommodations. In other words, Airbnb offers a new value proposition that will appeal to some consumers. Yglesias (2012), writing in *Slate*, encapsulated these concepts of performance oversupply and alternative value proposition quite nicely in describing his experience using Airbnb in Buenos Aires:

> [The owner] was able to offer a local mobile phone and helpful restaurant recommendations, arrange a reasonably priced taxi to the airport for us, and even participate in a little mutually advantageous black-market currency exchange. It was cheaper than a hotel, and in exchange we gave up services we didn't really need. We're perfectly capable of making our own bed in the morning, and access to a normal refrigerator and kitchen is in practice more valuable than bellhop service.

Similarly, Sim (2015), writing in *Medium*, explained:

> I don't stay at an Airbnb place for the service because there isn't any ... I consider Airbnb when the rental rate is at least 50% or $100 USD lower for a comparable living space, which nowadays is most of the time ... [H]otels have more comfortable beds, better linens, and bathrooms, whereas most apartments have better entertainment systems, internet connectivity, and laundry facilities (I typically will only rent apartments that have at least a washing machine in the apartment itself.) ... Services like housekeeping and a facility for me to exercise aren't worth more than an additional $30/day in most markets because I can do without or find alternatives easily.

Consistent with the process of disruptive innovation, Airbnb enjoyed only marginal popularity during its first several years of operations. Early users presumably consisted of both low-end adopters (who otherwise would have stayed in cheap traditional accommodations) and new market adopters (who otherwise would have not taken the trip or would have sought free accommodation). Nonetheless, as Airbnb's popularity has exploded over the last few years, it seems reasonable to contend that Airbnb is now attracting "mainstream" consumers. This expansion has surely been advanced by Airbnb's previously described performance improvements (e.g., identify verification features, a 24/7 telephone hotline, and Instant booking), allowing it to satisfy the demands of an increasing number of consumers.

2.4.1.3. A consumer-level perspective

Although the concept of disruptive innovation seems to apply very directly to Airbnb, the disruptive innovation literature offers only limited insight into understanding why a consumer would choose to use an innovation like Airbnb. The disruptive innovation literature includes a mixture of conceptual thinking (e.g., Christensen & Raynor, 2003; Govindarajan & Kopalle, 2006), empirical research (e.g., Hüsig et al., 2005; Keller & Hüsig, 2009), and debate (e.g., Lepore, 2014; Tellis, 2006), but it has been mostly restricted to an industry-level perspective focusing on characteristics and dynamics of the disrupted industry, the firms involved, and the products involved. This perspective is understandable, as disruptive innovation is essentially a business theory describing why some companies fail, and Christensen's two major books (Christensen, 1997; Christensen & Raynor, 2003) are directed very explicitly at business managers. A basic understanding of the demand side of disruptive innovation can be extrapolated from Christensen's (1997) description of disruptive products as offering an alternative package of benefits, generally centered on being cheaper, simpler, smaller and/or more convenient. It is essentially a Lancastrian approach of decomposing products into collections of attributes that are weighed against each other (Lancaster, 1966), with adopters choosing an innovation due to its unique collection of attributes (Adner, 2002; Christensen, 1997). Also, Christensen (1997) noted that once demand on a key performance attribute is satisfied, consumers focus on secondary attributes (like preferring a smaller disk drive once the performance is sufficient). Nevertheless, such insights only provide a general understanding of the demand side of disruptive innovation.

The most concentrated look at disruptive innovation demand comes from Adner (2002), who modelled demand for computer disk drives (Christensen's primary product example) and demonstrated the particular importance of unit price in propagating disruptive innovation

demand. Adner noted that consumers differ according to factors like budget constraints, planned uses for a product, and access to substitutes, which in turn lead to variations in how consumers value different product attributes, their willingness to pay for performance improvements, and their minimum performance thresholds. Nonetheless, as performance levels become very high, this market heterogeneity is reduced because most consumers have become satisfied with product performance and the characteristics that previously distinguished consumers become decreasingly relevant. In turn, as the marginal utility from performance enhancements diminishes, unit price, rather than a price-performance ratio, becomes increasingly important in encouraging adoption. As Adner summarized, "Critical to a disruptive outcome is the price at which the invader offers its product. The attacking firm must have the incentive and ability to offer its technically inferior, yet nonetheless satisfactory product at a sufficiently lower unit price to consumers than its rival" (p. 686).

2.4.1.4. Identifying disruptive innovations

Christensen claims that the concept of disruptive innovation began as simply a statement of correlation but has since developed into a causal and predictive theory describing the failure of incumbent businesses to successfully respond to disruptive threats due to the incumbents' established values and outlook (Christensen, 1997, 2006; Christensen et al., 2015). Christensen has repeatedly acknowledged that the framework's value derives from its predictive power (Christensen, 1997, 2006; Christensen & Raynor, 2003), and has offered various examples of the framework being used successfully for predictive purposes (Christensen, 2006). However, numerous authors have criticized disruptive innovation as allowing for only "ex post" description rather than "ex ante" prediction (Danneels, 2004; Hüsig et al., 2005). For example, Tellis (2006)

rhetorically asked, “But if one must wait till the disruption has occurred, then what predictive value is there in the concept?” (p. 35). Moreover, Christensen’s evidence supporting the concept of disruptive innovation has received some recent criticism, most publicly in a *New Yorker* article that questioned the concept from numerous angles and accused Christensen of cherry-picking his evidence (Lepore, 2014). Also of note, King and Baatartogtokh (2015) recently reassessed a list of 77 proposed disruptive innovations presented by Christensen and Raynor (2003) and found that only seven perfectly aligned with the established framework.

Such disputes are not completely surprising. To begin, disruptive innovation is a multi-faceted process with many different elements that have never been truly crystallized in a single simple statement. King and Baatartogtokh (2015), for example, assessed disruptive innovation by identifying what they saw as four key elements of the theory: (1) incumbents improve via a path of sustaining innovation, (2) they overshoot customer needs, (3) they are capable of responding to disruptive threats, and (4) they still end up floundering due to the disruption. However, even this framework ignores any qualifications regarding the disruptive innovation itself (e.g., introducing a new value proposition). Moreover, the different elements of the theory are not easily measureable and are therefore open interpretation. Determining, for example, whether an incumbent firm is capable of responding to a disruptive threat is not particularly straightforward. Additionally, as Christensen (2006) acknowledged, the theory is constantly evolving. For example, in his second major book, Christensen and Raynor (2003) distinguished between new market and low-end disruptions, which Christensen (1997) had not done originally. Finally, different people interpret the concept differently, most notably with regards to what innovations can be classified as disruptive. As was mentioned earlier, the phrase is often applied in the media to describe any technological innovation challenging the status quo, and even in the academic

literature Govindarajan and Kopalle (2006) proposed a broader conceptualization that also includes "high-end" disruptions.

Assessing the validity of the disruptive innovation theory goes beyond the scope of this study. Indeed, this study views disruptive innovation as a "concept" and "framework" rather than a "theory," as the value of disruptive innovation as a conceptual lens remains even if every aspect of it does not withstand rigorous theory testing. Because this study is focused on the consumer side, it is most concerned with the traits that define a disruptive innovation, rather than the broader disruption process that King and Baatartogtokh (2015) assessed. Nevertheless, there is no precise definition for what necessary characteristics define a disruptive innovation. Bower and Christensen (1995) initially explained, "Disruptive technologies introduce a very different package of attributes from the one mainstream customers historically value, and they often perform far worse along one or two dimensions that are particularly important to those customers" (p. 45). In his first book, Christensen (1997) added, "Products based on disruptive technologies are typically cheaper, simpler, smaller, and, frequently, more convenient to use" (p. 11), and more recently Christensen et al. (2015) referred to disruptive innovations as "products [that] are simpler, more convenient, or less costly than those sold by incumbents." While these statements may be conceptually useful, they are not precise enough for measurement purposes. Recognizing this limitation, Danneels (2004) criticized Christensen for using example products with just one or two key performance dimensions, even though many products are of course far more complex. Danneels posed the example of automobiles and noted that they have myriad key performance dimensions, ranging from acceleration to fuel consumption to crash safety to reliability.

Several researchers have attempted to overcome the ambiguities in identifying disruptive innovation, often in predicting the disruptiveness of a product or a market's susceptibility to disruption. As one component of these assessments, they generally have considered whether the innovative product aligns with the characteristics of disruptive innovations. These researchers have seemingly always relied on their own market research analysis or the opinions of industry members or experts. Rafii and Kampas (2002) proposed a scorecard for firms to assess disruptive threats based on contributing factors including customer attraction. This customer attraction factor included rating an innovation in terms of its overall quality, cost, and ease of use. Hüsig et al. (2005) conducted market research analysis and expert interviews to assess the disruptive potential of wireless local area network technologies for incumbent mobile communications network operators, and included a question regarding whether the potential disruption was "simpler, cheaper, more reliable or more convenient" (p. 30). Sainio and Puumalainen (2007) interviewed industry members and experts to assess the disruptive potential of four information and communication technologies based on six propositions. The first pertained to the product's characteristics, including the introduction of a new value proposition. Keller and Hüsig (2009) conducted market research analysis to assess the disruptive potential of Google's web-based office applications for Microsoft's desktop office applications with a scorecard including an item related to overall underperformance and another item related to being "cheaper, simpler, more comfortable or more reliable" (p. 1050). This inclusion of comfort and reliability extends beyond the typical descriptive attributes (i.e., cheaper, simpler, smaller, and more convenient), and thereby highlights an innovation's more general introduction of a new value proposition that is not necessarily constrained to those four benefits.

2.4.2. The diffusion of innovations

Whereas disruptive innovation is a relatively new concept that has received only limited research attention and takes an almost uniformly business perspective, the modern study of innovation diffusion began in the 1940s and involves thousands of publications spanning disciplines including communication, rural sociology, anthropology, public health, education, marketing, and consumer behaviour (Rogers, 2003). The focus of diffusion literature is also quite broad, covering topics ranging from the influence of certain "opinion leaders" to the potential negative consequences of innovation diffusion. Of particular relevance to this study is the literature on innovation characteristics that influence adoption, personal innovativeness, and communication channels. The first two topics relate directly to the proposed motivations of Airbnb users, and will be covered below, whereas the third topic is somewhat distinct and will be discussed later on.

2.4.2.1. Innovation attributes

The characteristics defining an innovation will naturally impact the speed and extent of its adoption. Rogers (2003) summarized that adoption is influenced by five key attributes, which are relative advantage (the perception that an innovation is better than its predecessor), compatibility (the perception that an innovation is consistent with a potential adopter's values, past experiences, and needs), complexity (the perception that an innovation is difficult to use or understand), trialability (whether an innovation can be tested), and observability (whether the results of innovation adoption can be viewed by others). Importantly, it is the perceived, rather than the objective, qualities of these attributes that are of critical importance (Greenhalgh Robert,

Bate, Macfarlane, & Kyriakidou, 2005; Rogers, 2003), which is somewhat distinct from the disruptive innovation literature that tends to implicitly focus on objective attribute performance.

Numerous reviews of innovation diffusion research have highlighted the particular importance of relative advantage on innovation adoption (Arts, Frambach, & Bijmolt, 2011; Evanschitzky, Eisend, Calantone, & Jiang, 2012; Rogers, 2003; Tornatzky & Klein, 1982). Relative advantage essentially represents a comparative assessment of an innovation's array of benefits and costs (Hall, 2005; Rogers, 2003). These benefits and costs can vary widely and may relate to, for example, financial implications (e.g., inexpensiveness or the opportunity for greater profit), functional attributes, social prestige, convenience, satisfaction, or immediacy of reward (Rogers, 2003). The notion of relative advantage captures much of the demand-side thinking related to disruptive innovation, but also takes a broader perspective by focusing on perceived instead of absolute performance, and by considering indirect advantages like social prestige that are not generally recognized in the disruptive innovation literature (Greenhalgh et al., 2005; Rogers, 2003).

For example, Christou and Kassianidis (2002) examined the relative advantage of online shopping for travel products by considering the perceived physical effort of in-store travel shopping, time pressure, and enjoyment. Le, Hollenhorst, Harris, McLaughlin, and Shook (2006) examined the relative advantage of environmentally friendly practices for Vietnamese hotels by considering cost savings, sales, and firm reputation. Park and Gretzel (2006) examined the relative advantage of travel search engines by considering factors including cost savings and efficiency. Finally, Smerecnik and Andersen (2011) examined the relative advantage of environmental sustainability innovations in North American hotels and ski resorts by considering factors including market advantage, customer satisfaction, and employee satisfaction.

Relative advantage represents the most straightforward explanation for innovation adoption, but countless superior innovations are never widely adopted, as numerous other factors influence adoption as well (Rogers, 2003). In addition to relative advantage, innovations will be more appealing if they are consistent with an adopter's values and beliefs, if they are associated with positive past experiences, and if they closely align with existing needs (Rogers, 2003). Previous reviews of the innovation diffusion literature have highlighted that, along with relative advantage, compatibility plays an especially important role in adoption (Arts et al., 2011; Tornatzky & Klein, 1982). Because the three stated dimensions of compatibility – values/beliefs, previous experience, and needs – are somewhat diverse, compatibility can take many different forms and in some cases is conceptualized very similarly to relative advantage. Looking back at the four tourism studies referenced above, Christou and Kassianidis's (2002) study of online travel shopping measured compatibility in terms of time pressure and enjoyment – two of the same items they used to examine relative advantage; Le et al.'s (2006) study of Vietnamese hotels measured compatibility in terms of employee support; Park and Gretzel's (2006) study of travel search engines measured compatibility in terms of consistency with how one likes to plan trips and one's travel planning needs, and a factor analysis ended up combining the compatibility items with the relative advantage items into a single factor named "perceived usefulness;" and Smerecnik and Andersen's (2011) study of hotels and ski resorts measured compatibility in terms of alignment with current procedures and employee practices.

Innovation adoption also is influenced by complexity, as innovations that are easier to use will be adopted more readily. Complexity dissuades adoption because potential adopters may be daunted by the expected learning costs required to begin using an innovation (Arts et al., 2011; Rogers, 2003; Wood & Moreau, 2006). As was mentioned earlier, Tussyadiah (2015) found

perceived lack of efficacy to be the primary obstacle for PSR non-adopters. Likewise, trialability and observability will influence innovation adoption, as innovations that can be tested on a limited basis and have results that are visible to others will be adopted more readily. Airbnb, of course, cannot truly be "tested" on a limited basis, as there is a strict dichotomous division between use and non-use. This characteristic is typical of many tourism products (Gratzer, Werthner, & Winiwarter, 2004), and service innovations more generally (De Brentani, 1991), as they are intangible "confidence goods" that are produced and consumed simultaneously and therefore do not allow for testing prior to purchase. Nevertheless, Rogers (2003) noted that later adopters can use the experiences of earlier adopters as proxy tests, and the public reviews of Airbnb accommodations may assist this process. Likewise, Airbnb has limited observability, as potential adopters cannot readily observe other Airbnb guests using the service, but again, Airbnb reviews may help mitigate this issue. Although complexity, trialability, and observability are key innovation attributes (and the importance of online reviews will be revisited in the later discussion of communication), they are not especially germane to the present study because they do not directly represent motivations, which are this study's focus. As Arts et al. (2011) noted, relative advantage and compatibility relate directly to a product's benefits, whereas trialability and observability relate to the assessment of such benefits. Arts et al. do not mention complexity, but that concept is also somewhat distinct, as complexity is more of a barrier to adoption than a reason for adoption.

2.4.2.2. Personal innovativeness

Innovation adoption decisions are not only influenced by attributes of the innovation itself, but also by characteristics of the potential adopter. "Innovativeness" is the term used to describe how

early an individual tends to be in adopting innovations, and it is often examined through the use of chronological adopter segments (Rogers, 2003). These segments generally follow those initially proposed by Rogers (1958) – "innovators," "early adopters," "the early majority," "the late majority," and "laggards" – and research suggests earlier adopters tend to exhibit certain characteristics, including more education, higher social status, greater acceptance of uncertainty, and being more networked (Rogers, 2003). Rogers' (1958) divisions are based on standard deviations from the mean in a normal curve, as adoption of (successfully diffused) innovations tends to follow a normal bell curve (or S-curve if adoption is considered cumulatively), in which adoption is initially slow, accelerates in the middle, and then eventually slows down again (Rogers, 2003).

Nonetheless, innovativeness is also often viewed as a continuum-based personality trait, so the standardized approach has received criticism, most notably from Midgley and Dowling (1978), for equating an abstract construct (innovativeness) with an operational measure (time of adoption) (Roehrich, 2004). Consequently, innovativeness is frequently measured with more trait-oriented behavioural and attitudinal scales (Roehrich, 2004). Innovativeness can be examined on either a global or product dimension level, and past findings generally recommend the latter, as the global perspective seems too broad to maintain predictive validity regarding behaviour at the product level (Gatignon & Robertson, 1985; Goldsmith, Freiden, & Eastman 1995; Roehrich, 2004). For example, an individual who quickly adopts automobile-related innovations probably would not be particularly likely to quickly adopt an innovation like Airbnb.

Innovativeness has not received much explicit attention from tourism researchers, but a handful of studies have applied the concept to the field. Most notably, Tussyadiah (2015) found PSR users exhibited a higher level of tourism innovativeness than non-users, but similar levels of

technology innovativeness. Also, Litvin, Kar, and Goldsmith (2001) found that individuals exhibiting higher levels of tourism innovativeness viewed themselves differently from their less innovative counterparts; Lee, Qu, and Kim (2007) found Korean travellers' technology innovativeness was positively related to intentions to search and make purchases from a travel website; San Martín and Herrero (2012) found that travellers' technology innovativeness was positively related to intentions to purchase rural tourism accommodations online; and Couture, Arcand, Sénécal, and Ouelletlane (2015) found travellers' tourism innovativeness was positively related to various interactions with Quebec's official tourism website.

2.5. Proposed motivations to use Airbnb

The disruptive innovation and diffusion of innovations literature do not provide a precise framework for understanding the motivations that attract guests to Airbnb, but in combination with the existing Airbnb and tourism accommodation choice literature, the two innovation concepts still provide a very useful lens through which to recognize and understand these motivations. Based on this combined literature, potential motivations to use Airbnb were proposed as relating to six different dimensions – price, functional attributes, unique and local authenticity, novelty, bragging rights, and sharing economy ethos.

2.5.1. Price

As was described, low cost is a classic characteristic and appeal of disruptive innovations (Christensen, 1997), and Adner's (2002) analysis of consumer demand for disruptive innovations stressed the critical importance of price. Likewise, innovation diffusion research recognizes that financial cost is a very common aspect of relative advantage; indeed, economic factors are the

very first variety of relative advantage that Rogers (2003) described. As was also previously discussed, in their studies of Airbnb and PSR users, Tussyadiah (2015) and Nowak et al. (2015) both found financial savings were the principal reason guests use Airbnb and PSRs, and Guttentag (2015) and Lamb (2011) also both recognized the importance of this appeal. The attraction of Airbnb's low cost also has been highlighted in countless media stories on the company (e.g., Ennion, 2013; Harwell, 2014; Pilon, 2014; Rosenberg, 2014; Schoettle, 2015). As was also mentioned, price has additionally been identified as a key factor in hotel choice (Chu & Choi, 2000; Dolnicar & Otter, 2003). Moreover, based on their previous research on Zipcar, Eckhardt and Bardhi (2015) argued that the sharing economy is driven primarily by a desire for cost savings and convenience, and Hamari, Sjöklint, and Ukkonen (2015) similarly found that economic benefits were a significant motivator for intention to use sharing economy services.

Numerous analyses have indicated that Airbnb accommodations tend to be inexpensive in comparison with hotels, even though they may be more expensive than hostels (Busbud.com, 2016; Guttentag, 2015; Haywood et al., 2016; Hockenson, 2013). However, some recent research somewhat surprisingly disputes the common notion that Airbnb generally offers significant cost savings. The CBRE study referenced earlier (Lane & Woodworth, 2016) compared average rates of different types of Airbnb accommodations with average hotel rates in the U.S. and found that Airbnb's entire homes were more expensive on average than hotels, including when only considering Airbnb listings with just one bedroom. When looking at individual U.S. cities, the researchers determined that hotels were generally more expensive than Airbnb accommodations in major urban destinations like New York City, San Francisco, Boston, and Miami (which are admittedly the sort of markets where Airbnb is focused), whereas hotels were less expensive than Airbnb in leisure destinations with relatively low land costs, such as Austin, Nashville,

Jacksonville, and Savannah. Similarly, research by Bank of America Merrill Lynch found that average Airbnb rates were significantly higher than average hotel rates in numerous markets, even when only considering Airbnb listings that were apartments with no more than three bedrooms (Bird, 2015). However, it is worth noting that some of these two studies' results are inconsistent; for example, the CBRE study found hotel rates to be 22% higher in San Francisco (Lane & Woodworth, 2016), whereas the Bank of America Merrill Lynch study found the hotel rates there to be 9% lower (Bird, 2015).

2.5.2. Functional attributes

As was discussed, the disruptive innovation literature takes the perspective of Lancaster (1966) that products can be viewed as the sum of their various attributes (Adner, 2002; Christensen, 1997). In practice, such attributes (aside from price) have almost exclusively been functional ones; for example, the concept of disruptive innovation originated in research on computer disk drives for which the primary attributes were size and storage capacity (Bower & Christensen, 1995). The notion of relative advantage within the diffusion of innovations literature also highlights the importance of functional attributes.

Some of the primary functional attributes defining an Airbnb accommodation will align with those characterizing traditional accommodations. For example, Tussyadiah and Zach (2015) found location was important for both hotels and PSRs, even though hotel guest reviews tended to focus on a location's convenience and PSR reviews tended to focus on a location's more general desirability. However, as the disruptive innovation literature suggests, it would be misleading to use the typical functional attributes of traditional accommodations (e.g., 24/7 staff availability, check-in/out process, attached restaurant, fitness facilities, and business centres) as a

basis for understanding Airbnb's functional attributes. Rather, one must consider the unique functional attributes associated with Airbnb accommodations. In particular, the existing Airbnb and PSR literature has highlighted the benefits of access to household amenities (e.g., a washing machine) and a relatively large amount of space (Guttentag, 2015; Quinby & Gasdia, 2014). Also, Airbnb and media stories about the company have noted the benefit of access to a local resident host who can share local tips and advice (e.g. Airbnb, 2015e; Yglesias, 2012). Moreover, the non-hotel choice literature has highlighted that staying in a private residence instead of a generic traditional accommodation can provide for a more "homely" atmosphere (McIntosh and Siggs; 2005). This latter attribute exhibits characteristics of both a functional and an emotional attribute (Aaker, 1995), but because it relates to the "feel" of the product as much as the feeling it produces in the user, it seems reasonable to consider it as a functional attribute.

2.5.3. Unique and local authenticity

The appeal of a more "homely" atmosphere emphasizes the importance of looking beyond strictly tangible attributes to additionally consider the experiential aspects of an Airbnb stay. Such experiential attributes have not generally been examined in the disruptive innovation literature, though in the case of Airbnb such experiential attributes appear important for assessing its unique value proposition. In contrast, the concepts of relative advantage and compatibility within the diffusion of innovations literature both more broadly encompass such experiential product attributes (Rogers, 2003). With Airbnb, the potential for a more unique and authentic local experience seems central to its unique value proposition, and to understand this appeal one can begin by examining burgeoning discontentment with certain aspects of modern consumer society.

Ritzer (2011) argued that there is a growing resentment among some groups with what he dubs the "McDonaldization" of society. This idea refers to the increasing degrees of predictability, control, and efficiency in society, which lead to homogenization and a loss of humanizing "magic and mystery" (p. 143). In describing "McDonaldization," Ritzer highlighted tourist products like cruise ships and package tours. Ritzer and Liska (1997) recognized that many tourists undoubtedly desire predictable "McDonaldized" vacations, but Ritzer (2011) also observed that there is increasing discontentment with this standardization. Ahuvia and Izberk-Bilgin (2011) built on this idea by suggesting that this discontent is inspiring a consumer embrace of "eBayization." This countertrend to McDonaldization describes how information technology is transforming consumer society by permitting especially high levels of variety, unpredictability, and market-mediated control (e.g., online reputational systems). These three characteristics perfectly encapsulate Airbnb, and in fact one of Airbnb's co-founders has even likened the company with eBay (Buhr, 2014).

Other authors have used different terminology to describe this same general trend. Pine and Gilmore (2011) stated that a process of commoditization has expanded from goods to services, meaning many competing service brands are virtually indistinguishable and compete primarily on price. The authors argued that customers seek memorable experiences via the emerging "experience economy," and are therefore increasingly unwilling to accept such standardization for reduced costs. Somewhat similarly, Lewis and Bridger (2001) described the rapid emergence and increasing importance of what they call "New Consumers" – individuals who have their needs easily satisfied and therefore focus on wants, which they prefer to satisfy with innovative and distinct goods and services instead of mass-produced and mass-marketed

ones. Also, most importantly, as part of a larger quest for self-actualization, "At the heart of the soul of the New Consumer lies a desire for authenticity" (Lewis & Bridger, 2001, p. 10).

These different phenomena – eBayization, the experience economy, and New Consumers – all refer to a growing rejection of standardization and an embrace of unique and authentic experiences. Tourism scholars have extensively explored the varied meanings of authenticity (e.g., Wang, 1999), but for the purposes of this study what is most important is simply the perception of an experience as authentic by the tourist (Cohen, 1988). The lure of authenticity has long been seen as a central tourism driver; for example, in MacCannel's (1973) classic work on authenticity he argued, "Touristic consciousness is motivated by its desire for authentic experiences" (p. 597), "Sightseers are motivated by a desire to see life as it is really lived" (p. 592), and "[T]ourists try to enter back regions of the places they visit because these regions are associated with intimacy of relations and authenticity of experiences" (p. 589).

This long-standing desire for authenticity within tourism seems to be growing as part of the previously described modern consumer embrace of authentic experiences (Bosshart & Frick, 2006; Novelli & Tisch-Rottensteiner, 2012; Yeoman, Brass, McMahon-Beattie, 2007). The tourist's quest for authenticity often involves a desire to escape the tourist establishment and have intimate interactions with locals. For example, Kontogeorgopoulos (2003) studied different tourist segments in Thailand and found that nearly all of his research participants viewed meeting locals and having other authentic experiences as an important goal; Brown (2005) found that cultural immersion was a primary motivation for volunteer tourists; Conran (2006) found that tourists visiting Thai hill tribe villages were particularly interested in having intimate, authentic interactions with locals; Bott (2015) described a destination that is popular with tourist rock climbers because the lack of tourism infrastructure is perceived as producing a more authentic

adventure; Week (2012) observed how self-described "travellers" reject the predictability of mass tourism and seek authentic experiences by going to less popular destinations and attempting to live as the locals do; and Maitland (2013) noted how many tourists in London desire to "get off the beaten track" in order to experience the "real city."

The desire for authentic instead of standardized experiences can also be seen specifically within the tourism accommodation industry. Although different hotel brands certainly offer varying degrees of luxury, the industry exhibits signs of commoditization due to traits like homogeneity, price sensitivity and transparency, and low switching costs (Beldona, Miller, Francis, Kher, 2015; Francis, 2010; Holmes, 2008; Starkov & Price, 2007). In fact, Gilmore and Pine (2002), who introduced the idea of the "experience economy," have examined the hotel industry specifically, noting, "Over the years, many hotels have been afflicted by commoditization, as they've grown increasingly similar in the conventions they practice" (p. 88), and, "[M]ost hoteliers essentially view their room rate as merely the price they assess for the collection of services performed ... rather than the fee guests pay for the portfolio of experiences encountered during their time spent in the hotel" (p. 90). Writing in *Newsweek*, Maney (2014) suggested that the internet has played an important role in transforming attitudes towards hotel uniformity. He pointed out that Holiday Inn even used to have the motto "The best surprise is no surprise," and argued that while uniformity and predictability were assets in an era when information was scarce, the information-rich internet can eliminate unwelcome surprises (i.e., via reviews) and thereby encourages demand for more unique experiences while rendering hotel uniformity a liability. This idea of commoditization ties back into disruptive innovation as well, as Christensen (1997) stated that commoditization is rooted in performance oversupplies, thereby

signalling susceptibility to disruptive innovations that introduce a unique package of attributes that extend beyond the commoditized product's attributes.

These two trends – the increasing demand for unique, authentic personal experiences and the commoditization of hotels – create an opportunity for non-hotel forms of accommodation to attract guests with an experiential appeal. For example, a central appeal of CouchSurfing is the opportunity to observe the host's real life by spending time in his or her home, and having intimate, authentic interactions while there (Bialski, 2011; Chen, 2011; Germann Molz, 2013; Lamb, 2011; Liu, 2012; Steylaerts & O'Dubhghaill, 2011). As one CouchSurfer described her experience in Turkey, "Because we were living with residents of the city, there was no venturing out into a new world, only to withdraw to a sterile and anonymous hotel room that could be anywhere. We came home to a home. We were still in Istanbul" (Leonard, 2011, p. 51). Likewise, homestays and home swaps have the same appeal (Andriotis & Agiomirgianakis, 2014; Jamal et al., 2011; Wang, 2007); as Andriotis and Agiomirgianakis (2014) explained, "In contrast to a hotel accommodation where guests may spend most of their time in the hotel and often do not have the chance even to see a local person, home swappers come daily in contact with the local community and have some degree of participation in its ordinary everyday life" (p. 585). Moreover, B&Bs are also attractive in part due to the experience of staying in a local home and interacting with locals (Gunasekaran & Anandkumar, 2012; Stringer, 1981). In fact, the growing desire for less standardized accommodation experiences has led to the increasing development of boutique hotels that offer a more intimate setting and unique character than a typical hotel (Aggett, 2007; Levere, 2011; Reaney, 2013), and many major hotel corporations, including Marriott, Wyndham, and Starwood, are entering the boutique hotel market (Barnes, 2014; Levere, 2011).

The growing desire for unique and authentic local experiences is very favourable for a service like Airbnb, which overtly presents itself as a provider of such experiences (Yannopoulou et al., 2013). For example, Airbnb's homepage currently reads, "Welcome home - Rent unique places to stay from local hosts in 190+ countries;" the company's original motto was "Travel like a human" (Menkedick, 2009); in 2014 the company introduced a new logo that is a symbol for "belonging" (Chesky, 2014); and Airbnb's ad campaigns have focused on the unique, personal experiences that can be had by staying in people's homes (Delo, 2014; Mortimer, 2014). Moreover, Airbnb's CEO claimed the service gives "travellers a new, authentic way to experience [a destination] by staying in different neighborhoods" (Parry, 2014), and another co-founder stated, "We're not just a provider of accommodation, we're a provider of experiences. And so we're thinking about, 'How do we make those experiences meaningful in terms of being local, authentic?'" (Fung, 2013). The facilitation of authentic local experiences is also sometimes mentioned in guidebook references to Airbnb (e.g., St. Louis, 2012; Williams et al., 2015), and is frequently stated in media stories about the company (e.g., Bradbury, 2014; Cadwalladr, 2013; Capellaro, 2013; Vaccaro, 2014; Weisleder, 2014). As has been described, the importance of authenticity and interpersonal experiences as a motivation for Airbnb stays has also been noted by Lamb (2011), Guttentag (2015), and Tussyadiah (2015).

2.5.4. Novelty

The previously discussed concept of personal innovativeness (one's tendency to adopt innovations more quickly or slowly than others) (Rogers, 2003), which is a major topic within the diffusion of innovations, is very closely related to the notion of novelty-seeking. For example, Hirschman (1980), who conceptualized novelty-seeking through a consumer behaviour

lens, called inherent novelty-seeking and inherent innovativeness "conceptually indistinguishable" (p. 285), even while noting that the actualization of such tendencies is slightly distinct. Likewise, Khare, Singh, and Khare (2010) viewed the two constructs jointly in a study of online shopping behaviour among Indian youth. Also, Manning, Bearden, and Madden (1995) found novelty-seeking to be positively associated with early stages of the innovation adoption process (awareness and information seeking).

Within the tourism literature, novelty-seeking is generally conceptualized as a desire for new and unfamiliar stimuli (Lee & Crompton, 1992; Petrick, 2002; Snepenger, 1987), and novelty-seeking is central to several classic tourism typologies. Most notably, Cohen's (1972) and Plog's (1974) well-known typologies are both centred on tourists' varying degrees of desire for novelty and the unfamiliar. As Cohen (1972) summarized:

> The experience of tourism combines, then, a degree of novelty with a degree of familiarity, the security of old habits with the excitement of change. However, the exact extent to which familiarity and novelty are experienced on any particular tour depends upon the individual tastes and preferences of the tourist as well as upon the institutional setting of the trip. There is a continuum of possible combinations of novelty and familiarity. This continuum is, to my mind, the basic underlying variable for the sociological analysis of the phenomenon of tourism. (p. 167)

Mo, Howard, and Havitz (1993) and Mo, Havitz, and Howard (1994) built on Cohen's (1972) work by developing an associated psychographic scale with three factors related to different aspects of tourism novelty – destination chosen, services (including accommodation) used, and social contact sought. Novelty-seeking also has been used by numerous other tourism scholars to better understand tourist choices and behaviour. For example, Snepenger (1987) segmented the Alaskan vacation market using novelty-seeking roles rooted in Cohen's (1972) work; Chang, Wall, and Chu (2006) segmented visitors to Taiwanese aboriginal attractions on the basis of novelty-seeking motivations; Jang and Feng (2007) found novelty-seeking was positively

associated with mid-term revisit intentions among international French tourists; and Assaker, Vinzi, and O'Connor (2011) found novelty-seeking among European travellers was associated with lower immediate revisit intentions but higher long-term revisit intentions.

As an innovative form of tourism accommodation, it seems natural to consider the novelty of Airbnb as a motivation influencing Airbnb choice. Firstly, novelty seekers could be drawn to Airbnb simply because it is a novel form of tourism accommodation. Secondly, as related to the broader experience that Airbnb provides, Airbnb accommodations could be perceived as facilitating a more novel overall travel experience than could be had in a traditional form of accommodation.

2.5.5. Bragging rights

Rogers (2003) highlighted that social prestige is often a key component of the relative advantage that an innovation can offer. Indeed, Rogers noted that over a century ago, Gabriel Tarde, one of the originators of diffusion thinking, identified status seeking as a main reason for people to imitate the innovative behaviours of others. There is little question that the opportunity to boost one's social status is important within tourism as well. For example, Dimanche and Samdahl (1994) noted that leisure activities such as tourism carry symbolic meaning, termed "sign value," through which individuals conspicuously communicate aspects of the self. The most focused examination of this concept within the tourism literature comes from Kerr, Lewis, and Burgess's (2012) exploration of tourism "bragging rights." Based on focus groups with leisure travellers and interviews with destination marketers, the authors suggested that the opportunity to achieve bragging rights influences destination choice for some travellers. Travel bragging and social status have also been considered as a motivating factor in Cha, McCleary, and Uysal's (1995)

study segmenting Japanese overseas travellers; Sirakaya, Uysal, & Yoshioka's (2003) study segmenting Japanese travellers to Turkey; Kim and Prideaux's (2005) study on the travel motivations of visitors to Korea; Kim et al.'s (2007) study on the travel motivations of U.S. university students; and Lee, O'Leary, Lee, and Morrison's (2002) study on the travel motivations of German international tourists. Although the tourism research on bragging rights and social status has focused chiefly on general travel motivations, the diffusion of innovations literature demonstrates that this concept is relevant and possibly important to understanding the adoption of specific tourism product innovations like Airbnb.

2.5.6. Sharing economy ethos

When considering the diffusion concept of compatibility, which highlights an adopter's values and beliefs (Rogers, 2003), it seems important to recognize the values of the broader sharing economy in which Airbnb resides. Key values in the sharing economy include sustainable, local consumption and trust between strangers (Botsman & Rogers, 2010; Chase, 2015; Gansky, 2010; PricewaterhouseCooper, 2015). For example, Botsman and Rogers' (2010) seminal book on the sharing economy devotes considerable attention to deriding modern consumerist "throw away" culture, which is contrasted with the sharing economy in which product access is valued over ownership. Likewise, in a vein that is very similar to Ritzer's (2011) critique of society's "McDonaldization," Botsman and Rogers (2010) highlighted how the sharing economy is encouraging the return of local marketplaces, arguing, "We are seeking to restore the missing link between producer and consumer" (p. 50). Additionally, the authors presented trust between strangers as a central principle at the core of the sharing economy, noting that the review systems

that are essential to the sharing economy permit self-governing marketplaces with curators rather than middlemen.

Airbnb fully endorses such values, as illustrated by its economic impact reports that often feature sections related to both environmental and social benefits. For example, the company's Montreal economic impact report (Airbnb, 2014g) stated, "Airbnb promotes the efficient use of existing resources as well as a more environmentally sustainable way of travelling," and claimed that over a one-year period the use of Airbnb in the city resulted in energy savings equivalent to 620 homes, water reduction equivalent to nine Olympic-sized pools, greenhouse gas emissions reduction equivalent to 1,070 cars, and a waste reduction of 195 metric tons. Likewise, the report stated that its "peer-to-peer transactions build community, foster cultural exchange, and strengthen empathy and understanding," and the report included a quote from an Airbnb host who claimed that hosting provides "an open door to the world." Airbnb also has touted results from a commissioned study showing that Airbnb guests have a lower environmental impact than hotel guests (e.g., less energy and water consumption) (Airbnb, 2014f; Snyder, 2014). Furthermore, as was previously summarized, studies by Tussyadiah (2015) and Tussyadiah and Pesonen (2015) found that motivations directly relating to the sharing economy play an important role in influencing PSR use. These studies included fairly similar items covering motivations such as supporting local residents, reducing resource consumption, and preferring Airbnb's sustainable business model, which loaded onto factors termed "Sustainability" (Tussyadiah, 2015) and "Social appeal" (Tussyadiah & Pesonen, 2015).

2.6. Other proposed variables related to Airbnb choice

Beyond the motivations directly influencing Airbnb choice, in order to achieve a more holistic view of Airbnb choice it is useful to examine some additional relevant topics – brand personality, communication channels, trip characteristics and travel decisions, and satisfaction and loyalty.

