A Study of Airbnb as a Potential Competitor of the Hotel Industry

Quynh Nguyen
University of Nevada, Las Vegas

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A STUDY OF AIRBNB AS A POTENTIAL COMPETITOR OF THE HOTEL INDUSTRY

by

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A professional paper submitted in partial fulfillment of the requirements for the

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William F. Harrah College of Hotel Administration

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CHAPTER 1
INTRODUCTION

Rationale

The study centralizes around Airbnb, a peer-to-peer short-term rental service that allows individuals to list and book accommodations through a website and mobile application ("About Us", 2014). Founded in 2008 and headquartered in San Francisco, the company enables the average homeowner to rent out his or her unused space for a fee (Llewellyn, 2014). The startup attracted a great amount of attention after its seventh round of funding in April 2014, when it was valued at $10 billion (Spector, Macmillian, & Rusli, 2014). By 2014, Airbnb has 4 million users and over 300,000 listings in 190 countries ("Airbnb is Poised", 2014).

As the company continues to grow, hoteliers are starting to pay attention to the implication of Airbnb’s success to the hospitality industry. To explain the impact caused by Airbnb, Cindy Estis Green, co-founder and CEO of the hotel industry consultancy Kalibri Labs, stated: “If New York City has 100,000 hotel rooms and Airbnb suddenly adds 35,000, you’re diluting the market by more than a third” (Llewellyn, 2014). Christie Hicks, senior vice president of Starwood Sales Organization commented: “They are disrupting our industry in a way, frankly, none of us would have seen coming five years ago, and there will be someone after them and someone after them” (Sullivan, 2014). Hotel lobbyists have reportedly worked with law reinforcement to crack down on the legality of the business in many of its key markets. In New York, hotel operators successfully pressured the city into raising the penalty for homeowners renting out their space as hotel rooms from $800 to $25,000 (Karmin, 2013). In San Francisco, lobbyists pushed for a law requiring Airbnb to collect a 14 percent hotel taxes from its guests, and demanded the company to pay the city back $25 million in owed taxes (Said, 2014).
Likewise, influenced by lobbying forces, the city of Portland recently required Airbnb hosts to apply for a $180 permit and submit to safety inspections (Law, 2014).

The so-called rivalry between Airbnb and the hotel industry is frequently covered in TV news and magazines. Headliners such as “Airbnb disrupts hotel economy, sends regulators scrambling” (Harpaz, 2014), “How the hotel industry got blindsided … and yours could be next” (Choudary, 2014), and “Airbnb takes a bite out of the hotel market” (Hartnett, 2014) portray Airbnb as a serious threat to hotel operators. Yet, the topic receives very little attention from hospitality researchers (Guttentag, 2013). Boston University conducted one of the first empirical research to assess Airbnb as a competitor of the hotel industry by measuring the correlation between the growth of Airbnb listings and hotel revenue within the state of Texas (Zervas, Proserpio, & Byers, 2014). Consulting firm HR&A Advisors performed an economic and fiscal impact analysis in key Airbnb markets and drew conclusions about the relationship between hotel occupancy and the exponential growth of Airbnb (“Economic impacts of Airbnb”, 2014). The study proposed in this paper will contribute to the limited pool of empirical research about Airbnb as a potential competitor of the hotel industry, and will be one of the first to tackle the problem with a qualitative approach.

**Theoretical Framework**

The study examines the problem from a strategic marketing standpoint. The framework behind this study is the broad-based competitor identification tool developed by Margaret Peteraf and Mark Bergen. According to the researchers, competitors can be identified and classified through two indicators:

- Market needs correspondence: “a dichotomous indicator that signifies whether or not a given firm serves the same customer needs as the focal firm”.


• Capability equivalence: “the extent to which a given firm has resource and capability bundles comparable to those of the focal firm, in terms of their ability to satisfy similar customer needs” (Peteraf & Bergen, Scanning Dynamic Competitive Landscapes: A Market-Based and Resource-Based Framework, 2003).

The research uses these indicators to determine whether Airbnb is a competitor to the hotel industry and if it is, how well it competes against hotels.

**Conceptual Framework**

The first area of the literature review examines existing academic and non-academic publications about the research question, and specifically focuses on the aforementioned studies performed by Boston University and HR&A Advisors.

