Journal of Tourism & Hospitality

Strangers in Spare Beds: Case Study of the International and Domestic Demand in Australia's Peer-To-Peer Accommodation Sector

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Abstract

This paper compares the socio demographic drivers and travel patterns of international and domestic tourists who chose peer-to-peer accommodation (P2PA) over traditional tourist accommodation. Using a nationwide survey on Australia, it was found that locational benefits may not be crucial for P2PA users as they are likely to use a travel vehicle and often are on a longer holiday. However, international tourists are likely to use P2PA in capital cities while domestic tourists use P2PA in regional areas. Females among international but not domestic visitors are likely P2PA users. While evidence on travel party composition and income is mixed for international and domestic visitors, generation X is however the likely group of P2PA users for both visitor types. By and large, P2PA users are not a homogenous group and this is an important marketing tool for both the traditional and P2PA sector.

Introduction

The collaborative economy has emerged as a new socioeconomic system that allows for shared creation, production, distribution, and consumption of goods and resources among individuals [1]. It thrives by the online management of hosting and matching suppliers to people in need for various products and services. In 2014, the collaborative economy was valued globally at US$15billion with a projected value of US$335 billion by 2025 [2]. For tourism in particular, peer-to-peer accommodation (P2PA) which is an example of the collaborative economy is of interest given that this form of accommodation is a direct threat to traditional tourism accommodation industries such as the hotels, motels, hostels, backpackers, and bed and breakfast staying arrangements.

Of interest is the fact that one of the most prominent P2PA sites, Airbnb, has recently joined the UN's World Tourism Organisation in May 2016. Chris Lehane, Head of Global Policy and Public Affairs at Airbnbexplainsthat, "Airbnb is helping to grow and diversify tourism …. it is a sustainable form of tourism that provides transformative travel by allowing people to live like a local."[1] The proliferation in the form of both supply and demand for P2PA has led to some research in this area albeit at a slow pace [3,4]. This paper provides an overview of both international and domestic demand for P2PA as previous demand studies such as Liang et al. [5], Mohlmann [6], Pew Research Centre [7] and Tussyadiah [8] have not differentiated between these two groups of people. Here, this distinction is made using Australia as a case study.

Using recent nationwide 2015 data from Tourism Research Australia, this paper sheds light on the following questions:

1. Which countries do overseas demand for P2PA in Australia come from? Which states in Australia is overseas and local demand for P2PA prevalent? Is there a difference in P2PA use in regional areas and capital cities?

2. What socio demographics and other factors influence the choice of P2PA over traditional tourist accommodation? How do they differ between international and domestic tourists?

3. The rest of this paper is organised as follows. The next section

provides a context for the discussion on Australia followed by data description and model used. Section four discusses the results obtained and the policy implications while the last section concludes.

The Peer-to-Peer Accommodation Sector in Australia

The P2PA sector is important to Australia for several reasons. First, data from Tourism Research Australia [9] show that the growth of the traditional accommodation sector has been a major contributor to tourism performance, leading the way at 7% growth to A$7 billion. But P2PA platforms in Australia are said to have taken some market share from this traditional sector and this is cause for concern [10]. According to Deloitte Access Economics, in 2015, more than half of Australian consumers have participated in the sharing economy and more than 60% planned to do so in the near future. Concern about the sharing economy, particularly, the ride-hailing Uber, has caught the attention of Australia's Federal government due to huge protests and strong lobbying by the taxi companies but the issue of P2PA has however been left to the state governments to grapple over. This is similar to other countries where concerns about P2PA have been uneven among the various states or cities. For example, Barcelona, Berlin, Vancouver, London, and in the USA, New York, Arizona, and Los Angeles have been the major cities most affected by P2PA, and have been in the forefront of trying to curb or regulate P2PA. More recently, there was discussion and debate in the EU as to whether there should be uniform rules and regulations for P2PA in its member countries.

In Australia, Airbnb is the biggest global platform, and the Airbnb's chief marketing officer notes that more Australians are using Airbnb per capita than any other market, while the cities of Sydney and Melbourne are ranked fifth and sixth on the global list of most

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[1]See https://www.Airbnbaction.com/Airbnb-joins-the-world-tourism-organization/

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penetrated markets of users [9]. But an independent analysis by Smith Travel Research[2] showed that the Australian hotel market has not been directly affected by Airbnb's presence, and according to Griswold [11], neither has the US market. At the same time, reports such as the Productivity Commission [12] and the Tourism and Transport Forum Australia [13] note that, on average, across Australia, the tourism industry is facing some capacity constraints due to lack of visitor accommodation supply. Deloitte Access Economics in their Hotel Market Outlook 2015 explain that the average growth supply of additional rooms in Australia's traditional accommodation sector is less than half the pace of projected demand, further increasing the existing visitor accommodation shortfall. Hence it appears that P2PA may be a good short-term solution at the very least.