2.6.1. Brand personality

Brand personality refers to the collection of human characteristics associated with a brand (Biel, 1993; Aaker, 1997). Brand personality influences consumer purchases through its association with both a brand's emotional and self-expressive benefits (Aaker, 1995). Tourism research on brand personality has generally focused on destinations, and has found that destinations are indeed perceived with different personality characteristics that in turn impact travel intentions (Ekinci & Hosany, 2006; Murphy, Moscardo, & Benckendorff, 2007c; Usakil & Baloglu, 2011). The importance of brand personality also has been recognized with regards to hotels (O'Neill & Mattila, 2010), as influencing perceived brand value and loyalty (Tran, Dauchez, & Szemik, 2013), in addition to repurchase intentions (Lee & Back, 2010).

2.6.1.1. Coolness

The trait of "coolness" may be especially important when considering the use of innovations (Sundar, Tamul, & Wu, 2014). Based on a series of interviews, Holtzblatt (2011) described cool products as those which produce joy by facilitating some combination of accomplishment, human interaction, identity formation, and immersive or delightful sensations. She also noted that a cool product will be pleasant to use and will generate a feeling that one cannot imagine returning to the alternative product one previously used. Using a series of questionnaires to

identify the various dimensions of coolness among technology products, Sundar et al. (2014) concluded coolness could be conceptualized in terms of originality, attractiveness, and subcultural appeal, and the authors also determined coolness is wholly independent of functional utility. Based on this conceptualization, Kim, Chung, and Shin (2015) found coolness to be positively associated with intentions to purchase a certain robot; Kim, Shin, and Park (2015) found coolness to be associated with intentions to use smartphones with curved screens; and Kim and Shin (2015) found subcultural appeal to be associated with intentions to use smart watches.

2.6.1.2. Self-congruity

More generally, consumer behaviour research suggests consumers prefer to purchase products that have a brand personality that is perceived to be consistent with the different facets of the consumers' own self-concept, and this phenomenon is known as self-congruity (Cohen, Prayag, & Moital, 2014; Sirgy et al., 1997; Sirgy & Su, 2000). Self-concept refers to the entirety of one's thoughts and feelings about oneself, and it consists of several dimensions relating to how one sees oneself, who one would like to be, how one presents oneself, and how one would like to be seen by others (Hawkins et al., 2007; Sirgy, 1982). Numerous tourism researchers have found self-congruity influences destination choice (e.g., Beerli, Díaz Meneses, & Moreno Gil, 2007; Boksberger, Dolnicar, Laesser, & Randle, 2011; Sirgy & Su, 2000; Usakil & Baloglu, 2011), and Wilkins, Merrilees, and Herington (2006) found self-congruity to be associated with customer satisfaction in hotels.

2.6.2. Communication channels

While brand personality topics provide additional insight into how guests perceive Airbnb, to fully understand innovation diffusion and adoption one must understand the communication channels through which information and opinions about an innovation spread to potential adopters. Rogers (2003) described two distinct communication channels – mass media channels, which allow an expansive audience to be rapidly reached (e.g., television and the internet), and interpersonal channels, which involve informal person-to-person interactions between individuals (Harrison-Walker, 2001). These two channels also serve as the foundation for the widely used Bass Model that is employed for diffusion forecasting (Bass, 1969; Hall, 2005; Mahajan, Muller & Bass, 1990). Mass media is generally more suited to informing individuals about an innovation, and interpersonal communication is generally more effective at persuading individuals to adopt an innovation (Rogers, 2003). In addition to these two communication channels, this study will consider electronic word-of-mouth communication (eWOM) as a separate third category, as it blends characteristics of both mass media and interpersonal communication, and has become increasingly important in recent years.

2.6.2.1. Mass media communication

The two chief forms of mass media communication are paid advertising and unpaid publicity. Advertising can be effective in encouraging diffusion by making potential adopters aware of an innovation, conveying information about its utility, and communicating other characteristics like company trustworthiness (Horsky & Simon, 1983). The important role advertising can play in the diffusion process has been confirmed in numerous empirical studies (e.g., Horsky & Simon,

1983; Prins & Verhoef, 2007; Simon & Sebastian, 1987). Morgan and Pritchard (2000) stated that advertising is particularly important for tourism services because they are discretionary and are not trialable. Indeed, tourism researchers have confirmed advertising can encourage destination visitation (e.g., Butterfield, Deal, & Kubursi, 1998; Divisekera & Kulendran, 2006; Kim, Hwang, Fesenmaier, & 2005; Schoenbachler, Di Benedetto, Gordon, & Kaminski, 1995) and influence hotel choice (Morgan, 1991). Nevertheless, it is worth noting that Airbnb has only engaged in a fairly limited amount of advertising. The company initially focused on the use of targeted online ads on Google and Facebook (Delo, 2013), and only launched its first integrated national U.S. advertising campaign in late 2013 (Levere, 2013), and its first global campaign in early 2014 (Delo, 2014).

In contrast, however, over the past few years Airbnb has received abundant publicity in local, national, and international media. These stories tend to fall into a handful of different categories, reflecting both positively and negatively on the service – general overview stories about what the service is and how it works, sometimes including reporters' first-hand experiences (e.g., Gross, 2009); local stories regarding policy and legal developments in different destinations (e.g., Said, 2014); business-oriented stories on the company's size, value, growth, and service developments (e.g., Lunden, 2015); stories about very negative incidents (often involving illegal activities) experienced by hosts or guests (e.g., Bly, 2011); stories about especially exotic Airbnb accommodations (some of which are temporary and arranged by Airbnb to generate publicity) (e.g., Morris, 2015a); and stories about who hosts are and why they do it (e.g., Lott, 2014). Publicity can play a large role in raising awareness about a product and shaping perceptions of a brand (Berry, 2000), and even negative publicity can sometimes prove beneficial by raising product awareness (Berger, Sorensen, & Rasmussen, 2010). Loda, Norman,

and Backman (2005) noted that the consumer behaviour literature frequently suggests publicity can have a more persuasive influence than advertising because the former is perceived as more objectively credible, but they also noted limited empirical support for the claim. Nevertheless, Loda et al. compared the impact of advertising and publicity regarding a tourism destination, and found the latter resulted in significantly higher levels of credibility, positive attitudes, and purchase intent. Also, a meta-analysis by Eisend and Küster (2011) found that publicity is indeed more effective than advertising, but only for products about which the consumer lacks prior knowledge.

2.6.2.2. Interpersonal communication

Interpersonal communication, also known as "word-of-mouth" communication (WOM), offers an additional degree of credibility, thereby giving it significant influence over many consumer decisions, as has been recognized in both innovation diffusion (e.g., Arndt, 1967; Bansal & Voyer, 2000) and general consumer behaviour research (e.g., Hawkins et al., 2007; Keller & Berry, 2003). Moreover, Confente (2015) highlighted WOM is particularly important for experiential services like tourism that are hard to evaluate pre-purchase and therefore entail especially high levels of uncertainty. Indeed, the importance of WOM in travel planning has been firmly established in research on tourists' information sources, which has repeatedly highlighted the importance of family, friends, and other travellers (e.g., Bieger & Laesser, 2004; Fesenmaier & Vogt, 1993; Fodness & Murray, 1998; Gursoy & Chen, 2000; Lee, Soutar, & Daly, 2007; Luo, Feng & Cai, 2004; Murphy, Mascardo & Benckendorff, 2007b). With regards to tourism accommodation, Dickinger and Mazanec (2008) found that people perceived a friend's recommendation as the most important factor in making online hotel bookings.

2.6.2.3. Electronic word-of-mouth communication

With the advent of the internet, eWOM has emerged as an important new form of communication. eWOM refers to a variety of online communications, including social networks (e.g., Facebook and Twitter), online forums, blogs, and online reviews (Litvin, Goldsmith, & Pan, 2008). eWOM shares characteristics of both mass media and interpersonal communication, as it permits rapid communication to an expansive audience, but also exhibits elements of person-to-person interactions (Baek, Oh, Yaeng, & Ahn, 2014). It can consequently best be thought of as a third, hybrid communication category. Because eWOM can combine the credibility of interpersonal communication with the ability to reach a mass audience, eWOM can have a particularly salient impact on consumer decisions (Bickart & Schindler, 2001; Jalilvand, Esfahani, & Samiei, 2011). Consumer research has found eWOM can significantly influence demand for products including movies (Baek et al., 2014), books (Chevalier & Mayzlin, 2006), and computers (Tseng & Hsu, 2010).

eWOM also can exert a significant influence on tourism purchases, as the difficulty of pre-purchase evaluation, which makes interpersonal communications so influential, similarly amplifies the importance of eWOM (Litvin et al., 2008). For example, Jalilvand, Samiei, Dini, and Manzari (2012) found that online travel reviews significantly impacted tourists' image, attitudes, and travel intentions towards Iran. Moreover, eWOM may be particularly important in accommodation choice, because this choice constitutes a very significant trip planning decision, online accommodation reviews are plentiful, consumers often will be unfamiliar with accommodation options, and consumers have limited alternative sources of information. Indeed, numerous studies have demonstrated the significant impact of online hotel reviews. For example,

Gretzel and Yoo (2008) found that nearly 80% of TripAdivsor users considered online reviews to be "very" or "extremely" important for choosing where to stay, which was more than double for choosing where to eat, where to go, or what to do. Dickinger and Mazanec (2008) found that online reviews were perceived as second to only friends' recommendations in terms of importance when making online hotel bookings. Sidali, Schulze, and Spiller (2009) found that, when choosing tourism accommodation, individuals referred more to online reviews than other information sources, such as travel guides. Mauri and Minazzi (2013) confirmed a correlation between positive online reviews and hotel purchase intention. Finally, Noone and McGuire (2013) found that online hotel reviews have a particularly large impact on consumers' pre-purchase value assessments. These studies focused on how online reviews affect choices between individual hotels, strongly suggesting that Airbnb users devote significant attention to reviews on the Airbnb website when choosing between Airbnb listings. Nonetheless, Airbnb reviews, which tend to be remarkably positive (Díaz Armas et al., 2015; Zervas et al., 2015a), may also have the broader effect of reducing uncertainty and giving travellers confidence to use Airbnb more generally.

2.6.3. Trip characteristics and travel decisions

Regardless of what an individual has heard about Airbnb, his or her various trip characteristics may directly influence his or her motivations to choose Airbnb. This acknowledged significance of trip characteristics is essentially a recognition of situational importance, which has long been highlighted in the study of behaviour (e.g., Ajzen, 1991; Darley & Batson, 1973). A single individual may take an assortment of trips within a relatively short period of time (e.g., an urban business trip, a brief romantic getaway to the countryside, and a weeklong beach trip with one's

children), and each one will invoke different preferences that will impact decisions made both prior to and during the trip. Moreover, as each decision is made, it will have an influence upon subsequent decisions.

These ideas serve as the foundation for the theory of tourism consumption systems, as established by Woodside and King (2001) and Woodside and Dubelaar (2002). Woodside and Dubelaar summarized, "The central proposition of a theory of [tourism consumption systems] is that the thoughts, decisions, and behaviors regarding one activity influence the thoughts, decisions, and behaviors for a number of other activities" (p. 120). The authors offered a useful perspective on how a range of variables, including trip motivations, information search, travel party characteristics, destination choice, length of stay, accommodation choice, transportation choice, and activity choice are all closely integrated. Also, the two papers provided empirical support for this notion, with Woodside and Dubelaar (2002) showing correlations between key variables among tourists to Prince Edward Island, and Woodside and King (2001) segmenting tourists to Hawaii according to similar variables. The interrelationships between different trip characteristics have been recognized in numerous other studies as well. For example, Yavas and Babakus (2005) found trip purpose (business versus leisure) impacted the value travellers placed on different hotel attributes, and Barros, Butler, and Correia (2009) and Martinez-Garcia and Raya (2008) both found length of stay to be influenced by accommodation type and destination attributes.

Tourism segmentation studies also often profile their segments to identify how different motivations or benefits are associated with other trip characteristics. This literature, however, generally presents such trip characteristics in descriptive terms, rather than considering potential causal relationships between motivations and trip characteristics. When considering Airbnb, such

causality seems important to consider; for example, travelling with children may influence one's motivation to seek certain functional attributes Airbnb accommodations can offer. It is also important to acknowledge that in some cases there may be dual causality; for example, using Airbnb may encourage a tourist to take a longer trip, as Tussyadiah and Pesonen (2015) found, or being on a relatively long trip may encourage a tourist to use Airbnb, as the company has suggested (Conley, 2014).

When thinking about how Airbnb can impact travel decisions, such as length of stay, one of the most important questions is whether the decision to use Airbnb is counterbalanced by a decision to not use an existing form of accommodation. It is possible that Airbnb cannibalizes guests from existing accommodations, yet it is also possible that Airbnb attracts new visitors or visitors who would not have otherwise paid for accommodation (such as by staying with friends or family). As was discussed earlier, this substitution question is critically important for many stakeholders. Moreover, the notion of substitution is the foundation for the concept of disruptive innovation, which always involves disruption of an incumbent product.

2.6.4. Satisfaction and loyalty

When a consumer uses a product, such as Airbnb, he or she will experience some degree of satisfaction, which has been defined in numerous ways, but is generally conceptualized as relating to a product's perceived performance, often in comparison with prior expectations (Cohen, Prayag, & Moital, 2014; Neal & Gursoy, 2008; Pizam & Ellis, 1999). Satisfaction then foments trust and loyalty, thereby encouraging repurchase behaviours (Cohen et al., 2014). Loyalty involves both behavioural and attitudinal components, as repeat purchase behaviour alone may simply indicate, for example, a lack of other convenient options (Day, 1969; Dick &

Basu, 1994; Oppermann, 2000). Also, the attitudinal component of loyalty has been conceptualized as a separate and antecedent "psychological commitment" indicating a resistance to change (Pritchard, Havitz, & Howard, 1999), but for the purposes of this study the behavioural and attitudinal facets are viewed as a single loyalty construct. The relationship between satisfaction and loyalty has been firmly established in tourism research on both destinations (e.g., Chi & Qu, 2008; Correia Loureiro & Miranda González, 2008; Yoon & Uysal, 2005) and hotels (e.g., Bowen & Chen, 2001; Kandampully & Suhartanto, 2000; Kim, Kim, & Kim, 2009).

Díaz Armas et al. (2015) suggested that the exceptionally positive reviews that characterize Airbnb indicate a particularly high level of satisfaction, although it must be noted that indirect incentives may be artificially inflating guests' reviews (Streitfeld, 2015; Zervas et al., 2015a). Nonetheless, as was described earlier, studies by Morgan Stanley and the Cowen Group both found very high levels of satisfaction among Airbnb users (Nowak et al., 2015; Verhage, 2016b). Also described previously, with regards to loyalty, a Goldman Sachs study found that, of people who had used PSRs, nearly as many preferred PSRs as still preferred traditional hotels (Verhage, 2016a).

2.7. Summary

This review of the literature has introduced Airbnb and described a range of concepts that are useful towards understanding why tourists use the service. Questions regarding Airbnb choice are quite salient given the rapid growth of the company and the limited research that has so far been conducted. While the accommodation choice literature offers some useful insight into Airbnb choice, concepts related to disruptive innovation and the diffusion of innovations also appear useful for understanding demand for such an innovative service. Based on this

combination of literature, various motivations regarding Airbnb choice have been proposed. Moreover, additional concepts related to brand personality, communication channels, travel decisions, and satisfaction and loyalty have been described in order to provide for a more comprehensive look at Airbnb choice.

3. METHODS

3.1. Data collection

3.1.1. Data collection and sampling frames

To investigate this study's research questions, people who had used Airbnb during the previous 12 months were recruited to complete an online survey. The survey period began in late July 2015 and concluded in late October 2015. Two Amazon gift cards of US $50 apiece (or its international equivalent) were offered as participation incentives, and were distributed in lottery draws. Respondents needed to understand English and needed to have been significantly involved in the decision to choose Airbnb accommodation. Because Airbnb is relatively new, has only been used by a relatively small proportion of the population, and has not been widely researched, the "conceptual population" for this research (i.e., past-year Airbnb guests) exhibited various characteristics of a "hard-to-reach" population (Marpsat & Razafindratsima, 2010). A multiple-frame sampling approach was therefore deemed useful to recruit an adequate number of respondents for the analyses (Kalton & Anderson, 1986).

Firstly, the majority of the respondents were recruited via six travel-related Facebook groups based around major Canadian cities, and consisting of thousands of members apiece. The groups' administrator posted invitation messages for the study, such as the one found at Appendix A.

Secondly, the survey was posted on Mechanical Turk (MTurk), an opt-in online panel run by Amazon (the e-commerce company), through which "requesters" post surveys or other online tasks that member "workers" can complete for a small fee. MTurk is increasingly being used in social science research (Berinsky et al., 2012), although its use in tourism is so far limited to just

a small number of studies (Shim et al., 2014; Tussyadiah, 2015; Tussyadiah & Pesonen, 2015). The invitation posted on MTurk can be found at Appendix B. Workers were offered US $1.20 to complete the survey (and therefore were not eligible for the Amazon gift card lottery draw). The survey was posted on MTurk in mid-September, by which point it was already clear roughly how many respondents would be obtained via other means.

Also, a handful of other miscellaneous sampling approaches were used. Several travel bloggers (with websites independent of any broader platform) agreed to post an invitation message on their Facebook pages and/or Twitter feeds, and one of these bloggers also posted an invitation message on an Airbnb-focused page on the website Reddit. Also, the researcher posted an invitation message in a general travel-oriented Facebook group (with permission from the group administrator), the researcher posted an invitation message as a comment in response to a post about Airbnb on a Facebook group devoted to children's entertainment ideas in a particular Canadian city, and all respondents were given a link at the end of the survey that they could forward to other Airbnb users they knew.

Finally, recruitment involved two strategies that initially were planned to account for the bulk of the respondents but ultimately proved unsuccessful. When data collection began, the principal sampling method involved enlisting the cooperation of Airbnb hosts and having them contact their 15 most recent guests from within the past 12 months to invite them to complete the survey. To recruit the hosts, the researcher requested permission to post an invitation message on various websites offering information, advice, and services to Airbnb hosts, and in some cases the permission was granted and some hosts agreed to participate. However, this strategy proved relatively ineffective, as only a small number of completed surveys were obtained, and so the plan was eventually abandoned. Likewise, the researcher initially planned to recruit respondents

by searching major travel blogging platforms for individuals who had written about staying in an Airbnb accommodation within the past 12 months, and directly contacting them via the messaging systems native to the respective websites. However, again, only a small number of completed surveys were obtained, so this strategy also was eventually abandoned.

Prior to the study, the researcher communicated with an Airbnb representative about the potential for the company to cooperate on the study by providing access to guests, but Airbnb declined to participate. Also prior to commencing data collection, in the fall of 2014 the researcher conducted a feasibility study in which a random selection of 75 Airbnb hosts was contacted through the website and asked to send their future booked guests a preliminary version of the online survey. However, the response rate was low, so this sampling method was deemed ineffective.

3.1.2. Sample representativeness

The use of non-probability sampling meant the final sample of respondents would not be perfectly representative of the Airbnb guest population. Nonetheless, both Facebook (Baltar & Brunet, 2012; Gilligan, Kypri, & Bourke, 2014; Ramo & Prochaska, 2012) and MTurk (Smith, Sabat, Martinez, Weaver, & Xu, 2015), the two websites from which the vast majority of the final sample was drawn, are quite effective in recruiting respondents from hard-to-reach populations. Likewise, both have been recognized as recommendable, inexpensive options that produce high-quality data on a level that is generally comparable to or better than many common alternatives (Baltar & Brunet, 2012; Berinsky et al., 2012; Buhrmester, Kwang, & Gosling, 2011; Gilligan et al., 2014; Goodman, Cryder, & Cheema, 2013; Paolacci, Chandler, & Ipeirotis, 2010; Ramo & Prochaska, 2012; Simons & Chabris, 2012). Although not perfectly

representative of the general population or the internet-using population, both Facebook (Gilligan et al., 2014) and MTurk (Berinsky et al., 2012; Buhrmester et al., 2012; Goodman et al., 2013; Paolacci et al., 2012) can provide for fairly representative samples, and it is worth noting that internet panels and random-digit-dialing telephone samples, both of which are used widely in market research, similarly fail to produce perfectly representative samples (Chang & Krosnick, 2009; Lee, Brick, Brown, & Grant, 2010; Loosveldt & Sonck, 2008; Simons & Chabris, 2012). Also, MTurk data quality can be promoted by using strategies such as restricting respondents to individuals from certain countries, paying a relatively high compensation, and including some verifiable questions (Chen, 2012; Kittur, Chi, & Suh, 2008). This study used all three strategies – only residents of the U.S., the United Kingdom, Australia, and New Zealand were eligible to participate, the US $1.20 compensation was relatively high for MTurk, and two verifiable questions were incorporated into the MTurk version of the survey.

Also, even though the overall study sample was not random, the combination of different sampling frames was intended to reduce the overall study sample bias. Moreover, as compared to the general population, many of the biases characterizing users of websites like Facebook, MTurk, and Reddit are likely consistent with the biases found among users of an online service like Airbnb.

3.2. Survey design and variable measures

3.2.1. General characteristics of the survey

The study involved a self-administered online survey (Appendix C), developed using SurveyGizmo software. There were three screening questions, regarding having stayed in Airbnb accommodation during the previous 12 months, having been significantly involved in the

accommodation choice, and having English fluency. Additionally, respondents were instructed to have only one member of their travel party (from their most recent Airbnb stay) complete the survey.

The survey items were primarily Likert scale and multiple choice, with some short fill-in-the-blank items (e.g., destination name). The Likert scales used six response categories, which is a design supported by several studies (Armstrong, 1987; Chang, 1994; Garland, 1991; Lozano, García-Cueto, & Muñiz, 2008), although researchers have reached differing conclusions on the optimal number of categories. The questions focused chiefly on a respondent's most recent stay in an Airbnb accommodation.

A pretest was conducted with seven prior Airbnb guests who were friends or family of the researcher. The invitation message to participate in the pretest can be found at Appendix D. The pretest involved completing the survey and then answering a series of short open-ended questions regarding potential issues such as confusion and overall length (Appendix E).

3.2.2. Variable measures

3.2.2.1. Motivations to choose Airbnb

Agreement with different potential motivations for choosing Airbnb over other types of accommodation was measured using a 17-item Likert scale. As an exploratory study, the items were written uniquely for this research. The 17 items focused on the unique package of benefits that Airbnb seems to offer and, as was described in the Literature Review (Section 2.5.), were rooted in the concepts of disruptive innovation and the diffusion of innovations, and supported by the relevant accommodation choice literature. These 17 items were proposed as relating to six

different dimensions – price, functional attributes, unique and local authenticity, novelty, travel bragging, and sharing economy ethos.

As was discussed, price is a quintessential appeal of many disruptive innovations, and has been identified in the existing Airbnb literature and many Airbnb media stories as a key appeal of Airbnb. The price item was framed in terms of Airbnb's comparatively low cost relative to alternative accommodation options, as even an Airbnb accommodation that is inexpensive relative to other accommodation options may not be perceived as objectively inexpensive. Price is best considered as independent from Airbnb's functional attributes, although both relate to the service's more general practical attributes, as opposed to the experiential attributes that will be covered subsequently. Five items relating to functional attributes were included, based on existing Airbnb research, Airbnb media stories, and alternative accommodation research. These items related to location convenience, access to household amenities, access to a large amount of space, the homely feel of the accommodation, and the opportunity to receive useful information and tips from one's host.

Four items were included regarding the desire for unique and authentic local experiences, inspired by research examining Airbnb, non-hotel accommodations, tourism authenticity, and general consumer trends. One item referred generally to the opportunity for an authentic local experience and a second item referred to the opportunity to have a unique (non-standardized) experience. Although there is some similarity between these two items, they were both deemed useful, as an accommodation could be perceived as unique without being locally authentic, and vice versa. This dimension also included one item relating to interaction (with the host or other locals), and one item relating to the accommodation's location (staying in a non-touristy, residential area).

Three items associated with novelty-seeking were included, and they were based on Lee and Crompton's (1992) research on novelty-seeking in tourism. Lee and Crompton identified four dimensions of novelty-seeking – thrill, change from routine, boredom alleviation, and surprise. One item associated with three of these four dimensions was included (thrill: "exciting," change from routine: "new and different," and surprise: "unpredictable"). The dimension of boredom alleviation was not included because it seems to apply more directly to general travel (push) motivations than to accommodation choice (pull) motivations.

Three items related to the ethos of the sharing economy were included, with one referring generally to Airbnb's philosophy, one referring to its environmental friendliness, and one referring to accommodation expenditure going directly to locals. These items were based on the general sharing economy literature, and Tussyadiah's (2015) analysis of PSRs from a sharing economy perspective.

Finally, one item on travel bragging was included, based on Kerr et al.'s (2012) analysis of this concept, and the previous use of travel bragging in segmentation studies by Cha et al. (1995) and Sirakaya et al. (2003). This item centred on tourists' potential desire to have an experience they could tell friends and family about. Cha et al. (1995) and Sirakaya et al. (2003) each included a similarly worded item in their assessment of a travel bragging motivation.

3.2.2.2. Brand personality (coolness and self-congruity)

Coolness was measured using a condensed version of a coolness scale developed by Sundar et al. (2014). The original scale involves 15 items, with five items relating to each of three coolness dimensions – originality (uniqueness and novelty), attractiveness (aesthetically appealing and stylish), and subcultural appeal (differentiating users and helping them express their identity). In

order to limit the overall survey length, this study used two of the five items from each dimension, with items selected based on high factor loadings and applicability to the present study. This reduction was deemed acceptable as this study focused on aggregate scores rather than dimension scores, many of the removed items exhibited relatively low factor loadings, and some of the removed items were not especially applicable to an accommodation service like Airbnb. Also, the original measure uses a nine-point Likert scale, but this study used a six-point Likert scale in order to maintain consistency with other survey items, thereby reducing respondent frustration and confusion. Finally, the wording for two of the included items was modified very slightly to make them more applicable for tourism accommodation.

For comparative purposes, in addition to assessing Airbnb's coolness, the scale was also used to measure the perceived coolness of Holiday Inn and Hilton. These hotel brands were selected because they are widely known and represent two common, distinct price levels. The mean scores for the two hotel brands were themselves averaged, and this average was subtracted from the mean Airbnb coolness score in order to produce a comparative coolness score.

Self-congruity was also assessed using a previously established measure. It involved prompting respondents to imagine characteristics of typical Airbnb users, and then asking them to rate how consistent this image was with how they see themselves. Sirgy et al. (1997) developed this measure and, together with Sirgy and Su (2000), recommended this direct approach as preferable to the common alternative of measuring discrepancies between a user's self-concept and product image along a series of image dimensions, as the direct approach permits respondents to generate their own brand personality without any external cues. This direct approach has been used in various tourism studies (e.g., Liu, Lin, & Wang, 2012; Murphy, Benckendorff, & Moscardo, 2007a; Sparks, Bradley, & Jennings, 2011). As was previously

described, self-concept has four dimensions (how one sees oneself, who one would like to be, how one presents oneself, and how one would like to be seen by others), each of which was included by Sirgy et al. (1997). Again, however, in the interest of brevity, only the first facet was included in the present study, but only after the pretest confirmed very minimal variation in how respondents assessed the four dimensions. Likewise, the prompt was modified slightly in order to make it more applicable for tourism accommodation, and it was abbreviated to reduce survey length and to respond to recommendations received during the pretest. Also, as with the coolness measure, a six-point Likert scale was used in place of the original scale in order to maintain survey consistency.

3.2.2.3. Communication channels

Questions exploring the influence of different communication channels on Airbnb's diffusion included one item on the original communication channel creating awareness of Airbnb, and a second item on the influence that different communication channels had on respondents' decision to use Airbnb for the first time. These two key elements of innovation communication have long been considered in diffusion research, (e.g., Botello-Harbaum et al., 2013; Engel, Blackwell, & Kegerreis, 1969; Hubbard, Huang, & Mulvey, 2003; Larsen, 2011; Leonard & Leonard, 1999; Ryan & Gross, 1943; Varis & Littunen, 2010). The list of potential communication channels provided to the respondents was based on the three primary communication channels that were discussed (mass media, WOM, and eWOM). Airbnb reviews were considered as a communication channel that could influence initial use of Airbnb, but naturally could not provide initial awareness of Airbnb.

3.2.2.4. Travel decisions

One item about Airbnb's influence on travel decisions asked how the choice to use Airbnb affected the trip duration. A second item explored the question of substitution by asking the most likely form of accommodation that would have been used if Airbnb and other similar services did not exist. The "other similar services" phrase was included to avoid respondents indicating that if Airbnb did not exist they simply would have used a similar PSR service. This straightforward approach to gauging substitution has previously been used in studies on car-sharing (Cervero, Golub, & Nee, 2007; Martin, Shaheen, & Lidicker, 2010), another innovation within the sharing economy.

3.2.2.5. Satisfaction and loyalty

Respondents' satisfaction with their most recent Airbnb stay was measured with a straightforward overall satisfaction item, as has been used in other tourism studies (e.g., Bigné, Sanchez, & Sanchez, 2001; Chi & Qu, 2008; Choi & Chu, 2001). Respondents' intentions to recommend Airbnb to others and to use the service again were used to operationalize loyalty. Repurchase and recommendation intentions represent two very common indicators of tourism loyalty (e.g., Chi & Qu, 2008; Kandampully & Suhartanto, 2000; Mechinda, Serirat, & Gulid, 2009; Yoon & Uysal, 2005), and Reichheld (2003) noted that the recommendation question provides an especially strong indicator of customer loyalty. Scores on the two items were looked at individually and averaged to create a loyalty index score. Although customer loyalty involves both behavioural and attitudinal components (Day, 1969; Dick & Basu, 1994; Oppermann, 2000), a behavioural indicator was not included for this study because none was deemed

applicable. For example, using the number of previous Airbnb stays would be biased by travel frequency, and a proportional measure of Airbnb use seems unsuitable for such a new service.

3.2.2.6. Performance expectations

To better understand Airbnb's unique value proposition and its potentially inferior performance along traditional tourism accommodation attributes, as suggested by the concept of disruptive innovation, the survey assessed the expected performance of Airbnb, a hypothetical nearby budget hotel/motel, a hypothetical nearby mid-range hotel, and a hypothetical nearby upscale hotel along various attributes. The three hotel classes were compared with Airbnb independently because disruption occurs relative to another product (Christensen, 2006), and different hotel classes represent fairly discrete products. The attributes considered (e.g., cleanliness, comfort, and security) were largely drawn from the hotel choice literature (e.g., Chu & Choi, 2000; Dolnicar & Otter, 2003) to highlight potential weaknesses of Airbnb. Three items also were included relating to Airbnb's supposed unique value proposition – two experiential items related to authenticity and uniqueness, and a third item related to price. Other potentially important attributes, including amenities, staff/host friendliness, and staff/host helpfulness were not included in this analysis because they would be judged differently for Airbnb and hotels due to their distinct features. For example, some consumers may prefer typical Airbnb amenities like washing machines whereas other consumers may prefer typical hotel amenities like swimming pools. All of these assessments were measured with a Likert scale.

3.3. Data analysis

Various analyses were employed to answer the different research questions guiding this study. All statistical analyses were conducted using SPSS, Excel, and R software. To begin, basic descriptive statistics (e.g., categorical percentages, means, and standard deviations) were used to obtain a general overview of the sample and the responses to the different survey items.

Next, the different major respondent samples (the Canadian Facebook group respondents, the MTurk respondents, and all other respondents) were compared in order to test for sample differences, and in turn shed light on potential sample biases. One-way ANOVA, Welch, and chi-square tests were used to detect differences across a selection of variables, chosen to cover key variables spanning different areas, including demographics, Airbnb usage, and Airbnb motivations.

An exploratory factor analysis was then run on the 17 Airbnb motivations to identify underlying factors, with the goal of easing interpretation of subsequent analyses of the motivation data. Also, factor scores were compared between a variety of different groups, determined by demographic characteristics, trip characteristics, accommodation characteristics, and Airbnb usage history. These analyses were primarily intended to provide initial, general insights that could be used to inform the subsequent cluster analysis.

The cluster analysis implemented a two-stage cluster approach that is often recommended (e.g., Burns & Burns, 2008; Hair, Black, Babin, & Anderson, 2014; Punj & Stewart 1983; Sarstedt & Mooi, 2014), and has been used widely by tourism researchers (e.g., Chang, 2006; Prayag & Hosany, 2014; Rid et al., 2014; Ward, 2014). The two-stage cluster approach involves initially conducting a hierarchical cluster analysis, and then entering some of the resulting parameters into a subsequent k-means analysis. The final clusters then were profiled and

compared along demographic characteristics, trip characteristics, accommodation characteristics, and Airbnb usage history using chi-square, one-way ANOVA, and Welch tests.

Because a disruptive innovation must be disruptive relative to another product, Airbnb's performance expectations were assessed with independent t-tests, relative to budget hotels/motels, mid-range hotels, and upscale hotels. Perfect consistency with the notion of disruptive innovation would be indicated by Airbnb underperforming the hotels with regards to the items pertaining to hotels' supposed strengths (e.g., cleanliness, comfort, and security) and outperforming hotels with regards to the items pertaining to Airbnb's supposed strengths (price, authenticity, and uniqueness). This method seems to represent the first attempt at assessing a product's status as a disruptive innovation by using consumer evaluations of product attribute performance. In contrast, previous approaches have all relied on general market research analysis and/or input from industry members or experts (e.g., Hüsig et al., 2005; Keller & Hüsig, 2009; Rafii & Kampas, 2002; Sainio & Puumalainen, 2007).

4. RESULTS

4.1. Response numbers and data screening

A total of 923 surveys were received, with 757 completed directly and 166 completed via MTurk. Fourteen of the MTurk surveys were immediately disqualified because the respondents did not accurately respond to both of the validated items. Next, responses from identical IP addresses were identified and examined to determine if they were from the same individual or members of the same travel party (as only one member of a travel party was allowed to respond). Two of the identified surveys, one submitted directly and one from MTurk, were determined to be from members of the same travel party, so in each case the latter of the two surveys was disqualified. Then, a survey that had been submitted directly was disqualified for obvious disingenuousness, as evidenced by comments in the open-ended response options. Following the removal of surveys for these initial concerns, a total of 906 surveys remained, with 755 submitted directly and 151 purchased via MTurk.

Subsequently, the 906 remaining surveys were examined for carelessness and incompleteness, as such issues can negatively impact a dataset and skew findings (Curran, 2015; Huang, Liu, & Bowling, 2014). Carelessness was assessed with two very commonly used indicators, response time and invariability (Curran, 2015; Huang, Curran, Keeney, Poposki, & DeShon, 2012). Three response time measures were considered – total time to complete the survey, time to complete the fourth page of the survey (consisting of the Airbnb motivation items), and time to complete the fifth page of the survey (consisting of the performance expectations and the coolness measures). Invariability was assessed by examining the maximum number of consecutive identical responses on the Airbnb motivation items and the performance

expectancy items. This technique is termed "long-string analysis" and was originally proposed by Johnson (2005). Additionally, incompleteness was assessed by counting the number of missing responses for the Airbnb motivation items and the performance expectancy items. Similar to Johnson (2005) and Meade and Craig (2011), a frequency distribution was rendered for each of the seven described variables, and major drop-offs at the low end of duration and the high end of invariability and incompleteness were identified as cut-off points for disqualifying respondents. In all cases, cut off points were selected conservatively, erring towards keeping respondents in the sample rather than excluding them, as was recommended by Curran (2015).

Six respondents (0.7% of the sample) were disqualified based on total time to complete the survey, five respondents (0.6% of the sample) were disqualified based on total time spent on the fourth page of the survey, five respondents (0.6% of the sample) were disqualified based on total time spent on the fifth page of the survey, 28 respondents (3.1% of the sample) were disqualified based on the long-string analysis of the Airbnb motivation items, 8 respondents (0.9% of the sample) were disqualified based on the long-string analysis of the performance expectancy items, 6 respondents (0.7% of the sample) were disqualified based on missing values on the Airbnb motivation items, and 23 respondents (2.5% of the sample) were disqualified based on missing values on the performance expectancy items. In total, 62 responses (6.8% of the 906 surveys) were disqualified based on these various patterns. Of the original 923 submitted surveys, a total of 58 (6.3%) were disqualified for carelessness – the 14 MTurk respondents who missed one of the validated items, plus 44 respondents who were disqualified based on completion time or long-string analysis (but not missing items) – and this percentage is generally consistent with rates that have commonly been found in other studies (Curran, 2015). Of the 62 respondents disqualified for either carelessness or incompleteness, 49 had completed the survey

directly (representing 6.5% of those respondents) and 13 had completed the survey via MTurk (representing 8.6% of those respondents). In the end, the final sample used for the analyses consisted of 844 total respondents, with 706 (83.6%) having completed the survey directly and 138 (16.4%) completing it through MTurk.

4.2. Characteristics of the overall sample

The following four tables present an overview of the final sample, describing demographic characteristics, trip characteristics (of the most recent Airbnb stay), accommodation usage characteristics (of the most recent Airbnb stay), and Airbnb usage history.

4.2.1. Demographic characteristics

Table 1 displays the demographic characteristics of the overall sample. Slightly over two-thirds of the respondents were female. The sample was also relatively young, with over half of the respondents between 21 and 30 years of age, and over 80% between 21 and 40 years of age. The sample was additionally well-educated, with over 90% having at least a university or college degree, and the sample was relatively wealthy, with over 75% perceiving their household wealth as at least "just above average" in their home country. Finally, nearly all of the respondents resided in either Canada (74%) or the U.S. (23%), owing to the sampling frames from which most of the respondents were drawn.

Table 1. Respondents' demographic characteristics

Characteristic	%	n
Gender		
Female	67.8	553
Male	32.1	262
Transgender	0.1	1
Age		
20 or under	1.1	9
21-30	52.3	437
31-40	29.7	248
41-50	8.0	67
51-60	5.6	47
61 or over	3.3	28
Highest level of completed education		
High school or less	7.2	59
University / college	62.6	510
Graduate / professional	30.2	246
Household financial status (relative to home country)		
Well below average	1.0	8
Below average	5.4	42
Just below average	15.8	123
Just above average	46.9	365
Above average	27.7	216
Well above average	3.2	25
Country of residence		
Canada	74.3	589
USA	23.0	182
Other	2.8	22

4.2.2. Trip characteristics of the most recent Airbnb stay

As is displayed in Table 2, the vast majority of the respondents (80%) were on a leisure trip during their most recent Airbnb stay. As for destinations, nearly 60% were visiting the USA or Canada, but it must be remembered that nearly all of the respondents resided in these two

countries. Also, nearly 60% of the respondents were on an international trip, and fewer than 20% viewed themselves as "backpacking."