The second key area of literature for study looks at the importance of competitor analysis in marketing strategy, and closely observes the framework proposed by Margaret Peteraf and Mark Bergen, as well as previous applications of the framework in other industries. This section rationalizes the selection of the aforementioned theoretical framework.

The third part of the literature review examines different groups of customers and their specific lodging needs. These elements establish the foundation of the research design.

**Statement of the Problem**

The purpose of the study is to examine Airbnb as a possible competitor of the hotel industry using Peteraf and Bergen’s broad-based competitor identification tool. Unlike existing empirical research on the subject, the study takes a qualitative approach to answer the research question. The results of the study assist hotel operators in determining the competitiveness of Airbnb and the need for a business response to the service.

**Research Design**

3
The research is in the form of a survey designed for customers familiar with both Airbnb and hotel products. The research segments customers based on their price range (budget, economy, mid-price, upscale, luxury) and their purpose of travel (business or leisure). Questions are designed to reflect the theoretical framework through investigating customer needs, Airbnb’s market needs correspondence, and its capability equivalence. The data analysis includes utilizing Peteraf and Bergen’s framework for competitor identification to determine Airbnb’s level of competitiveness.

**Limitations of the Study**

The study suggested by this paper is limited due to its dependence on the validity of the findings drawn from the reviewed literature. The study is largely based on the relevance of Peteraf and Bergen’s competitor analysis framework. The survey is also designed based on research suggesting that price range and purpose of travel have an impact on customer needs.

The study only targets existing Airbnb customers because it seeks a group of respondents that are familiar with both Airbnb and hotel services. This could potentially create some biases toward Airbnb, which is why the study involves questions that determine the level of brand loyalty of the respondent toward Airbnb.

Since the survey involves open-ended questions, data analysis is complex and might implicate researcher bias.

**Significance of the Study**

The results of the study are significant because they provide hotel operators with the ability to assess Airbnb as a potential competitor based on the specific group of clientele that they serve. The results of the study also categorize the competitiveness of Airbnb and provide a foundation for business responses.
Definition of Terms

Sharing economy: An economy in which “broad segments of the population can collaboratively make use of under-utilized inventory via fee-based sharing” (Zervas, Proserpio, & Byers, 2014), also termed “collaborative consumption” (Stephany, 2014).

Summary

Although the rivalry between Airbnb and the hotel industry is heavily featured in the media, there is a limited number of empirical research that measures the competitiveness of the service against that provided by hotels. The study proposed in this paper will address that research question through a survey of customers who have used both services. The following literature review will take into account an array of information from different sources to set the foundation for the research design described in Chapter 3.
CHAPTER 2

LITERATURE REVIEW

Introduction

The purpose of the literature review is to establish the need for the study and the foundation of the methodology described in Chapter 3. The chapter is organized into five different sections.

The first section outlines the background of the study: Airbnb’s company history, how it works, its product, and its clientele. Over the past few years, Airbnb has grown at an exponential rate. The company’s rapid expansion is an important variable in empirical research explored in the following section.

The second section examines Airbnb as a potential threat to the hotel industry using literature from non-academic as well as academic publications. This section discusses in great details the studies by Boston University and HR&A Advisors. These studies are vital as they are among the few empirical research done on the subject, and set the foundation for the research design described in Chapter 3.

The third section examines Airbnb as a potential threat to the hotel industry using literature from non-academic as well as academic publications. This section discusses in great details the studies by Boston University and HR&A Advisors. These studies are vital as they are among the few empirical research done on the subject, and set the foundation for the research design described in Chapter 3.

The third section examines the importance of competitor identification and analysis in marketing strategy. The third section also describes the competitor identification framework developed by Margaret Peteraf and Mark Bergen, and cites examples of previous applications of the framework. These topics are important because they rationalize the theoretical framework of the study.

The fourth section reviews the different groups of customers and their varying lodging needs, which sets the foundation for the research design.