Data

Data for analysis was obtained from a nationwide survey on Australian tourists from the 2015 National Visitor Survey and International Visitor Survey conducted by the Australian government's tourism bureau of Tourism Research Australia. These are the most comprehensive data available at the national level in Australia. The National Visitor Survey samples approximately 120,000 Australian residents aged 15 years and over, while the International Visitor Survey samples 40,000 international travellers aged 15 years and over [9].[3]The survey was conducted throughout the year and seasonality is controlled for in the analysis. The survey question on P2PA use was based on whether the stay was in a range of P2PA online commercial platforms provided in the questionnaire while non-P2PA stay referred to a standard hotel, motel or motor inn, a non-daily serviced rented house/apartment/unit, and a guest house/bed and breakfast which are traditional tourist accommodation that are substitutes to P2PA.

The surveys provided a useable sample size of 1096 international and 896 domestic visitors who used P2PA for leisure. Figure 1 shows the source countries of the international visitors and it can be seen that those who came from the UK, Singapore, and the US made up the highest proportions followed by Germany and France. Although China and New Zealand were the top tourist source markets for Australia, they were not major users of P2PA. As to the states and territories which experienced the highest use of P2PA, both domestic and international visitors were found to use them most in New South Wales, Victoria and Queensland which were also the most visited tourist states amongst international and domestic visitors (Figures 1 and 2).

Figure 2 however shows that the majority of domestic tourists (64.42%) used P2PA in regional areas while 70.73% of P2PA use by international visitors is in the capital states. Regional areas in Australia excludes all capital cities and the Gold Coast in Queensland in line with the definition from Tourism Research Australia [9]. One reason for the regional-capital city divide could be that most international visitors may only get to visit the main areas located in the capital states and not have the time to venture out to the regional areas. Domestic tourists on the other hand can be expected to take trips to regional areas rather than the capital states to want to get away, and even if they went to the capital cities, they may have the option of staying with family and friends there. Table 1 shows the socio demographic data and some
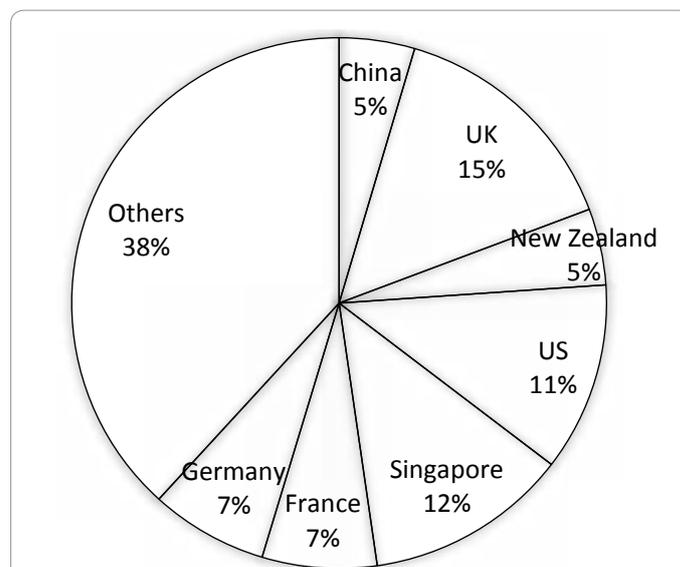
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[2]See http://www.travelandtourworld.com/news/article/Airbnbs-presence-in-sydney-strengthens/

[3]The domestic respondents were interviewed in their homes using random digit dialing and a Computer Assisted Telephone Interviewing system. With international visitors, the survey was conducted by Computer Assisted Personal Interviewing in the departure lounges of eight major international airports (Tourism Research Australia 2015).

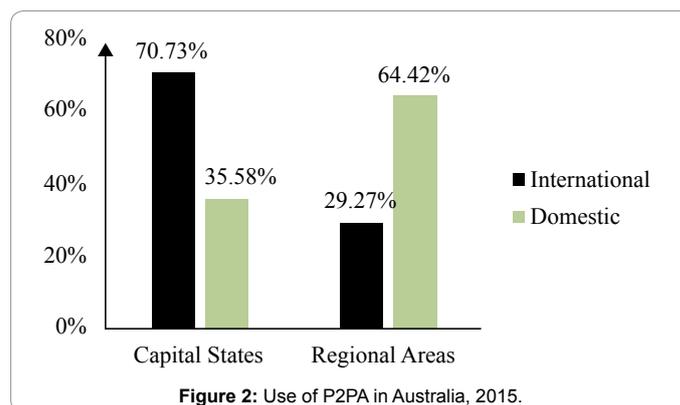**Figure 1:** International P2PA Users in Australia, 2015.