Table 2. Trip characteristics of respondents' most recent Airbnb stay

Characteristic	%	n
Trip purpose		
Business	3.5	29
Convention, conference, major event	7.5	63
Leisure	80.3	673
Visiting friends/family	8.7	73
Destination region		
Canada	23.0	194
Europe	28.9	244
USA	36.4	307
Other	11.6	98
Destination type		
Domestic	40.3	319
International	59.7	473
Self-described "backpacker" on the trip		
No	81.9	685
Yes	18.1	151

Note: "Business" refers to business trips excluding conventions, conferences, or other major events.

4.2.3. Accommodation usage characteristics of the most recent Airbnb stay

Table 3 presents data on the accommodations respondents used for their most recent Airbnb stay. As can be observed, the vast majority (just over 70%) stayed in an entire home, and nearly all of the other respondents stayed in a private bedroom. Only a tiny fraction of the respondents (2%) stayed in a shared space (e.g., a futon in the host's living room). Most of the respondents were staying in their Airbnb accommodation for a relatively short period, as over 60% of the stays were between two and four nights, although fewer than 10% were staying for just a single night.

Finally, nearly all of the respondents (almost 90%) were staying with at least one other guest, most commonly a spouse or partner (almost 60% of the total sample) or a friend (over 30% of the total sample).

Table 3. Accommodation usage characteristics of respondents' most recent Airbnb stay

Characteristic	%	n
Type of Airbnb accommodation used		
Entire home	70.3	586
Private bedroom	27.6	230
Shared space	2.2	18
Nights		
1	9.5	79
2	22.0	183
3	23.6	196
4	16.8	140
5	9.7	81
6	5.4	45
7	6.0	50
8-29	5.7	47
30+	1.2	10
Number of other guests		
0	11.2	93
1	50.4	417
2	12.3	102
3	12.8	106
4	5.7	47
5	4.3	36
6+	3.3	27
Type of other guests (% of total sample)		
Spouse/partner	57.6	486
Child(ren)	10.9	92
Other family	6.9	58
Friend(s)	31.0	262
Professional colleague(s)	2.0	17

Notes: "Shared space" refers to sleeping in a shared area, such as a futon in the host's living room. The "Other family" category was not explicitly included in the survey, but was rather tallied from responses to an open-ended "Other" question.

4.2.4. Airbnb usage history

Table 4 presents characteristics of respondents' Airbnb usage history. Given Airbnb's recent emergence, respondents unsurprisingly tended to have only a limited number of Airbnb experiences and had only recently begun using the service. In fact, over 20% of the sample had only ever used the service once, and two-thirds had used it no more than four times. Likewise, nearly 60% of the sample had first used the service in 2014 or 2015 (keeping in mind that data collection occurred between July and October 2015). Finally, just fewer than 10% of the respondents had experience as an Airbnb host. This number is likely somewhat higher than what would normally be expected because the hosts who were initially recruited to invite their guests to complete the survey were also given the opportunity to complete the survey themselves.

Table 4. Respondents' Airbnb usage history

Characteristic	%	n
Total times used Airbnb		
1	22.0	182
2	16.7	138
3	17.1	142
4	10.9	90
5	8.9	74
6	5.9	49
7	4.3	36
8-10	7.5	62
11+	6.6	55
Year first used Airbnb		
2008-2010	4.0	33
2011	6.6	55
2012	12.7	105
2013	19.0	158
2014	32.0	266
2015	25.7	213
Ever been an Airbnb host		
No	90.9	758
Yes	9.1	76

Note: Data collection occurred between July and October 2015.

4.3. Individual sample differences and overall sample representativeness

4.3.1. Response numbers from different sampling frames

As was described earlier, this study used multiple sampling frames in order to recruit a satisfactory sample of respondents. The number and percentage of respondents from each sampling frame can be seen in Table 5. As can be observed, the majority of the respondents (over 70%) derived from the six travel-themed Canadian Facebook groups. MTurk accounted for another large contingent of respondents (over 16%). The other miscellaneous sampling frames

independently accounted for just a small percentage of respondents, but together still represented over 10% of the respondents.

Table 5. Number of respondents from the different sampling frames

Sample	%	n
Canadian travel-themed Facebook groups (6)	72.4	611
MTurk	16.4	138
Reddit (Airbnb-focused page)	3.2	27
Facebook and Twitter invitations posted by independent travel bloggers	2.7	23
Airbnb hosts and their guests	1.3	11
Referrals	0.8	7
General travel-themed Facebook group	0.7	6
Comment in Facebook group on children's entertainment	0.7	6
Bloggers on major platforms	0.5	4
Airbnb host forum	0.4	3
Unknown	0.9	8

4.3.2. Differences between the individual samples

Because of the potential for bias among the different samples – particularly the Canadian Facebook group respondents and the MTurk respondents who constituted the vast majority of the overall sample – it was important to examine them for differences. To do so, the Canadian Facebook group respondents, the MTurk respondents, and all other respondents were compared along 15 variables, consisting of demographic characteristics (age, gender, education, and household income), trip characteristics (destination type, trip purpose, and backpacker status), accommodation usage characteristics (type of Airbnb accommodation used and number of nights spent in the Airbnb accommodation), Airbnb usage history (number of times used Airbnb and

first year Airbnb was used), motivations to use Airbnb (low cost and local authenticity), and other variables (satisfaction and self-congruity). These items were intended to give a broad overview of sample differences, and the two motivation items were chosen in order to account for both the practical appeal and the experiential appeal of the service.

Table 6 shows comparisons of the three samples according to the eight nominal and ordinal variables that were examined. The table also includes chi-square test results, and standardized residuals were used to identify individual significant differences following significant chi-square tests. Table 7 shows comparisons of the three samples according to the seven continuous variables that were examined. The table also includes one-way ANOVA and Welch test results. Following significant ANOVA results, Hochberg's GT2 and Games-Howell post-hoc tests were used to identify individual significant differences. Hochberg's GT2 was used because it is adept at dealing with unequal sample sizes, as was the case for this analysis, and the Games-Howell test was used because it is suitable for situations with a lack of homogeneity of variance (Field, 2013). A Holm-Bonferroni correction[2] was considered in order to reduce the chances of Type I error with such a large number of exploratory tests being performed (Holm, 1979), but it was discovered that such a correction would have no impact on the results.

Significant differences between the groups were found for five of the eight variables tested in Table 6, with no differences found for age, backpacker status, or Airbnb accommodation type. The significant findings regarding gender were driven by a higher than expected ratio of female respondents among the Canadian Facebook group respondents, and a

[2] A traditional Bonferroni correction involves dividing the significance criterion by the number of tests being conducted (e.g., for 15 tests with a 0.05 criterion, the resulting criterion would be 0.05/15, or 0.0033). The Holm-Bonferroni is a less conservative alternative in which the *p*-value criterions are reduced in sequential order, beginning with the lowest *p*-value finding, by a denominator that decreases with each test. For example, with 15 tests the lowest *p*-value criterion would again be 0.0033, but the criterion for the next lowest p-value found would be 0.05/14, or 0.0036. This process continues until a *p*-value result exceeds the applicable criterion, at which point the process concludes and all remaining results are deemed not significant.

lower than expected ratio among the MTurk respondents. While there is no immediate explanation for the higher ratio of females among the Canadian Facebook group respondents (as the gender breakdowns of the groups themselves are unknown), the higher than expected presence of males within the MTurk sample may reflect the fairly equal male-female ratio within that sampling frame (Ipeirotis, 2015). The MTurk respondents were also significantly less likely than the other respondents to have a graduate or professional degree, and significantly more likely to have no more than a high school education. However, it is worth noting that the MTurk sample, which was exclusively from the United States, was still quite well-educated, as the 17.5% with a graduate or professional degree far exceeds the 10.4% found in the general population (United States Census Bureau, 2014). This pattern is consistent with findings that MTurk workers have more average education than the general population (Paolacci et al., 2010). The MTurk respondents also were significantly less likely to characterize their household financial status as "above average" or "well above average." This finding is again consistent with research showing that MTurk workers tend to have somewhat lower incomes than the general population, although it is worth noting that the differences are not extreme and many MTurk workers use the service for non-monetary reasons (Paolacci et al., 2010).

The MTurk sample also differed in terms of its destination type, as the MTurk workers were particularly likely to have last used Airbnb for a domestic trip, in stark contrast with the Canadian Facebook group respondents, who were particularly likely to have last used Airbnb for an international trip. Some of Airbnb's economic impact reports indicate the percentage of Airbnb guests in different destinations who are international visitors, and these percentages vary dramatically, with a clear pattern showing that Airbnb guests in U.S. destinations are more likely to be domestic travellers and Airbnb guests elsewhere are more likely to be international

travellers. For example, international travellers were reported to represent 24% of Airbnb guests in Chicago, 40% in Boston, and 42% in Los Angeles, in comparison with 60% of Airbnb guests in Montreal, 75% in Sydney, 81% in London, 90% in Berlin, and 93% in Japan (Airbnb, 2013c, 2014a, 2014g, 2014h, 2014j, 2015d, 2015g, 2016r). This pattern likely helps explain why the MTurk respondents, who were exclusively from the U.S., were far more likely to have last used Airbnb for a domestic trip. The MTurk respondents also were more likely than the others to have last used Airbnb on a trip to visit friends and/or family.

Table 6. Sample comparisons by various nominal and ordinal variables

Variable	Canadian Facebook Groups	Mechanical Turk	Other	df	χ^2	*p*	N
Age (%)							
≤ 30	52.1	57.2	55.3				
31-40	29.3	33.3	27.1	4	7.17	0.127	828
≥ 41	18.7	9.4	17.6				
Gender (%)							
Female	75.4*	43.1***	58.8	2	57.23	<0.001	807
Male	24.6**	56.9***	41.2				
Highest level of completed education (%)							
High school or less	6.2	14.5**	3.5				
University / college	61.0	68.1	64.7	4	22.41	<0.001	807
Graduate / professional	32.9	17.4**	31.8				
Household financial status relative to home country (%)							
Well below / Below avg	5.9	9.8	3.8				
Just below avg	13.8	23.3*	18.8	6	17.65	0.007	772
Just above avg	47.4	47.4	41.3				
Above / Well above avg	32.9	19.5*	36.3				
Destination type (%)							
Domestic	28.3***	84.6***	49.4	2	147.70	<0.001	786
International	71.7***	15.4***	50.6				
Trip purpose (%)							
Business	2.6	5.8	5.7				
Event	7.1	10.1	6.9				
Leisure	85.0	63.0*	75.9	6	46.46	<0.001	830
Visiting friends/relatives	5.3**	21.0***	11.5				
Backpacking							
No	82.1	80.3	82.8	2	0.30	0.860	828
Yes	17.9	19.7	17.2				
Airbnb accommodation type							
Entire home	72.3	66.4	64.4				
Private room	25.4	32.1	34.5	4	5.41	0.248	826
Shared space	2.3	1.5	1.1				

Notes: Column percentages for each variable sum to 100. In order to account for low expected cell values, the original age categories of "20 or under" and "21-30" were collapsed into the "≤30 group," and the age categories of "41-50," "51-60," and "61 or over" were collapsed into the "≥41" group. Likewise, the household financial status categories of "Well below average" and "Below average" were combined into a single group, as were the categories of "Above average" and "Well above average." Only one respondent indicated his/her gender to be "transgender," so this category was excluded from the gender analysis. "Event" signifies "Attending a convention, conference, or other major event," and "Business" signifies "Business (other than convention, conference, or other major event)." Asterisks signify cells that are significantly different from their expected values, as per their standardized residuals: *p<0.05, **p<0.01, ***p<0.001.

Significant differences between the groups were found for three of the seven variables tested in Table 7, with no differences found for the number of nights spent in the Airbnb accommodation, satisfaction, the 'authentic local experience' motivation item, or self-congruity. The MTurk sample had used Airbnb significantly fewer times than the other samples, had begun using Airbnb more recently (although the statistically significant differences here did not appear to be very meaningfully different), and agreed less strongly with the 'low cost' motivation.

Table 7. Sample comparisons by various continuous variables

Variable	Sample	M	SD	df	F	*p*	n
Nights spent in Airbnb accomm	CND FB groups	4.22	3.78	2, 179.73	2.20	0.114	598
	MTurk	3.56	2.72				138
	Other	5.75	7.01				87
Total times used Airbnb	CND FB groups	4.63[b]	4.49	2, 183.87	47.46	<0.001	595
	MTurk	2.43[a]	2.24				138
	Other	7.15[c]	8.51				87
Year first used Airbnb	CND FB groups	2013.33[a]	1.40	2, 819	11.69	<0.001	598
	MTurk	2013.96[b]	1.36				137
	Other	2013.30[a]	1.46				87
Satisfaction with Airbnb stay	CND FB groups	5.37	1.03	2, 202.19	1.61	0.202	598
	MTurk	5.33	0.67				138
	Other	5.54	0.97				87
Motivation to use Airbnb: Low cost	CND FB groups	5.31[b]	0.93	2, 830	8.73	<0.001	608
	MTurk	4.97[a]	0.94				138
	Other	5.05[ab]	1.04				87
Motivation to use Airbnb: Authenticity	CND FB groups	4.44	1.31	2, 830	1.17	0.312	610
	MTurk	4.41	1.26				136
	Other	4.66	1.21				87
Self-congruity with Airbnb	CND FB groups	4.65	0.92	2, 827	1.72	0.180	605
	MTurk	4.54	0.75				138
	Other	4.77	1.04				87

Notes: "Nights spent in Airbnb accomm" and "Total times used Airbnb" were logarithmically transformed prior to the analysis in order to account for a high positive skew, but the untransformed mean scores are presented in the table above. Also, to limit the influence of extreme values, six durations that exceeded 30 nights were changed to 31 prior to the analysis. Welch tests were used to analyze "Nights spent in Airbnb accomm," "Total times used Airbnb," and the satisfaction measure due to a lack of homogeneity of variance between the groups. Superscripts indicate groups that are significantly different based on Hochberg's GT2 and Games-Howell post-hoc tests. The Games-Howell test was used to examine the "Total times used Airbnb variable, and normally superscripts would not be used because this test does not produce homogeneous subsets. However, in this case superscripts were appropriate because the test found significant differences between all three groups. Satisfaction, the two motivation items, and self-congruity were all measured on a six-point Likert scale ranging from 1="Strongly disagree" to 6="Strongly agree."

4.3.3. Representativeness of the overall sample

For some variables, characteristics of the overall sample could be compared with figures regarding Airbnb's guest population that have been reported by the company, primarily in its destination economic impact reports. To begin, the 68% of respondents who were female is somewhat higher than the 54% female ratio that Airbnb stated in its report on the summer of 2015 (Airbnb, 2015c). Nonetheless, exhibiting much stronger parallels with Airbnb's user population, the concentration of respondents within the 21-40 age range is consistent with Airbnb's claim in the same report that its average guest age is 35 (Airbnb, 2015c). In fact, if one estimates the mean age of the present study's respondents by using the midpoint of each age group (e.g., 35 for "31 to 40"), with 19 representing "20 or under" (as one must be at least 18 to make an Airbnb reservation) and 70 representing "61 or over," the result is an average age of 33.

The trip purpose proportions within the overall sample are also quite consistent with what Airbnb has reported for its user population. Airbnb economic impact reports on Athens, Japan, and Madrid (Airbnb, 2015a, 2015b, 2015g) stated an average of 86% of guests travelled for leisure (in comparison with 80% for this study), 6% for visiting friends and/or family (in comparison with 9% for this study), 3% for business (in comparison with 3% for this study), and 2% for a convention (in comparison with 8% for this study, although the present study's category also included conferences and other major events). (The Airbnb studies also included marginal groups for "study," "relocation," and "job hunting.") Likewise, reports from France and Ireland indicated that 86% and 90% of Airbnb guests, respectively, were travelling either for leisure or to visit friends and/or family (Airbnb, 2015f, 2015i), which is very consistent with the 89% for this study.

Furthermore, the ratios of respondents staying in different forms of Airbnb accommodation (70% entire home, 28% private bedroom, and 2% shared space) are quite consistent with the previously mentioned ratios of Airbnb listings for 32 major worldwide cities (64% entire homes, 34% private rooms, and 2% shared spaces). Likewise, the average length of stay for respondents in the present study was 4.54, which is essentially identical to the 4.5 night average length of stay for Airbnb guests that the company recently stated to the media (Lu, 2015). This figure stated by Airbnb is itself consistent with what has been reported in the company's economic impact reports, as figures from 12 such reports average to 4.46 (Airbnb, 2012b, 2013b, 2013c, 2014b, 2014g, 2014h, 2014j, 2015a, 2015b, 2015f, 2015g, 2015i). This consistency between Airbnb's stated average and the average calculated from the economic impact reports lends support to the use of the economic impact reports for estimating characteristics of Airbnb's user population. Finally, the 89% of respondents who had stayed in their most recent Airbnb accommodation with at least one other guest is fairly consistent with various Airbnb economic impact reports that have indicated an average of 84% of Airbnb trips "involve families travelling with partners, children, relatives or friends" (Airbnb, 2014j, 2015d, 2015g, 2016q), keeping in mind that considering trips is different from travellers and it is unclear if Airbnb's categorization would include two friends travelling together.

4.4. Motivations to choose Airbnb

4.4.1. Descriptive statistics

The original scale of motivations to choose Airbnb consisted of 17 items pertaining to six proposed dimensions – price, functional attributes, unique and local authenticity, novelty, bragging rights, and sharing economy ethos. Descriptive statistics for each of these motivation

items can be found in Table 8. As can be observed, respondents on average agreed with nearly all of the proposed motivations (with 3.5 as the mathematical midpoint of the six-point scale).

By a fairly substantial degree, respondents agreed most strongly with the 'low cost' motivation. That was followed by two of the *Functional attributes*, 'location convenience' and 'household amenities.' Of the other *Functional attributes*, respondents exhibited a fairly high level of agreement with the 'homely feel' motivation, whereas the other two ('large amount of space' and 'local info/tips from host') received comparatively less agreement. Overall, agreement tended to be higher with the practical motivations (i.e., the *Price* and *Functional attributes* dimensions), as compared with the experiential motivations within the other dimensions.

The highest levels of agreement with experiential motivations occurred within the *Unique and local authenticity* dimension. Respondents indicated moderate levels of agreement with the more general *Unique and local authenticity* items ('authentic local experience,' 'unique (non-standardized),' and 'non-touristy neighbourhood'), while exhibiting slight disagreement with the 'interact with host/locals' item. Of the three *Novelty* motivations, respondents indicated some agreement with the 'exciting' and 'new and different' items, but the 'unpredictable' item was one of the few motivations with which respondents tended to disagree. In fact, unpredictability was easily the motivation with which respondents disagreed most strongly. Respondents also slightly disagreed with the single *Bragging rights* item. Finally, of the three *Sharing economy ethos* items, respondents stated some agreement with the 'Airbnb philosophy' item, minimal agreement with the 'money to locals' item, and slight disagreement with the 'environmentally friendly' item.

Table 8. Descriptive statistics for the motivations to choose Airbnb

Dimension (as originally proposed) Motivation	M	SD	N
Price			
For its comparatively low cost	5.22	0.95	841
Functional attributes			
For the convenient location	4.99	0.99	841
For the access to household amenities	4.70	1.31	840
For the homely feel	4.41	1.30	842
For the large amount of space	4.13	1.39	843
To receive useful local information and tips from my host	3.90	1.44	842
Unique and local authenticity			
To have an authentic local experience	4.46	1.29	841
To have a unique (non-standardized) experience	4.36	1.34	841
To stay in a non-touristy neighborhood	4.33	1.41	844
To interact with host, locals	3.46	1.51	839
Novelty			
I thought the experience would be exciting	4.06	1.30	841
To do something new and different	4.04	1.39	840
I thought the experience would be unpredictable	2.63	1.27	843
Bragging rights			
To have an experience I could tell my friends/family about	3.40	1.40	841
Sharing economy ethos			
I prefer the philosophy of Airbnb	3.91	1.34	839
I wanted the money I spent to go to locals	3.69	1.36	843
Staying with Airbnb is environmentally friendly	3.25	1.31	842

Notes: Some motivations have been abbreviated slightly from the survey. Item order was randomized for each respondent. All items were measured on a six-point Likert scale ranging from 1="Strongly disagree" to 6="Strongly agree."

4.4.2. Exploratory factor analysis

An exploratory factor analysis was performed using the 17 Airbnb motivations in order to better identify underlying factors among the items. An initial reliability analysis was conducted on the 17 items, revealing a Cronbach's alpha of 0.872 (N = 807). However, an examination of the inter-item correlation matrix revealed two items ('low cost' and 'location convenience') for which all correlations were much lower than the common threshold of 0.3 (Field, 2013), as in each case the highest correlation was with the other at 0.198. The 'low cost' item exhibited the

lowest total item correlation (r = .027) and was therefore removed, increasing Cronbach's alpha to 0.879 (N = 810). The 'location convenience' item continued to exhibit low correlations with all other items, along with a very low total item correlation (r = 0.194) and was therefore removed as well, increasing Cronbach's alpha to 0.883 (N = 812). No further items required removal, so the exploratory factor analysis proceeded with the remaining 15 items.

Although principal component analysis, which is technically distinct from factor analysis, is a more common technique within the tourism literature, a factor analytic approach was deemed more appropriate for this analysis because the primary goal was the identification of latent factors rather than data reduction, and the scale was created with supposed underlying constructs (Costello & Osborne, 2005; Park, Dailey, & Lemus, 2002; Tabachnick & Fidell, 2013). Moreover, a comparative analysis using principal components analysis and the established number of factors resulted in the motivation items being grouped identically. A principal axis factoring extraction method was used, as Field (2013) noted that it is a preferred extraction method within factor analysis. Even though many tourism researchers use orthogonal rotations, an oblique rotation was used because (as with virtually any social science research) some correlation was expected between the factors (Costello & Osborne, 2005; Field, 2013). Of the possible oblique rotations, direct oblimin was chosen because it is the most commonly used (Field, 2013; Sarstedt & Mooi, 2014).

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy had a very high value of 0.907, and all KMO values for the individual items were at least 0.744, which is far above the acceptable limit of 0.5 (Field, 2013). Also, Bartlett's test of sphericity was significant, χ^2 (105) = 4723.32, $p < 0.001$, confirming the strength of the inter-item correlations. Together these tests

verified the appropriateness of using the data for the factor analysis. A parallel analysis[3] (Horn, 1965) was performed using the *psych* package in R (Revelle, 2015) for guidance on the number of factors to extract, and this analysis consistently recommended a five-factor solution. The scree plot also was examined but was somewhat unclear, suggesting either three or five factors could be extracted. Kaiser's (1960) criterion (of retaining factors with eigenvalues above 1.0) would have suggested a three-factor solution, but was inappropriate due to the size of the communalities after extraction (Field, 2013). It is worth noting that the chosen five-factor solution was consistent with Jolliffe's (1972) criterion of 0.7. The solution explained 69% of the total variance and was mostly clean and easily interpretable. However, the 'unique (non-standardized)' item cross-loaded onto two factors, and both had very similar factor loadings (0.440 and 0.415), so this item was removed and the analysis was repeated.

The remaining 14 variables again proved appropriate for factor analysis – Cronbach's alpha became 0.868 (N = 814), the KMO measure of sampling adequacy had a very high value of 0.890, the KMO values for the individual items were all at least 0.736, and Bartlett's test of sphericity was significant, χ^2 (91) = 4085.74, $p < 0.001$. Also, in both the oblique rotation that was used and an orthogonal rotation (varimax) that was tested, numerous factors exhibited correlations with one another that exceeded the common threshold of 0.32, thereby supporting the use of an oblique rotation (Tabachnick & Fidell, 2013). Parallel analysis recommended both four and five-factor solutions, with the four-factor solution recommended more frequently. However, both possibilities were examined and the five-factor solution was far preferable, as the four-factor solution merely combined two seemingly conceptually distinct factors from the four-

[3] Parallel analysis offers a recommendation on the number of factors to extract based on testing the size of the eigenvalues in comparison counterparts derived from randomly generated data with the same characteristics as the data in question, and parallel analysis is preferable to the more common use of either a scree plot or Kaiser's criterion (Field, 2013).

factor solution in a way that led to fairly low factor loadings for one of the factor's items. The scree plot similarly suggested a five-factor solution over a four-factor solution, and the five-factor solution remained consistent with Jolliffe's (1972) suggestion of retaining factors with eigenvalues above 0.7. The final five-factor solution also was identical to the previous five-factor solution, simply with the cross-loaded 'unique (non-standardized)' item removed. The solution again was very clean and explained 69% of the total variance. All factor loadings easily exceeded the commonly used criterion of 0.32 (Tabachnick & Fidell, 2013), except for the 'non-touristy neighbourhood' item, which had a factor loading of 0.26. Nonetheless, this variable was retained because that value could still be considered significant given the size of the sample (Stevens, 2009), and it represented part of a factor with just one other variable, so removing it would have proven problematic. Indeed, two factors consisted of just two variables, which is not optimal (Costello & Osborne, 2005). Nonetheless, this concern was not seen as problematic, as the purpose of this exercise was primarily to identify latent structures amongst the motivations, and, as was mentioned, moving to a solution with fewer factors would have resulted in a less easily interpretable solution.

The results of the factor analysis can be observed in Table 9. The extracted factors differed in several ways from the original dimensions that were proposed (Table 8). The first factor, named *Interaction*, explained a particularly large share of the variance (38%), and consisted of one item from the original *Unique and local authenticity* dimension ('interact with host/locals') and one item from the original *Functional attributes* dimension ('local info/tips from host'). The second factor, named *Home benefits*, explained a somewhat smaller share of the variance (11%), and consisted of three of the four remaining items from the original *Functional attributes* dimension. (The fifth item from the original *Functional attributes* dimension, 'location

convenience,' was omitted from the factor analysis due to low inter-item correlations.) The third factor, named *Novelty*, explained 9% of the variance, and consisted of the three items from the originally proposed *Novelty* dimension, in addition to the original *Bragging rights* item. The fourth factor, named *Sharing economy ethos*, explained 6% of the variance, and consisted of the same three items that were originally suggested for this same dimension. Finally, the fifth factor, named *Local authenticity*, explained 5% of the variance, and consisted of two of the four items from the original *Unique and local authenticity* dimension. (The 'unique (non-standardized)' item, which was removed, had cross-loaded onto the *Novelty* factor and the *Local authenticity* factor, with a slightly higher loading on the former.)

Table 9. Factor analysis of the motivations to choose Airbnb

Factor	Factors					
Motivation	1	2	3	4	5	Communalities
Interaction						
To interact with host, locals	.79					.69
To receive useful local information and tips from my host	.71					.59
Home benefits						
For the large amount of space		.66				.42
For the access to household amenities		.65				.41
For the homely feel		.47				.51
Novelty						
I thought the experience would be exciting			.78			.66
To do something new and different			.75			.61
To have an experience I could tell my friends/family about			.64			.52
I thought the experience would be unpredictable			.55			.35
Sharing economy ethos						
I wanted the money I spent to go to locals				.87		.69
Staying with Airbnb is environmentally friendly				.60		.45
I prefer the philosophy of Airbnb				.45		.41
Local authenticity						
To have an authentic local experience					.71	.76
To stay in a non-touristy neighborhood					.26	.32
Eigenvalues	5.37	1.51	1.21	.83	.75	
Variance explained (%)	38.36	10.79	8.65	5.96	5.33	
Cumulative variance explained (%)	38.36	49.15	57.80	63.76	69.09	
Cronbach's α	.78	.65	.80	.73	.63	
Average of the mean motivation scores	3.68	4.42	3.53	3.62	4.39	

Notes: Some motivations have been abbreviated slightly from the survey. For the *Interaction* and *Local authenticity* factors, the reported Cronbach's α score is the "Cronbach's α based on standardized items," which is equivalent to the Spearman's-Brown coefficient and is a more appropriate reliability measure for two-item scales (Eisinga, Grotenhuis, & Pelzer, 2013). All items were measured on a six-point Likert scale ranging from 1="Strongly disagree" to 6="Strongly agree."

4.4.3. Group comparisons

To compare the motivations of different types of Airbnb users, numerous different groups were compared based on the regressed factor scores for the five factors, in addition to the mean scores of the 'low cost' and 'location convenience' items that had been removed from the factor

analysis. A combination of t-tests, one-way ANOVA tests, and Welch tests were used. Initially, the three samples (Canadian Facebook group respondents, MTurk respondents, and all other respondents) were compared to better identify and account for any sample differences. It was found that they differed with regards to the 'low cost' item (as was stated in Table 7), the *Novelty* factor ($F[2, 179.29] = 15.53$, $p < 0.001$) and the *Sharing economy ethos* factor ($F[2, 803] = 3.43$, $p = 0.033$). A Hochberg's GT2 post-hoc test indicated the Canadian Facebook group respondents agreed significantly more with the 'low cost' item than the MTurk respondents, and a Games-Howell post-hoc test indicated the MTurk respondents agreed significantly more with the *Novelty* factor than the other two groups. The post-hoc testing failed to differentiate between any of the groups regarding the *Sharing economy ethos* factor. In order to account for such differences impacting the following group comparisons, whenever groups showed significant differences on any of these three motivation items/factors, a factorial ANVOA was performed to test for a significant interaction effect, which could be indicative of different patterns of responses within the three samples. The results of this test are only reported in cases where a significant interaction effect was found. Main effects were not examined because the unequal cell sizes would confound these results (Howell, 2009, 2012).

Looking at demographic characteristics, males and females exhibited two statistically significant differences, with females agreeing significantly more with the *Home benefits* factor ($t[783] = 2.40$, $p = 0.017$) and the *Local authenticity* factor ($t[783] = 2.66$, $p = 0.008$). There were also two significant differences between the age groups (collapsed into 30 and under, 31-40, and 41 and over), this time with regards to the 'low cost' item ($F[2, 830] = 3.96$, $p = 0.020$) and the *Novelty* factor ($F[2, 803] = 3.80$, $p = 0.023$). The youngest age group agreed most strongly with the 'low cost' item, but a Hochberg's GT2 post-hoc test failed to differentiate between any of the

groups. With regards to the *Novelty* factor, the same test distinguished the youngest age group (who agreed most) from the oldest age group. There were no significant differences between the groups based on highest level of completed education. With regards to financial status, the groups (collapsed into Well below / Below / Just below average, Just above average, Above / Well above average) only differed for the *Sharing economy ethos* factor ($F[2, 749] = 4.73$, $p = 0.009$), with a Hochberg's GT2 post-hoc distinguishing the Well below / Below / Just below average group (who agreed most) from the Above / Well above average group.

Looking at trip characteristics, no significant differences were found between the trip purpose groups. With regards to groups divided by destination region (Canada, USA, Europe, and Other), the groups differed with regards to the *Interaction* factor ($F[3, 809] = 3.48$, $p = 0.016$), the *Home benefits* factor ($F[3, 809] = 3.50$, $p = 0.015$), and the *Local authenticity* factor ($F[3, 809] = 2.75$, $p = 0.042$). For both the *Interaction* and the *Local authenticity* factors, Hochberg's GT2 post-hoc tests failed to distinguish between any of the groups, but in both cases it is worth noting that agreement was lower for tourists visiting Canada and the USA (where nearly all of the respondents resided), and higher for tourists visiting Europe or other countries. For the *Home benefits* factor, the post-hoc test distinguished between respondents staying in Canada (who agreed most) from those staying in the USA. When comparing domestic and international tourists, international tourists agreed significantly more strongly with the 'low cost' item ($t[787] = 2.76$, $p = 0.006$), the *Interaction* factor ($t[762] = 3.16$, $p = 0.002$), and the *Local authenticity* factor ($t[762] = 2.23$, $p = 0.026$). Finally, backpackers agreed significantly more than non-backpackers with the *Interaction* factor ($t[804] = 5.49$, $p < 0.001$), the *Novelty* factor ($t[804] = 2.60$, $p = 0.009$), and the *Sharing economy ethos* factor ($t[804] = 3.44$, $p = 0.001$).

With regards to the accommodation usage characteristics, tourists staying in the different types of Airbnb accommodations (entire home, private room, and shared space) differed across two factors, *Interaction* ($F[2, 801] = 30.07$, $p < 0.001$) and *Home benefits* ($F[2, 801] = 46.72$, $p < 0.001$). In both cases, a Hochberg's GT2 post-hoc test differentiated the respondents who had stayed in an entire home from the other two groups, with the entire home respondents agreeing significantly less with the *Interaction* factor and significantly more with the *Home benefits* factor. Tourists using Airbnb for stays of different durations (collapsed into groups of one, two, three, and four plus nights) differed with regards to the *Home benefits* factor ($F[3, 261.16] = 13.88$, $p < 0.001$) and the *Local authenticity* factor ($F[3, 271.13] = 4.82$, $p = 0.003$). Regarding the *Home benefits* factor, a Games-Howell post-hoc test showed the respondents spending one or two nights agreed significantly less than those spending three or four plus nights. Regarding the *Local authenticity* factor, the same post-hoc test distinguished the "four plus" (stronger agreement) from the two and three night groups. When considering the number of other guests the respondents stayed with (collapsed into groups of zero, one, and two plus), the groups differed with regards to the *Interaction* factor ($F[2, 796] = 5.52$, $p = 0.004$) and the *Home benefits* factor ($F[2, 796] = 11.59$, $p < 0.001$). Regarding *Interaction*, a Hochberg's GT2 post-hoc test differentiated between those staying with zero guests (who agreed more strongly) and those staying with two or more guests, and regarding *Home benefits*, the post-hoc test distinguished those staying with two or more guests (who agreed more strongly) from the other two groups. When comparing tourists who did and did not stay with a spouse, the former agreed significantly more with the *Home benefits* factor ($t[812] = 2.46$, $p = 0.014$). When comparing tourists who did and did not stay with child(ren), the former agreed significantly less with the 'low cost' item ($t[102.35] = 2.63$, $p = 0.010$) and significantly more with the *Home benefits* factor ($t[812] = 4.71$,

$p < 0.001$). When comparing tourists who did and did not stay with friend(s), the former agreed significantly less with the *Local authenticity* factor ($t[812] = 2.24$, $p = 0.025$).

With regards to Airbnb usage history, when comparing groups who had used the service different numbers of times (collapsed into groups of one, two or three, and four or more times), the groups differed significantly across all five of the factors produced by the factor analysis – *Interaction* ($F[2, 796] = 6.20$, $p = 0.002$), *Home benefits* ($F[2, 427.55] = 10.74$, $p < 0.001$), *Novelty* ($F[2, 796] = 4.76$, $p = 0.009$), *Sharing economy ethos* ($F[2, 796] = 10.11$, $p < 0.001$), and *Local authenticity* ($F[2, 796] = 11.76$, $p < 0.001$). With regards to *Interaction*, a Hochberg's GT2 post-hoc test distinguished respondents who had used it four or more times (who agreed more strongly) from respondents who had only used it once. With regards to *Novelty*, a post-hoc test distinguished the respondents who had used Airbnb once (who agreed more strongly) from the other two groups. With regards to *Home benefits*, *Sharing economy ethos*, and *Local authenticity*, a post-hoc test distinguished the respondents who had used Airbnb four or more times from the other two groups, with the former demonstrating higher levels of agreement in each case. Also, a factorial ANOVA with *Novelty* factor scores as the dependent variable and sample as a second independent variable (in addition to categories of respondents with different levels of Airbnb experience) detected a significant interaction effect ($F[4, 782] = 4.27$, $p = 0.002$), with the profile plots demonstrating an inconsistent response pattern between the samples when looking at respondents who had used Airbnb two or three times. Nonetheless, this pattern did not appear to have impacted the key finding from the post-hoc test, which suggests that the finding should not be discarded as a function of sample differences.

When comparing groups based on the year they first used Airbnb (collapsed into the groups 2008-2012, 2013, 2014, and 2015), significant differences were detected regarding the

Home benefits (F[3, 797] = 4.60, $p = 0.003$), *Sharing economy ethos* (F[3, 797] = 3.54, $p = 0.014$), and *Local authenticity* (F[3, 797] = 5.88, $p = 0.001$) factors. Looking at the Hochberg's GT2 post-hoc test results, tourists who had first used Airbnb in 2015 agreed with the *Home benefits* factor significantly less than the other three groups, the 2008-2012 group agreed with the *Sharing economy ethos* factor significantly more than the 2015 group, and the 2008-2012 group also agreed with the *Local authenticity* factor significantly more than either the 2014 or the 2015 groups. Finally, when comparing respondents who had and had not previously acted as an Airbnb host, previous hosts agreed significantly more with the *Interaction* factor (t[802] = 2.30, $p = 0.022$), the *Novelty* factor (t[802] = 1.96, $p = 0.050$), and the *Sharing economy ethos* factor (t[802] = 3.91, $p < 0.001$).

4.5. Cluster analysis and cluster profiling

Because this study involved a relatively large number of motivation items, a biclustering approach (also sometimes referred to as "co-clustering" or "two-mode clustering") was considered. Whereas traditional clustering involves clustering rows (i.e., respondents) or columns (i.e., variables), biclustering involves clustering both rows and columns simultaneously. In effect, biclustering identifies segments based on just a selection of pattern-showing variables, while disregarding the extraneous variables that may otherwise obfuscate meaningful patterns (Cadwell, 2014; Dolnicar, Kaiser, Lazarevski, & Leisch, 2012; Kaiser, 2011). Biclustering has recently been popularized in the field of genetics, because it facilitates the identification of patterns in gene expressions under varied experimental conditions (Cheng, & Church, 2000; Kluger, Basri, Chang, & Gerstein, 2003; Yang, Wang, Wang, Yu, 2003). Dolnicar et al. (2012) recommended its use for tourism segmentation in situations of data dimensionality, meaning the

ratio of respondents to variables is too small. The possibility of using a bicluster analysis was explored using the BCQuestord algorithm, which is part of the *biclust* package in R (Kaiser, 2015), as this algorithm is designed for use with Likert scale survey data (Kaiser, 2011). However, the algorithm involves an element of randomness and the results proved highly unstable, with repeated solutions creating clusters based on different combinations of variables. Several parameters of the algorithm were changed to increase stability, but the solutions remained too unstable to proceed with this method.