About Airbnb
Company History

In 2007, college friends Joe Gebbia and Brian Chesky were sharing a small apartment in San Francisco. Both unemployed and struggling to pay rent, they noticed an opportunity to make extra cash during an industrial design conference, when every hotel in the city was sold out. They put three air mattresses in their living room and rented them to conference attendees for $80 a night. Seeing an opportunity for a lucrative business, Joe Gebbia and Brian Chesky recruited programmer Nathan Blecharczyk to design a website that connects locals with empty space in their home and travelers needing a place to stay. Airbnb was born (Salter, 2012).

In 2008, Gebbia, Chesky, and Blecharczyk applied for funding from seed accelerator Y-Combinator and raised the first $20,000. In April 2009, they received a seed investment of $600,000 (Austin, 2011). By 2010, they booked 700,000 nights, acquired $7.2 million in their Series A Round, and launched an iPhone app (Shontell, 2010). The company established its first international office in Germany in May 2011 (Bradshaw, 2011) and raised an additional $112 million a few months later (Austin, 2011). In August 2014, the company announced the settlement of a new funding round at $475 million, putting the company’s valuation at $10 billion (Austin, 2014). Airbnb currently has over 800,000 listings over 190 different countries and over 20 million registered users (“About Us”, 2014).

Airbnb’s Growth Rate

The company’s exponential growth rate is expressed through funding growth, growth in number of users, and growth in number of listings. As shown in Figure 1, the company has gone through four rounds of funding since the initial seed funding rounds in 2009. The funding amount grew 61.5 times from $7.2 million in Series A Round in 2010 to $450 million in Series D Round in 2014. Funding growth signifies a growth in the company’s valuation.
Airbnb claims to have over 20 million users (“About Us”, 2014). The growth rate is quite impressive, as described by founder Brian Chesky: “It took Airbnb nearly four years to get its first million guests. Now one million guests stay on Airbnb every month” (Friedman, 2014). Figure 2 shows the increase in number of registered users between 2008 and 2013.
While Airbnb continuously adds new users every month, analytics firm RJMetrics estimated that only 14 percent of registered users are currently active (Moore, 2012). Perhaps a number more indicative of the company’s business volume is that of listings. Growth in number of listings is an important factor in Boston University’s empirical research about Airbnb’s effect on hotel revenue in Texas (Zervas, Proserpio, & Byers, 2014). Figure 3 shows that the number of listings has grown tenfold in the past 4 years, from 50,000 in 2011 to 550,000 in 2014.

How Airbnb Works

Airbnb is a marketplace that connects travelers (hereafter referred to as “guests”) with locals who have a shareable space (hereafter referred to as “hosts”) (“What Is Airbnb”, 2014).

Hosts can list their space on Airbnb at no charge. They are required to provide a description of the space, pricing, availability, and photos. Guests search for available properties using check in/out dates and number of guests. They can also browse by price range ($10 to over $1000) and size of the property (number of bedrooms, bathrooms, and beds). Other criteria include geographical neighborhoods, amenities (wireless Internet, TV, kitchen, free parking,
pets, etc.), host language, and room types. Once a guest finds a place they would like to book, they can contact the host. Hosts have the option to accept or decline these requests (“How Do I Host”, 2014).

Guests make a full payment directly to Airbnb at the time of booking. The amount is released to hosts 24 hours after the stay (“How Does the Airbnb Payment”, 2014). Airbnb charges both hosts and guests but only when a booking is made. Host service fees are 3 percent of the reservation subtotal (“What Are Host Service Fees”, 2014). Guest service fees are 6 to 12 percent and declines as the subtotal increases (“What Are Guest Service Fees”, 2014).

**Recent Changes**

Airbnb has been repeatedly scrutinized for exposing hosts to property loss. The company does not perform background checks on users on a consistent basis and suggests that users rely on reviews to decide who to host or stay with on Airbnb (“Does Airbnb screen users”, 2014). Countless horror stories have appeared on the news: a New Yorker found condoms and baby wipes left behind by an escort who used her place as a temporary brothel (Sauchelli & Golding, 2014), another host had his apartment advertised on the Internet as the location of a massive orgy (Rosario, Sullivan, & Tacopino, 2014), an Oakland man had his birth certificate stolen and his apartment trashed by a guest who was a meth addict (Hobica, 2014). Airbnb has since implemented host protection policies that cover up to $1,000,000 in property damages caused by guests (“Airbnb's $1,000,000 Host Guarantee”, 2014).