Figure 2: Use of P2PA in Australia, 2015.

other information on the two groups of P2PA users. In terms of age, one in three international visitors using P2PA are between 25 and 34 years while that of domestic visitors are older (Table 1).

Model

To examine the factors that influence the demand for P2PA, this group of users and those who chose the traditional tourism accommodation types are used in the sample. This enables the following probit regression model [14] to be estimated where,

$$y^* = \alpha + \beta_i X_i + \varepsilon. \tag{1}$$

Where the dependent variable y^* is the unobserved latent index which takes a value of one for those who stayed in P2PA and a value of zero for those who stayed in traditional accommodation alternatives. Equation (1) allows one to understand what factors (represented by the Xs) drive the probability of the stay in P2PA. These factors go beyond the socio demographics of the respondents to include factors such as composition of travel party (who one travels with), length of trip given by number of overnight stays, use of vehicle for holiday, motivations for travel, capital city/regional area stay as seen from the information in Table 1. The estimations were undertaken separately for the sample of domestic and international tourists using the STATA econometric software.

Sample size	International visitors 1096	Domestic visitors 896
Stayed in capital cities for P2PA	33.56	63.06
Stayed in regional areas for P2PA	66.44	36.94
Females	56.11	54.39
Males	43.89	45.61
Age 15-19	3.92	3.24
Age 20-24	19.16	7.03
Age 25-29	29.29	9.38
Age 30-34	15.51	10.71
Age 35-39	7.12	10.60
Age 40-44	3.56	11.05
Age 45-49	3.47	9.04
Age 50-54	3.74	8.59
Age 55-59	5.29	10.27
Age 60-64	4.20	8.48
Age 65-69	3.56	6.25
Age 70-74	0.91	4.02
Age 75 and above	0.27	1.34
Work Status		
Working full time	63.69	Not available
Working part-time	5.57	
Retired/pension	7.48	
Others: Unemployed/Home duties/ Studying	23.26	
Annual Household Income		
Less than A$25,000	Not available	2.27
A$25,000-A$39,999		4.95
A$40,000-A$54,999		4.55
A$50,000-A$69,999		9.61
A$70,000-A$ 84,999		9.36
A$85,000-A$99,999		8.16
A$100,000-A$129,999		16.18
A$130,000-A$174,999		17.25
Above A$175,000		27.67
Travel party		
Unaccompanied traveller	39.51	3.68
Adult couples	28.74	29.69
Family group	13.05	28.68
Friends and relatives	18.43	37.39
Business	0.27	0.33
First visit to Australia	55.93	Not applicable
Those who drove a vehicle during travel	76.73	78.68
	Mean (standard deviation)	
Number of overnight stays	45.02 (72.36)	4.43 (4.12)

Table 1: Survey statistics on P2PA users in 2015 (percentage of sample).

	International visitors	Domestic visitors
Males	-0.071 (0.035)**	-0.043 (0.046)
Annual Household Income	Not available	0.035 (0.009)***
Work Status (Others is the base)		
Working full time	0.004 (0.043)	Not available
Working part-time	-0.091 (0.075)	
Retired/pension	-0.011(0.087)	
Age cohorts (Generation X is the base)		
Generation Y	-0.181 (0.045)***	-0.203(0.072)***
Baby boomers	-0.342 (0.047)***	-0.275 (0.046)***
Mature	-0.528 (0.093)***	-0.043 (0.84)***
Travel Party		
Unaccompanied traveller	-0.102 (0.038)***	-0.658 (0.082)***
Adult couple	0.057 (0.043)	-0.291 (0.042)***
First visit to Australia	0.035 (0.033)	Not applicable
Those who drove a vehicle	0.421 (0.052)***	0.148 (0.044)***
Length of stay	0.007 (0.0003)***	0.014 (0.004)***
Top 5 tourism source countries	0.092 (0.046)*	Not applicable
Travel motives		
Coast and Beach	-0.095 (0.081)	Not available
Contemporary lifestyle, food and wine	0.158 (0.083)*	Not available
Natural environment and wildlife	-0.045 (0.769)	Not available
Discovering Australia's people and places	0.062 (0.082)	Not available
Spending time with family and friends	0.221 (0.074)**	0.113 (0.068)*
Holidays	Not applicable	0.379 (0.052)***
Quarters in the year (April-June is the base)		
Jan-Mar	0.069 (0.051)	0.147 (0.053)
July-Sept	0.008 (0.053)	-0.055 (0.054)
Oct-Dec	0.207 (0.051)***	-0.021 (0.054)
Constant	-2.072 (0.151)***	-1.322 (0.103)***
Likelihood ratio test statistic	291.29	350.67
Percent correctly predicted	85.28	81.92
Pseudo R^2	0.42	0.39

Notes: Standard errors are in parenthesis.

***,**,*Significance at 1%, 5%, and 10% level respectively.

Table 2: Probit regression results on P2PA use.