Consequently, a more traditional cluster analysis method was used, and such an approach was ultimately quite reasonable due to the relatively large number of survey respondents in the overall sample. Dolnicar (2002) reviewed tourism segmentation research and found the median number of cases was 461 and 40% of the studies had between 200 and 500 cases, meaning the present study, in which 807 cases were included in the cluster analysis, actually had significantly more cases than what has typically been found in the tourism literature. Likewise, Dolnicar found that 63% of the studies had between ten and 22 variables, meaning the present study, with its 17 clustering variables, had a fairly typical number of variables. Later reporting on this same data set, Dolnicar et al. (2014) stated that the median ratio of respondents per variable was 22.4, which is less than half of the 47.5 ratio for the present study. Dolnicar et al. also ran a simulation study which led them to recommend sample sizes of 70 times the number of variables being considered, with this serving as a conservative sample size requirement to account for difficult data sets. In fact, the authors found most optimal sample sizes had a ratio of 30 to 40 respondents per variable, which is less than the (47.5) ratio of the present study.

In research with smaller ratios of respondents to clustering variables, the typical solution is a factor-cluster approach (Dolnicar et al., 2014). This procedure, in which the variables are

first reduced via factor analysis or principal component analysis, and then the resulting factor scores are used for the cluster analysis, is indeed exceedingly commonplace in the tourism literature (e.g., Alexander, Kim, & Kim, 2015; Andereck & Caldwell, 1994; Beh & Bruyere, 2007; Brown, Havitz, & Getz, 2007; Cha et al., 1995; Chang, 2006; Chen & Lin, 2012; Cho, Bonn, & Brymer, 2014; Dey & Sarma, 2010; Dong et al., 2013; Frochot, 2005; Jang, Morrison, & O'Leary, 2002; Karvonen & Komppula, 2013; Kibicho, 2008; Konu, 2010; Lee et al., 2004; Liu et al., 2013; Loker-Murphy, 1997; Mo et al., 1994; Nyaupane et al., 2006; Özel & Kozak, 2012; Park & Yoon, 2009; Petrick, 2005; Rid et al., 2014; Sirakaya et al., 2003; Ward, 2014; Wicks, 2004; Zografos & Allcroft, 2007). However, Dolnicar and Grün (2008, 2011) strongly discouraged using this procedure, arguing that a large quantity of meaningful variance is lost in the factor analysis, and the cluster analysis is restricted to the transformed data instead of the respondents' original data. The authors additionally cited other researchers who have voiced similar warnings, and Dolnicar and Grün (2008) ran a simulation study that found segmenting raw data uniformly outperformed segmenting factor scores. In fact, it was as an alternative to this technique that Dolnicar et al. (2014) recommended biclustering. Fortunately, however, the high ratio of respondents to variables in the present study allowed for all 17 motivation items, instead of their factor scores, to be used in the cluster analysis.

Prior to conducting the cluster analysis, the correlations between each of the 17 clustering variables were checked for correlations above 0.90, as such multicollinearity would problematically indicate two variables were not sufficiently distinct (Sarstedt & Mooi, 2014). None of the correlations were anywhere near that threshold, so all of the 17 variables were retained. Next, potential outlier cases were identified by computing a dissimilarity measure for

each individual by using the sum of squared errors formula[4] (Hair et al., 2014). There was no particularly extreme case, and an examination of some of the respondents with the highest dissimilarity measures demonstrated that many of these respondents had simply strongly disagreed with numerous motivation items. It did not appear necessary to remove any of these cases from the analysis, as it seemed possible that such individuals represented a meaningful group of respondents (Hair et al., 2014). It also seemed possible that such individuals were showing a response pattern bias, which is an issue that was subsequently examined. Moreover, the k-means clustering analysis that was used as part of this study handles outliers well (Hair et al., 2014). This study used a two-stage cluster approach in which agglomerative hierarchical clustering was used for guidance on the number of clusters and to establish the cluster centroids, with these inputs then used for a k-means cluster analysis that determined the final cluster solution.

Initial clustering of the data resulted in cluster solutions that essentially grouped the respondents into segments of strong, medium, and low levels of agreement across all of the different motivations. Of course some respondents undoubtedly showed greater overall motivation to use Airbnb, but there was also strong reason to believe respondents who agreed more strongly with some motivations would agree less with others. For example, as was discussed previously, respondents staying in entire homes understandably tended to agree comparatively more with the *Home benefits* motivations (e.g., 'large space' and 'household amenities'), while agreeing comparatively less with the *Interaction* motivations (e.g., 'local info/tips from host'). Consequently, the cluster solutions seemed chiefly reflective of response-style effects, meaning ipsative (i.e., personal) tendencies in how different individuals answered

[4] This formula involves taking the mean for each variable, subtracting it from each individual score, squaring the difference, and summing the results for each respondent.

the survey questions (in particular, exhibiting different baseline levels of agreement) (Beaman & Vaske, 1995; Hair et al., 2014; Schaninger & Buss, 1986). Indeed, Hair et al. (2014) described this situation precisely:

> Suppose we collected a number of ratings on a 10-point scale of the importance for several attributes used in purchase decisions for a product. We could apply cluster analysis and obtain clusters, but one distinct possibility is that what we would get are clusters of people who said everything was important, some who said everything had little importance, and perhaps some clusters in between. What we are seeing are patterns of responses specific to an individual. These patterns may reflect a specific way of responding to a set of questions, such as yea-sayers (answer favorably to all questions) or naysayers (answer unfavorably to all questions). (p. 435)

The solution to this issue is to transform the scores within each case, such as by subtracting the mean score for each respondent from each of the respondent's individual variable scores, or converting the data into standardized z-scores by case (Beaman & Vaske, 1995; Hair et al., 2014; Schaninger & Buss, 1986). In effect, standardizing scores for each case is comparable to using correlation as a distance measure in hierarchical clustering, although standardization gives greater flexibility to use other proximity measures and clustering approaches (Hair et al., 2014; Sarstedt & Mooi, 2014). The obvious drawback of standardizing scores for each case is that the sole focus becomes general response patterns across variables rather than the magnitudinal differences between cases (Hair et al., 2014), and it is natural that some meaningful variance will be lost (Schaninger & Buss, 1986). Nonetheless, as Schaninger and Buss (1986) demonstrated by comparing solutions derived with and without such standardization, this cost can be far outweighed by the benefits, as standardizing scores by case can provide a solution that is more interpretable, more heterogeneous, and more clearly related to external variables. Although this procedure is not especially common, both standardizing scores by case and the fairly equivalent approach of using correlation as a distance measure have been used previously by tourism

researchers (e.g., Becken & Gnoth, 2004; Beh & Bruyere, 2007; Boksberger & Laesser, 2009). This study used within-case standardization via z-scores as the chosen transformation method.

For the agglomerative hierarchical clustering, Ward's method with squared Euclidean distance was used. Ward's method was chosen because it tends to produce homogenous clusters, and is recommended for and often employed in the two-stage clustering procedure that was undertaken (Hair et al., 2014, Punj & Stewart 1983). The percentage change in heterogeneity within clusters in subsequent clustering stages, as indicated by the agglomeration coefficient, was used to choose the optimal number of clusters (Hair et al., 2014). This method most strongly suggested either a three or four-cluster solution, with a seven-cluster solution also potentially recommended, particularly considering this method has a known tendency to indicate too few clusters (Hair et al., 2014). However, overall there was no clear cut-off point, so cluster centroids were saved for three, four, five, six, and seven-cluster solutions, and imported into the k-means analysis for further examination.

K-means is often perceived as preferable to hierarchical methods because it is less susceptible to outliers and irrelevant variables, and is better at handling large data sets (Hair et al., 2014; Sarstedt & Mooi, 2014). For further guidance on the number of clusters to save, the variance ratio criterion statistic[5] was calculated for each of the solutions (Caliński & Harabasz, 1974). The variance ratio criterion calculation most strongly suggested a six-cluster solution, followed by a seven-cluster solution and then a five-cluster solution. Hit ratios from a discriminant analysis looking at four, five, six, and seven-cluster solutions also were considered for guidance, but differed by less than 1.5%. Consequently, the various cluster solutions were

[5] This calculation essentially sums the F-values for each variable in an ANOVA table following a k-means analysis, such that different cluster solutions can be compared. As an online extra to their textbook, Sarstedt and Mooi (2014) provided simple instructions for using Excel to calculate the variance ratio criterion using SPSS output: http://www.guide-market-research.com/L3UXRpWEecff/attachments/024_Variance%20Ratio%20Criterion.pdf.

examined by looking at the (non-transformed) means for each variable, and the five-cluster solution proved the most easily interpretable. The four-cluster solution failed to distinguish between two seemingly conceptually distinct groups that emerged in the five-cluster solution. On the other hand, the six and seven-cluster solutions divided the segments too finely, such that several segments were highly similar across nearly all variables.

It should be noted that the original Ward's method cluster analysis generated two separate solutions on a consistent basis, depending upon the order of the cases. The order of the cases was experimentally changed numerous times in random ways, but the two solutions were equally common. Centroids from both solutions were tested in the k-means analysis and the results were highly similar, as the pattern of motivations was very consistent and the mean of the absolute value of the differences for each cell was a mere 0.10. The stability between these two solutions was further assessed with a cross-tabulation highlighting the number of cases reassigned to different groups in the two solutions. Only 13.8% were reassigned, which is indicative of a stable solution (Hair et al., 2014; Sarstedt & Mooi, 2014). One of the two solutions led to a marginally higher variance ratio criterion statistic and a marginally higher hit ratio in a discriminant analysis, and was therefore used. The chosen case ordering involved descending cases by a random ID number given to each case.

4.5.1. Interpretation of the cluster solution

Table 10 displays the group means for the selected five-cluster solution, in addition to F-values for each motivation item. The segments have been named based on their comparative motivations for choosing Airbnb. The count and percent of each segment is included in the table, but because the study used non-probability sampling these percentages should not be interpreted

as precise indicators of the relative size of each segment within the Airbnb user population. To ease interpretation of the table, the motivations have been organized in accordance with the exploratory factor analysis solution (Table 9). The three motivations that were excluded from the factor analysis have also been reinserted for the cluster solution: The 'low cost' and 'location convenience' motivations, which were excluded due to low inter-item correlations, have been included at the top of the motivation list, and the 'unique (non-standardization)' motivation, which was excluded due to cross-loading onto two factors, was included under the *Novelty* factor upon which it loaded most heavily. Also to ease interpretation, the cell values have been shaded based on their deviations from the sample mean for each variable, with darker shades indicating higher levels of agreement with a given motivation.

The F-values in the final column of Table 10 display the results of univariate ANOVA tests comparing the mean scores for each segment. These values function primarily as indicators of the degree to which each motivation contributed to the final cluster solution (SPSS, 2016). The associated *p*-values have not been included in the table because in k-means analysis the clusters are selected to maximize differences between clusters, so the *p*-values should not be interpreted as tests of the hypothesis that the cluster means are equal (SPSS, 2016). As can be observed, the two *Interaction* items played a particularly strong role in dividing up the clusters, with the 'large space' item also especially important. Other motivations with relatively large F-values include 'household amenities,' 'new and different,' 'unpredictable,' 'exciting,' and 'low cost.' On the other hand, the two *Local authenticity* items played a relatively minor role in determining the cluster solution.

Table 10. The motivation-based cluster solution

Factor Motivation	Money savers (n=152 / 18.8%)	Home seekers (n=188 / 23.3%)	Collaborative consumers (n=154 / 19.1%)	Pragmatic novelty seekers (n=175 / 21.7%)	Interactive novelty seekers (n=138 / 17.1%)	Total (N=807) M, SD	F
For its comparatively low cost	5.67	5.01	5.28	5.16	5.04	5.22, 0.95	63.40
For the convenient location	5.17	4.91	4.88	5.03	4.93	4.99, 1.00	45.57
Interaction							
To interact with host, locals	2.44	3.19	4.76	2.57	4.59	3.45, 1.51	163.86
To receive useful local info/tips from my host	3.09	3.92	4.88	3.03	4.78	3.90, 1.43	92.40
Home benefits							
For the large amount of space	3.64	5.20	3.53	4.37	3.64	4.14, 1.39	102.29
For the access to household amenities	4.36	5.52	4.18	5.04	4.20	4.71, 1.30	76.05
For the homely feel	3.13	5.05	4.66	4.54	4.51	4.41, 1.30	34.78
Novelty							
I thought the experience would be exciting	2.88	3.66	4.17	4.78	4.89	4.06, 1.29	64.04
To do something new and different	2.86	3.46	4.23	4.85	4.86	4.03, 1.38	71.37
To have experience I could tell friends/family about	2.43	2.96	3.47	4.15	4.08	3.41, 1.40	39.73
I thought the experience would be unpredictable	2.17	2.23	2.32	2.93	3.62	2.63, 1.27	64.16
To have a unique (non-standardized) experience	2.77	4.35	4.81	4.91	4.88	4.35, 1.34	48.03
Sharing economy ethos							
I wanted the money I spent to go to locals	2.86	3.76	4.77	3.58	3.51	3.70, 1.36	41.42
Staying with Airbnb is environmentally friendly	2.57	3.30	3.93	3.36	2.97	3.24, 1.30	19.59
I prefer the philosophy of Airbnb	3.11	4.17	4.56	3.87	3.79	3.91, 1.34	16.18
Local authenticity							
To have an authentic local experience	3.23	4.47	5.08	4.56	4.96	4.45, 1.29	16.60
To stay in a non-touristy neighborhood	3.26	4.39	5.11	4.61	4.18	4.32, 1.41	17.51

Notes: Some motivations have been abbreviated slightly from the survey. All items were measured on a six-point Likert scale ranging from 1="Strongly disagree" to 6="Strongly agree." The cluster mean scores were shaded according to their deviation from the sample mean, with darker shading indicating higher agreement. There are 10 shading intervals of 0.2 standard deviations each, except for the two extreme intervals that extended indefinitely. For example, the second lightest shade corresponds with scores that are between -0.8 and -0.6 standard deviations from the overall sample mean.

4.5.1.1. Money savers

The first segment in Table 10, *Money savers*, was motivated to use Airbnb primarily by its relatively low cost. *Money savers* showed far stronger levels of agreement with the 'low cost' motivation than any other group. Indeed, their mean score for this item (5.67) is the highest cell value in the entire table. They also agreed most strongly with the 'location convenience' motivation, but there was very limited differentiation between the segment means for this variable. The *Money savers'* agreement with the other motivations was very limited, as their mean scores were well below the sample mean scores for the remaining 15 variables. In fact, the *Money savers* exhibited the lowest agreement among the segments with 12 of the 15 motivations other than 'low cost' and 'location convenience,' including all of the *Novelty*, *Sharing economy ethos*, and *Local authenticity* items. Also, of these 15 items, the *Money savers* indicated disagreement (based on the 3.5 mathematical midpoint of the scale) with every item except for 'household amenities' and 'large space.'

4.5.1.2. Home seekers

The *Home seekers* were especially motivated by the three items in the *Home benefits* factor, as their agreement with all three motivations in this factor was notably higher than any other segment. In particular, they agreed very strongly with the 'household amenities' item, and agreed much stronger than any other segment with the 'large space' item. The *Home seekers* had comparatively low levels of agreement with the 'low cost' and 'location convenience' motivations, although in each case the absolute level of agreement was fairly high and the scores were not much lower than the overall sample means. Nonetheless, it is worth noting that the *Home seekers*' agreement with the *Home benefits* items exceeded their agreement with the 'low

cost' item, which represents the only instances in which any segment agreed with any motivation item more than with 'low cost.' The *Home seekers* also were attracted, though to a much lesser degree, by the *Sharing economy ethos* and *Local authenticity* factors, as they showed moderate levels of agreement just above the sample mean for all five of the relevant items except for 'environmentally friendly.' The *Home seekers* also exhibited relatively low levels of agreement with the *Novelty* items, indicating agreement below the sample mean for all five items and indicating overall disagreement with three of the five items. Of the two *Interaction* items, the *Home seekers* showed fairly average agreement with the 'local info/tips from host' item and fairly low agreement with the 'interact with locals' item.

4.5.1.3. Collaborative consumers

The *Collaborative consumers* were attracted to Airbnb by a variety of motivations related to the sharing economy (i.e., collaborative consumption). To begin, they showed the very highest levels of agreement with the three *Sharing economy ethos* items. These scores included a level of agreement with the 'money to locals' item that was notably higher than any other segment, and agreement with the 'environmentally friendly' item with which every other segment disagreed. The *Collaborative consumers* also showed the absolute highest levels of agreement with the *Interaction* and *Local authenticity* items, with only the *Interactive novelty seekers* indicating somewhat comparable levels of agreement. The *Collaborative consumers* exhibited comparatively middling levels of agreement with most of the *Novelty* items, although they indicated quite high absolute agreement with the 'unique (non-standardized)' item and notable disagreement with the 'unpredictable' item. Regarding the *Home benefits*, the *Collaborative consumers* exhibited the absolute lowest levels of agreement with the 'household amenities' and

'large space' items, but exhibited above average agreement with the 'homely feel' item. Finally, this segment had fairly average levels of agreement with the 'low cost' and 'location convenience' items, although the absolute agreement levels were high, as with every other segment.

4.5.1.4. Pragmatic novelty seekers

The *Pragmatic novelty seekers* were motivated comparatively strongly by the *Novelty* and the *Home benefit* items. Along with the *Interactive novelty seekers*, the *Pragmatic novelty seekers* exhibited the highest levels of agreement with the *Novelty* items, far exceeding the other three segments in most every case. However, the *Pragmatic novelty seekers* showed notably less agreement than the *Interactive novelty seekers* with the 'unpredictable' item, indicating an average level of disagreement. The *Pragmatic novelty seekers* also notably exhibited especially high levels of agreement with two of the three *Home benefits* items ('household amenities' and 'large space'), agreeing less than the *Home seekers* but much more than any of the other segments. The *Pragmatic novelty seekers* additionally exhibited noteworthy disagreement with the *Interaction* items. This segment exhibited fairly typical levels of agreement with most of the other items, including high levels of absolute agreement with the 'low cost' and 'location convenience' items.

4.5.1.5. Interactive novelty seekers

As was just described, the *Interactive novelty seekers*, together with the *Pragmatic novelty seekers*, were especially attracted to Airbnb by the *Novelty* motivations. However, the *Interactive novelty seekers* exhibited a somewhat opposite pattern of agreement from the *Pragmatic novelty*

seekers with regards to the *Interaction* and *Home benefits* items. Unlike their novelty-seeking counterparts, the *Interactive novelty seekers* strongly agreed with the *Interaction* items and indicated comparatively little agreement with the *Home benefits* items. The *Interactive novelty seekers* also exhibited high levels of agreement with the 'authentic local experience' item, and mostly typical levels of agreement with the other items, including high absolute agreement with the 'low cost' and 'location convenience' items.

4.5.2. Comparing cluster solutions by sample

To further test both the reliability of the cluster solution and the potential for bias from the multiple sampling frames, the overall sample was divided into two sample groups and separate cluster analyses were performed to see if the cluster solutions would yield segments comparable to those found in the overall sample. The first sample group consisted of respondents from the Canadian Facebook groups (n=588), and the second sample group consisted of all other respondents (n=211). The MTurk respondents were included in this latter group, rather than examined independently, in order to achieve a reasonably large sample size. This sample group still was not close to reaching the previously described recommended ratio of cases to variables, and even the Canadian Facebook sample did not reach that recommended ratio, but it was still felt that the analysis could provide useful insight. The same cluster analysis approach was taken for this analysis as with the original cluster analysis (using Ward's method to obtain cluster centroids and importing these centroids into a subsequent k-means analysis), although this time there was a pre-established five-cluster solution.

The results can be seen in Table 11, which shows side-by-side comparisons of the response patterns for the overall sample and the two tested subsamples. As with Table 10, the

cell values were shaded in accordance with their deviations from their respective sample means. Therefore, similar shading patterns between the three samples within each segment are indicative of similar response patterns within the clusters that were created.

Indeed, for all five clusters the predominant characteristics that defined the cluster for the overall sample are also clearly evident in the two subsample groups – the *Money savers* are especially motivated by 'low cost;' the *Home seekers* are especially motivated by the *Home benefits*; the *Collaborative consumers* are especially motivated by *Sharing economy ethos*, *Interaction*, and *Local authenticity*; the *Pragmatic novelty seekers* are especially motivated by *Novelty* and *Home benefits*; and the *Interactive novelty seekers* are especially motivated by *Novelty* and *Interaction*. Inevitably, some response patterns are slightly different; for example, the *Collaborative consumers* in the two subsample groups exhibited notably high levels of agreement with the *Home benefit*s items. Nonetheless, the consistent overall patterns lend support to the study's overall cluster solution.

Table 11. Cluster solutions of different samples

Factor	Money savers			Home seekers			Collaborative consumers			Pragmatic novelty seekers			Interactive novelty seekers		
Motivation	All	FB	Oth	All	FB	Oth	All	FB	Oth	All	FB	Oth	All	FB	Oth
For its comparatively low cost	5.67	5.61	5.52	5.01	5.02	4.91	5.28	4.76	5.07	5.16	5.47	4.49	5.04	5.55	5.14
For the convenient location	5.17	5.08	4.94	4.91	4.98	4.97	4.88	4.88	4.69	5.03	5.18	4.96	4.93	4.85	5.05
Interaction															
To interact with host, locals	2.44	2.66	2.67	3.19	2.97	2.24	4.76	4.90	4.63	2.57	2.76	3.53	4.59	4.18	4.33
To receive useful local info/tips from my host	3.09	3.43	2.85	3.92	3.71	2.85	4.88	5.03	4.63	3.03	3.33	3.55	4.78	4.56	4.62
Home benefits															
For the large amount of space	3.64	3.93	4.21	5.20	5.24	4.76	3.53	4.01	4.44	4.37	4.20	4.76	3.64	3.10	2.57
For the access to household amenities	4.36	4.74	3.97	5.52	5.60	5.12	4.18	4.94	5.11	5.04	5.05	4.80	4.20	3.05	4.00
For the homely feel	3.13	3.38	3.82	5.05	5.09	4.73	4.66	4.92	5.20	4.54	4.29	4.67	4.51	4.21	4.43
Novelty															
I thought the experience would be exciting	2.88	2.77	3.12	3.66	3.93	4.91	4.17	4.29	4.17	4.78	4.74	4.67	4.89	4.35	4.90
To do something new and different	2.86	2.68	2.97	3.46	3.84	4.70	4.23	4.09	3.89	4.85	4.78	5.10	4.86	4.48	5.05
To have experience I could tell friends/family about	2.43	2.49	2.27	2.96	2.98	3.73	3.47	3.74	3.56	4.15	4.30	3.94	4.08	3.34	4.29
I thought the experience would be unpredictable	2.17	2.18	2.24	2.23	2.35	2.94	2.32	2.41	2.06	2.93	3.08	2.98	3.62	3.00	3.64
To have a unique (non-standardized) experience	2.77	2.95	2.97	4.35	4.50	4.73	4.81	4.83	4.72	4.91	4.86	5.04	4.88	4.70	4.81
Sharing economy ethos															
I wanted the money I spent to go to locals	2.86	2.83	3.55	3.76	3.81	3.39	4.77	4.48	4.43	3.58	3.51	3.27	3.51	3.95	4.21
Staying with Airbnb is environmentally friendly	2.57	2.55	2.97	3.30	3.45	4.12	3.93	3.70	3.93	3.36	3.05	2.55	2.97	3.23	3.83
I prefer the philosophy of Airbnb	3.11	3.04	3.42	4.17	4.39	3.55	4.56	4.49	4.39	3.87	3.79	3.82	3.79	4.03	4.33
Local authenticity															
To have an authentic local experience	3.23	3.31	3.27	4.47	4.53	3.48	5.08	5.16	5.07	4.56	4.66	4.96	4.96	4.95	5.02
To stay in a non-touristy neighborhood	3.26	3.31	4.21	4.39	4.21	3.82	5.11	5.09	4.96	4.61	4.45	4.80	4.18	4.55	4.36

Notes: 'All' refers to the overall sample (N=807), and is therefore equivalent to Table 10. 'FB' refers to respondents from the Canadian Facebook groups (n=588) and 'Oth' refers to all other respondents (n=211), including those from MTurk. Some motivation items have been abbreviated slightly from the survey. All items were measured on a six-point Likert scale ranging from 1="Strongly disagree" to 6="Strongly agree." The mean scores were shaded according to their deviation from the mean for each individual sample group, with darker shading indicating higher agreement. There are 10 shading intervals of 0.2 standard deviations each, except for the two extreme intervals that extended indefinitely. For example, the second lightest shade corresponds with scores that are between -0.8 and -0.6 standard deviations from the mean.

4.5.3. Discriminant analysis

As has become common practice, multiple discriminant analysis was used to help confirm the validity of the cluster solution. The five clusters were used as the dependent variable, with the 17 motivation items acting as the predictor variables. Importantly, the discriminant analysis used the raw, non-transformed motivation scores, rather than the z-scores used in the cluster analysis. The discriminant analysis generated four discriminant functions, shown in Table 12. As can be observed, the four discriminant functions in combination significantly differentiated the groups, as did all other subsequent combinations generated by peeling away the functions one at a time. Also of particular note, the discriminant analysis correctly classified 92.8% of the cases. This hit ratio is quite high, thereby lending support to the cluster solution. The hit ratios for each of the individual clusters can be observed in Table 13.

Table 12. Summary of the discriminant analysis results

Function	Eigenvalue	Percent variance	Cumulative percent	Canonical correlation		After function	Wilks' Lambda	Chi-square	df	*p*
1	1.403	38.2	38.2	0.764	:	0	0.081	1995.223	68	< 0.001
2	1.105	30.1	68.3	0.725	:	1	0.195	1298.127	48	< 0.001
3	0.854	23.2	91.5	0.679	:	2	0.411	706.292	30	< 0.001
4	0.312	8.5	100.0	0.487	:	3	0.762	215.660	14	< 0.001

Table 13. Classification results from the discriminant analysis

	Predicted group membership (%)				
Clusters	Money savers	Home seekers	Collaborative consumers	Pragmatic novelty seekers	Interactive novelty seekers
Money savers	82.9	7.2	2.6	3.9	3.3
Home seekers	1.6	94.7	1.1	1.6	1.1
Collaborative consumers	1.3	1.3	94.8	0.0	2.6
Pragmatic novelty seekers	0.6	1.7	1.1	94.9	1.7
Interactive novelty seekers	0.7	0.0	1.4	1.4	96.4

Note: 92.8% of original cases correctly classified.

4.5.4. Cluster profiling

A wide variety of profiling variables were used to better understand the different segments. Chi-square, one-way ANOVA, and Welch tests were used to assess differences between the segments. In cases of statistical significance, standardized residuals (chi-square), Gabriel's tests (one-way ANOVA), and Games-Howell tests (Welch) were used to better identify any significant segment differences. Gabriel's tests were used because they are very suitable for slightly unequal group sizes (as was the case for the different segments), and Games-Howell tests were used because they are adept at handling a lack of homogeneity of variance (Field, 2013).

Beginning with demographics, Table 14 shows that no statistically significant differences were detected between the segments with regards to gender, highest level of education completed, or household financial status. However, the segments did differ with regards to age. Most notably, the *Home seekers* were comparatively older than the other segments and the *Pragmatic novelty seekers* were comparatively younger.

Table 14. Demographic characteristics of the segments

Characteristic	Money savers	Home seekers	Collaborative consumers	Pragmatic novelty seekers	Interactive novelty seekers	Total	Chi-square
Gender (%)							
Female	66.4	74.0	67.1	67.7	62.2	67.9	$\chi^2(4)=5.31$
Male	33.6	26.0	32.9	32.3	37.8	32.1	$p=0.257$
Age (%)							
30 and under	62.9	41.9*	47.1	59.3	56.9	53.2	$\chi^2(8)=29.01$
31-40	20.5*	34.4	35.9	31.4	26.3	30.0	$p<0.001$
41 and over	16.6	23.7*	17.0	9.3*	16.8	16.8	
Highest level of completed education (%)							
High school or less	8.2	5.0	3.4	8.3	11.8	7.2	$\chi^2(8)=12.35$
University / college	63.7	59.7	67.6	64.3	61.0	63.2	$p=0.136$
Grad / professional	28.1	35.4	29.1	27.4	27.2	29.7	
Household financial status (relative to home country) (%)							
Well below / Below / Just below avg	20.7	21.0	27.3	23.3	18.8	22.3	$\chi^2(8)=5.31$
Just above avg	45.7	47.2	46.0	44.2	52.3	46.9	$p=0.724$
Above / Well above avg	33.6	31.8	26.6	32.5	28.9	30.8	

Notes: Column percentages for each variable sum to 100. In order to account for low expected cell values, the original age categories of "20 or under" and "21-30" were collapsed into the "30 and under" group, and the age categories of "41-50," "51-60," and "61 or over" were collapsed into the "41 and over" group. Likewise, the financial status categories of "Well below average," "Below average," and "Just below average" were collapsed into a single group, as were the categories of "Above average" and "Well above average." Asterisks signify cells that are significantly different from their expected values, as per their standardized residuals. *$p<0.05$, **$p<0.01$, ***$p<0.001$.

When looking at trip characteristics of the most recent Airbnb stay, as displayed in Table 15, there were no differences in terms of trip purpose or destination type. However, significant differences between the segments were found when looking at whether the travellers considered themselves to be backpackers. *Home seekers* were particularly unlikely to be backpackers, whereas *Collaborative consumers* and *Interactive novelty seekers* were particularly likely to be backpacking when they last used Airbnb.

Table 15. Trip characteristics of the segments (for the most recent Airbnb stay)

	Money savers	Home seekers	Collaborative consumers	Pragmatic novelty seekers	Interactive novelty seekers	Total	Chi-square
Trip purpose (%)							
Business	4.7	4.8	2.0	2.9	2.2	3.4	$\chi^2(12)=6.52$
Event	6.7	8.0	6.5	6.9	9.6	7.5	$p=0.888$
Leisure	80.7	77.0	84.3	80.6	80.1	80.4	
Visiting friends/family	8.0	10.2	7.2	9.7	8.1	8.7	
Destination type (%)							
Domestic	36.1	41.4	33.1	44.2	43.2	39.8	$\chi^2(4)=5.65$
International	63.9	58.6	66.9	55.8	56.8	60.2	$p=0.227$
Self-described "backpacker" on trip (%)							
No	82.6	89.8	75.0	87.4	73.0	82.2	$\chi2(4)=23.99$
Yes	17.4	10.2*	25.0*	12.6	27.0*	17.8	$p<0.001$

Notes: Column percentages for each variable sum to 100. "Event" signifies "Attending a convention, conference, or other major event," and "Business" signifies "Business (other than convention, conference, or other major event)." Asterisks signify cells that are significantly different from their expected values, as per their standardized residuals. *$p<0.05$, **$p<0.01$, ***$p<0.001$.

As can be observed in Table 16, the segments differed considerably with regards to the accommodation usage characteristics of their most recent Airbnb stay. There were very large differences between the types of Airbnb accommodations that the segments used. The *Home seekers* and *Pragmatic novelty seekers* were especially likely to have rented an entire home, whereas the *Collaborative consumers* and the *Interactive novelty seekers* were especially likely to have rented shared accommodation. Significant differences were also found using Welch tests (used due to unequal variances detected between the groups) to look at the number of nights stayed in the Airbnb accommodation (logarithmically transformed) and the number of other guests present in the accommodation (logarithmically transformed). With regards to "Number of nights," a Games-Howell test distinguished the *Home seekers* (more nights) from the four other segments. With regards to "Number of other guests," a Games-Howell test distinguished the *Home seekers* and *Pragmatic novelty seekers* (more guests) from the *Collaborative consumers*

and the *Interactive novelty seekers*, in addition to distinguishing the *Money savers* (more guests) from the *Collaborative consumers*. The segments also differed significantly in terms of whether or not they were accompanied by children, as the *Money savers* were especially unlikely to be accompanied by children and the *Home seekers* were more than twice as likely as any other segment to be staying with children. Chi-square tests did not find that the segments differed significantly in terms of whether or not they were accompanied by spouses/partners or friends, although it is perhaps still worth noting that the *Home seekers* were the most likely to be accompanied by a spouse/partner, and the *Collaborative consumers* were notably less likely than the other segments to be travelling with friends.

Table 16. Accommodation usage characteristics of the segments (for the most recent Airbnb stay)

	Money savers	Home seekers	Collaborative consumers	Pragmatic novelty seekers	Interactive novelty seekers	Total	Chi-square / ANOVA / Welch test
Type of Airbnb accommodation (%)							
Entire home	66.9	92.0***	44.8***	90.1**	52.6*	71.0	$\chi^2(4)=145.36$
Shared accomm	33.1	8.0***	55.2***	9.9***	47.4***	29.0	$p<0.001$
Number of nights							
M	3.85	5.72	4.03	3.85	3.39	4.24	F(4, 387.73)=8.06
(SD)	(3.35)	(6.05)	(3.82)	(2.28)	(2.90)	(4.08)	$p<0.001$
Number of other guests							
M	1.76	2.27	1.26	2.00	1.50	1.79	F(4, 345.04)=11.43
(SD)	(1.42)	(1.98)	(0.99)	(1.66)	(1.31)	(1.58)	$p<0.001$
Accompanied by spouse/partner (%)							
No	46.7	35.1	46.8	38.9	47.1	42.4	$\chi^2(4)=8.60$
Yes	53.3	64.9	53.2	61.1	52.9	57.6	$p=0.072$
Accompanied by child(ren) (%)							
No	96.7	77.7	93.5	92.0	91.3	89.7	$\chi^2(4)=41.44$
Yes	3.3**	22.3***	6.5	8.0	8.7	10.3	$p<0.001$
Accompanied by friend(s) (%)							
No	63.8	68.6	76.6	65.1	69.6	68.6	$\chi^2(4)=7.25$
Yes	36.2	31.4	23.4	34.9	30.4	31.4	$p=0.123$

Notes: Column percentages for the nominal variables sum to 100. The "Shared accomm" category combines respondents who stayed in a "private bedroom" or a "shared space." "Number of nights" and "Number of other guests" were logarithmically transformed prior to the analysis in order to account for a high positive skew, but the original mean scores are presented in the table above. Also, to limit the influence of extreme values, six durations that exceeded 30 nights (all for *Home seekers*) were changed to 31 prior to the analysis. Asterisks signify cells that are significantly different from their expected values, as per their standardized residuals. *$p<0.05$, **$p<0.01$, ***$p<0.001$.

Significant differences were found for all three variables related to Airbnb usage history (Table 17). With regards to the total number of times the tourists had used Airbnb, the *Pragmatic novelty seekers* and the *Interactive novelty seekers* had used Airbnb the fewest times, and the *Home seekers* and *Collaborative consumers* had used it the most. Quite similarly, with regards to the year tourists first used Airbnb, a Games-Howell post-hoc test distinguished the *Pragmatic novelty seekers* and the *Interactive novelty seekers* (more recent) from the *Home seekers* and

Collaborative consumers. Finally, with regards to whether or not the respondents had ever been an Airbnb host, the *Collaborative consumers* were particularly likely to have acted in that role.

Table 17. Airbnb usage history of the segments

	Money savers	Home seekers	Collaborative consumers	Pragmatic novelty seekers	Interactive novelty seekers	Total	ANOVA / Welch test / Chi-square
Total times used Airbnb							
M	4.22[ab]	5.81[c]	5.35[bc]	3.71[a]	3.43[a]	4.56	F(4, 787)=11.69
(SD)	(4.3)	(6.52)	(5.75)	(3.56)	(3.33)	(5.01)	p<0.001
Year first used Airbnb							
M	2013.46	2013.09	2013.24	2013.74	2013.78	2013.44	F(4, 387.20)=8.15
(SD)	(1.46)	(1.46)	(1.48)	(1.21)	(1.28)	(1.41)	p<0.001
Ever been an Airbnb host (%)							
No	94.0	87.6	85.5	93.6	92.7	90.6	χ2(4)=11.08
Yes	6.0	12.4	14.5*	6.4	7.3	9.4	p=0.026

Notes: "Total times used Airbnb" was logarithmically transformed prior to the analysis in order to account for a high positive skew, but the original mean scores are presented in the table above. Superscripts indicate groups that are significantly different according to the "Total times used Airbnb" variable based on Gabriel's test. Superscripts are not displayed for the "Year first used Airbnb" variable because a Games-Howell post-hoc test was used, due to the unequal variances, and this test does not produce homogeneous subsets. Asterisks signify cells that are significantly different from their expected values, as per their standardized residuals. *p<0.05, **p<0.01, ***p<0.001.

4.6. Other variables related to Airbnb choice

In addition to the various motivation items, this study explored several other variables that could help to more fully explain Airbnb choice. These variables related to brand personality, communication channels, travel decisions, and satisfaction and loyalty. The segments were compared with regards to these variables using chi-square, one-way ANOVA, and Welch tests, as in the previous section. Likewise, standardized residuals, Gabriel's tests, and Games-Howell tests were used to better identify any significant segment differences. Moreover, in several cases the aggregate results for the overall sample were also considered. Although the non-random

nature of the sample means the aggregate results should not be considered precise indications of Airbnb's user population, these findings can still provide valuable general insights.

4.6.1. Brand personality (coolness and self-congruity)

The overall sample perceived Airbnb, on average, as far cooler than the two hotel brands used for comparative purposes, with Airbnb scores averaging 4.49 (SD = 0.98) out of six, Holiday Inn averaging 2.09 (SD = 0.86), and Hilton averaging 2.98 (SD = 1.15). The five segments differed significantly with regards to the brand personality variables presented in Table 18. When looking at Airbnb's perceived coolness, the *Collaborative consumers*, *Pragmatic novelty seekers,* and *Interactive novelty seekers* perceived Airbnb as being especially cool, with the *Money savers* perceiving it as the least cool. A virtually identical pattern was found when looking at Airbnb's coolness relative to hotels (calculated by subtracting the aggregate hotel mean score from the Airbnb mean score). Finally, with regards to self-congruity, a Games-Howell post-hoc test distinguished the *Collaborative consumers* (high self-congruity) from all four of the other segments, while also distinguishing the *Pragmatic novelty seekers* (higher self-congruity) from the *Money savers*.