Airbnb advises hosts to familiarize themselves with mandated occupancy taxes and collect them when appropriate (“How Do Taxes Work”, 2014). However, in most cities that the company operates in, little effort has been made to ensure that those taxes are collected and turned in to the government. Facing tax evasion backlash, the company recently started
collecting taxes on behalf of hosts in certain key cities: 11.5 percent in Portland starting July 1st of this year (Templeton, 2014), 14 percent in San Francisco starting October 1st (Said, 2014). The collection of a tourist tax in Chicago is under discussion (Hantman, 2014).

**Airbnb Listings**

When booking through Airbnb, guests are offered the following options:

- **Entire place:** guests rent out the whole space
- **Private room:** guests have their private room but share the common area
- **Shared room:** guests share a room, or the room is a common area ("What Should I Choose", 2014).

More than half of Airbnb's properties are private rooms, 40 percent are entire places, and 7 percent are shared rooms (Sachs, 2009).

Airbnb has many different property types. The following numbers were obtained by performing a search of listings by property type in five sample markets. Airbnb only shows the first 1,000 listings, hence any property type that produced over 1,000 results was documented as "1,000".
### Table 1

**Sample Number of Airbnb Listings by Property Type**

<table>
<thead>
<tr>
<th></th>
<th>San Francisco</th>
<th>New York</th>
<th>Paris</th>
<th>Amsterdam</th>
<th>Berlin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apartment</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>House</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
</tr>
<tr>
<td>Bed &amp; Breakfast</td>
<td>120</td>
<td>200</td>
<td>418</td>
<td>698</td>
<td>189</td>
</tr>
<tr>
<td>Boat</td>
<td>28</td>
<td>17</td>
<td>68</td>
<td>332</td>
<td>9</td>
</tr>
<tr>
<td>Cabin</td>
<td>56</td>
<td>10</td>
<td>4</td>
<td>125</td>
<td>3</td>
</tr>
<tr>
<td>Camper/RV</td>
<td>11</td>
<td>4</td>
<td>1</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Car</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Castle</td>
<td>1</td>
<td>1</td>
<td>7</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Cave</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Chalet</td>
<td>5</td>
<td>4</td>
<td>5</td>
<td>36</td>
<td>0</td>
</tr>
<tr>
<td>Dorm</td>
<td>33</td>
<td>53</td>
<td>27</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td>Earth House</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hut</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Igloo</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Island</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Lighthouse</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Loft</td>
<td>152</td>
<td>603</td>
<td>474</td>
<td>80</td>
<td>119</td>
</tr>
<tr>
<td>Parking space</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Plane</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tent</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Tipi</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Train</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Treehouse</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Villa</td>
<td>9</td>
<td>8</td>
<td>30</td>
<td>64</td>
<td>14</td>
</tr>
<tr>
<td>Yurt</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>65</td>
<td>58</td>
<td>48</td>
<td>48</td>
<td>38</td>
</tr>
</tbody>
</table>

In these five sample markets, the most popular property types on Airbnb are: apartment, house, loft, and bed & breakfast. Apartments and houses dominate all markets, with over 1000 listings in every city except for Berlin. Novelty options such as castles, boats, and villas are available but quite rare.

Airbnb is generally perceived to be less expensive than hotel rooms. A study showed that the cost savings of renting a private room on Airbnb versus hotels is 49.4 percent on average.
The cost savings of renting an entire place on Airbnb versus hotels is 21.2 percent. While the price of an entire apartment might, expectedly, exceeds the price of an average hotel room, renting a private room on Airbnb is always cheaper than renting a hotel room, according to the study (Bea, 2013). The conclusion drawn from this study might be problematic, as it did not take into account the different market segments within the hotel industry. It is also difficult to compare an entire place on Airbnb against hotel rooms, as they are not quite the same product.

A more detailed price comparison was performed by Boston University and shown here in Figure 4. The graph shows a comparison of average daily rate (ADR) by price segment (left side) versus average Airbnb listing price by type (right side) in the state of Texas in 2012. On the left side, light bars represent all parts of Texas, and dark bars represent the top 5 cities. On the right side, light bars represent all listings that have been booked at least once, and dark bars represent listings that have been booked more than 5 times. (Zervas, Proserpio, & Byers, 2014).