Results and Discussion

All estimations (Table 2) showed an overall significance of the model using the Likelihood ratio test and had a pseudo R^2 above 0.35. Instead of presenting the coefficient estimates, results are summarised as hypotheses related to selected factors for brevity but detail results are available upon request. It can be seen in Table 2 that there was no particular gender preference towards P2PA among domestic visitors but with international visitors, females were more likely than males to opt for this accommodation type in line with Olsen's [15] suggestion that collaborative consumption is considered feminine as it happens in the realm of domestic/home experience (Table 2).

While higher income earners among domestic visitors were more likely to opt for P2PA, this was not the case with international tourists and the available data on international tourists was unable to discern any preference among those of different work status in terms of why P2PA is chosen. With regards to age, users were segmented by the following generational age cohorts [16] - generation Y is less than 25 years old; generation X is between 25 and 44 years; baby boomers comprise 45 to 64 year olds; and the mature generation is 65 years and above. It was found that generation X are the likely users of P2PA, regardless of whether they are international or domestic visitors. Olsen [15] explains that generation X may feel stretched, being in the thick of the giving years and with obligations to kids and mortgages, find P2PA stay caters to their needs.

Evidence also shows that international visitors who travelled unaccompanied were not likely to use P2PA while domestic visitors whether travelling alone or as a couple also had a similar inclination. While it is reasonable to assume that travelling alone may not be conducive and seen to be risky to stay with total strangers under the P2PA arrangement, the negative coefficient on Australian adult couples may be somewhat surprising. But when the variable of 'family group' and 'friends and relatives' was tested, the results were significant for domestic but not for international users. This could however reflect the possibility that group or travel size is more conducive to wanting more space that is offered in a P2PA environment.

Whether international visitors are first or repeat tourists is also not an influential factor on the choice of accommodation. But when international visitors used or rented a vehicle to drive around, they were likely to stay in shared accommodation and so were the domestic travellers. Having one's own transport provides travellers with the flexibility of staying where they want and not be constrained to having easy access to public transport. Results also show that the longer the travel period, the more likely both international and domestic visitors will go for P2PA.

Travel motives were included to test Minifie and Trent's [10] concern that most people travelling to Australian cities want to stay near the beach or in the inner city where most Airbnb listings are. In particular, Airbnb Country Manager in Australia was reported to have said that, the most popular Airbnb properties in Melbourne and Victoria are those favoured by sports fans, foodies and beach lovers. This is supported to some extent with the results in Table 2 which show that international visitors' motive related to experiencing a contemporary lifestyle and enjoying the food and wine in Australia are likely to opt for P2PA. Domestic visitors however used P2PA mostly when they were on holiday rather than when visiting friends and relatives.

Several studies such as Cho [17] and Jonsson and Devonish [18] have noted the role of nationality in the preferences and type of travel they engage in. Thus the demand for P2PA from the top tourism source markets reflecting the different nationalities of international visitors is of interest. Tourism Research Australia [9] notes that New Zealand, China, US, UK, and Singapore provide the highest visitor numbers over the last few years. Results from Table 2 show that those from these markets are likely to choose P2PA and this has implications for the traditional tourist accommodation sector.

Lastly, hotel prices are known to be higher and vacancies low during peak seasons [19,20]. In particular, Boffa and Succurro [21] show that internet search is more valuable for travellers in the peak season to get good deals. Results here show that for international travellers, the use of P2PA is highly likely during October and December which coincides with the summer season in Australia as well as the holiday (school) and festive season in most countries. With the domestic travellers however, there is no distinct quarter or months during the year that is particularly likely that P2PA will be used [22,23].

Conclusions

This study highlights the importance of separately considering P2PA users who are domestic and international visitors as preferences are different. The results also shed some light on the different sides of the same coin – one on whom the traditional accommodation sector should try and sway away from using P2PA and the other is for the P2PA suppliers and sites to reach out more effectively to these specific segments of people.

It was found that among international tourists, females and those with an interest in the contemporary lifestyle, food and wine are drawn to P2PA. Among domestic visitors, those with a higher income, travelling with children, friends and relatives, are likely P2PA users. For both domestic and international visitors, those who drove a vehicle and stayed longer chose P2PA over traditional accommodation types. The implication of the finding on Generation X is that, this age cohort being the highest proportion of the 2015 Australian population at 28.3% can be expected to fuel local P2PA demand while international demand for P2PA will grow based on the large number of visitors from the five major tourism host countries. Thus empirical evidence suggests that there will be an increase in both the domestic and international demand for P2PA.

It must however be acknowledged that this study is exploratory in nature and did not identify the reasons for, or the barriers to P2PA use in combination with socio demographic characteristics. Such an integrated approach would improve the model analysis but this is beyond the scope of the paper as the data used in this study was secondary in nature and was not specially designed to focus on P2PA.

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