Table 18. Brand personality perceptions held by the segments

	Money savers	Home seekers	Collaborative consumers	Pragmatic novelty seekers	Interactive novelty seekers	Total	ANOVA / Welch test
Perceived coolness of Airbnb							
M	3.89[a]	4.31[b]	4.76[c]	4.73[c]	4.78[c]	4.49	F(4, 779)=26.69
(SD)	(0.92)	(1.03)	(0.89)	(0.90)	(0.87)	(0.98)	p<0.001
Airbnb's coolness relative to hotels							
M	1.33[a]	1.87[b]	2.43[c]	2.16[bc]	2.09[bc]	1.97	F(4, 751)=17.14
(SD)	(1.13)	(1.14)	(1.27)	(1.21)	(1.26)	(1.25)	p<0.001
Self-congruity with Airbnb							
M	4.39	4.56	5.02	4.67	4.57	4.64	F(4, 389.01)=11.67
(SD)	(0.82)	(0.90)	(0.85)	(0.86)	(1.03)	(0.91)	p<0.001

Notes: Coolness and self-congruity were measured using six-point Likert scales ranging from 1="Strongly disagree" to 6="Strongly agree". The "Perceived coolness of Airbnb" represents the mean of six items relating to different dimensions of coolness. "Airbnb's coolness over hotels" was calculated by taking the mean of those same six items for both Holiday Inn and the Hilton, and then subtracting this score from the previously described "Perceived coolness of Airbnb" score. Superscripts indicate groups that are significantly different according to Gabriel's test. Superscripts are not displayed for the "Self-congruity" variable because a Games-Howell post-hoc test was used, due to the unequal variances, and this test does not produce homogeneous subsets.

4.6.2. Communication channels

Looking first in aggregate at the communication sources driving awareness and initial use of Airbnb (Tables 19 and 20), WOM is the most agreed with communication source in both cases. Also in both cases, eWOM was very frequently recognized as an important communication source. Mass media and Airbnb advertising were acknowledged notably less than the two forms of word-of-mouth communication, and guidebooks were only recognized by a handful of respondents. Airbnb reviews also were included as a potential communication source influencing tourists' initial use of Airbnb, and over half of the respondents agreed that such reviews exhibited a significant influence. As is illustrated in Table 21, the five segments did not differ significantly with regards to how they were impacted by the various communication channels.

(Only the top three communication channels influencing first Airbnb use were considered due to the low number of respondents who indicated being influenced by the other channels.)

Table 19. Communication channels creating initial awareness of Airbnb (N=777)

	%	n
Word-of-mouth	53.0	412
Electronic word-of-mouth	28.2	219
Mass media	11.5	89
Airbnb advertising	5.3	41
Guidebook	0.3	2
Other	1.8	14

Note: Respondents were asked to choose one option from the given list. There was also a "Don't remember" option, which 7.7% of the respondents selected, but these respondents were not included in the table above.

Table 20. Communication channels influencing first use of Airbnb (N=844)

	%	n
Word-of-mouth	57.3	484
Airbnb reviews	55.0	464
Electronic word-of-mouth	35.2	297
Mass media	12.1	102
Airbnb advertising	7.5	63
Guidebook	0.6	5

Note: Respondents could indicate any number of communication channels from the given list.

Table 21. Communication channels impacting Airbnb awareness and use by the segments

	Money savers	Home seekers	Collaborative consumers	Pragmatic novelty seekers	Interactive novelty seekers	Total	Chi-square
Communication channel for initial Airbnb awareness (%)							
WOM	53.4	56.6	58.9	47.0	48.4	52.9	$\chi^2(8)=6.58$
eWOM	28.8	25.9	24.1	32.9	32.0	28.7	$p=0.583$
Other	17.8	17.5	17.0	20.1	19.5	18.4	
WOM as influence to first use Airbnb (%)							
No	34.2	47.9	42.2	41.7	44.2	42.3	$\chi^2(4)=6.70$
Yes	65.8	52.1	57.8	58.3	55.8	57.7	$p=0.153$
eWOM as influence to first use Airbnb (%)							
No	61.8	69.7	66.2	62.9	62.3	64.8	$\chi^2(4)=3.35$
Yes	38.2	30.3	33.8	37.1	37.7	35.2	$p=0.501$
Airbnb reviews as influence to first use Airbnb (%)							
No	41.4	42.6	44.2	51.4	43.5	44.7	$\chi^2(4)=4.31$
Yes	58.6	57.4	55.8	48.6	56.5	55.3	$p=0.366$

Notes: Column percentages for each variable sum to 100. For the "Awareness" item, the "Other" category encompasses Mass media, Airbnb advertising, Guidebook, and Other. For this question, respondents were asked to choose a single communication channel behind initial awareness. For the other three ("Influence") items, respondents could indicate being influenced by any number of the communication channels considered.

4.6.3. Travel decisions

When asked what type of accommodation the respondents would have used if Airbnb and similar services did not exist (Table 22), fewer than 7% indicated that they would not have used an alternative form of paid accommodation, either because they would not have taken the trip, they would have stayed with friends or family, or they would have used CouchSurfing. In contrast, roughly a quarter of the respondents indicated that they would have stayed in a hostel or B&B. Just under two-thirds of the sample indicated that they would have otherwise stayed in a hotel (or motel). Of these, the vast majority indicated they would have stayed in a mid-range hotel, whereas upscale hotels were the least commonly indicated. Also, when asked how the choice to use Airbnb impacted the number of nights the respondents spent in their destination, the large

majority (72.7%) indicated it had no impact, just over a quarter (26.5%) indicated that choosing Airbnb led them to spend more nights in the destination, and virtually nobody (0.8%) indicated that choosing Airbnb led them to spend fewer nights in the destination.

Table 22. Most likely accommodation choice if Airbnb and similar services did not exist (N=842)

	%	n
Would not have taken trip	2.3	19
Friends or family	3.4	29
CouchSurfing	0.8	7
Hostel	16.6	140
Bed-and-breakfast	9.9	83
Budget hotel/motel	17.5	147
Mid-range hotel	43.1	363
Upscale hotel	4.3	36
Other	2.1	18

The five segments differed significantly with regards to their most likely alternative accommodation choice (Table 23). In particular, the *Collaborative consumers* were especially likely to have otherwise stayed in a hostel or B&B, and especially unlikely to have otherwise stayed in a mid-range hotel. On the other hand, the *Pragmatic novelty seekers* were especially likely to have otherwise stayed in an upscale hotel. The segments did not differ significantly with regards to the impact Airbnb had on the number of nights spent in their destinations.

Table 23. The impacts of Airbnb on the segments' travel decisions

	Money savers	Home seekers	Collaborative consumers	Pragmatic novelty seekers	Interactive novelty seekers	Total	Chi-square
Most likely accommodation choice if Airbnb and other similar services did not exist (%)							
No paid accomm	4.7	7.2	7.8	6.0	9.6	7.0	$\chi^2(20)=46.66$
Hostel	14.7	12.2	24.2*	15.5	19.9	17.0	$p=0.001$
B&B	8.7	8.3	15.7*	6.5	10.3	9.8	
Budget hotel/motel	22.0	16.1	18.3	14.9	16.9	17.5	
Mid-range hotel	48.7	51.7	32.0*	47.6	39.7	44.3	
Upscale hotel	1.3	4.4	2.0	9.5**	3.7	4.3	
Impact on number of nights spent in destination (%)							
More nights	23.6	28.3	30.7	26.5	24.6	26.8	$\chi^2(4)=2.42$
No effect	76.4	71.7	69.3	73.5	75.4	73.2	$p=0.659$

Notes: Column percentages for each variable sum to 100. The "No paid accomm" category for the first variable includes respondents who indicated they would not have otherwise taken the trip, would have stayed with friends or family, or would have used CouchSurfing. The "Impact on nights" question also included a "Fewer nights" response, but this category was not included in the above analysis due to a low number of respondents who indicated this response.

4.6.4. Satisfaction and loyalty

As can be observed in Table 24, overall satisfaction was seemingly very high, as nearly 90% of the respondents indicated that they were either "Very satisfied" or "Satisfied" with their most recent Airbnb stay. Likewise, agreement with the two loyalty measures ("Intention to recommend" and "Intention to reuse") was also very high, with over 90% of the respondents indicating they were "Very likely" or "Likely" to recommend Airbnb to others, and over 85% indicating they were "Very likely" or "Likely" to use Airbnb again in the next 12 months. In contrast, respondents felt they were much less likely to use a hotel in the next 12 months, as fewer than 55% indicated they were either "Very likely" or "Likely" to do so.

Table 24. Satisfaction with and loyalty towards Airbnb

	%	n
Satisfaction with most recent Airbnb stay		
Very satisfied	57.5	478
Satisfied	32.3	268
Somewhat satisfied	5.7	47
Somewhat dissatisfied	1.6	13
Dissatisfied	1.2	10
Very dissatisfied	1.8	15
Likelihood of recommending Airbnb to others		
Very likely	67.5	566
Likely	23.8	200
Somewhat likely	7.2	60
Somewhat unlikely	0.5	4
Unlikely	0.4	3
Very unlikely	0.7	6
Likelihood of using Airbnb again in next 12 months		
Very likely	62.2	520
Likely	23.8	199
Somewhat likely	11.2	94
Somewhat unlikely	1.3	11
Unlikely	0.6	5
Very unlikely	0.8	7
Likelihood of using a hotel in next 12 months		
Very likely	25.9	217
Likely	27.5	231
Somewhat likely	27.7	232
Somewhat unlikely	10.8	91
Unlikely	4.9	41
Very unlikely	3.2	27

The five segments exhibited significant differences with regards to their satisfaction with their most recent Airbnb stay, their loyalty towards Airbnb, and their likelihood of using a hotel within the next 12 months (Table 25). Satisfaction was highest among the *Collaborative consumers* and lowest among the *Money savers*. Somewhat similarly, a Games-Howell post-hoc

test examining Airbnb loyalty (a composite measure of likelihood of recommending Airbnb to others and likelihood of using Airbnb again in the next 12 months) distinguished the *Collaborative consumers* (high loyalty) from all segments except the *Home Seekers*, who were also distinguished from the *Money Savers* (low loyalty). An essentially opposite pattern was found when looking at the likelihood of using a hotel in the next 12 months, with the *Collaborative consumers*, *Home Seekers*, and *Interactive novelty seekers* exhibiting the lowest agreement and *Money savers* indicating the highest agreement. Nonetheless, a Gabriel's test failed to distinguish between any of the segments.

Table 25. Segments' satisfaction with and loyalty towards Airbnb

	Money savers	Home seekers	Collaborative consumers	Pragmatic novelty seekers	Interactive novelty seekers	Total	ANOVA / Welch test
Satisfaction with most recent Airbnb stay							
M	5.24[a]	5.46[ab]	5.57[b]	5.34[ab]	5.32[ab]	5.39	F(4, 789)=2.79
(SD)	(1.08)	(0.97)	(0.80)	(0.90)	(1.07)	(0.97)	p=0.025
Loyalty towards Airbnb							
M	5.30	5.59	5.71	5.45	5.49	5.51	F(4, 385.36)=7.65
(SD)	(0.87)	(0.63)	(0.54)	(0.76)	(0.75)	(0.73)	p<0.001
Likelihood of using a hotel in next 12 months							
M	4.74	4.40	4.37	4.56	4.37	4.49	F(4, 797)=2.45
(SD)	(1.19)	(1.34)	(1.31)	(1.25)	(1.34)	(1.29)	p=0.045

Notes: All variables were derived from six-point Likert scales, with the "Satisfaction" scale ranging from 1="Very dissatisfied" to 6="Very satisfied," and the "Loyalty" and "Hotel likelihood" measures' scales ranging from 1="Very unlikely" to 6="Very likely." The "Loyalty" construct represents the mean of two separate measures, one related to the likelihood of recommending Airbnb and one related to the likelihood of using Airbnb again in the next 12 months. Superscripts indicate groups that are significantly different according to the "Satisfaction" variable based on Gabriel's test. Superscripts are not displayed for the "Loyalty" variable because a Games-Howell post-hoc test was used, due to the unequal variances, and this test does not produce homogeneous subsets.

4.7. Airbnb's performance expectations in comparison with different hotel classes

4.7.1. Airbnb's performance expectations in comparison with budget hotels/motels

As can be observed in Table 26, respondents had very different performance expectations regarding Airbnb and budget hotels/motels. T-tests found nearly every single comparison to be significant at the $p<0.001$ level, with Airbnb expected to outperform budget hotels/motels for all but one attribute, including the supposed strengths of hotels/motels. The "Ease of checking in/out" attribute was the only one for which no significant difference was found.

Table 26. Airbnb's performance expectations in comparison with budget hotels/motels

Attribute	Accommodation	M	SD	df	t	*p*	N
Supposed strengths of hotels/motels (1 = "Exceptionally poor", 6 = "Exceptionally good")							
Cleanliness	Airbnb	4.94	0.84	830	35.00	<0.001	831
	Budget hotel/motel	3.36	1.06				
Comfort	Airbnb	4.81	0.88	821	35.34	<0.001	822
	Budget hotel/motel	3.17	1.05				
Confidence quality would meet expectations	Airbnb	4.61	1.02	822	26.41	<0.001	823
	Budget hotel/motel	3.15	1.29				
Ease of placing reservation	Airbnb	4.93	1.08	822	3.44	0.001	823
	Budget hotel/motel	4.75	1.20				
Ease of checking in/out	Airbnb	4.68	1.21	823	0.40	0.690	824
	Budget hotel/motel	4.70	1.17				
Ease of resolving unexpected problems	Airbnb	4.02	1.31	814	6.71	<0.001	815
	Budget hotel/motel	3.61	1.33				
Security	Airbnb	4.27	1.15	818	17.37	<0.001	819
	Budget hotel/motel	3.31	1.30				
Supposed strengths of Airbnb (1 = "Exceptionally poor", 6 = "Exceptionally good")							
Local authenticity of the experience	Airbnb	5.49	0.77	815	55.03	<0.001	816
	Budget hotel/motel	2.68	1.19				
Uniqueness of the experience	Airbnb	5.47	0.81	820	63.13	<0.001	821
	Budget hotel/motel	2.21	1.19				
Price (1 = "Very low", 6= "Very high")	Airbnb	2.78	0.90	820	11.23	<0.001	821
	Budget hotel/motel	3.31	0.99				

Notes: For all attributes except for 'Price,' respondents were asked to rate the performance they expected (not the actual performance) when booking their most recent Airbnb stay, along with the comparative performance they would have expected in hypothetical nearby hotels of different classes. The 'Price' attribute was measured by asking respondents to characterize the price of their Airbnb rental and hypothetical nearby hotels of different classes, relative to all of the tourism accommodations in the destination of their most recent Airbnb stay. The attribute 'Uniqueness of the experience' was presented in the survey as 'Uniqueness (non-standardization) of the experience.'

4.7.2. Airbnb's performance expectations in comparison with mid-range hotels

Significant differences between the performance expectations of Airbnb and mid-range hotels were found for every single attribute measured, as can be observed in Table 27. Nevertheless, it is worth noting that in several cases the absolute differences between the mean scores were not especially large. Respondents expected Airbnb to significantly outperform mid-range hotels with regards to Airbnb's supposed strengths ('authenticity,' 'uniqueness,' and 'price') and several supposed hotel strengths ('cleanliness,' 'comfort,' and 'confidence that the overall quality would meet expectations'). On the other hand, respondents expected Airbnb to underperform mid-range hotels with regards to ease of placing a reservation, ease of checking in/out, ease of resolving unexpected problems, and security.

Table 27. Airbnb's performance expectations in comparison with mid-range hotels

Attribute	Accommodation	M	SD	df	t	*p*	N
Supposed strengths of hotels (1 = "Exceptionally poor", 6 = "Exceptionally good")							
Cleanliness	Airbnb	4.94	0.84	831	8.21	<0.001	832
	Mid-range hotel	4.61	0.88				
Comfort	Airbnb	4.81	0.89	825	10.54	<0.001	826
	Mid-range hotel	4.32	0.98				
Confidence quality would meet expectations	Airbnb	4.60	1.02	822	8.80	<0.001	823
	Mid-range hotel	4.15	1.12				
Ease of placing reservation	Airbnb	4.93	1.08	824	2.97	<0.001	825
	Mid-range hotel	5.07	0.99				
Ease of checking in/out	Airbnb	4.68	1.21	827	6.87	<0.001	828
	Mid-range hotel	5.06	1.00				
Ease of resolving unexpected problems	Airbnb	4.01	1.32	814	10.22	<0.001	815
	Mid-range hotel	4.60	1.08				
Security	Airbnb	4.27	1.15	819	3.91	<0.001	820
	Mid-range hotel	4.48	1.10				
Supposed strengths of Airbnb (1 = "Exceptionally poor", 6 = "Exceptionally good")							
Local authenticity of the experience	Airbnb	5.48	0.78	824	46.02	<0.001	825
	Mid-range hotel	3.06	1.22				
Uniqueness of the experience	Airbnb	5.47	0.80	824	52.03	<0.001	825
	Mid-range hotel	2.62	1.29				
Price (1 = "Very low", 6= "Very high")	Airbnb	2.78	0.91	828	29.30	<0.001	829
	Mid-range hotel	4.21	1.07				

Notes: For all attributes except for 'Price,' respondents were asked to rate the performance they expected (not the actual performance) when booking their most recent Airbnb stay, along with the comparative performance they would have expected in hypothetical nearby hotels of different classes. The 'Price' attribute was measured by asking respondents to characterize the price of their Airbnb rental and hypothetical nearby hotels of different classes, relative to all of the tourism accommodations in the destination of their most recent Airbnb stay. The attribute 'Uniqueness of the experience' was presented in the survey as 'Uniqueness (non-standardization) of the experience.'

4.7.3. Airbnb's performance expectations in comparison with upscale hotels

Finally, when comparing the expected performance of Airbnb with upscale hotels, t-tests again found highly significant differences between the two types of accommodation for every attribute measured, as can be observed in Table 28. In this case, the differences between the means were quite substantial, with the smallest being 0.44. Respondents expected Airbnb to underperform upscale hotels with regards to all of the attributes listed as supposed hotel strengths, and they expected Airbnb to outperform upscale hotels with regards to all of the attributes listed as supposed Airbnb strengths.

Table 28. Airbnb's performance expectations in comparison with upscale hotels

Attribute	Accommodation	M	SD	df	t	*p*	N
Supposed strengths of hotels (1 = "Exceptionally poor", 6 = "Exceptionally good")							
Cleanliness	Airbnb	4.94	0.84	828	22.85	<0.001	829
	Upscale hotel	5.76	0.62				
Comfort	Airbnb	4.81	0.89	822	18.70	<0.001	823
	Upscale hotel	5.60	0.77				
Confidence quality would meet expectations	Airbnb	4.60	1.03	820	14.44	<0.001	821
	Upscale hotel	5.28	0.93				
Ease of placing reservation	Airbnb	4.92	1.08	818	9.46	<0.001	819
	Upscale hotel	5.37	0.94				
Ease of checking in/out	Airbnb	4.68	1.21	823	13.01	<0.001	824
	Upscale hotel	5.39	0.93				
Ease of resolving unexpected problems	Airbnb	4.00	1.31	806	27.72	<0.001	807
	Upscale hotel	5.53	0.81				
Security	Airbnb	4.27	1.16	817	25.30	<0.001	818
	Upscale hotel	5.48	0.78				
Supposed strengths of Airbnb (1 = "Exceptionally poor", 6 = "Exceptionally good")							
Local authenticity of the experience	Airbnb	5.48	0.78	816	34.39	<0.001	817
	Upscale hotel	3.39	1.45				
Uniqueness of the experience	Airbnb	5.47	0.81	818	30.73	<0.001	819
	Upscale hotel	3.55	1.54				
Price (1 = "Very low", 6= "Very high")	Airbnb	2.78	0.91	830	40.62	<0.001	831
	Upscale hotel	5.21	1.47				

Notes: For all attributes except for 'Price,' respondents were asked to rate the performance they expected (not the actual performance) when booking their most recent Airbnb stay, along with the comparative performance they would have expected in hypothetical nearby hotels of different classes. The 'Price' attribute was measured by asking respondents to characterize the price of their Airbnb rental and hypothetical nearby hotels of different classes, relative to all of the tourism accommodations in the destination of their most recent Airbnb stay. The attribute 'Uniqueness of the experience' was presented in the survey as 'Uniqueness (non-standardization) of the experience.'

5. DISCUSSION

This study provides some of the first insights into the consumer-side of Airbnb. The study involved surveying recent users of Airbnb to better understand why they chose to use Airbnb over traditional accommodation options. The results show that numerous motivations attract guests to Airbnb, with the practical advantages of Airbnb comparatively more important than the experiential aspects. A post-hoc cluster analysis based on these motivations produced five distinct segments – *Money savers*, *Home seekers*, *Collaborative consumers*, *Pragmatic novelty seekers*, and *Interactive novelty seekers*. Subsequent profiling identified numerous noteworthy differences between the segments with regards to variables like demographic and trip characteristics. The research also examined additional variables to better explain Airbnb choice, showing (1) Airbnb users tend to see the brand as much cooler than hotels, (2) WOM and eWOM are the primary communication channels influencing Airbnb awareness and initial use, (3) Airbnb guests tend to use the service as a substitute for hotels, and (4) satisfaction with and loyalty towards Airbnb is quite high. Moreover, the study compared Airbnb's expected performance with that of different hotel classes along various attributes, demonstrating relatively strong performance expectations regarding Airbnb. Such results somewhat limit the degree to which Airbnb should be perceived as a disruptive innovation relative to hotels. The findings have numerous direct implications for tourism academics, industry professionals, and government policymakers, and the findings also highlight numerous important avenues for future research.

5.1. The sampling approach and the resultant final sample

5.1.1. The multiple-frame online sampling strategy

This study employed a somewhat unconventional sampling strategy by using numerous sampling frames. The sampling also relied exclusively upon online sampling frames – primarily Facebook and MTurk – that are somewhat novel, but increasingly popular, forms of sample recruitment. The unsuccessful initial attempt to recruit respondents via Airbnb hosts (who were themselves recruited via different websites catering to Airbnb hosts), demonstrates the challenges with a sampling strategy entailing several degrees of separation between the researcher and the potential respondents. Nevertheless, the success in recruiting respondents using online channels like Facebook and MTurk demonstrates the tremendous opportunity that online channels offer today's researchers, and in particular researchers studying "hard to reach" populations. The final number of respondents (even after data screening) was nearly three times the initial goal of 300, and additional respondents easily could have been obtained by purchasing additional surveys from MTurk. In the end, 73% of the respondents were recruited from a series travel-themed Canadian Facebook groups, 17% were recruited from MTurk[6], and the remainder were recruited from a variety of other sampling frames.

This multiple-frame sampling approach provided a sample size that was very sufficient for the planned statistical analyses, but the non-random nature of the sample also meant that the final sample was not fully representative of Airbnb's guest population. The potential for sample bias must be taken into consideration when considering the generalizability of the findings. Indeed, comparing respondents from the different sampling frames across a variety of characteristics demonstrated a handful of significant differences. For example, the MTurk respondents were more likely to be male, have a lower household financial status, have less

[6] These percentages exclude the 0.9% of respondents of unknown origin, as reported in Table 5.

education, have last used Airbnb for a domestic trip, have last used Airbnb for a trip to visit friends and/or family, and to have used Airbnb fewer total times.

Nevertheless, for at least some characteristics the use of multiple sampling frames seemed to have helped mitigate individual sample biases to produce a more balanced overall sample. For example, the most dramatic difference between the Canadian Facebook group sample and the MTurk sample involved 28% of the Canadian Facebook group respondents having last used Airbnb for a domestic trip, in comparison with 85% of the MTurk respondents. As was described earlier, this distinction seems to result at least somewhat from the MTurk respondents being almost all from the U.S., as Airbnb guests in U.S. destinations are more likely to be domestic travellers, while Airbnb guests in non-U.S. destinations are more likely to be international. Because the proportion of Airbnb guests who are international visitors varies so widely between destinations, it is impossible to estimate even a rough percentage for the overall Airbnb guest population. Nevertheless, it is apparent that combining the different sampling frames yielded a more representative final sample than would have been achieved with solely the Canadian Facebook group respondents or solely the MTurk respondents. Similarly, the Canadian Facebook group respondents were largely female (75%), whereas the MTurk respondents were majority male (57%). These two proportions fall on opposite sides of the 54% female guest ratio that Airbnb indicated in its summer 2015 travel report (Airbnb, 2015c). Again, combining the two sampling frames helped to balance out the final sample, as 68% of the overall respondents were female, which is more aligned with Airbnb's apparent gender breakdown.

The similar pattern of motivation-based clusters found among the Canadian Facebook group respondents and the other respondents further mitigates concerns regarding the degree to which sample differences may have influenced the findings, particularly with regards to the

segmentation results. The motivational characteristics of the Canadian Facebook group respondent clusters closely paralleled the final cluster results, which lends support to the segmentation results, even considering that these respondents represented a fairly large percentage of the overall sample. The quite similar pattern of clusters found among the other respondents, even despite the low ratio of respondents to variables, offers additional support to the segmentation results.

5.1.2. Representativeness of the final sample

Numerous characteristics of the final sample also align quite closely with characteristics of the Airbnb guest population, as reported by Airbnb in its economic impact reports. Additionally, characteristics of the final sample often parallel sample characteristics that have been reported in other Airbnb studies, or are consistent with characteristics that have been found to define sharing economy users more broadly. These parallels lend some confidence to the representativeness of the overall sample, and in turn the generalizability of the findings.

Regarding demographics, the 68% of respondents who were female is somewhat higher than the 54% female ratio that Airbnb reported for its summer 2015 guest population (Airbnb, 2015c). The relatively higher female representation in this study may simply reflect the comparatively higher survey response rates that many studies have detected among females (e.g., Cull, O'Connor, Sharp, & Tang, 2005; Sax, Gilmartin, & Bryan, 2003; Sax, Gilmartin, Lee, & Hagedorn, 2003). Nevertheless, the relatively high proportion of female respondents also may be a function of females playing a particularly large role in families' trip planning (Mottiar & Quinn, 2004). In other words, it is actually quite reasonable that a study on the choice to use Airbnb as a form of tourism accommodation would have greater female representation than is

found among Airbnb's users. As was discussed previously, the predominance of respondents within the 21-30 and 31-40 age groups is also quite consistent with Airbnb reports about the average age of its users. Additionally, the relatively high levels of education and household financial status among the respondents are consistent with the claim (and sometimes criticism) that the sharing economy is primarily used by well-educated, middle-class individuals (Cheng, 2014; Lahti & Selosmaa, 2013). The Morgan Stanley study on Airbnb (Nowak et al., 2015) also found Airbnb users tended to be wealthier than non-users.

Regarding trip characteristics, the vast majority of the respondents had most recently used Airbnb for a leisure trip, and it is well-established that Airbnb primarily attracts leisure travellers. Indeed, the trip purpose breakdown among respondents is very consistent with what has been reported in Airbnb's economic impact reports. Likewise, the proportions of respondents who had stayed in different forms of Airbnb accommodation (entire home, private bedroom, or shared space) are very similar to these accommodations' proportional representation among Airbnb listings (while keeping in mind that bookings are not necessarily identical to listings). Also, the average length of stay figure for the final sample is essentially identical to what Airbnb has reported in the media and indicated in its economic impact reports. Moreover, the length of stay figures within this study's sample are very similar to those reported in the Morgan Stanley study on Airbnb (Nowak et al., 2015). Within the Morgan Stanley sample, 7% of guests stayed one night (compared to 10% for this study), 22% stayed two nights (the same as for this study), 51% spent three to five nights (compared to 50% for this study), 14% spent six to ten nights (the same as for this study), and 7% spent ten or more nights (compared to 5% for this study). Furthermore, nearly all of the respondents in the present study's sample stayed in their most

recent Airbnb with at least one other guest, and this is again very consistent with data from several Airbnb economic impact reports.

5.1.3. General characteristics of Airbnb users

Because the final sample proved fairly representative of Airbnb's guest population in many ways, it seems reasonable to use the sample to generate some broad insights about the general characteristics of Airbnb users. To begin, Airbnb seems to be particularly popular among young adults with university education and above average financial status. As was described previously, these characteristics are seemingly typical of sharing economy participants more generally. The prevalence of younger users presents excellent long-term growth potential for Airbnb, as younger travellers are just entering the independent travel market and have decades of travel ahead of them. Airbnb's more limited popularity among older travellers can be viewed as both a current limitation and a tremendous potential growth area, particularly given the large baby boomer travel market (Peltier, 2014). In fact, seniors represent the fastest growing and most favourably reviewed age group of Airbnb hosts (Newcomer, 2016), which may eventually translate into more stays by this demographic, and Airbnb recently forged a content partnership with an online community for seniors in Australia and New Zealand (Bennett, 2016). Also, the prevalence of well-educated and relatively affluent users is somewhat paradoxical given the apparent importance of low cost as a motivator to use Airbnb, and it contradicts the possible belief that Airbnb's 'low cost' appeal means it is primarily used by people with limited economic resources. It also reinforces concerns that the sharing economy is not yet living up to its potential to particularly benefit underprivileged groups (Cheng, 2014).

The overwhelming prevalence of leisure travellers among Airbnb's guests is also noteworthy. The relatively small proportion of Airbnb guests using the service to attend a convention, conference, or other major event is interesting because Airbnb initially focused exclusively on providing accommodations during such events (Botsman & Rogers, 2010). Also, the even smaller percentage of business travellers reflects the degree to which Airbnb has yet to truly penetrate the (high-value) business market, despite its recent increasing attention towards business travellers. Airbnb's limited use by business travellers is consistent with Zervas et al.'s (2015b) analysis showing Airbnb's impacts are greatest on hotels without a strong business clientele, and it is one of the primary reasons why many hoteliers and industry analysts remain skeptical of Airbnb's threat to the hotel sector (e.g., DePillis, 2016; Grant, 2013a; Nowak et al., 2015).

It is also worth noting that under one-fifth of the respondents were backpackers. This finding helps contradict the perception held by some that Airbnb guests are mostly adventurous travellers on a very tight budget (Mayock, 2013; Mogelonsky, 2015; Mourier, 2014). It also serves as a clear point of distinction between Airbnb and CouchSurfing, which seems to have a much larger backpacker element (Jimenez Guaman, 2016) and has even been described as a particular style of backpacking (Huang, 2013).

The finding that 70% of the respondents had most recently rented an entire home, rather than sharing the accommodation with a host, helps reveal Airbnb to be a different form of sharing economy service than what many may perceive. Indeed, Airbnb renting often does not even involve the simultaneous sharing of space. Perhaps unsurprisingly, the term "sharing economy" has been criticized due to prominent sharing economy services like Airbnb and Uber (a ride-hailing service) really being devoted to selling rather than sharing per se (e.g., Naughton,

2015; Eckhardt & Bardhi, 2015; Slee, 2016; Wells, 2016). Nonetheless, Airbnb does represent "sharing" in the sense that it permits hosts to share some of the benefits and costs of home ownership (Jefferson-Jones, 2015). Regardless of this semantic debate, the prevalence of entire home rentals further differentiates Airbnb from a purer form of sharing like CouchSurfing, and underscores Airbnb's closer similarity with (and therefore threat to) more traditional forms of accommodation like hotels.

Just fewer than 10% of the respondents had most recently used Airbnb for a single night stay. The Morgan Stanley study (Nowak et al., 2015) found a similarly low percentage of single night stays among Airbnb guests, and contrasted this with the much larger share of single night stays in hotels. Nowak et al. (2015) interpreted this distinction as reflective of Airbnb's limited penetration into the business travel market, and consequently its limited threat to hotels. However, as will be discussed, the disruptive innovation framework suggests it is a mistake to dismiss the long-term threat of Airbnb merely due to its currently limited footprint within the lucrative business travel market. Also, over 70% of the respondents had most recently used Airbnb for a relatively short stay of no more than four nights, while fewer than 13% had most recently used Airbnb for a stay of seven or more nights. Again, these proportions were similar to those reported in the Morgan Stanley study (Nowak et al.). This finding also has implications for Airbnb's threat to hotels, as the figures seemingly contradict a statement from Airbnb's Head of Global Hospitality & Strategy that, "Part of the reason [hoteliers] shouldn't fret [about Airbnb's emergence] is because ... some of Airbnb's core market is extended-stay guests" (Conley, 2014). While it is unclear what constitutes an "extended stay," and Airbnb certainly does have a cohort of guests using it for fairly long stays, it also appears that the large majority of Airbnb's guests are on relatively short stays that are not especially unlike typical hotel stays. Furthermore, the

finding that only 1% of the respondents were staying for 30 or more nights is relevant to policy discussions, because unlicensed rentals of fewer than 30 days are illegal in many jurisdictions.

Finally, Airbnb's recent and rapidly growing popularity is evident from the sample's Airbnb usage history, as most respondents had used Airbnb no more than a few times and had only begun using it within the past year or two. This finding also highlights the degree to which Airbnb is very much a new innovation with which most adopters are not yet particularly experienced. This situation underscores Airbnb's potential to continue its rapid expansion, while also raising questions regarding possible future shifts in the motivations that draw later adopters to the service.

5.2. The motivations to choose Airbnb

The aggregate results regarding respondents' motivations to choose Airbnb demonstrate the broad range of motivations that draw guests to the service. The results offer important insights into the relative significance of different motivations, while simultaneously demonstrating Airbnb's unique value proposition, as consistent with the notion of disruptive innovation. The results therefore provide critical knowledge for tourism accommodation providers both inside and outside of the sharing economy. First, the results of the exploratory factor analysis will be discussed in terms of the structure of motivations that was revealed. Next, the individual motivations will be explored in greater detail, roughly organized by the strength of agreement that the respondents indicated. The results also included numerous group comparisons by their motivation factor scores, but this analysis was intended primarily to offer some initial indications of group differences to help inform the subsequent profiling of the different market segments.

Consequently, the discussion of how different motivations were associated with different groups will be reserved for the latter discussion of the segment profiles.

5.2.1. The structure of the motivations

The list of potential Airbnb motivations was developed with 17 items pertaining to six original proposed dimensions – *Price*, *Functional attributes*, *Unique and local authenticity*, *Novelty*, *Bragging rights*, and *Sharing economy ethos*. The exploratory factor analysis resulted in the items being grouped somewhat differently. To begin, neither the 'price' nor the 'location convenience' items correlated strongly enough with any other items to be included in the factor analysis, suggesting these motivations are independent of the other motivation items that were considered.

The first factor extracted, explaining a very large portion of the total variance, was *Interaction*. This factor consisted of two items, 'interaction with host/locals' and 'local info/tips from host,' which had previously been included in the *Unique and local authenticity* and *Functional attributes* dimensions, respectively. Although this factor had not been foreseen in the original dimensions, the pairing of these two items is logical because they both involve an element of interaction with one's host, and host interaction can vary dramatically between Airbnb rentals depending upon whether or not the host is present during the rental period. This key distinction between different Airbnb accommodations likely explains why this factor explained such a large share of the total variance. This factor result also suggests that interaction with locals is conceptually distinct from the broader motivation of authenticity-seeking, even though local interaction is frequently seen as a component of tourism authenticity (e.g., Conran, 2006; Kontogeorgopoulos, 2003).

The second factor, *Home benefits*, is focused on items related specifically to staying in a home – 'household amenities,' 'homely feel,' and 'large space.' This association is therefore quite understandable and, in fact, these items had initially been proposed as forming part of a single dimension. However, the original dimension, *Functional attributes*, was broader in scope than the resulting *Home benefits* factor, with the *Functional attributes* dimension also including 'location convenience' and 'local info/tips from host.' As was previously described, 'location convenience' was revealed to be independent of the other motivation items, and 'local info/tips from host' was included in the *Interaction* factor. Again thinking about the different types of Airbnb accommodations, it is logical that the 'local info/tips from host' item would belong to the *Interaction* factor instead of the *Home benefits* factor, as tourists looking for the benefits of a home would tend to be renting an entire home, meaning there would be limited interaction with the host.

The third factor, *Novelty*, grouped together the three novelty-seeking items based on Lee & Crompton's (1992) novelty-seeking scale. This grouping provides further confirmation that these three concepts represent part of a larger novelty-seeking construct. This result also supports the use of this scale and construct in research on tourism accommodation choice, even though it has primarily been used in research on more general tourism topics. The single *Bragging rights* ('experience to talk about') item also was included in this factor. This connection between novelty and travel bragging is directly reminiscent of the recognition within the diffusion of innovations literature that social prestige can motivate innovation adoption (Rogers, 2003). It also highlights a conceptual link that may be worth exploring further in future research on either travel bragging or novelty-seeking. The 'unique (non-standardized)' item cross-loaded onto both this *Novelty* factor and the *Local authenticity* factor. This result quite reasonably suggests the

uniqueness of Airbnb accommodations contributes to both the novelty of the experience (which is sensible because Airbnb's non-standardization means each listing will be somewhat novel), and to the authenticity of the experience (which is sensible because Airbnb accommodations' uniqueness should contribute towards their perceived authenticity).

The fourth factor, *Sharing economy ethos*, was identical to the *Sharing economy ethos* dimension originally proposed. This result suggests the three included items – 'money to locals,' 'environmentally friendly,' and 'philosophy of Airbnb' – do indeed form part of a broader construct related to the ethos of collaborative consumption, as described by Botsman and Rogers (2010), Chase (2015), and others. Moreover, these results parallel those of Tussyadiah (2015), who grouped several similar items into a "Sustainability" factor, so together they give further support to the notion of this construct.

Finally, the fifth factor, *Local authenticity*, combined the 'authentic local experience' item with the 'non-touristy neighbourhood' item, as had been the case in the original *Unique and local authenticity* dimension (that also included the 'unique (non-standardized)' and 'interaction with host/locals' items). This association is quite logical, because a non-touristy neighborhood should contribute towards the experience of local authenticity, as demonstrated in research highlighting how perceived authenticity is often associated with visiting areas not frequented by tourists (e.g., Bott, 2015; Maitland, 2013; Week, 2012).