In terms of pricing, Airbnb shared rooms and budget hotel rooms cost roughly the same. Private rooms cost around the same as midprice hotel rooms.

**Airbnb Users**

While there is limited research on Airbnb users, a few studies have been conducted about sharing economy users as a whole. A recent study surveyed 90,112 people in the US, Canada, and the UK about their participation in the sharing economy. The report identified three types of customers in the collaborative economy:

Non-sharers: People who don’t currently engage in the sharing economy. 60 percent of the US and Canadian population, and 48 percent of the UK population fall in this category.

Re-sharers: People who use “well-established services like eBay and Craigslist”. 16 percent of US and Canadian population, and 29 percent of the UK population are re-sharers.

Neo-sharers: People who are “already using emergent sharing services” like Etsy, TaskRabbit, Uber, Airbnb, Kickstarter. 23 percent of the population in the US and the UK and 25 percent in Canada fall in this category.

Re-sharers and neo-sharers make up roughly 40 percent of the population. The average neo-sharer is young (48 percent are 18-34 years old). However, they exhibit lifestyle choices (intention to get married, having kids, owning a home) similar to the average population, signifying that they are “very much like the population as a whole”. Affluent people are more likely to be neo-sharers: While 25 percent of the general population is neo-sharers, the percentage is higher among individuals making over $100,000/year (35 percent for Americans, 32 percent for Canadians, 35 percent for Britons). Sharing is expectedly most prevalent among the top 10 urban cities in the United States than in other parts of the country.
Sharers named these top 3 factors as the reason why they participate in the sharing economy: convenience and price, the product or service itself, and word of mouth. Word of mouth is more vital than traditional marketing for sharing services: 47 percent of respondents stated that they found a sharing service because someone told them about it. Once a nero-sharer has used a sharing service, they are very likely to try another one in the next 12 months (Owyang, Samuel, & Grenville, 2014).

Another interesting area of literature for study is analytics firm RJMetrics’ analysis of a random sample of 60,000 profiles of Airbnb users. At the time of the study (2012), Airbnb had roughly 2.1 million users. The study used review as an indicator of activity, assuming that “the number of reviews is a good proxy for the number of stays”. The study found that only about 14 percent of users have been reviewed as guests, and 2.3 percent of users have been reviewed as hosts. 5 percent of users have active listings, but only 2 percent of those have received reviews from guests. This means that the majority of listings have not been booked. However, the tendency of repeat usage is quite high. Specifically, 22 percent of users who have booked one stay came back for a second stay, and over 50 percent of users who have booked five stays returns to the site for subsequent accommodation needs (Moore, 2012).

**Airbnb as a Potential Threat to the Hotel Industry**

The topic of Airbnb as a possible threat to hotels has been frequently featured on television, in newspapers, magazines, and trade journals. Industry experts have conflicting arguments about whether the company should be considered a competitor of the hotel industry.

On one hand, many publications have claimed that Airbnb has a negative impact on hotels. *Lodging Magazine* published two separate articles just within the past six months arguing as such, citing testimonials from experts such as Kate Henriksen (Senior Vice President of
portfolio management company RLJ Lodging Trust) and Christie Hicks (Senior Vice President of Starwood Sales Organization) (Llewellyn, 2014; Sullivan, 2014). The Professional Convention Management Association referred to Airbnb as a “serious threat to the hotel industry” after the company secured an important sponsorship deal with the New York City Marathon earlier this year (McMillin, 2014). Meetings & Convention Magazine stated that alternative lodging services such as Airbnb are a “game-changer for meetings” and responsible for unfilled hotel rooms during large conferences with record attendance (Shapiro, 2014).

These arguments often involve a discussion of the unfair advantage created by the legal implications of the service. Unlike traditional hotels, who have to comply with existing regulations such as local fire, safety codes, ADA requirements, Airbnb hosts are believed to be able to offer accommodations at lower prices because they don’t provide the same security and safety measures to their guests (Llewellyn, 2014). Hotel lobbyists, alongside affordable housing advocates, constantly push for a crackdown on the company’s regulatory shortfalls: illegal hotel operations, occupancy tax evasion, safety and fire code violations, lack of liability insurance, among other things (Edwards, 2013). As Kristin Campbell, executive vice president and general counsel for Hilton Worldwide, said “if someone is going to play in this space, they need to participate on the same playing field as the rest of the players in the industry” (Sullivan, 2014).