5.2.2. The individual motivations

5.2.2.1. Price

Airbnb's comparatively low cost was easily the most strongly agreed with motivation. This importance is very consistent with the concept of disruptive innovation, as lower cost is arguably

the most quintessential attribute of a disruptive innovation (Christensen, 1997) and it should play a primary role in determining demand for disruptive innovations (Adner, 2002). Also, this finding is consistent with other research on Airbnb (Nowak et al., 2015), PSRs (Tussyadiah, 2015), and the sharing economy more generally (Eckhardt & Bardhi, 2015; Hamari et al., 2015). Together, these studies suggest that Airbnb choice is driven first and foremost by the simple desire for cost savings. Airbnb, therefore, should be perceived by traditional accommodations as a low-cost competitor. More broadly, these findings further demonstrate that, despite all of the sharing economy rhetoric regarding ideals like sustainability and local communities (e.g., Botsman & Rogers, 2010; Chase, 2015), it is the basic desire to spend less money that is often paramount.

The importance of low cost also raises questions regarding some recent analyses indicating that in many destinations Airbnb rates are higher than hotel rates (Bird, 2016; Lane & Woodworth, 2016). (As will be discussed later, this study's respondents also on average viewed their Airbnb accommodations as cheaper than even budget hotels/motels.) One possible explanation for this discrepancy is that Airbnb guests are erroneously overestimating hotel rates, and therefore wrongly believing they are saving money with Airbnb. However, this explanation seems unlikely, as the internet has created such cost transparency with tourism accommodation. A seemingly more likely explanation is that the analyses comparing rates paid for Airbnb accommodations with rates paid for hotel accommodations are confounded by a number issues – the hotel market still dwarfs the Airbnb market, both markets are incredibly diverse, there is only a limited cohort of overlapping customers, many entire home Airbnb rentals offer two or more bedrooms, and hotel rates are still often found to be more expensive in some of Airbnb's biggest destination markets. Also, what is most important is not the average overall accommodation

rates, but the comparative rates of the "consideration set" of hotels that Airbnb users look at. In other words, regardless of how the average prices compare, this study suggests users are often choosing Airbnb because it is a more economical option than their likely alternatives. It is also worth noting that the referenced price comparison analyses are based on data extracted by third parties from the Airbnb website, and such extractions will involve some degree of error. For example, the city boundaries used for the Airbnb and hotel listings may not be identical, and it is doubtful that the Airbnb data extraction can take into account weekly and monthly discounts that many hosts offer.

This cost discussion evokes the broader idea of "value" – "an overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given" (Zeithaml, 1998, p. 14). It is quite possible for a product to offer better value even with a higher cost. In fact, this is the explanation Lane and Woodworth (2016) propose for the high rates they found for Airbnb, despite the common perception of it as inexpensive. However, the present study deliberately focused on "cost" rather than "value" in an attempt to avoid such ambiguity, and the present study's separate survey question asking respondents to compare their most recent Airbnb price with the prices of hypothetical nearby hotels of different classes further supports the notion that Airbnb accommodations are indeed comparatively inexpensive. The implications of this distinction are significant, as the "value" explanation suggests that (apparently cheaper) hotels could best respond to the threat of Airbnb by raising prices to pay for additional amenities, whereas the "consideration set" explanation suggests that, in line with the concept of disruptive innovation, (apparently more expensive) hotels have overshot customer demands and may need to reduce prices by cutting back on services and amenities.

5.2.2.2. Location convenience

Location convenience was the second most strongly agreed with motivation to choose Airbnb, and this importance is consistent with findings from the Morgan Stanley study (Nowak et al., 2015), some Airbnb economic impact reports (Airbnb, 2014j, 2015f), and Tussyadiah and Zach's (2015) examination of PSR (and hotel) reviews. These consistent findings are fairly persuasive regarding the importance of this motivation, yet they are perhaps unexpected given that Airbnb accommodations tend to be scattered in residential neighbourhoods rather than clustered like hotels in a downtown tourism core. In many ways, it would make much more sense if Airbnb guests tended to view location convenience as a drawback of Airbnb, rather than a reason to choose it. As Tussyadiah and Zach (2015) found, even though many Airbnb guests may be pleased with the location of their Airbnb accommodation, this opinion appears to frequently focus on the general ambiance of the neighbourhood rather than with convenience, which was more associated with hotels.

One possible explanation for this finding is that Airbnb accommodations do indeed frequently offer a more convenient location than traditional alternatives. Many tourists may find it most convenient to stay in a particular area outside of the tourism core, perhaps to be near a family member, an event site, or a particular neighbourhood of interest. Such areas may not be well served by hotels, but because Airbnb accommodations are so scattered there will likely be some options in the vicinity. A second possible explanation is that perceived convenience is not restricted to being in a downtown tourism core. Airbnb guests may find residential areas to be particularly convenient because they can provide easy access to public transportation and options for restaurants, supermarkets, and shops that are preferred to what can be found in a more tourist-focused area. Finally, it is again possible that tourists' consideration sets help explain this

motivation, as the most conveniently located accommodations may be hotels outside of one's price range, whereas the more economically priced hotels (in one's consideration set) are not located in convenient areas.

5.2.2.3. Home benefits

Following location, access to household amenities was the next most strongly agreed with motivation, and agreement was also fairly strong with the desire for a homely feel and a large amount of space. This importance is consistent with findings from the Morgan Stanley Airbnb study (Nowak et al., 2015) and the Phocuswright PSR study (Quinby & Gasdia, 2014). The importance of these attributes underscores a key distinction between Airbnb accommodations and hotels. Such disparate characteristics have led some to see Airbnb as a distinct product, more aligned with traditional vacation rentals or homestays, which does not directly compete with hotels (e.g. Baker, B., 2015; Grant, 2013a). However, the creation of a distinct value proposition is completely in accord with the notion of disruptive innovation, which deems such unique value propositions as particularly challenging for incumbent competitors, rather than as evidence that the innovation and the incumbent product are vying for different customers.

5.2.2.4. Local authenticity

Agreement was relatively strong with both items related to having an authentic local experience, although these agreement scores were still notably lower than for 'low cost,' 'location convenience,' or 'household amenities.' The importance of local authenticity supports the suggestion by both Guttentag (2015) and Lamb (2011) that authenticity is a key motivator of Airbnb choice, and it is reminiscent of the importance of authenticity for some other non-hotel

forms of accommodation like B&Bs and CouchSurfing (e.g., Bialski, 2011; Chen, 2011; Stringer, 1981). The similar levels of agreement with both the general 'authentic local experience' item and the 'non-touristy neighbourhood' item highlight an important benefit (besides convenience) of Airbnb's location in residential neighbourhoods. The "back stage" experience Airbnb guests may seek is not restricted to the accommodation itself, but seems very much connected to the broader neighbourhood where the accommodation is located. Again, these results demonstrate the unique value proposition that Airbnb is offering relative to hotels.

The motivation to use Airbnb for an authentic local experience also underscores the strong desire for authenticity among many tourists and consumers more broadly. Indeed, Airbnb serves as a novel example of this broader phenomenon, which is relevant to countless industries inside and outside of tourism. Certainly not every Airbnb guest is on a quest seeking authenticity, but the apparently common desire to use Airbnb to access seemingly more authentic "back regions" provides key insight for tourism marketers looking to understand Airbnb users. Most directly, hotels arguably need to improve their ability to provide authentic local experiences. Indeed, the industry has apparently begun recognizing the disadvantage of its commodification, and is now compensating by launching new brands and by adopting boutique and independently branded properties with more local flavour (e.g., Barnes, 2014; Levere, 2011). For example, Hyatt Hotels recently launched both a "Centric" brand of hotels that provides "an authentic entryway into the destination" (Hyatt, 2015), and an "Unbound" brand of independent hotels that will have "a unique personality specific to their destination" (Oates, 2016b). Likewise, Radisson recently launched a "Red" brand of hotels for which each property is decorated uniquely by local artists (Birkner, 2016). Also, as Airbnb is increasingly integrated into the formal tourism economy, it will likely form marketing partnerships with other tourism

enterprises like attractions and transportation providers. Such enterprises will benefit most from their Airbnb partnerships by recognizing the importance of local authenticity for many Airbnb users.

5.2.2.5. Novelty

The motivation to choose Airbnb for novelty was somewhat less than that of local authenticity, with average scores for the 'excitement' and 'new and different' items both very close to the "somewhat agree" option. In other words, there is certainly some degree of novelty-seeking that is encouraging Airbnb choice, which is interesting to note because the tourism literature has primarily considered novelty-seeking from the perspective of destination choice instead of accommodation choice. Nonetheless, the strength of this motivating factor is clearly limited. The lower scores for the 'excitement' and 'new and different' items, as compared to the *Local authenticity* items, importantly indicate that the desire for local authenticity does not fully translate into a desire for new and exciting experiences. (Agreement was comparatively higher with the 'uniqueness (non-standardization)' item, but it should be remembered that this item cross-loaded onto the *Local authenticity* factor.)

The other *Novelty* item originally borrowed from Lee and Crompton's (1992) scale, 'unpredictability,' was one of just a few motivations that respondents tended to disagree with, and was by far the item exhibiting the strongest level of disagreement. This result is perhaps unsurprising, as the notion of unpredictability goes far beyond the notions of excitement or newness when considering tourism accommodation, and unpredictability appears to reach a level of discomfort for many Airbnb guests. Thinking back to the commoditization of hotels and Holiday Inn's old motto, "The best surprise is no surprise," it seems that Airbnb users may wish

to eschew the generic uniformity of hotels, but not to the extent that they desire an accommodation full of unexpected surprises. This finding is noteworthy for hoteliers, as it suggests that hotels' predictability can still be an asset, even if a perceived lack of authenticity, excitement, and uniqueness may be a liability.

Respondents also tended to disagree with the 'experience to talk about' item, which was initially proposed to represent a desire for travel bragging rights. This finding could be influenced by denial, as respondents may have resisted acknowledging that they deliberately seek out story-worthy experiences. Nonetheless, it appears just as likely that this finding further reflects the balance Airbnb seemingly strikes between excitement and unpredictability. More experiential forms of accommodation, like CouchSurfing, may truly transform tourism accommodation from a background practicality into a key trip experience, but Airbnb experiences may not be quite as central to the overall trip experience. In other words, even Airbnb guests who want to stay in a unique and authentic accommodation may still perceive this accommodation largely as a base of operations for the trip, rather than a defining element of it.

5.2.2.6. Sharing economy ethos

Agreement with the three sharing economy items was quite neutral. Respondents exhibited some minimal agreement that they chose Airbnb for its philosophy or because the money they spend goes directly to locals, and disagreed on average that they chose Airbnb because it is environmentally friendly. These findings are fairly consistent with Tussyadiah's (2015) research on PSRs, which also found agreement with her somewhat comparable "Sustainability" factor was barely above neutral. It also is consistent with Kasim's (2004) finding that even tourists purportedly interested in issues of sustainability are not necessarily inclined to pay more for

accommodation or base their accommodation choice on such attitudes. The limited agreement with the *Sharing economy ethos* items in this study also was lower than what one may anticipate based on sharing economy proponents who portray such ideals as directly underpinning sharing economy activity (e.g., Botsman & Rogers, 2010; Chase, 2015). These results additionally suggest that a sharing economy perspective, as was taken by Tussyadiah (2015) and Tussyadiah and Pesonen (2015), may not be optimal for understanding Airbnb choice, although admittedly both studies conceptualized sharing economy concepts quite broadly.

5.2.2.7. Interaction

Agreement was fairly neutral with the 'interaction with host/locals' and 'local info/tips from host' motivation items, with respondents on average slightly disagreeing with the former and moderately agreeing with the latter. As was mentioned previously, even though the desire for local interactions has often been linked to tourists' desire for authenticity (e.g., Conran, 2006; Kontogeorgopoulos, 2003), Airbnb guests seemingly differentiate between these two motivations, and are comparatively less attracted by Airbnb's potential to foster local interaction. The limited agreement with this motivation questions the degree to which guests use Airbnb to have intimate local interactions, which is important for hotels and hostels that would struggle to provide such experiences. Also, this finding is perhaps unsurprising given that the vast majority of Airbnb guests rent an entire home rather than sharing the accommodation with a host. Nonetheless, the standard deviations for these two items were higher than any others, and *Interaction* was the factor that explained the largest amount of variance in the exploratory factor analysis. These results indicate Airbnb users are characterized by particularly large differences

regarding this motivation, which underscores the importance of considering different motivation-based segments of Airbnb users.

5.2.3. User motivations and Airbnb's marketing

Even though respondents tended to agree with a wide range of motivations, it seems apparent that Airbnb users are primarily attracted to the service by its practical advantages (e.g. 'low cost,' 'location convenience,' and 'household amenities'), whereas the experiential appeals (e.g., *Local authenticity* and *Novelty*) are secondary. In other words, for many Airbnb guests saving money and having a washing machine trumps having an authentic experience and interacting with locals. As was mentioned, this finding questions some of the more idealistic portrayals of the sharing economy, yet it also demonstrates that the sharing economy has innovatively produced some incredibly practical and desirable products. Also, the finding serves as a warning for tourism marketers, as the somewhat sexier motivations like authenticity and novelty may obfuscate the more mundane, but also more important, motivations like low cost and amenities.

Very early on, when Airbnb was operating under its original name AirBed & Breakfast and only offering shared accommodations, the company explicitly touted its low cost by urging potential guests, "Save some extra cash, make a new friend, and see the city through the eyes of a local" (Airbnb, 2016h). However, Airbnb's more recent advertising mostly eschews any mention of cost savings or amenities, and rather focuses almost exclusively on the experiential side of the service, and in particular on its ability to provide authentic local experiences and facilitate interaction with locals. For example, Airbnb's first global video advertising campaign was entitled "Views" and it shows local scenes viewed through hosts' windows around the world. The company's Chief Marketing Officer at the time explained, "We're a platform and not

a hotel company, so our hosts are essentially our innkeepers. We thought it would be really interesting and authentic to have a commercial that has the hosts inviting travellers from around the world to stay with them" (Delo, 2014). Another Airbnb video advertisement, entitled "Never a stranger," shows a tourist interacting with her Airbnb hosts in numerous global capitals while her voiceover states, "When I booked this trip, my friends said I was crazy. Why would I stay in someone else's house? But this morning, a city I've never been to felt like one I already knew." The advertisement then concludes with text stating, "With over a million homes around the world, you're never a stranger," followed by Airbnb's motto, "Belong anywhere" (della Cava, 2015). A different Airbnb video advertisement shows a toddler walking towards a bright doorway as the voiceover states, "Is man kind? Are we good? Go see. Go look through their windows so you can understand their views. Sit at their tables so you can share their tastes. Sleep in their beds so you may know their dreams. Go see and find out just how kind the hes and shes of this mankind are" (Beer, 2015).

Finally, Airbnb's most recent marketing campaign, launched in April 2016, uses the tagline "Live there," and invokes, "Don't go to Paris. Don't tour Paris, and please don't do Paris. [Instead], live in Paris" (Richards, 2016). The images contrast classic mass tourism scenes (e.g., large faceless tour groups punctuated by a plethora of cameras) with images of other travellers having more authentic experiences and interactions (e.g. playing a kick volleyball game with locals) (Richards, 2016). Airbnb claimed the "Live there" tagline was "designed in response to the growing dissatisfaction and disappointment with standardized tourist offerings that have become the hallmark of modern tourism" (Ting, 2016a), and the Chief Marketing Officer explained, "Increasingly there is a growing ground flow of traveller demand for experiences that

are not like the typical tourist experiences that actually more reflect what it's like to live in local places" (Richards, 2016).

There are several possible reasons that, independently or in combination, may explain why Airbnb's marketing has mostly ignored the key practical motivations to use the service and has instead focused on experiential motivations of seemingly lesser import. Firstly, it is possible that the company simply overestimates the importance of this experiential appeal of its accommodations. Indeed, in his critique of the sharing economy, Hill, S. (2015) described the idealistic vision that Airbnb's CEO holds for the company, and noted, "Like any true evangelical, [CEO] Brian Chesky seems to sincerely believe his newfound faith" (p. 66). Likewise, when Airbnb's Head of Global Hospitality & Strategy was asked at an executive retreat where he wanted to see Airbnb in ten years, he replied in seriousness that he would like to see the company win a Nobel Peace Prize (due to its ability to foster cross-cultural understanding) (Mangalindan, 2014). Despite such attitudes, it still seems reasonable to assume that Airbnb has some understanding of the extent to which its customers are primarily motivated by the service's practical advantages.

A second possibility is that Airbnb has chosen to focus its marketing not on touting the service's key appeals, but on countering the hesitancy people may feel towards staying in a stranger's home. Indeed, the Morgan Stanley study (Nowak et al., 2015) found safety and privacy concerns were the two most commonly stated reasons (following lack of awareness) why non-users had not tried Airbnb, and Tussyadiah (2015) found barriers related to a "Trust" factor were a common reason why non-users had not tried PSRs. The Airbnb commercial described earlier that began, "When I booked this trip, my friends said I was crazy. Why would I stay in someone else's house?," hints at the validity of this explanation. Furthermore, in describing this

advertisement, Airbnb's Chief Marketing Officer explained that the company's biggest challenge was convincing first-time users to test the service (della Cava, 2015).

A third possibility is that Airbnb wants to increasingly move upmarket with a larger inventory of higher priced accommodations. If the company portrays itself today as merely an inexpensive form of lodging, then it could prove very difficult to shake this reputation in the future. Indeed, the disruptive innovation framework suggests the company will move upmarket (Christensen, 1997), and Airbnb's recent forays into the business travel market seemingly signal such plans.

A fourth possibility is that Airbnb's marketing has been molded to conform with the company's strategy of differentiating its service from hotels in the eyes of hoteliers and policymakers. As will be discussed later in more detail, the more Airbnb can position itself as facilitating a novel form of travel, rather than just providing an inexpensive hotel substitute, the less inclined hoteliers will be to respond to Airbnb's threat and the more inclined policymakers will be to legalize the service.

Finally, a fifth possibility is that Airbnb wants to position its brand as hip and exciting, which is much easier to do with scenes of travellers laughing together with locals than with appeals to saving money and having access to a washing machine. Without question, advertising often focuses on consumers' emotions and aspirations, rather than the objective practical benefits of a product. Moreover, many prospective users may already perceive Airbnb as comparatively inexpensive and providing household amenities, so reiterating these benefits may not prove especially effective. If this explanation is accurate, then Airbnb's marketing focus on authenticity is sensible, yet the focus on local interaction is still somewhat peculiar in light of this study's findings that respondents on average disagreed with the 'interaction with host/locals' item. It

seems such images could actually discourage potential users who would feel the service is too interactive for their taste. Also, it would still seem beneficial for Airbnb to subtly incorporate images of practical benefits, such as a tourist sitting on a washing machine while chatting with her host.

In fact, Airbnb's most recent "Live there" advertisement actually has diverged from previous campaigns by hinting at the service's practical benefits. The "Live there" tagline cleverly encompasses not just experiential authenticity benefits (i.e., experiencing a destination like a local who lives there), but also the benefits of staying in a home (i.e., feeling like one is living there in the destination). In fact, the narrator remarks, "When you Airbnb in Paris, you have your own home. Make your bed. Cook. You know, the stuff you normally do," and the images include a guest cooking, a guest asleep on a couch, and kids making a blanket fort. Moreover, the company's Chief Marketing Officer noted, "Airbnb has historically been a millennial traveller proposition, but with this campaign we're leaning into families. ... We're trying to bring those two different cohorts under one umbrella together" (Monllos, 2016). Such a remark directly acknowledges the challenges of using a single brand and marketing campaign to target distinct market segments, and this campaign may very well signal increased attention towards Airbnb's practical benefits in future marketing campaigns. Nevertheless, it should be recognized that the focus of the advertisement still remains on Airbnb's experiential benefits instead of its practical ones. This focus is best appreciated through juxtaposition with a recent advertisement from HomeAway, a PSR competitor offering non-shared rentals, which took a radically different marketing approach with a campaign launched in January 2016. HomeAway's video advertisement uses the tagline, "It's your vacation. Why share it?," and it shows unpleasant scenes associated with sharing accommodation with a host. These scenes include a

couple sitting in a living room next to a man clipping his toenails, a couple waking up to see a man watching them sleep, and a woman gagging as she sees a bar of soap covered in hair (Vranica, 2016).

5.3. Motivation-based market segmentation of Airbnb users

This study included all 17 motivation items in a post-hoc cluster analysis, with the prior results of the exploratory factor analysis used to ease the interpretation of the cluster analysis results.

5.3.1. Five segments of Airbnb users

The cluster analysis resulted in a five-cluster solution, and based on their motivational characteristics the segments were named *Money savers*, *Home seekers*, *Collaborative consumers*, *Pragmatic novelty seekers*, and *Interactive novelty seekers*. These segments were subsequently profiled to provide a richer understanding of each segment. The segments were fairly evenly sized, ranging from 17% to 23% of the overall sample. Because a non-probability sample was used for this study, these proportions should not be interpreted as precise indications of the size of each segment. Nevertheless, given the representativeness detected within the overall sample, it is reasonable to conclude that the segment sizes are roughly similar and there is no single segment that dominates the Airbnb guest population.

5.3.1.1. Money savers

The *Money savers* were chiefly attracted to Airbnb by its comparatively low cost. They agreed more strongly with this motivation item than any other segment agreed with any other motivation item. They also were drawn to Airbnb by location convenience and household amenities, but not

to a degree that stands out in comparison with the other segments. The *Money savers* exhibited a neutral opinion or disagreement with all of the other motivation items considered.

Profiling the *Money savers* revealed a handful of defining characteristics. To some degree, they tended to be young, with 63% aged 30 and under (versus a 53% average) and 21% between 31 and 40 (versus a 30% average), although the proportion of members aged 41 and over was virtually identical to the average. They also were significantly less likely than average to be travelling with children (3%, versus a 10% average). Looking at other variables related to Airbnb choice, *Money savers* perceived Airbnb as significantly less cool than any of the other segments, both in terms of Airbnb's absolute coolness and its coolness relative to hotels. *Money savers* also had the lowest self-congruity score, which was significantly different from some other groups. Moreover, they were the most likely to have used Airbnb as a substitute for a budget hotel/motel (22%, versus an 18% average) and the least likely to have used Airbnb as a substitute for an upscale hotel (1%, versus a 4% average). Additionally, they exhibited the lowest satisfaction and loyalty scores, again with statistically significant differences compared to some other groups, and felt they were the most likely to use a hotel within the following 12 months.

Although the *Money savers* were predominately motivated by cost savings, they should not be misconstrued as seeking the absolute cheapest accommodation. In fact, they were less likely than average to have used Airbnb as a substitute for a hostel or to have used Airbnb instead of not paying for accommodation, and they were far more likely than some other segments to have stayed in a (generally more expensive) entire home. Rather, the *Money savers* were simply quite motivated by cost savings and comparatively unmotivated by nearly everything else. They were not motivated by the experiential aspects of Airbnb, they were relatively unmoved by Airbnb's brand personality, and they were not particularly loyal.

Money savers represent a group of customers who will seemingly consider attributes like location and amenities, but will likely choose whatever accommodation offers the cheapest price at an acceptable level of quality. This trait perfectly embodies the disruptive innovation consumer, as characterized by Adner (2002). For Airbnb, *Money savers* are a segment in which attitudinal loyalty needs to be cultivated. Nevertheless, given the diversity of prices among Airbnb listings, it is a segment that Airbnb is well-positioned to continue appealing to. For Airbnb hosts, attracting *Money savers* should of course involve pricing one's accommodation very competitively, while also perhaps highlighting amenities and location convenience. For hotels, *Money savers* may be difficult to attract and retain at desirable room rates. *Money savers* also are not the most desirable segment because it is doubtful they would exhibit hotel brand loyalty, and would rather likely choose the cheapest hotel within a certain consideration set. Both Airbnb and hotels may have the most success targeting this segment with promotional deals, such as weekday or offseason packages. Also, this is a segment that may offer promise for hostels, particularly if they offer private rooms, even though *Money savers* were not especially likely to have chosen Airbnb over a hostel.

5.3.1.2. Home seekers

The *Home seekers* were particularly attracted to Airbnb by household amenities, large space, and the homely feel that Airbnb accommodations can provide. Indeed, their mean scores for all three of these *Home benefits* items were higher than for the 'low cost' item, representing the only instances for any group in which an item was deemed more important than 'low cost.' For the other motivation items, this segment mostly exhibited roughly average levels of agreement, although they showed little interest in *Novelty*. Also, even though many of their scores were

typical of the overall sample, these responses still indicated general agreement with motivations including 'low cost,' 'location convenience,' and *Local authenticity*.

The profile of the *Home seekers* differentiated them from the other segments in numerous noteworthy ways. *Home seekers* were significantly older than average (42% aged 30 and under, versus a 53% average, and 24% aged 41 and over, versus a 17% average), were the most well-educated (35% held a graduate or professional degree, versus a 30% average), and were significantly less likely than average to be backpackers (10%, versus an 18% average). They also were significantly more likely than average to be renting an entire home (92%, versus a 71% average), were using Airbnb for significantly longer stays than any other segment (5.7 nights, versus a 4.2 night average), had the highest average number of accompanying guests (2.3, versus a 1.8 average), were the most likely to be staying with a spouse/partner (65%, versus a 58% average), and were significantly more likely than average to be staying with children (22%, versus a 10% average). They also had used Airbnb on average more than any other segment (5.8 times, versus a 4.6 average). Nonetheless, *Home seekers'* perceived coolness of Airbnb (both absolute coolness and relative to hotels) and self-congruity with Airbnb were both slightly below average. *Home seekers* were somewhat unlikely to have used Airbnb as a substitute for a hostel (12%, versus a 17% average) and somewhat likely to have used it as a substitute for a mid-range hotel (52%, versus a 44% average). Finally, *Home seekers'* satisfaction and loyalty scores were both slightly above average.

Home seekers were clearly attracted to Airbnb by the practical benefits that entire home rentals provide, even more than they were drawn by Airbnb's comparatively low cost. It is quite logical that this segment tended to be on the longest trips with the biggest travel parties, as such trip characteristics would make the amenities and large space that a whole home offers

particularly attractive. In other words, this aspect of Airbnb's unique value proposition seems critically important for *Home seekers*. Being focused on the practical benefits of Airbnb, it is also perhaps unsurprising that *Home seekers* did not have comparatively positive perceptions of Airbnb's brand personality. Also, it is interesting to note that even though this segment had the most average volume of experience using Airbnb, their loyalty score was only moderately high compared to the overall average.

For Airbnb and its hosts, *Home seekers* represent an especially valuable segment because of their frequent use of Airbnb, their long trip durations, and the secondary importance they place on low cost. Indeed, *Home seekers* arguably are the most lucrative of the five segments for Airbnb and its hosts. Consequently, it behooves Airbnb to market more directly to this segment. Even though *Home seekers* were motivated by the potential to have an authentic local experience, they were not motivated by the potential for the local interactions that feature so prominently in Airbnb marketing. This incongruity between Airbnb's marketing and *Home seekers'* motivations should be doubly concerning for Airbnb given that the *Home seekers'* loyalty towards Airbnb was somewhat low in comparison with their extensive Airbnb use. This inconsistency seems indicative of loyalty that may be more behavioural than attitudinal, which in turn means *Home seekers* could be susceptible to competition. In particular, PSR companies like HomeAway that offer exclusively entire home rentals should market aggressively towards Airbnb's *Home seekers*. Indeed, it is quite possible that *Home seekers* often use such services, though this study did not gauge such use. For Airbnb hosts to attract *Home seekers*, it is clear that they should highlight their accommodations' amenities and large size, in addition to its homely feel and authentic character. Moreover, with nearly one-quarter of *Home seekers*

indicating they were travelling with children, Airbnb hosts should note the family-friendliness of their accommodations.

Traditional hotels will likely struggle to appeal to *Home seekers* with the continued emergence of Airbnb and other PSR companies. On the other hand, less common extended stay hotels should be more attractive to this segment. However, because extended stay hotels are less widespread, their locations may be inconvenient in comparison with what *Home seekers* can find on Airbnb. Consequently, hotel companies would likely benefit from offering hybrid hotel properties by creating extended stay rooms, or even floors, in traditional hotel properties. As a possible early indicator of this potential trend, Kimpton Hotels has recently begun introducing kitchenettes and bunk beds into some hotel rooms (Trejos, 2016b).

5.3.1.3. Collaborative consumers

Collaborative consumers were especially motivated to use Airbnb by its sharing economy ethos, by the opportunity to interact with locals, and by the opportunity to have an authentic local experience. They additionally exhibited agreement with numerous other motivation items, including 'low cost,' 'location convenience,' 'household amenities,' and 'uniqueness (non-standardization).' Nevertheless, their agreement with such motivations was below that of some other segments.

The profiling of *Collaborative consumers* showed them to be somewhat older than some other segments (47% aged 30 and under, versus a 53% average, and 36% aged 31 to 40, versus a 30% average), and somewhat less affluent (27% characterized their household financial status as "well below average," "below average," or "just below average," versus a 22% average). They also were slightly more likely than other segments to be on leisure trips (84%, versus an 80%

average) and to be travelling internationally (67%, versus a 60% average). *Collaborative consumers* additionally were significantly more likely than average to be backpacking (25%, versus an 18% average), and significantly more likely than average to have stayed in shared accommodation (55%, versus a 29% average). Furthermore, *Collaborative consumers* had the fewest number of accompanying guests (1.3, versus an average of 1.8), had used Airbnb significantly more than several other groups (5.4 times, versus an average of 4.6), and were significantly more likely than average to have experience as an Airbnb host (14%, versus a 9% average). Moreover, *Collaborative consumers'* perceived coolness of Airbnb (both absolute and relative to hotels) was significantly higher than several other segments. *Collaborative consumers* also felt significantly more self-congruity with Airbnb than any of the four other segments. *Collaborative consumers* additionally were significantly more likely than average to have used Airbnb as a substitute for a hostel (24%, versus a 17% average) or a B&B (16%, versus a 10% average), and significantly less likely than average to have used Airbnb as a substitute for a mid-range hotel (32%, versus a 44% average). They also exhibited high degrees of satisfaction and loyalty, with their loyalty being significantly higher than most other segments.

Collaborative consumers embody the profile that many seem to have in mind when thinking about Airbnb – tourists looking to have an authentic local experience and interact with locals, often by sharing a host's home. These Airbnb users are precisely the type of consumer characterized by many proponents of the sharing economy (e.g., Botsman & Rogers, 2010; Chase, 2015), they are precisely what one envisions when watching Airbnb's advertising, and they are precisely the type of tourist that hoteliers must imagine when describing Airbnb users as distinct from hotel customers. The motivations of *Collaborative consumers* also aptly parallel the notion of disruptive innovation, as the interaction and authenticity that is so pivotal to the

Collaborative consumers' experience is representative of a unique value proposition that Airbnb provides.

Airbnb's marketing is already well-tailored to attract this segment. Nonetheless, the profile of this segment still raises questions about Airbnb's marketing, as *Collaborative consumers* tend to use the (generally cheaper) shared accommodations instead of the (generally costlier) entire homes, meaning Airbnb's marketing may be focusing on its lower-value customers. Airbnb hosts looking to attract this segment should highlight their ability to provide "back stage" and "off the beaten track" experiences, such as by offering local neighbourhood tips, by providing a homemade local food dish, or by directly spending time with the guests (e.g., with a quick personal tour of the neighbourhood). The hosts also should expect that these guests may be eager to socialize, rather than being cloistered in their rooms, so hosts with *Collaborative consumer* guests should make the guests feel welcome in common areas of the home.

Collaborative consumers are a segment that hotels probably are not especially reluctant to surrender. In contrast, hostels and B&Bs should focus intently on this segment, as over 40% of the *Collaborative consumers* indicated they used Airbnb as a substitute for one of those two forms of accommodation. Both hostel and B&B offerings seem to align well with many of *Collaborative consumers'* motivations for choosing Airbnb, but they also exhibit some weaknesses. In particular, hostels may not generally provide the same degree of local interaction, as guests are rather surrounded by other tourists, so hostels may benefit from finding creative ways to provide increased local interaction (e.g., hiring locals instead of long-term travellers to work reception or encouraging locals to patronize an on-site bar). B&Bs may struggle to compete with Airbnb on price, so they therefore may benefit from providing at least one

comparatively economical room (e.g., a small room without a bathroom and without some of the amenities that may usually be offered).

5.3.1.4. Pragmatic novelty seekers

Along with the *Interactive novelty seekers*, the *Pragmatic novelty seekers* were distinguished from the other segments by their comparatively strong agreement with the *Novelty* motivation items. The *Pragmatic novelty seekers* were also strongly attracted by the *Home benefits*, although not to the same degree as the *Home seekers*. The *Pragmatic novelty seekers* additionally exhibited particularly low interest in interacting with locals, and like the other segments were motivated by their Airbnb accommodations' low cost and location convenience.

The *Pragmatic novelty seekers* were somewhat young (59% aged 30 and under, versus a 53% average, and 9% aged 41 and over, versus a 17% average), which interestingly contrasts with the *Home seekers*, despite the two groups' fairly similar motivation profile. This segment was also somewhat more likely than average to be using Airbnb for a domestic trip (44%, versus an average of 40%), and somewhat less likely than average to have been backpacking (13%, versus an average of 18%). Like the *Home seekers*, the *Pragmatic novelty seekers* were significantly more likely than average to be renting an entire home (90%, versus a 71% average), and tended to have significantly more accompanying guests than some other groups (2.0, versus a 1.8 average). However, whereas the *Home seekers* had a particularly long average length of stay, the *Pragmatic novelty seekers'* average length of stay was actually below average. The *Pragmatic novelty seekers* also had used Airbnb significantly fewer times on average than either the *Home seekers* or the *Collaborative consumers*, and had begun using Airbnb significantly more recently than either of those two groups. Furthermore, *Pragmatic novelty seekers'*

perceived coolness of Airbnb (especially absolute coolness) was significantly higher than some other segments, whereas their perceived self-congruity was just above average. *Pragmatic novelty seekers* additionally were significantly more likely than average to be using Airbnb as a substitute for an upscale hotel (10%, versus an average of 4%). Finally, this segment's satisfaction and loyalty scores were just below average.

Pragmatic novelty seekers appear to represent somewhat of a novelty-seeking variant of the *Home seekers*, by combining comparatively strong agreement with the *Novelty* and the *Home benefits* motivations. However, the profiles of the two segments illustrate some important distinctions; in particular, the *Pragmatic novelty seekers* tended to be younger and have less Airbnb experience. The importance of the *Novelty* motivations in distinguishing the *Pragmatic novelty seekers* and the *Interactive novelty seekers* from the other segments highlights the importance of *Novelty* motivations as a differentiating factor among Airbnb users, which is consistent with the importance of personal innovativeness in understanding individual innovation adoption (Rogers, 2003).

Because of the importance novelty has for this segment, Airbnb and its hosts should appeal to *Pragmatic novelty seekers* by focusing on the perceived excitement and uniqueness associated with Airbnb accommodations. Airbnb can contrast this novelty with hotels by portraying them as bland and generic. Because *Pragmatic novelty seekers* tended to have begun using Airbnb relatively recently and have relatively limited experience with the service, it seems especially important for Airbnb to build loyalty among this segment. Consequently, the below average satisfaction and loyalty scores for the *Pragmatic novelty seekers* should be of some concern for Airbnb. Also, much like with the *Home seekers*, Airbnb's marketing focus on authenticity and local interaction seems to miss the mark with *Pragmatic novelty seekers*, who

are strongly attracted by the practical advantages of Airbnb accommodations, but are not generally drawn by the opportunity to interact with locals. Airbnb hosts looking to attract these guests should highlight the practical offerings of their accommodations.

The *Pragmatic novelty seekers* should be of particular interest to upscale hotels, as the percentage of *Pragmatic novelty seekers* who used Airbnb in place of an upscale hotel was more than double that of any other segment. Upscale hoteliers who are confident that Airbnb cannot provide a satisfactory substitute for their product should view this segment as a potential harbinger of Airbnb's future increased penetration into the upscale market. These consumers are seemingly interested in a novel product beyond what traditional hotels may provide. Boutique hotels and other independently branded properties would likely appeal more to this segment, but this segment's interest in household amenities still highlights a weakness for competing hotel properties. The profile of this segment again suggests the potential benefits of incorporating extended stay units into traditional hotels. It also should be of some relief to upscale hoteliers that *Pragmatic novelty seekers'* satisfaction and loyalty scores were slightly below average as compared to the other segments, although the absolute scores were still relatively high.

5.3.1.5. Interactive novelty seekers

Like the *Pragmatic novelty seekers*, *Interactive novelty seekers* exhibited comparatively strong agreement with the *Novelty* motivation items. However, whereas the *Pragmatic novelty seekers* also were strongly motivated by the *Home benefits* items, the *Interactive novelty seekers* showed limited agreement with these motivations and rather were strongly motivated by the *Interaction* motivations with which the *Pragmatic novelty seekers* disagreed. The *Interactive novelty seekers* also exhibited fairly average levels of agreement with the *Sharing economy ethos* motivations.

They interestingly agreed somewhat strongly with the 'authentic local experience' item, while indicating below average agreement with the 'non-touristy neighbourhood' item, despite both items being part of the same *Local authenticity* factor. Also, like the other segments, *Interactive novelty seekers* were motivated by their Airbnb accommodations' low cost and location convenience.

Like the *Collaborative consumers*, the *Interactive novelty seekers* were significantly more likely than average to be backpacking (27%, versus an 18% average), significantly more likely than average to be staying in shared accommodation (47%, versus a 29% average), and tended to be accompanied by significantly fewer guests than some other segments (1.5, versus a 1.8 average). The *Interactive novelty seekers* also had the shortest average length of stay of any of the segments (3.4 nights, versus a 4.2 night average). Moreover, the *Interactive novelty seekers* tended to have begun using Airbnb relatively recently and had used it a relatively small number of times (3.4 times, versus a 4.6 average) – for both variables the *Interactive novelty seekers* and *Pragmatic novelty seekers* were significantly different from the *Home seekers* and *Collaborative consumers*. The *Interactive novelty seekers* also perceived Airbnb as significantly cooler than some other groups (particularly its absolute coolness), but their perceived self-congruity with Airbnb was just below average. Like the *Pragmatic novelty seekers*, the *Interactive novelty seekers* exhibited slightly below average levels of satisfaction and loyalty.