The opposing argument that Airbnb is irrelevant to the hotel industry also exists and is mostly supported by the high-end market. Hyatt CEO Mark Hoplamazian stated in a May 2014 interview with Yahoo! Finance: “There isn’t a need for a direct business response to Airbnb […] because it is fundamentally a different product than […] branded hotels” (Santoli, 2014). Daniel Metz, Digital Marketing & Communications Manager at the Professional Convention Management Association, commented: “Airbnb seems poised to attract adventurous leisure
travelers who don’t care about traditional perks such as in-room dining options or the hotel’s fitness center. These aren’t business travelers with expense accounts” (Metz, 2014). Top executives at Marriott, Four Seasons, and Hilton chains have expressed similar opinions, and a Vice President at the Ritz-Carlton even stated that she had not heard of Airbnb (“Airbnb versus hotels”, 2014).

**Empirical Research**

Boston University is among one of the first to perform an empirical research on the subject. Their study explored the relationship between the number of Airbnb listings and hotel revenue within the state of Texas. Data related to hotel revenues, number of hotel rooms, number of Airbnb listings, inflation rate, unemployment rate, population, and number of employees in the hospitality industry were collected for the period of time between 2003 and 2013. The study found that once all variables are incorporated into the model, a 1 percent increase in Airbnb listings coincides with a 0.05 percent decrease in hotel revenue. The study then employed business hotels and luxury hotels as additional control groups, and found that, expectedly, lower-end hotels are significantly more impacted by Airbnb than higher-end hotels. For instance, if the number of Airbnb listings doubled, hotel revenues would decrease by 2.1 percent in budget hotels, 2.6 percent in economy hotels, but only 0.9 percent in midprice hotels. Upscale properties would experience an insignificant impact. Hotels that are the most vulnerable are those located in areas with high Airbnb adoption rates and less likely to attract business travelers (Zervas, Proserpio, & Byers, 2014).

Airbnb itself commissioned the consulting firm HR&A Advisors to perform a series of studies to measure the economic impact of Airbnb in select markets (San Francisco, New York, Paris, Amsterdam, Berlin, Barcelona, London, Edinburgh, and Sydney) (“Airbnb economic
impact”, 2014). Based on the results of the study, the company claimed that they are not competing against hotels, as their guests are less conventional and choose to stay in areas that don’t normally host much tourism activity to begin with. For instance, 70 percent of Airbnb properties in Paris, 72 percent of Airbnb properties in London, 78 percent of Airbnb properties in Edinburgh, and 80 percent of Airbnb properties in Sydney are located outside the tourism areas. The Sydney study showed that 31 percent of Airbnb guests stated they would have not been able to afford the trip if it wasn’t because of Airbnb (“Airbnb economic impact”, 2014).

The studies also showed that Airbnb reservations grow even when hotel occupancy increases, implying that Airbnb guests and hotel guests come from different market segments. Moreover, the series of studies quantified the net economic benefits that Airbnb brings to these cities, including host income, new jobs, and new revenue for local businesses. The series of studies also argued that Airbnb guests stay longer at these destinations than typical travelers, resulting in higher economic impact (“Economic Impacts of Airbnb”, 2014). Founder Brian Chesky said that when it comes to hotels, he’s “optimistic that there isn’t going to be a war” (Titcomb, 2014).

Other relevant areas of literature include studies about other sharing economy services. A series of surveys of members of a car sharing service in San Francisco showed that car sharing is associated with a decline in car ownership, distance traveled, and gasoline consumption (Cervero, Golub, & Nee, 2007). Similar findings were produced by a study on car sharing and household car ownership in Montreal and Quebec, Canada (Martin, Shaheen, & Lidicker, 2010).