By combining a comparatively strong desire for both novelty and interaction, the *Interactive novelty seekers* somewhat parallel the *Collaborative consumers* in the same way that the *Pragmatic novelty seekers* parallel the *Home seekers*. Much like the *Pragmatic novelty seekers*, however, the *Interactive novelty seekers* also were characterized by having only relatively recent and minimal Airbnb experience.

The marketing implications associated with the *Interactive novelty seekers* have largely been covered in the discussions of the *Collaborative consumers* and the *Pragmatic novelty seekers*. As with the *Collaborative consumers*, Airbnb's current marketing appears to closely target the *Interactive novelty seekers*, and Airbnb hosts can best attract and serve these guests by creating opportunities to interact with the guests and ensuring the guests feel they have an authentic local experience. As with the *Pragmatic novelty seekers*, Airbnb and its hosts will appeal to *Interactive novelty seekers* by focusing on the excitement and uniqueness that Airbnb can offer relative to hotels. From the perspective of traditional accommodations, the *Interactive novelty seekers* lie somewhere in between the *Collaborative consumers* and the *Pragmatic novelty seekers* with regards to the extent that they use Airbnb as a hotel substitute. Therefore, hostels and B&Bs should both market towards the *Interactive novelty seekers*, while hotels also seemingly have greater traction with this segment than with the *Collaborative consumers*.

5.3.2. Other observations on the segmentation results

The five segments that were just described represent the principal findings from the cluster analysis. Nonetheless, there are some general observations on the segmentation results that are also worth making.

5.3.2.1. The importance of low cost

The five segments were defined by their comparative levels of agreement with the various motivations to choose Airbnb. Nonetheless, 'low cost' was still the primary motivation for every one of the segments except for the *Home seekers*. *Collaborative consumers*, for example, were clearly motivated by Airbnb's sharing economy ethos, by the ability to interact with locals, and

by the opportunity to have an authentic local experience, but above all else they were still primarily motivated to use Airbnb by its comparatively low cost. The implications of this finding have already been discussed, yet it is still an important point worth reiterating.

5.3.2.2. The insignificance of some variables

Research findings tend to focus on statistically significant results, but in many cases the lack of significant differences between groups is equally important. For example, in this study all five segments were quite similar with regards to household financial status. This finding is somewhat surprising given that the *Money savers* were especially concerned with cost savings and the *Collaborative consumers* and *Interactive novelty seekers* were much more likely than average to stay in (generally less expensive) shared accommodation. The finding importantly suggests personal affluence does not play a major role in influencing a person's motivations for using Airbnb, and the segments therefore cannot be targeted by focusing on individuals with a certain economic status. All five segments also were fairly similar with regards to the communication channels that first led to awareness about Airbnb and influenced the initial use of Airbnb. This finding is perhaps less surprising, yet still importantly indicates that the substantial role played by WOM and eWOM is not concentrated around certain segments. Moreover, the segments did not differ much with regards to the year they began using Airbnb. Even though the results were statistically significant, they do not appear to be very meaningfully significant, as on average respondents in each group first used the service sometime in 2013. This finding importantly suggests that even though Airbnb's popularity is growing, its popularity has not been shifting towards or away from any of the motivation-based segments that were identified.

It is also noteworthy that the segments did not differ significantly with regards to trip purpose or destination type (domestic versus international). As the theory of tourism consumption systems suggests (Woodside & Dubelaar, 2002; Woodside & King, 2001), tourism accommodation choice is often associated with other trip characteristics, and it would be quite reasonable to assume that trip purpose and destination type would influence someone's motivations for choosing Airbnb. Nonetheless, looking beyond just statistical significance, there are some indications that these trip variables related somewhat to the segmentation results. For example, *Collaborative consumers* were the least likely to be on business trips, which seems quite sensible because business travellers presumably would tend to be more focused on cost savings and amenities than with the more experiential elements of Airbnb. It is possible that a sample with more non-leisure respondents would better highlight some potential differences relating to trip purpose. Likewise, *Collaborative consumers* were the most likely to be taking international trips, which also seems quite sensible because their interest in interaction with locals could reasonably translate into an interest in experiencing foreign cultures. These slight differences hint that, in some cases, even the same Airbnb guest could fall into different motivation-based segments depending on the nature of his or her trip. Nonetheless, it appears that such fluidity is much less significant than what may have been expected. Such apparent stability fortunately facilitates marketing to the different segments, as they can be targeted with a singular message that does not have to be transformed between one trip and the next.

5.3.2.3. Novelty and repeat usage

The question of stability also arises when considering the two novelty-driven segments, the *Pragmatic novelty seekers* and the *Interactive novelty seekers*. The results showed that, in

comparison with the other segments, these novelty-driven segments tended to have first used Airbnb more recently and have fewer total Airbnb experiences. These characteristics suggest that the novelty associated with using Airbnb could relate primarily to novelty directly associated with using an unfamiliar service, rather than the broader experiential novelty that Airbnb can provide even its most regular users due to the inherent unfamiliarity of each Airbnb accommodation. Consequently, as such novelty-driven guests use Airbnb more, the novelty should wane and the individuals could transition into other segments. However, this phenomenon is not necessarily occurring to a large degree. Firstly, as was just discussed, the actual distinctions between when the different segments tended to have first used Airbnb were actually very minimal, despite their statistical significance. Secondly, even the members of the novelty-driven groups had used Airbnb on average over three times. It therefore seems most likely that motivations regarding Airbnb's novelty relate to a combination of both the novelty directly associated with Airbnb as an unfamiliar service, and the unfamiliarity with all Airbnb accommodations that is inherent to the Airbnb experience.

5.3.2.4. Airbnb: A tale of two products

The starkest differentiator between the segments was the *Interaction* factor, with which the *Collaborative consumers* and *Interactive novelty seekers* agreed and the *Money savers*, *Home seekers*, and *Pragmatic novelty seekers* disagreed (aside from the *Home seekers'* agreement with 'local info/tips from host' item). This finding is consistent with the results of the exploratory factor analysis, which found the *Interaction* factor explained more variance than any other. Looking at the segment profiles, the influence of the *Interaction* factor on the segmentation results was very closely related to the type of accommodation used, as *Home seekers* and

Pragmatic novelty seekers almost exclusively had stayed in entire homes, whereas *Collaborative consumers* and *Interactive novelty seekers* were far more likely than average to have stayed in shared accommodation. Only the *Money savers* did not significantly differ from the average with regards to this variable, which is understandable because the *Money savers* were a fairly diverse and not clearly defined segment in many ways. This sharp distinction between the attraction of Airbnb's entire homes and shared accommodations suggests that, to a degree, Airbnb offers two separate products with distinct appeals. This conclusion is quite reasonable, as one may expect that many tourists are looking for fully private lodging and are very disinclined to share their accommodation with a stranger, whereas the tourists interested in the interaction that comes with lodging with a stranger would value such an experience very highly.

This sharp division between Airbnb's accommodations creates complexity for Airbnb marketers and perhaps creates a need to market the two products differently. To date, Airbnb's marketing has focused primarily on the shared accommodations, while failing to embrace the (actually more common and more lucrative) entire homes. However, using undifferentiated marketing for Airbnb's diverse accommodations is almost akin to an automobile company using a single marketing campaign for its SUV and its hatchback. In the near term, it seems unlikely that Airbnb will divide its diverse listings into mutually exclusive independent brands, similar to a large hotel corporation. Rather, Airbnb will likely continue introducing assorted identifiers to help guests distinguish between properties. For example, the "Business Travel Ready" badge permits certain guests to more easily find certain styles of property, and the "Instant booking" and "Superhost" statuses also assist in this manner. Additionally, in April 2016 Airbnb began rolling out a new system for matching users with recommended listings (Lunden, 2016). However, looking further ahead it seems quite possible that Airbnb will organize its inventory

more comprehensively, sort of like how Uber divides its cars into different service levels with names like UberX, UberHOP, and UberBLACK. Airbnb eventually may develop sub-brands that would not necessarily be mutually exclusive in terms of their listings, but could be marketed independently, like Airbnb Explore (for shared accommodations), Airbnb Homes (for entire home rentals focused on space and amenities), Airbnb Pro (for rentals aimed at business travellers), Airbnb Lux (for expensive, high-end rentals), and Airbnb Exotic (for exotic accommodations like treehouses).

The noteworthy division between Airbnb's entire home and shared accommodations also may lead to confusion on the part of traditional accommodations and policymakers. For hotels, this distinction between Airbnb properties can increase the misconception that Airbnb is not posing direct competition. Even Airbnb's shared accommodations are likely siphoning some guests away from hotels, but certainly not to the same degree as the entire home rentals. Therefore, the shared accommodations, which differ significantly from hotels, may reinforce the more general perception that Airbnb is a different type of product that appeals to a different type of traveller. For policymakers, this distinction between Airbnb listings is quite challenging because the optimal regulatory framework for the renting of a spare bedroom is arguably not appropriate for the rental of an entire property, so there arises a need for different tiers of regulation. The degree to which policymakers feel entire home regulations (e.g., licensing requirements) should apply to shared accommodations seems to vary between different jurisdictions.

5.4. Other variables related to Airbnb choice

In addition to the motivations that most directly explain why tourists choose Airbnb accommodations, this study examined a range of other potentially relevant variables to shed light on the broader question of Airbnb choice. These variables were all examined in relation to the profiles of the different motivation-based segments that were just described. However, for many of these variables the aggregate results were additionally examined and were particularly telling. As has been discussed, because this study used a non-probability sample these results should not be seen as perfectly representative of Airbnb's guest population, but the most obvious patterns still reveal some very important insights.

5.4.1. Brand personality (coolness and self-congruity)

The perceived coolness of Airbnb was assessed with an abbreviated version of the coolness scale developed by Sundar et al. (2014), and the perceived coolness of the Holiday Inn and Hilton were also assessed for comparative purposes. It is worth noting that with the motivation items respondents were asked to directly consider an item's influence on their decision to use Airbnb, but with the coolness items respondents were asked to simply assess the Airbnb brand. The perceived coolness of Airbnb was fairly high, though not extremely so (the average was 4.49 on a scale ranging from one to six), especially considering Airbnb seems to often be perceived as a hip and trendy brand. However, Sundar et al.'s examination of the coolness of 18 technology products offers some perspective on this study's average coolness score for Airbnb, even though Sundar et al. used the full coolness measure and a nine-point Likert scale. Sundar et al. found that even their highest scoring products (MacBook Air, Instagram, and Prezii) scored between

6.0 and 6.4 out of nine, which suggests that even products perceived as very cool may score closer to the scale's midpoint than its endpoint.

More importantly, the difference between the perceived coolness of Airbnb and the two hotel brands was very large. Both hotels' mean coolness scores averaged below the scale's mathematical midpoint, and the average difference between the Airbnb coolness scores and the mean hotel scores was nearly two, which is very large given that the total range of the scale was only five points. Again, even though the Sundar et al. (2014) results do not provide a perfect comparison, it is worth noting that the proportional size of the Airbnb-hotel coolness discrepancy is virtually equal to the discrepancy between the absolute coolest (MacBook Air) and least cool item (Desktop PC) Sundar et al. measured. The large gap between the Airbnb and hotel coolness scores suggests that this aspect of Airbnb's brand personality may be helping to attract tourists, and it is assisted by a perceived lack of coolness for at least some major hotel brands. This finding should of course be of great concern for the hotel industry, and it appears many hotel brands have taken note of this concern and are working to reinvigorate their brands in the eyes of younger travellers. For example, in a media story on Marriott's attempts to "get hip," Cooper (2015) described, "Marriott has launched hip new brands, brought chic restaurants into its hotels and deployed legions of bloggers, Snapchatters, YouTube personalities and marketing firms all in an attempt to shed that staid reputation. Efforts to modernize and court younger travellers have pervaded nearly every sector of its business."

Self-congruity was assessed using a measure adapted from Sirgy et al. (1997). Again, the self-congruity scores were relatively high (averaging 4.64 on a scale ranging from one to six), and some other tourism self-congruity research can be used for imperfect but still useful comparative purposes. Liu et al. (2012) used a similar self-congruity measure with a five-point

scale to examine self-congruity with a Taiwanese recreational farm, and found a mean score of 3.90 on the comparable item. Sparks et al. (2011) examined self-congruity with time-share accommodation by averaging three self-concept facets (rather than the single facet used for the present study) on a seven-point scale, and found non-owners, new owners, and established owners scored 2.95, 3.94 and 4.09, respectively. Such results provide some general perspective on the Airbnb self-congruity scores, showing the scores for the present study to be fairly high, and thereby suggesting that self-congruity may contribute towards Airbnb choice.

5.4.2. Communication channels

The diffusion of innovations literature demonstrates that to fully understand the spread of an innovation it is critical to understand the communication channels propelling this diffusion. This study examined the comparative roles played by different communication channels in driving both Airbnb awareness and initial use. What stands out most obviously from the results is the overwhelmingly large role played by WOM and eWOM. Over 80% of the respondents indicated they had first become aware of Airbnb through one of those two channels, and 93% indicated at least one of the two channels (including Airbnb reviews as a form of eWOM) had influenced their initial decision to use Airbnb. Airbnb has only engaged in limited advertising, so the minimal recognition of this communication channel is somewhat expected. Nonetheless, Airbnb has garnered extensive media coverage in recent years, so it is arguably surprising that more respondents did not recall first becoming aware of Airbnb through mass media.

The large role played by WOM and eWOM is particularly enviable for a service like Airbnb. As was described earlier, safety and trust concerns regarding staying in a stranger's home represent some of the biggest barriers to Airbnb adoption (Nowak et al., 2015; Tussyadiah,

2015), and it is quite possible that Airbnb's own marketing would struggle to overcome such concerns due to its inherent bias. It is understandable that for many people the persuasive power of interpersonal communication is necessary to instill the confidence needed to initially try Airbnb. It is also logical that WOM had more influence on initial use than eWOM, as it is comparatively more difficult to assess credibility cues associated with eWOM (Cheung & Thadani, 2012; Xu, 2014). These findings highlight the incredible power of WOM and eWOM, as they have clearly been the foundation upon which an innovative product with seemingly dubious viability has rapidly grown into one of the largest tourism accommodation providers in the world.

The importance of Airbnb reviews in influencing initial Airbnb use is also noteworthy. It demonstrates the power of online travel reviews to not just help consumers differentiate between fairly similar products (like different hotel properties), which has been the typical focus of eWOM research on tourism accommodation, but also to persuade tourists to initially try a distinct and novel product. This finding reflects the importance of observability and trialability as innovation attributes influencing adoption, and suggests that online reviews can provide an effective modern proxy for first-hand observation and testing. Indeed, this conclusion supports meta-analytic research by You, Vadakkepatt, and Joshi (2015) that determined the effect of eWOM is greater for products with low levels of observability and trialability.

However, the important role played by Airbnb reviews also raises some concerns associated with the tremendous positivity of these reviews. For example, Zervas et al. (2015a) looked at 600,000 Airbnb listings and found 95% enjoyed a 4.5 or five star rating (out of five stars), and virtually none had fewer than 3.5 stars. Several aspects of the Airbnb review system may artificially inflate reviews to generate such high ratings; for example, guests may worry that

publishing a negative review could indicate pickiness that would discourage the acceptance of future reservation requests (Mulshine, 2015), guests whose accommodation is so terrible that they leave early are not permitted to publish a review (Paris, 2015), and guests may be reluctant to criticize Airbnb hosts in comparison with faceless hotels (Ho, 2015). In other words, even though many guests may be accepting Airbnb reviews as a substitute for first-hand observation and testing, it is questionable how reliable the reviews are in this regard.

5.4.3. Travel decisions

The relationships between Airbnb choice and other travel decisions are of significant interest to policymakers, destination marketers, and hoteliers. In particular, Airbnb's impacts on destination visitor nights and traditional accommodations' guest nights will influence many stakeholders' perspectives on Airbnb.

5.4.3.1. Airbnb's impact on destination visitor nights

By increasing a destination's room inventory and by providing a novel form of tourism accommodation, Airbnb has the potential to bring new and additional visitors to a destination. Alternatively, Airbnb may simply cannibalize guests from existing accommodations. The degree to which these two phenomena are occurring is of great relevance to policymakers wrestling with Airbnb regulatory questions. There are numerous potential negative impacts associated with Airbnb accommodations, including reduced housing stock and an erosion of the community fabric, but an increase in money-spending visitors may counterbalance such concerns. Unsurprisingly, Airbnb has repeatedly maintained that it benefits destinations by precipitating increased visitation. For example, one of Airbnb's co-founders, who also serves as the

company's Chief Product Officer, claimed "I think [that idea of competition with hotels is] a huge misconception. If you have a pie chart of available accommodations, it's not like we're taking a slice out of the pie. We're making the pie bigger." As an example, he claimed Airbnb helped London increase visitation during the 2012 Olympics (Shankland, 2013). Likewise, Airbnb's Vice President of Engineering asserted, "We're helping people travel in a new way. I don't view it as a direct competition with hotels" (Trenholm, 2015).

In addition to attracting new visitors, Airbnb also can increase destination visitor nights by encouraging guests to extend their stays. It is logical to believe that a combination of cost-savings and household amenities would prompt some guests to increase the duration of their trips. Airbnb's economic impact reports regularly note that its guests tend to spend longer in a destination than hotel guests, although the direction of causality is unclear, as tourists on longer trips may simply be drawn to Airbnb. Nonetheless, Tussyadiah and Pesonen (2015) found 29% of their respondents agreed that staying in a PSR increased their length of stay in a destination.

Many Airbnb economic impact reports boast about the service's ability to increase destination visitor nights, but they do so by offering an aggregate percentage of guests who either would not have otherwise visited or would not have otherwise stayed as long. Looking at these studies, this percentage ranges from 23% (France) to 37% (Los Angeles), with an average of 29.3% (Airbnb, 2013c, 2014a, 2014g, 2014h, 2014j, 2015a, 2015b, 2015e, 2015f, 2015g, 2015h, 2015i). The present study found a nearly identical percentage of 27.5%. However, in the present study an overwhelming 91.7% of the respondents in this cohort (25.2% of the overall sample) belonged in the group only because they had extended the duration of their trip, not because they took a trip they would not have otherwise taken. In contrast, a mere 2.3% of the overall sample indicated that the availability of Airbnb prompted them to take a trip they would not have

otherwise taken. This percentage is fairly comparable to what was reported by the Morgan Stanley study (Nowak et al., 2015), which found that 4% of people who had stayed in Airbnb for leisure during the previous 12 months used it to take a trip they would not have otherwise taken. (It is logical that the percentage from the Morgan Stanley study is slightly higher than that of the present study, as their question pertained to all Airbnb use within the previous year, instead of the present study's focus on the most recent trip.)

This study's results therefore help to confirm Airbnb's claim that the service results in nearly one-third of its guests spending nights in a destination that they would not have otherwise spent. This is a significant percentage, and it demonstrates Airbnb's potential to benefit local tourism economies and many of their myriad stakeholders (attractions, restaurants, transportation providers, etc.). Nevertheless, the finding that only a negligible fraction of this cohort was taking a trip they would not have otherwise taken, and the vast majority were simply extending the duration of their trips, suggests Airbnb may be combining these two groups to intentionally obfuscate their data and avoid acknowledging the service's incapacity to stimulate significant additional visitation.

5.4.3.2. Substitution: Airbnb's impact on traditional accommodations' guest nights

This study found that Airbnb is used almost exclusively as a substitute for existing accommodations. As was just discussed, only 2% of the respondents indicated Airbnb allowed them to take a trip they would not have otherwise taken. Moreover, only an additional 4% indicated that they would have otherwise not used paid accommodation, by staying with friends and family or CouchSurfing. A much larger proportion would have stayed in paid non-hotel accommodations, with 17% of the respondents indicating that they used Airbnb as a substitute

for a hostel, and 10% indicating that they used it in place of a B&B. These results suggest that Airbnb's impacts on hostels and B&Bs may be quite significant, especially considering the relatively small number of hostels and B&Bs in comparison with hotels. This scenario raises interesting questions regarding competition between these accommodations and Airbnb. On the one hand, Airbnb is clearly siphoning guests away from hostels and B&Bs, and indeed numerous B&B groups have voiced opposition to Airbnb (e.g., Canadian Press, 2013; CBC News, 2015; Glaze, 2016; White, 2014). On the other hand, many hostels and B&Bs list on Airbnb, both because of its reach as a distribution channel and because its fees are relatively low compared to many other booking engines (Epstein, 2014). This study's findings also indicate that the vast majority of Airbnb's guests use the service as a substitute for hotels. With 17% of the respondents indicating they used Airbnb as a substitute for a budget hotel/motel, and 43% indicating they used it as a substitute for a mid-range hotel, it is clear that these hotel classes are being particularly impacted by Airbnb. In comparison, only 4% of the respondents claimed to have used Airbnb as a substitute for an upscale hotel, which suggests Airbnb is not (at least yet) drawing many guests away from the upscale hotel market.

These results are fairly consistent with supply-side research conducted by Zervas et al. (2015b), who also found Airbnb's impact to be greater on lower-end hotels. The present study's demand-side analysis offers a very valuable complement to such supply-side research because hotel performance is influenced by many confounding variables that complicate supply-side analyses. Moreover, demand-side analysis provides especially useful insights for estimating Airbnb's future impacts as its user base continues to grow. The only other demand-side look at Airbnb substitution comes from the Morgan Stanley study (Nowak et al., 2015), which similarly found Airbnb guests use the service as a substitute for hotels more than any other type of

accommodation. The alternative forms of accommodation considered by Nowak et al. were slightly different, which complicates direct comparisons, but it is worth noting that Nowak et al. found a much higher percentage of guests claimed to have used Airbnb as a substitute for a B&B or staying with friends and family. The likely explanation for this discrepancy is that Nowak et al. asked about Airbnb use in general and had respondents select any number of accommodations Airbnb had substituted for, whereas the present study focused solely on an individual's most recent Airbnb stay and allowed respondents to select only one response option. Consequently, Nowak et al.'s findings may have been impacted by respondents trying to recall the planning of various trips and indicating it was possible that on at least one of the trips they could have, for example, stayed with friends or family. By focusing on a single (most recent) trip and the single most likely form of accommodation replaced, the present study seemingly provided a more precise look at the substitution phenomenon.

This study's substitution findings are relatively consistent with the process of disruptive innovation, which states initial customers of a disruptive innovation will be low-end users and/or prior non-users, and over time the innovation will appeal to an increasing number of mainstream customers and higher-end customers (Christensen & Raynor, 2003). It is unknown if several years ago a study like the present one would have indeed found a higher percentage of lower-end customers (i.e., people using Airbnb as a substitute for hostels and budget hotels/motels) and non-users (i.e., people who would not have otherwise taken the trip or paid for accommodation), but given Airbnb's current popularity and impact on mid-range hotels, it is quite reasonable to perceive Airbnb as already appealing largely to mid-range mainstream customers.

From a destination perspective, Airbnb's common function as a substitute for existing accommodations means Airbnb may reduces visitors' overall expenditure in a destination (if they

are spending less on accommodation). Nevertheless, Airbnb's economic impact reports often have indicated that many guests spend their accommodation savings elsewhere in a destination (e.g., Airbnb, 2012b). Airbnb may provide a destination with other economic and non-economic benefits as well, such as reducing economic leakage, dispersing expenditure throughout residential areas, and engaging locals in the tourism sector.

However, from the perspective of existing accommodations, the question of substitution is of course paramount. It is the critical indicator of the immediate threat that Airbnb presents for these incumbent enterprises. The existential threat that an innovation can pose to incumbent businesses is best encapsulated by Schumpeter's notion of "creative destruction" (Schumpeter, 1942/2008). He summarized, "The competition from the new [innovation] ... strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives" (Schumpeter, 1942/2008, p. 84). Indeed, it seems very realistic that some hotel, hostel, and B&B properties will fail to survive the newfound competition posed by Airbnb, and in fact this process has seemingly already begun (e.g., Kenney, 2015).

Initially, when Airbnb was still AirBed & Breakfast and only offering shared accommodations, the company positioned itself as a direct alternative to hotels. The "About" section of one advertisement began, "Thousands have joined the movement to forget hotels! AB&B is a new travel site that allows you to book rooms with locals instead of hotels" (Airbnb, 2016h). However, as was mentioned earlier, nowadays Airbnb insists it does not compete with hotels. In another quote to this effect, a portion of which was mentioned earlier, Airbnb's Head of Global Hospitality & Strategy claimed, "I don't believe hoteliers should worry about Airbnb's emergence ... Part of the reason you shouldn't fret is because ... some of Airbnb's core market is extended-stay guests. Additionally, a sizable portion of Airbnb's thrifty guests would never have

made the trip or would have stayed on a friend's couch if Airbnb didn't exist" (Conley, 2014). This comment about Airbnb frequently facilitating trips that would not have otherwise occurred and serving as a substitute for staying with friends and family is of course strongly contradicted by this study's findings. Additionally, Airbnb's CEO claimed, "For us to win, nobody has to lose. The idea there has to be a battle between us and ... the hotel industry is absurd" (Schall, 2012). Finally, in a statement that indirectly invokes the unique value propositions offered by disruptive innovations, Airbnb's co-founder and Chief Technology Officer stated, "No hotels have gone out of business because of Airbnb … Airbnb is not a perfect substitute for a hotel. We excel at different things" (Dingman, 2015).

This study's findings directly question such statements, but Airbnb's messaging is understandable. Even though Airbnb's common use as a hotel substitute reflects very well on the service and could be touted in the company's marketing, the more hotels fail to perceive Airbnb as a present or future threat, the more complacent they will be in responding to this threat. As has been discussed, such complacency is central to the process of disruptive innovation, as disruptive innovations initially fail to attract mainstream and high-end customers, and the incumbent businesses are therefore blinded by their ability to retain their highest-value clientele (Christensen, 1997) (i.e., hotels' business travellers). Additionally, Airbnb's position on the substitution question is presumably related to its widespread regulatory battles, as policymakers will be much more amenable to Airbnb if it is not simply cannibalizing guests from existing accommodations.

To date, the reaction to Airbnb from the traditional accommodation sector has been mixed. Some hoteliers have voiced concerns over Airbnb's impacts (e.g., Bryan, 2015; Watkins, 2014). Moreover, several recent industry developments can be perceived as responses to

Airbnb's emergence, including acquisitions like Marriott's recent purchase of Starwood (Mulholland & Yu, 2015), the strong push by various hotel brands to invest in boutique properties and market to younger consumers (e.g., Barnes, 2014; Cooper, 2015; Harwell, 2015; Oates, 2016a), and direct investments by various hotel corporations in the PSR and traditional vacation rental markets (e.g., Davies, 2015; Scott, 2016; Trejos, 2016a). Moreover, various hotel associations have advocated stricter regulatory oversight and enforcement regarding Airbnb. For example, the American Hotel and Lodging Association (AHLA) has begun a campaign opposing Airbnb across the U.S., primarily by highlighting the regulatory concerns surrounding the service (O'Neill, 2014). The AHLA also sponsored and publicized the results of a study describing the significant Airbnb rental activity attributable to (illegal) commercial multi-unit operators (O'Neill & Ouyang, 2016), and the AHLA and Airbnb amusingly were two of the largest sponsors for a recent U.S. Conference of Mayors (Kang, 2016).

Nevertheless, many hoteliers have, at least outwardly, expressed skepticism regarding Airbnb's present and future impacts. For example, Starwood Hotels' Chief Financial Officer stated, "We don't see Airbnb as a particular threat to [our corporate clients] today ... [G]iven the kind of services that we're providing at our hotels and what we believe our corporate clients want, we believe that's a low-risk threat to our business" (DePillis, 2016). Additionally, Hilton Worldwide's CEO stated, "We do not believe there is a material impact on the bulk of our markets or with our core business and leisure customers. ... I think it's extremely hard for [Airbnb] to replicate what we are doing. And I don't think [our core] customers suddenly woke up ... and said we really don't care about consistently high quality products and we don't need service and we don't need amenities" (DePillis, 2016). Likewise, Hilton Worldwide's President of Development stated, "Our belief is that lodging rental websites [like Airbnb] are stimulating

demand, rather than displacing existing demand" (Weed, 2015). Moreover, the Four Seasons' Executive Vice President of Global Product & Operations stated, "Our guests don't want the Airbnb feel and scent" and noted Four Seasons customers expect a "level of service that is different, more sophisticated, detailed, and skillful" (Carr, 2014). Also, Doubletree's Global Head stated, "We haven't seen any effect of [Airbnb] on our business. The research we've done shows it as a different kind of traveller typically for a different trip purpose" (Vivion, 2014). Similarly, the CEO of Kimpton Hotels stated, "Airbnb is mostly a lower priced product. ... They're heavily skewed toward leisure. We're heavily skewed toward business. And so I think they're going to get into that market but I'm not totally worried about them. They're a bigger competitor for more limited service hotels at a lower price point" (Oates, 2014). Finally, the CEO of Rotana Hotels (which operates in the Middle East, Africa, South Asia and Eastern Europe) stated, "Guests that are looking for holiday homes and Airbnb are certainly not looking to stay in hotels. These will always be alternatives but will not cause disruption whatsoever" (Chesters, 2015).

Airbnb's limited current impact on the upscale market and its current inability to attract a large number of business travellers, and hoteliers' dismissal of Airbnb largely on such grounds, is actually completely consistent with the process of disruptive innovation. The attitude highlights how incumbent firms overlook a gradually encroaching threat from below by focusing on their immediate ability to retain their highest value customers (Christensen, 1997). As Christensen warned, however, "[T]he most deadly attacks come from below" (p. 84). For example, Christensen described how small minimills disrupted integrated steel manufacturers by capturing the lowest value products, which the integrated mills were content to relinquish, and then continually moving upmarket, as the integrated mills continually retreated further and

further into the highest-value portion of the market. Although there are limits to the degree hotels will be overtaken by Airbnb, the parallels are clear. The process of disruptive innovation suggests hoteliers should not be content that they have largely retained their business customers, but should rather view the loss of many leisure guests as a possible harbinger for the future. Indeed, five years ago hoteliers probably would have expressed confidence that Airbnb would be unable to lure away many leisure travellers.

5.4.4. Satisfaction and loyalty

Despite the previously discussed concerns regarding the reliability of Airbnb reviews, the prominent roles played by WOM and eWOM in driving Airbnb use seem to reflect a high degree of satisfaction with Airbnb. Indeed, nearly 90% of the respondents indicated they were "Very satisfied" or "Satisfied" with their most recent Airbnb stay, which is consistent with findings from the Morgan Stanley study (Nowak et al., 2015). However, these high satisfaction rates are also fairly consistent with similarly high satisfaction rates that have been detected in hotel research (Marković, Raspor, & Segaric, 2010; Shanka & Taylor, 2004). In other words, even though the satisfaction scores found in this study suggest a high degree of satisfaction with Airbnb experiences, they do not necessarily indicate Airbnb guests are generally more satisfied than hotel guests. It is also worth remembering that satisfaction is grounded in expectations, so Airbnb guests and hotel guests may have dissimilar expectations, and even within the Airbnb guest population different guests may have dissimilar expectations owing to the diversity of Airbnb listings.

Nonetheless, the general satisfaction among Airbnb guests is of course critical to the company's success. As Rogers (2003) noted, innovation adoption often involves a gradual

testing process, and it is likely that many first-time Airbnb guests view their initial stay as something of an experiment. Likewise, the disruptive innovation framework notes that even though a disruptive innovation is inferior, it must meet minimum performance requirements (Adner, 2002; Christensen, 1997), and satisfaction represents a direct indicator of such expectations being met.

Satisfaction is also important because it encourages loyalty. It is therefore logical that the vast majority of respondents also indicated a high degree of loyalty towards Airbnb, as per their stated likelihoods of recommending Airbnb and of using Airbnb again within the following year. Nevertheless, the satisfaction-loyalty connection should not necessarily be assumed with Airbnb, as each Airbnb stay is unique in a way that each hotel stay is not. Whereas satisfaction with a Radisson in Atlanta should indicate probable satisfaction with a Radisson in Portland, satisfaction with an Airbnb accommodation in Atlanta should not have nearly the same bearing on expected satisfaction with an Airbnb accommodation in Portland. Therefore, this high degree of loyalty suggests many Airbnb guests trust the company's general ability to provide quality accommodation, despite the inherently fractured nature of its inventory. Indeed, the finding that Airbnb users are likely to recommend the service to others is very consistent with research conducted by the Cowen Group (Verhage, 2016b).

Moreover, respondents indicated that they were far less likely to use a hotel within the following year than they were to reuse Airbnb within the following year. This finding reflects even more positively on Airbnb than the Goldman Sachs finding that a slight majority of PSR users still preferred hotels (Verhage, 2016a) or the Cowen Group finding that hotels still account for the majority of Airbnb users' total tourism accommodation nights (Verhage, 2016b). One possible explanation for the discrepancy with the Goldman Sachs study is that it focused on

PSRs in general instead of Airbnb, and other types of PSRs may have slightly less loyal consumers. However, a more likely explanation comes from the difference in wording of the two questions. Even tourists who objectively prefer hotels may feel it is more likely that they will use Airbnb than hotels in the near future, primarily owing to the comparative inexpensiveness of Airbnb. Indeed, this is a basic idea underlying the concept of disruptive innovation, as the disruptive product is inferior but "good enough" and often cheaper. A possible explanation for the discrepancy with the Cowen Group study is that it focused on past accommodation usage, whereas the present study focused on future accommodation usage. Also, given that respondents in the Cowen Group study were apparently asked to report on all of their accommodation nights during the previous year, it is possible the results were impacted by recall issues.

The high degree of loyalty respondents exhibited towards Airbnb, especially when combined with the relatively weaker intention to use hotels in the following year, reflects very well on Airbnb and should be concerning for traditional accommodations. Airbnb remains somewhat early on in the diffusion process, as many travellers have yet to try it and many people are still not even aware of it (Nowak et al., 2015). Nonetheless, as Airbnb continually attracts new adopters, these individuals appear to often become repeat consumers. This pattern was recognized by Airbnb's Chief Marketing Officer in his description of one of the advertisements mentioned earlier: "We have a fantastic retention rate once people start using us, so the real mission was to make more and more people both aware of and comfortable with us" (della Cava, 2015). When one also takes into account not just Airbnb guests' propensity to recommend the service, but the previously described importance of these recommendations in driving awareness and adoption, it becomes clear that each new adopter represents a compounding benefit for Airbnb and is a compounding loss for traditional accommodations. This situation helps to

explain Airbnb's extremely rapid growth, and it also underscores the unique challenges that Airbnb poses for traditional accommodations.

5.5. A disruptive innovation?: Airbnb's performance expectations versus hotels

5.5.1. Airbnb's performance expectations in comparison with hotels

Analyzing the motivations attracting guests to Airbnb focuses predominately on its positive attributes, but to more fully appreciate how Airbnb is viewed within the context of the broader accommodation sector it is important to additionally consider some of Airbnb's potential weaknesses. The concept of disruptive innovation centres on such weaknesses, as disruptive innovations' underperformance in comparison with existing products' key performance attributes is a defining characteristic. Consequently, respondents rated Airbnb's expected performance for their most recent stay along a range of key traditional accommodation attributes, representing supposed strengths of hotels. Performance expectations were additionally measured for some experiential attributes, representing supposed strengths of Airbnb. For comparison purposes, ratings along the same attributes were provided for hypothetical nearby budget hotels/motels, mid-range hotels, and upscale hotels. Finally, price relative to the other accommodations in the destination was also measured. Each hotel class was considered independently because disruptiveness must always be relative to another product (Christensen, 2006), and different hotel classes constitute fairly distinct products.

Airbnb predictably far outperformed all three hotel classes with regards to uniqueness and local authenticity. When comparing the cost of their most recent Airbnb stay with the three hotel categories, Airbnb also was considered much cheaper than even the budget hotels/motels. This finding supports the earlier suggestion that Airbnb is indeed generally a comparatively

inexpensive option compared to hotels, despite some recent analyses showing average Airbnb rates are higher than average hotel rates in some markets. Airbnb's low cost and experiential benefits also very directly reflect some of the unique value proposition that Airbnb offers, which is integral to the notion of disruptive innovation.

When using key traditional accommodation performance indicators to compare Airbnb with budget hotels/motels, Airbnb actually significantly outperformed the budget hotels/motels on all but one attribute, for which the two accommodations were rated nearly identically. This finding suggests Airbnb is not truly a disruptive innovation relative to budget hotels/motels. Even though Airbnb is introducing a distinct value proposition that is siphoning customers away from budget hotels/motels, the higher performance expectations of Airbnb demonstrate that it is perceived to be a superior, rather than an inferior, product, even when considering the budget hotels/motels' key performance attributes. On the other hand, the situation with upscale hotels is the exact opposite. In this case, the performance of Airbnb was indeed expected to be inferior to what an upscale hotel could offer for every one of the traditional accommodation attributes considered. Taking into account Airbnb's excellent performance within its own value proposition, this pattern represents the quintessential performance characteristics of a disruptive innovation. As was described earlier, however, Airbnb's penetration into the upscale market remains limited, meaning it is still early in the disruption process, with obvious uncertainty as to the future extent of this process.

Airbnb's expected performance in comparison with mid-range hotels was much more varied. Respondents indicated expecting that their Airbnb accommodations would significantly underperform mid-range hotels with regards to the ease of placing a reservation, the ease of checking in/out, the ease of resolving unexpected problems, and security. However, respondents

also indicated expectations that their Airbnb accommodations would significantly outperform mid-range hotels with regards to cleanliness, comfort, and quality assurance. Also, despite being statistically significant, many of these differences were smaller than when looking at the budget hotels/motels or upscale hotels. This pattern of performance expectations suggests some parallels with the disruptive innovation framework, but is not fully consistent with the concept. There is no known precedent for determining the number or percentage of key attributes for which a disruptive innovation should underperform. Bower and Christensen (1995) noted disruptive innovations "often perform far worse along one or two dimensions that are particularly important" (p. 45), and in this case Airbnb was expected to perform significantly worse than mid-range hotels along several important dimensions, including security. Nevertheless, cleanliness, comfort, and quality assurance are all especially important accommodation attributes (Chu & Choi, 2000; Dolnicar & Otter, 2003), so Airbnb's expected ability to outperform mid-range hotels along these attributes signifies Airbnb does not perfectly represent a disruptive innovation relative to mid-range hotels.

5.5.2. Assessing an innovation as disruptive

This analysis highlights some key questions and issues regarding the nature of disruptive innovations. Firstly, the findings underscore the notion that innovations are not intrinsically disruptive, but are only disruptive relative to another product (Christensen, 2006). Secondly, they highlight the common confusion that disruptive innovations are simply products that disrupt a market in a colloquial sense by introducing a new (generally technology-driven) value proposition. In fact, Govindarajan and Kopalle (2006) advocated an acknowledgement of "high-end" disruptions that outperform existing products. Nonetheless, Christensen (2006) justifiably

argued against such inclusion, stating that the failure of incumbents to respond to high-end innovations would not result from the same organizational factors that make it difficult for incumbents to respond to inferior innovations. He explained, "A disruptive innovation is financially unattractive for the leading incumbent to pursue, relative to its profit model and relative to other investments that are competing for the organization's resources" (p. 49), and later suggested, "Another mechanism of action causes the leaders to have missed these high-end innovations, and we should find another name for it" (p. 50).

The findings also provide some key insights into the empirical classification of disruptive innovations. Whereas prior assessments of disruptiveness have been based on market research analysis and/or input from industry experts, this research is seemingly the first to be based on consumer opinions. The consumer perspective is invaluable because consumer perceptions regarding product performance truly signal whether a product is underperforming its rivals. Industry experts may very well misread the consumer market; for example, it seems quite possible that industry analysts would have wrongly assumed Airbnb would be seen as inferior to mid-range hotels with regards to cleanliness, comfort, and quality assurance. Also, it seems likely that the findings would have been different if hotel guests had been surveyed instead of Airbnb guests. This hypothetical distinction highlights that this study's results should be recognized as perceptive rather than objective performance levels. Additionally, this hypothetical distinction raises the interesting question of how to assess performance when the perceptions of users and non-users may differ significantly. The perceptions of non-users are certainly meaningful, but the perceptions of users provide the optimal assessment of performance, as the users should be accepting some key inferior performance for an innovation to be truly consistent with the disruptive innovation concept.

This analysis also highlights the challenge of establishing a binary test of disruptiveness. Whereas some products have just a few objectively measureable attributes, many products (including tourism accommodation) have myriad subjective attributes. There is no obvious way to determine what product attributes ought to be inferior, and this interpretation would be unique to each product. In fact, early on this study had intended to label Airbnb as disruptive only if it was expected to be inferior to a hotel class along every single traditional accommodation attribute, but it was later realized that such an approach was too strict, particularly given that some attributes were seemingly more important than others. Because of this complexity, the onus is on the researcher to make a judgement call based on his or her findings, and it seems worthwhile to note gradations of consistency with the idea of disruptive innovation, rather than subscribing to a simply dichotomous classification.

It also should be noted that this analysis only examined one component of disruptive innovation – namely, whether the innovation itself exhibited characteristics of disruptiveness – but the study did not assess the disruptive process comprehensively (e.g., the response from existing firms). Also, this analysis demonstrates that the broader notion of disruptive innovation can provide a useful analytical lens even in cases where the innovation is not perfectly consistent with the disruptive innovation concept. Relative to mid-range hotels, Airbnb was not found to completely align with the notion of disruptive innovation, but the idea still importantly encourages examining Airbnb not just in terms of traditional accommodation attributes, but also in terms of the unique value proposition it provides.

5.5.3. The practical implications of Airbnb's performance expectations

The performance expectation results reflect very positively on the perceived quality of Airbnb accommodations. Outperforming budget hotels/motels virtually across the board, and outperforming mid-range hotels for many key attributes, is quite an accomplishment for (generally inexpensive) accommodations offered by ordinary people. Admittedly, these ratings represent perceptions rather than objective measures, and presumably hotel guests would feel much differently, but it is still noteworthy that Airbnb's users have such confidence in Airbnb accommodations. One concern from Airbnb's perspective could be that overinflated expectations could lead to disappointment, but the strong satisfaction scores described earlier suggest this issue is not prevalent.

Nonetheless, the scores highlight some areas where Airbnb could benefit from improvements. The perceived security of Airbnb was only moderately high. Given that trust and safety concerns are key barriers to Airbnb adoption (Nowak et al., 2015; Tussyadiah, 2015), this finding should be of some concern to the company. Airbnb certainly could do more to ensure guests' safety; for example, Airbnb does not perform routine background checks on hosts (Airbnb, 2016e). However, the company must manage a delicate balance between, on the one hand, improving safety, and on the other hand, avoiding liability and respecting users' privacy. Additionally, the respondents were not especially confident in Airbnb's ability to resolve unexpected problems, and in fact Airbnb received its lowest overall rating for this attribute. This concern is also very important because tourists do not want their trips spoiled by accommodation problems. Again, there is certainly more Airbnb could do in this regards; for example, the website's "Contact" page does not actually even provide a method for contacting the company (Airbnb, 2016d). Once again, however, this issue speaks to a delicate balance regarding the

degree to which Airbnb is simply a matchmaking service and the degree to which it is directly involved in ensuring the quality of guests' experiences. The ease of placing a reservation is a third area where Airbnb could improve, even though the absolute expectations regarding this attribute were fairly high. Nonetheless, "lack of efficacy" was found by Tussyadiah (2015) to be a key barrier to Airbnb use. To ease this issue, Airbnb recently introduced an "Instant book" option that hosts can use, which bypasses the normal communication and acceptance process, but only a limited portion of hosts use this feature (Plautz, 2014). Airbnb would likely benefit from advertising that demonstrates how simple it is to use Airbnb for the first time. Finally, the ease of checking in/out was the one attribute for which Airbnb failed to outperform any of the hotel classes. Several start-ups have attempted to provide solutions to the key exchange challenge (e.g., Tossell, 2013), but the issue clearly remains a concern. Airbnb could potentially help mitigate this issue by partnering with prevalent businesses like Starbucks and Subway, who could house security pad-enabled key boxes that guests would visit with a security code provided by the host. Airbnb would benefit by facilitating key exchanges, and Starbucks and Subway would benefit from bringing in Airbnb guests who may then patronize the establishments.

From the perspective of hotels, Airbnb's apparent strengths should be perceived as areas of concern, whereas Airbnb's weaknesses highlight its potential vulnerabilities. The finding that Airbnb users feel their hosts can outperform both budget and mid-range hotels with regards to cleanliness, comfort, and quality assurance should be particularly distressing for hotels. The results indicate Airbnb should not be dismissed due to it supposed substandard quality. As was described, these findings are based solely on the perceptions of Airbnb users, who are probably not reflective of typical hotels customers and may have begun using Airbnb because they had negative attitudes toward hotels. Nonetheless, Airbnb is continuing to grow quickly, and it would

be dangerously presumptive for hotels to assume that future Airbnb adopters will view Airbnb and hotels differently from current Airbnb users. Even though Airbnb still struggles along certain attributes, its guests are clearly willing to overlook these weaknesses due to an apparent perception that Airbnb's performance is "good enough" with these attributes, particularly given its alternative benefits. In particular, the results indicate that Airbnb users perceive the service as far outperforming hotels with regards to price, authenticity, and uniqueness. Together these findings signal a particularly difficult challenge for hotels – a competitive accommodation that is often cheaper, offers a unique experiential aspect, and still performs fairly well in areas where hotels should excel.

5.6. Convergence: The future of tourism accommodation

Although Airbnb denies it competes with hotels, and hoteliers often deny Airbnb as a threat, it is evident that there already exists competition between these two forms of accommodation and their future paths are best seen as a collision course. Much of Airbnb's current strategy and messaging must be viewed within the context of its widespread regulatory battles, but as an increasing number of destinations formalize and regulate Airbnb it will be more directly integrated into the tourism sector. As this process occurs, Airbnb will potentially consume the B&B market and the separation between Airbnb and hotels will likely be reduced as both converge on one another.

5.6.1. An ominous outlook for B&Bs

When considering Airbnb's impacts on hotels it is a question of extent, but when considering Airbnb's impacts on B&Bs it is an existential question. The division between B&Bs and Airbnb

is already blurring, as countless traditional B&Bs list their accommodations on Airbnb, and their services are not meaningfully distinct from what many other Airbnb hosts offer (with some even providing breakfast). Likewise, from a policy perspective it is possible that the emerging regulatory frameworks regarding PSRs will also end up governing B&Bs, as B&B operators push for eased regulations that are more in line with PSRs. To the degree that B&Bs remain distinct (e.g., B&Bs may exceed a quota on rentable rooms in a PSR residence), it is questionable whether a potential B&B operator would see the extra licensing requirements as worthwhile. Indeed, with the newfound opportunity to become an Airbnb host in mere minutes, it is doubtful that future decades will see many people going through the hassle and costs of obtaining a license to open up traditional a B&B.

The primary benefit of such a formal enterprise comes from guests preferring to stay with professional, licensed accommodation operators. However, the review system within Airbnb's platform has significantly devalued this benefit. Beyond the appeal of having a professional and licensed host, there is simply little additional value for B&B guests, who now have diverse – and likely less expensive – Airbnb options involving both entire and shared homes that can satisfy motivations like authenticity and interaction that may otherwise drive tourists to B&Bs. In sum, it seems likely that future decades will see a continuing decrease both in the number of people interested in being B&B operators and the number of tourists wishing to stay in B&Bs. Indeed, there are already reports of B&Bs struggling to maintain pre-Airbnb occupancy levels, closing due to Airbnb and other PSRs, and eschewing their formal B&B status to become strictly PSR accommodations (e.g., Coletta, 2016; Kenney, 2015; Kyle, 2016; McClendon, 2016). It seems quite possible that eventually traditional B&Bs will cease to represent a precisely defined,

independent accommodation offering, and will become just a style of PSR rental found on Airbnb and other PSR websites.

5.6.2. A possible disruptor of Airbnb

While this study has focused on Airbnb's potential to disrupt traditional accommodations, it is also possible that a future service could disrupt Airbnb. An obvious example of how such a service could look already exists in the form of CouchSurfing, as CouchSurfing in many ways provides inferior performance compared to Airbnb, but is cheaper and offers an even greater degree of interaction (i.e., its unique value proposition). However, CouchSurfing preceded Airbnb and has failed to scale to anywhere near Airbnb's level, likely due to its more limited appeal to both guests (as the accommodations are of generally lower quality) and hosts (who receive no financial compensation).

A more realistic disruptor of Airbnb would be a craigslist-type platform that simply serves as a matchmaker for guests and hosts, but does not provide any of Airbnb's other ancillary services. Most importantly, such a service would not charge the commission fees that Airbnb charges, and would rather earn revenue through advertising and other such means. This service would be inferior to Airbnb in numerous ways, but with the key benefit of being cheaper. The primary concern for such a service would be a lack of trust, which Airbnb promotes primarily through its now well-established review system. Indeed, Airbnb has arguably reached a "critical mass," at which point innovation diffusion becomes somewhat self-sustaining (Rogers, 2003), as the abundance of guests and hosts makes it the most appealing option for future guests and hosts. Nonetheless, even though a competing simpler platform would consequently struggle to build an acceptable foundation of reviews from scratch, it could potentially co-opt Airbnb's own reviews

by having users link their profile pages from the new service with their profile pages from Airbnb. Such linkages are not wholly unrealistic, as Airbnb profile pages are publicly accessible, and both personal and accommodation profiles generally include photographs. Therefore, even if Airbnb required logging in to access the reviews, the linkages could still be established because users would presumably have profiles on both sites. In reality, the potential for such a service is very small, but it is still a useful thought exercise for considering how Airbnb itself could be disrupted.

5.6.3. Airbnb and hotels: Meeting in the middle

Airbnb is following the classic disruptive innovation path by continually introducing improvements to its product performance, such that it can better compete with hotels along traditional accommodation attributes. Airbnb certainly does not want to lose the authentic, personal touch that characterizes its accommodations and helps define its brand, but there is little question that Airbnb is increasingly moving upmarket and looking to provide a more reliable, professionalized guest experience. The hiring of a Head of Global Hospitality & Strategy to focus on areas like cleanliness (Geron, 2013b) signalled an important early push for improved quality, and the introduction of "Instant booking" (Plautz, 2014) demonstrates a clear objective to wrinkle out some of the weaknesses associated with PSRs. Indeed, nowadays the properties that rank highest in Airbnb's search results tend to offer Instant booking and/or be operated by Superhosts, which is a special status given to particularly active and well-reviewed hosts (Airbnb, 2016f). In other words, even though Airbnb boasts innumerable listings, the company seems to be deliberately funneling business towards a subgroup of properties that in some ways provide a more professionalized experience. In fact, very recently it appears Airbnb quietly made

Instant booking mandatory for many new hosts, although it is unclear if this policy will last. Furthermore, a pilot project called "Sonoma Select" that Airbnb will run in the summer of 2016 represents the company's most significant push towards more professionalized experiences – the pilot project features a selection of entire home rentals advertised with virtual tours and offering 24-hour check-in, Instant booking, local wine and snacks, and upgraded bath products (Ting, 2016b). Also, despite Airbnb's claims to the contrary in its regulatory battles, numerous analyses have found that a significant portion of Airbnb's bookings are handled by (essentially commercial) multi-unit operators (O'Neill & Ouyang, 2016; Popper, 2015; Schneiderman, 2014; Slee, 2014), and such hosts are arguably best equipped to provide a more reliable, professional experience.

Probably the greatest indicator of Airbnb's upward expansion plans comes from its commenced encroachment into the business travel market through efforts like its dedicated business travel portal, its "Business Travel Ready" badge, and its partnerships with various corporate travel management firms (Airbnb, 2014d, 2014e, 2014i, 2016n, Dillet, 2015; Taylor, 2016; Terdiman, 2014). As has been discussed, Airbnb's limited current penetration into the business travel market is a large reason why many hoteliers question Airbnb's potential impacts. However, this limited footprint is growing. Between July 2015, when Airbnb performed a revamp of its business travel program, and January 2016, the company claims over 50,000 employees from over 5,000 companies used Airbnb (Griswold, 2016). Moreover, the travel and expense management firm Certify stated that business spending on Airbnb grew by about 250% in 2015 (Griswold, 2016). Looking forward, the cost savings provided by Airbnb will be tempting for corporate travel managers looking to cut costs, and Airbnb will likely seek increasing partnerships with corporate travel management firms (O'Neill, 2015; Ruch, 2015). It

also seems probable that Airbnb will introduce a loyalty and rewards program and other different perks for firms and their employees, and Airbnb may even offer a special form of business travel insurance to assuage the safety and liability concerns associated with business travel stays (Martin, 2014; O'Neill, 2015; Ruch, 2015). Moreover, as today's younger travellers become tomorrow's business travellers, there will be increasing Airbnb demand within the business travel sector.

While Airbnb moves upmarket by mimicking different hotel characteristics, some major hotel corporations will likely move downmarket by mimicking some Airbnb characteristics. As has already been discussed, numerous hotel corporations are looking to create properties and launch new brands that have a more authentic local feel (e.g., Oates, 2016b). Moreover, Airbnb will likely inspire hotels to disperse beyond traditional tourism areas and into more residential neighbourhoods where cheaper real estate costs will permit lower prices, and the residential environment will increase the perception of local authenticity. Guttentag (2015) originally suggested this development, envisioning that in response to Airbnb hotels may begin "complementing their normal properties with smaller, cheaper properties located outside of primary tourist areas and managed by highly involved locals who are granted extensive freedom over decor and management" (p. 1207). Somewhat supporting this idea, it was recently reported that Hilton "may add a new brand that focuses on small, cheap hotels in big cities" (Fahmy, 2016), and both Hilton and Marriott recently launched brands (Tru and Moxy, respectively) with small, inexpensive rooms and inviting public areas for interaction (Harwell, 2015; Oates, 2016a). In many ways, this strategy involves the hotels disrupting themselves – introducing a cheaper, inferior product that may cannibalize some of their existing business – which is precisely what Chirstensen and Raynor (2003) suggested as the best method to combat a disruptive innovation

(although they recommended creating fully independent business units, rather than just new brands). The potential for such developments is that the hotels will appeal to the same motivations that attract users to Airbnb, such as low cost and authenticity, while also outperforming Airbnb along traditional accommodation attributes like quality assurance and an ability to solve unexpected problems. It remains unclear how extensive or successful such properties will be, but they demonstrate how Airbnb has tapped into motivations that hotels were largely failing to meet, and in the process has shifted perceptions of tourism hospitality throughout the accommodation industry.

5.7. Limitations

The use of a non-probability sample is a limitation of this research. The overall sample inevitably was not a perfect reflection of the Airbnb guest population, and it is possible that biases within the sampling frames influenced the findings. The similarity found between the overall sample and the Airbnb user population, as indicated by Airbnb's own economic impact reports, gives reasonable confidence to draw generalizeable insights from the study, yet potential biases within the sampling frames should still be recognized when considering the findings. It also should be noted that the sampling frames led to an almost exclusively North American final sample. It is quite possible that Airbnb users from different geographic regions are motivated to use the service for different reasons, and may exhibit other relevant differentiating characteristics as well (e.g., regarding communication channels). In fact, Tussyadiah and Pesonen (2015) found that PSR use affected the trip planning of U.S. and Finnish PSR users differently. In addition to potential biases within the sampling frames, there was also the potential for participation biases. It is possible, for example, that Airbnb users who were especially strong supporters of Airbnb

were more interested in the study and therefore more likely to participate. Moreover, the large percentage of respondents recruited from Facebook potentially could have impacted findings related to eWOM as a communication channel driving Airbnb awareness and initial use. It also should be recognized that this study only sampled Airbnb users. The lack of a comparative group of non-users and/or users of other types of accommodation limits the interpretation of some results.

Also, different limitations characterize some of the various measures used in the survey. To begin, several scales potentially could be expanded, particularly in research with a more precise focus, as the present study covered a wide range of variables and had to account for potential respondent fatigue. For example, the 17 motivations measured do not represent a wholly exhaustive list of reasons why people may choose Airbnb. Moreover, the motivation scale could benefit from additional items covering cost savings and location, as these proved to be the items with which respondents agreed most strongly and the items did not load onto any of the factors extracted in the factor analysis. Likewise, the coolness and self-congruity measures were both abbreviated versions of existing measures, as the complete measures were deemed too long for this study's survey. Additionally, respondents' performance expectations for Airbnb may have been influenced by their actual Airbnb experiences.

5.8. Recommendations for future research

This study highlights numerous avenues for potential future research. To begin, the list of 17 motivations potentially could be expanded with additional items, including extra items examining cost and location convenience, or other motivation constructs driving Airbnb use. Also, repeated measurement with the utilized scale could help support the validity of the five

factors that were detected. It may also be useful to use alternative methods to assess the importance of different motivations, such as rank ordering. Additionally, results from similar motivation-based Airbnb segmentation research could be compared with the present study to help gauge the generalizability of the findings. Moreover, research conducted outside of North America would be valuable to better understand whether there are important differences between the motivation profiles of Airbnb users in different geographic regions. Also, it would be very useful to conduct longitudinal research that tracked the same Airbnb users' motivations over time and for different trips, as such research would help test the stability of the different segments that were identified.

There are multiple ways to build on this research through explicit comparisons with users of other accommodation types. For example, it would be very useful to compare the motivations of Airbnb users with users of other PSR companies, and in particular those that tend to offer vacation homes without any shared accommodations. The different PSR accommodation services are often viewed in combination, both by policymakers and researchers, but it seems quite possible that the motivations to use the services are somewhat distinct. Also, the motivations to use B&Bs, CouchSurfing, and hostels seem somewhat similar to those of Airbnb, so it would be useful to compare the motivations of Airbnb users with the motivations of users of these other three types of accommodations. Comparisons with hotel guests would additionally provide especially valuable findings that would shed increased light on Airbnb's competitive threat to hotels. Moreover, it would be useful to compare Airbnb guests with individuals who considered Airbnb but chose not to use it in favour of a different form of accommodation.

A greater understanding of the actual decision process surrounding Airbnb choice would also be quite beneficial. It would be curious to see, for example, if Airbnb guests tend to

seriously investigate and consider other forms of accommodation before making a booking with Airbnb. Likewise, it would be useful to know whether Airbnb guests staying in entire homes ever genuinely considered staying in a shared accommodation, and vice versa.

Finally, this study introduced a new consumer-based approach to assessing whether an innovation can be classified as disruptive. This general approach can be applied to other apparent disruptive innovations in tourism and beyond. Moreover, when using this consumer-based assessment technique it would be useful to compare findings with assessments made by industry experts in order to determine if such experts can satisfactorily estimate consumer attitudes.

5.9. Conclusion

When the general idea for this research project was born several years ago, most discussion of it had to be preceded with an introductory description of Airbnb. Today, Airbnb is arguably the most talked-about subject in the entire tourism sector. In fact, a large portion of the research studies and media stories that have been referenced in this thesis were only published within the last year or so, long after this project started. Such mounting interest highlights the important role this study can play in providing new insights on the consumer side of Airbnb.

Airbnb has already shaken up the tourism accommodation industry, with little indication that its growth will slow significantly anytime soon. The speed with which it has impacted the tourism sector is both quite rare and remarkable. Nonetheless, there continues to be little understanding of why so many tourists are choosing this innovative service, and what the implications of its emergence will be for the traditional accommodation industry. This study sheds some important light on these questions by showing the strongest motivations tend to involve cost and other practical considerations, whereas the experiential motivations are mostly

secondary. This finding raises questions regarding Airbnb's marketing and regarding the common belief among hoteliers that Airbnb is not competing with hotels because it appeals to a separate market. This latter notion is further contradicted by the finding that the majority of respondents had used Airbnb as a hotel substitute. The study also importantly identified and profiled five distinct motivation-based segments of Airbnb users, and this exercise led to myriad practical implications that were discussed. The concept of disruptive innovation was used to compare Airbnb with hotels along several traditional accommodation attributes, which highlighted some of Airbnb's strengths and weaknesses, while also offering conceptual implications regarding the notion of disruptive innovation. Finally, the various findings from this study were drawn upon to anticipate future changes within the tourism accommodation industry. Although it is a future filled with question marks, it is hoped that this study can provide all of the relevant stakeholders with a better understanding of the consumer motivations that serve as the foundation for these changes.

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APPENDICES

Appendix A: Recruitment invitation message

Have you stayed in an Airbnb during the past year?

Daniel Guttentag [personal website link] is a PhD student at the University of Waterloo (Ontario, Canada) conducting thesis research on why travellers use Airbnb. He's inviting those of you who've stayed in an Airbnb during the past year to complete his ten-minute online survey. Upon completion, you may enter into a draw in which two winners will each receive a $65 Amazon Canada gift card, and you may also choose to receive a summary of the study's findings.

The study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee.

If you are interested, please take the survey here: [survey link]

Appendix B: MTurk invitation page

You are invited to participate in an academic survey on why travellers choose to stay with Airbnb. **This survey is only for individuals who have used Airbnb during the past 12 months and who were involved in the decision to use Airbnb.** The survey will take approximately ten minutes to complete. It primarily consists of questions on why you chose to stay with Airbnb and your attitudes toward the service.

This study is being conducted by Daniel Guttentag, a PhD student in the Recreation and Leisure Studies Department at the University of Waterloo in Ontario, Canada, working under the supervision of Dr. Stephen Smith. This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee. More details about the study can be found on the information page at the beginning of the survey.

The survey includes several verifiable items meant to ensure respondents are answering carefully. These items instruct respondents to input a particular answer, so respondents simply must answer as instructed. If you do not answer these questions correctly then you may not receive your remuneration.

At the end of the survey, you will receive a code to paste into the box below in order to have the $1.20 posted to your Mechanical Turk account. **Please be sure to open the survey in a new tab/window and leave this page open as you complete the survey.** When you are finished, you will return to this page to paste the code into the box.

Survey link: [survey link]

Appendix C: The survey

********** [signifies a page break]

Information and Consent Letter

Dear previous Airbnb guest,

My name is Daniel Guttentag and I am a PhD student in the Recreation and Leisure Studies Department at the University of Waterloo (Ontario, Canada), working under the supervision of Dr. Stephen Smith. For my thesis, I am researching why travellers choose to stay with Airbnb.

Summary description of the survey
This survey will take approximately ten minutes to complete and consists primarily of questions about your most recent Airbnb stay, including your reasons for choosing Airbnb, your expectations about the service, and the type of trip you used it for. Some basic questions related to your travel and demographic characteristics are also included. Please have only one member of your travel party complete the survey.

Entering the gift card draw and receiving a summary of the findings
As a token of appreciation, upon completion you may enter yourself into a draw in which two winners will each receive an Amazon gift card for US $50 (or its international equivalent), and you may also choose to receive a summary of the study's findings. Your odds of winning a gift card are based on the number of participants, who are being sought through a few different channels. Information collected for the draw will not be linked to the study data in any way. Depending upon your country of residence, the amount received may be taxable and it would be your responsibility to report this amount for income tax purposes.

Voluntariness, confidentiality, and research ethics
Participation in this study is voluntary. You may decline to answer a question by leaving it blank, and you may withdraw your participation at any time by not submitting your responses. There are no known or anticipated risks associated with participation in this study. All data will be kept strictly confidential, will be password protected, and will be erased seven years after completion of the study. The findings will report on data in aggregate or group form, such that no individual could be identified from the summarized results. The survey is hosted by SurveyGizmo, which automatically collects participant data (e.g., IP addresses), but while this information will be automatically provided to the researcher, it will not be used in any way and will in fact be deleted from the researcher's data files. Also, because SurveyGizmo will store the data on U.S. servers, under provisions of the Patriot Act U.S. authorities maintain the right to access this data. This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee. If you have any comments or concerns resulting from your participation in this study, please feel free to contact Dr. Maureen Nummelin in the Office of

Research Ethics at 1-519-888-4567, Ext. [XXXXX] or [email address].

Questions/comments
Please feel free to contact me [email address] or Dr. Smith [email address] with any questions or comments.

Many thanks for your assistance,

Daniel Guttentag

Consent to Participate
With full knowledge of all foregoing, I agree, of my own free will, to participate in this study.

- o I agree to participate. (Take the survey now.)
- o I do not wish to participate. (Please close your web browser.)

****

[Screening questions]

***Please have only one member of your travel party (from your most recent Airbnb stay) complete this survey.**

(1) During the past 12 months, have you stayed in an Airbnb accommodation?

- o Yes
- o No

(2) Did you have a significant role in the decision to stay with Airbnb?

- o Yes
- o No

(3) Are you fluent in English?

- o Yes
- o No

****

Please answer the following questions **thinking only about your most recent Airbnb stay**.

(4) In what city and country was your most recent Airbnb stay?

City: _____
Country: _____

(5) What was the main purpose of your trip?
- Attending a convention, conference, or other major event
- Business (other than a convention, conference, or other major event)
- Leisure
- Visiting friends/family

(6) Would you describe yourself as a "backpacker" on this trip?
- Yes
- No

(7) How many nights was your Airbnb stay? _____

(8) What type of Airbnb accommodation did you use?
- Entire place (home, apartment, etc.)
- Private bedroom
- Shared space (e.g., futon in a living room)

(9) Not including the Airbnb host, how many other people stayed in the Airbnb accommodation with you? _____

(10) Who were they? (Select all that apply)
- Spouse/partner
- Child(ren)
- Friend(s)
- Professional colleague(s)
- Other: _____

****

Continuing to think only about your most recent Airbnb stay...

(11) If Airbnb and other similar person-to-person paid accommodation services (e.g., VRBO) did not exist, what type of accommodation would you have most likely used?
- I would not have taken the trip
- Bed and breakfast
- CouchSurfing
- Friends or family
- Hostel
- Hotel/motel - Budget (e.g., Econo Lodge, Motel 6, Super 8)
- Hotel - Mid-range (e.g., Comfort Inn, Holiday Inn, Ramada)
- Hotel - Upscale (e.g., Four Seasons, Hilton, Ritz-Carlton)
- Other: _____

(12) How did your decision to stay with Airbnb influence the number of nights you chose to spend in _____ [destination name piped in from Q4]?

- More nights
- No effect
- Fewer nights

(13) Overall, how satisfied were you with your Airbnb stay?

Very dissatisfied	Dissatisfied	Somewhat dissatisfied	Somewhat satisfied	Satisfied	Very satisfied
◯	◯	◯	◯	◯	◯

****

Continuing to think only about your most recent Airbnb stay...

(14) Please indicate your level of agreement with the following statements regarding your decision to stay with Airbnb instead of a different form of accommodation (e.g., hotel, hostel, or B&B).

[Items randomized]

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
I chose Airbnb because of its comparatively low cost	○	○	○	○	○	○
I chose Airbnb for the convenient location	○	○	○	○	○	○
I chose Airbnb for the access to household amenities (e.g., fridge, stove, washing machine)	○	○	○	○	○	○
I chose Airbnb for the large amount of space	○	○	○	○	○	○
I chose Airbnb for the opportunity to receive useful local information and tips from my host	○	○	○	○	○	○
I chose Airbnb for the "homely" feel of the accommodation	○	○	○	○	○	○
I chose Airbnb to have a unique (non-standardized) experience	○	○	○	○	○	○
I chose Airbnb to have an authentic local experience	○	○	○	○	○	○
I chose Airbnb for the opportunity to interact with my host and/or other locals	○	○	○	○	○	○
I chose Airbnb for the opportunity to stay in a non-touristy, residential neighborhood	○	○	○	○	○	○
I chose Airbnb because I wanted to do something new and different	○	○	○	○	○	○
I chose Airbnb because I thought the experience would be exciting	○	○	○	○	○	○
I chose Airbnb because I thought the experience would be unpredictable	○	○	○	○	○	○
I chose Airbnb because I prefer the philosophy of Airbnb over other types of accommodation	○	○	○	○	○	○
I chose Airbnb because staying with Airbnb is environmentally friendly	○	○	○	○	○	○
I chose Airbnb because I wanted the money I spent on accommodation to go directly to local people	○	○	○	○	○	○
I chose Airbnb to have an experience I could tell my friends/family about	○	○	○	○	○	○

(15) Please briefly describe any other reason (if applicable) why you chose Airbnb:

_____

****

Continuing to think only about your most recent Airbnb stay...

(16) **Comparative Performance Expectations**

For each accommodation attribute below, think about the performance that **you expected (not the actual performance)** when booking your most recent Airbnb, along with the comparative performance you would have expected in hypothetical nearby hotels.

No stars signifies a non-response

☆ = Exceptionally poor
☆☆ = Very poor
☆☆☆ = Poor
☆☆☆☆ = Good
☆☆☆☆☆ = Very good
☆☆☆☆☆☆ = Exceptionally good

	Airbnb	**Budget hotel/motel** (e.g., Econo Lodge, Motel 6, Super 8)	**Mid-range hotel** (e.g., Comfort Inn, Holiday Inn, Ramada)	**Upscale hotel** (e.g., Four Seasons, Hilton, Ritz-Carlton)
Cleanliness	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆
Comfort	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆
Ease of placing my reservation	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆
Ease of checking in/out	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆
Ease of resolving unexpected problems (e.g., no hot water)	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆
Local authenticity of the experience	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆
Security	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆
Uniqueness (non-standardization) of the experience	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆
Confidence that the overall quality would meet expectations	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆	☆☆☆☆☆☆

(17) Compared to all of the tourism accommodations in _____ [destination name piped in from Q4], how would you characterize the price of...

	Very low	Low	Somewhat low	Somewhat high	High	Very high
... your Airbnb?	○	○	○	○	○	○
... a hypothetical nearby **budget hotel/motel** (e.g., Econo Lodge, Motel 6, Super 8)?	○	○	○	○	○	○
... a hypothetical nearby **mid-range hotel** (e.g., Comfort Inn, Holiday Inn, Ramada)?	○	○	○	○	○	○
... a hypothetical nearby **upscale hotel** (e.g., Four Seasons, Hilton, Ritz-Carlton)	○	○	○	○	○	○

(18) For the following three accommodation brands, please indicate how much you agree or disagree with the following statements.

1 = Strongly disagree
2 = Disagree
3 = Somewhat disagree
4 = Somewhat agree
5 = Agree
6 = Strongly agree

[Items randomized]

	Airbnb 1 2 3 4 5 6	**Holiday Inn** 1 2 3 4 5 6	**Hilton** 1 2 3 4 5 6
Using _____, makes me stand apart from others	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○
_____ helps people who use it stand apart from the crowd	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○
_____ is stylish	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○
_____ is hip	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○
_____ is out of the ordinary	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○
_____ stands apart from similar products	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○

****

(19) To the best you can remember, how many total times have you stayed in an Airbnb accommodation (including your most recent Airbnb stay)? _____

(20) To the best you can remember, in what year did you first use Airbnb? _____

(21) How did you first become aware of Airbnb?

- o Airbnb advertising
- o Guidebook
- o Mass media (online news story, magazine article, etc.)
- o Online word-of-mouth (Facebook, forums, blogs, etc.)
- o Word-of-mouth (friends, family, other travellers, etc.)
- o Don't remember
- o Other: _____

(22) Which of the following had a significant influence on your decision to use Airbnb for the first time? (Select all that apply)

- o Airbnb advertising
- o Guidebook
- o Mass media (online news story, magazine article, etc.)
- o Online word-of-mouth (Facebook, forums, blogs, etc.)
- o Word-of-mouth (friends, family, other travellers, etc.)
- o Reviews of Airbnb listings from previous guests

(23) How likely are you to...

	Very unlikely	Unlikely	Somewhat unlikely	Somewhat likely	Likely	Very likely
... recommend Airbnb to others?	◯	◯	◯	◯	◯	◯
... use Airbnb again in the next 12 months?	◯	◯	◯	◯	◯	◯
... use a hotel in the next 12 months?	◯	◯	◯	◯	◯	◯

(24) Have you ever been an Airbnb host?

- o Yes
- o No

(25) Take a moment to think about Airbnb. Think about the kind of person who typically uses Airbnb and imagine this tourist in your mind. Once you've done this, indicate your agreement or disagreement with the following statement:

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Airbnb is consistent with how I see myself	◯	◯	◯	◯	◯	◯

****

The following demographic questions are optional and will not be used to identify individual respondents.

(26) Your age. (Leave blank if you prefer not to answer.)
- 20 or under
- 21-30
- 31-40
- 41-50
- 51-60
- 61 or over

(27) Your gender. (Leave blank if you prefer not to answer.)
- Female
- Male
- Transgender

(28) Your highest level of completed education. (Leave blank if you prefer not to answer.)
- High school or less
- University / college
- Graduate / professional degree

(29) In comparison with others in your home country, how would you characterize your household's overall financial status? (Leave blank if you prefer not to answer.)
- Well below average
- Below average
- Just below average
- Just above average
- Above average
- Well above average

(30) Your country of residence. (Leave blank if you prefer not to answer.)
_____

The following personal information is optional and will only be used for contacting you if you win an Amazon gift card or would like a summary of the study's findings.

(31) Your email address. (Leave blank if wish to not be entered into the Amazon gift card draw or to receive a summary of the study's findings.) _____

(32) Would you like to be entered into the Amazon gift card draw?
- Yes
- No

(33) Would you like to receive a summary of the study's findings?
- Yes
- No

(34) Lastly, do you have any comments regarding this survey, or the study in general, that you wish to leave for the researcher?

_____

****

[Verifiable questions included in the MTurk survey]

- [Within Q14] I chose Airbnb due to - please answer 'disagree' to this item to demonstrate you are answering carefully
- [After Q22] Airbnb is headquartered in San Francisco. Please demonstrate your care in answering this survey by indicating below the city where Airbnb is headquartered.
    - Chicago
    - London
    - New York City
    - Paris
    - San Francisco
    - Tokyo

****

[Non-eligibility text]

Unfortunately, you are not eligible to complete this questionnaire. Nevertheless, thank you very much for your interest in this study.

****

[Thank you page]

Thank you very much for completing this questionnaire. Your participation is extremely valuable.

If you happen to know of anyone else who has stayed in an Airbnb during the past 12 months and would be interested in completing this survey, please feel free to forward them the following link: [survey link].

If you indicated that you would like to receive a summary of the findings, they will be sent to you in early 2016 at the email address you provided.

If you have any general comments or questions related to this study, please contact Daniel Guttentag [email address] or Dr. Stephen Smith [email address].

We would like to assure you that this study has been reviewed by, and received ethics clearance through a University of Waterloo Research Ethics Committee. If you have any concerns regarding your participation in this study, please contact Dr. Maureen Nummelin, the Director, Office of Research Ethics, at 1-519-888-4567, Ext. XXXXX or [email address].

Appendix D: Recruitment message for pretest

Dear [name],

As part of my PhD studies, I am conducting thesis research on why travellers choose Airbnb accommodation. I am writing to request that you complete my ten-minute online survey as part of a pretest that will assess the quality of the questionnaire.

Please answer the survey exactly as if you were completing it for the actual study, but note that your responses will not be included in the analyses. Rather, I am interested in your opinions about the survey itself.

I've attached a brief Feedback Form for you to answer after you have completed the survey. Please do not open this document until **after** you have finished the survey. I've also attached a copy of the survey, which you may wish to refer back to when answering the Feedback Form. You can find the survey at this link: [pretest survey link]

Once you have completed the Feedback Form, please return it to me by email.

Please be assured that this study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee. If you have any questions or comments feel free to contact me at [email address].

Thank you very much for your time and assistance,

Daniel Guttentag

Appendix E: Pretest feedback form

I greatly value your feedback. Please be completely honest in your responses, whether positive or negative. Thank you again for your assistance.

Were any of the questions confusing or unclear?

Were any of the questions bothersome or annoying in any way?

How did you feel about the overall length of the questionnaire?

Are there any questions or response options that were not included that you feel should be added?

One of the questions (Q16) involved rating Airbnb, Holiday Inn, and Marriott attributes using a star-rating system. Did you understand that not marking any stars would signify a non-response, as opposed to the lowest possible rating?

Do you have any other comments/suggestions regarding the questionnaire?