Competitor Identification and Analysis

The Importance of Competitor Identification and Analysis
The study proposed in this paper is based on the conceptual framework of competitor identification and analysis. Competitor analysis is a vital component of the formulation of a marketing strategy (Clark & Montgomery, 1999; Bergen & Peteraf, 2002). The increasingly competitive nature of the business environment has resulted in many large companies spending significant resources on competitor analysis. According to a 1985 survey, a number of Fortune 500 companies spend over $1 million per year on identifying who their competitors are and analyzing those players systematically (Goshal & Westney, 1991).

Competitor analysis is often described as a dual-step process where competitor identification precedes competitor analysis (Few, 2007). The first step, competitor identification, surveys the competitive landscape and identifies threats and opportunities (Bergen & Peteraf, 2002). This step is generally approached in two different ways. The first, supply-based approach, identifies competitors “on the basis of how similar firms are in terms of technology, strategy employed, products offered, etc” (Clark & Montgomery, 1999). This approach, for instance, would classify Burger King as a competitor of McDonald’s because they are both fast food establishments. The second, demand-based approach, identifies competitors “on the basis of customer attitudes and behaviors” (Clark & Montgomery, 1999). This consideration takes into account any firm that is substitutable in the eyes of consumers (Bergen & Peteraf, 2002). In that sense, McDonald’s is not only competing against fast food restaurants, but any restaurant that their customers consider substitutable to their product (i.e. Chinese takeout, pizza delivery, etc).

The second step of the process is competitor analysis. Drawing from the pool of competitors identified in the first step, firms can perform systematic analysis on a few groups of rivals. Competitive analysis goes beyond the classification of competitors in the first step and compares rivals based on specified measurements (Bergen & Peteraf, 2002). Figure 5 shows the
competitive analysis of McDonald’s published by investment research firm Morningstar (“McDonald's corp industry peers”, 2014). Note that in competitor identification, the firm did not limit the list of McDonald’s competitors to similar fast food restaurants such as Wendy’s, Jack In The Box, Burger King, Yum Brands. Using a demand-based approach, Morningstar also listed Starbucks, Tim Horton’s, Domino’s Pizza, Buffalo Wild Wings, Darden Restaurants, and Cracker Barrel. In the second step, the company compared McDonald’s with these specific competitors based on established criteria such as market capitalization, net income, dividend yield percentage, etc.
Peteraf and Bergen’s Competitor Identification Framework

The two-stage framework that this research is based upon was developed by Margaret Peteraf and Mark Bergen. In their research article, the authors addressed the supply- and
demand-based approach in competitor identification and the inherent challenges derived from using one over another. For instance, in the 1970s, Polaroid and Kodak engaged in a costly war against one another over the instant camera market. Using the supply-based approach in competitor identification, they failed to notice the emerging market of camcorders and camera systems that did not require film. Their narrow focus on one another prevented them from seeing greater challenges in the competitive landscape. The market-based approach, on the other hand, is often too broad and few tools have been developed in assisting management to identify competitors using such method (Bergen & Peteraf, 2002). Bergen and Peteraf’s objective was to develop a tool that can survey the market broadly, bringing into view both close and distant rivals as well as emerging competitors (Peteraf & Bergen, 2003).

In the first stage of the framework (competitor identification), the authors classify candidate competitors based on relevant similarities. They simply ask the question whether the firms currently or will have the ability to satisfy the same customer needs (Bergen & Peteraf, 2002). This market-side comparison is determined by an indicator called market needs correspondence, a construct “signifying whether or not a given firm serves the same customer needs as the focal firm” (Peteraf & Bergen, 2003).

In the second stage of the framework (competitor analysis), the authors suggested an evaluation of how well the firms serve those same needs (Bergen & Peteraf, 2002). They introduced the concept of resource-based comparison and the indicator capability equivalence (“the extent to which a given firm has resource and capability bundles comparable to those of the focal firm, in terms of their ability to satisfy customer needs”) (Peteraf & Bergen, 2003).

Combining market needs correspondence and capability equivalence, Peteraf and Bergen suggested the framework shown in Figure 6 (Peteraf & Bergen, 2003):
As shown above, market needs correspondence takes a simple Yes/No form. That is, the given firm either serves the same customer needs as the local firm or they don’t. Capability equivalence, on the other hand, is in the form of Low or High. That is, the given firm has low or high capability to satisfy customer needs given their resources (Peteraf & Bergen, 2003).

Quadrant I “Direct Rivals/ Substitutors” represent firms that meet the same customer needs and have the high capability to satisfy those needs. Quadrant II “Potential Direct Rivals/Latent Substitutors” represent firms that don’t meet the same customer needs, but have high potential to satisfy those needs. Quadrant III “Weak Competitors/Non-competitors”
represent firms that don’t serve the same customer needs and have low capability to meet those needs. Quadrant IV “Vertical Differentiators/Vertical Substitutors” represent firms that serve the same customer needs but currently have low capability to satisfy those needs (Peteraf & Bergen, 2003).

**Application of Peteraf and Bergen’s Framework**

Peteraf and Bergen’s framework has been widely used in competitor analysis. For example, Claudio Giachetti used the concept of market needs correspondence and capability equivalence to examine Apple iPhone's competitors in the mobile industry, as shown in Figure 7.

![Diagram of Peteraf and Bergen's Framework]

*Figure 7. iPhone Competitors. Reprinted from Competitve Dynamics in the Mobile Phone Industry, by C. Giachetti, 2013, Palgrave Macmillan.*
The mobile industry offers two macro products: smart phones and regular cell phones with basic call functionalities. Apple’s core product (iPhone) is a smart phone product. Quadrant I represents companies that meet the same customer needs and have the high capability of satisfying those needs, i.e. direct rivals such as Samsung, HTC, Nokia. Quadrant II represents companies that meet the same customer needs but have the low ability to satisfy those needs, i.e. vertical differentiators such as network-branded low quality tablets with phone call capabilities vendors and Chinese manufacturers. Quadrant III represents companies that don’t meet the same customer needs but have the high ability to satisfy the same customer needs, i.e. potential direct rivals such as HP, Acer. Finally, Quadrant IV represents companies that don’t meet the same customer needs and have low capability to satisfy those needs, i.e. weak competitors such as landline phone vendors (Giachetti, 2013).

Similarly, the framework has also been applied within other areas such as the ready-to-eat cereal industry (Peteraf & Bergen, 2003), shipbuilding industry (Sauerhoff, 2014). This study hopes to utilize the same theoretical framework within the hotel industry.

**Customer Needs**

The first stage of Peteraf and Bergen’s framework (competitor identification) requires a definition of the customer needs served by the focal firm, i.e. hotels. In simplistic terms, hotels serve customers by “providing facilities for the transaction of business, for meetings and conferences, for recreation and entertainment” (Medlik & Ingram, 2000). While all hotel guests need accommodations, different groups of customers look for different amenities when making their hotel selection. An examination of these varying needs sets up the foundation of the methodology described in Chapter 3. The following section reviews the two main groups of customers: business travelers and leisure travelers.
**Business Travelers**

According to a survey conducted by the Global Business Travel Association and Concur, the average business traveler is college-educated, around 38 years old, and male (Global Business Travel Association, 2011). However, despite demographical differences, business travelers have certain common preferences and concerns about traveling.

Not surprisingly, connectivity is a huge concern among business travelers. A survey conducted by Frequent Business Traveler Magazine showed that 86 percent of respondents work from the hotel while traveling, with the vast majority (88 percent) doing so from their room. Wi-Fi topped the list of must-have hotel amenities for business travelers in a 2013 survey by Hotels.com. Complimentary Wi-Fi is a great selling point: 34 percent of respondents stated that free Wi-Fi is the number one criteria in choosing a hotel, while 56 percent said that it is their number one must-have (Wireless News, 2013). The aforementioned survey by Frequent Business Traveler Magazine discovered that 73 percent of respondents consider complimentary Wi-Fi a major factor when choosing hotels (Sokolow, 2013). If required to pay for Internet access, the majority expects to pay $10.99 or less per day (Travel Leaders Group, 2014).

Free breakfast is the next best selling point (Collis, 2002). In fact, complimentary food and beverages (water, coffee) in general often influence the hotel selection process (Wireless News, 2013). Gym and fitness facilities are next on the list. Close to 50 percent of respondents of a 2012 survey they used a gym or exercise room during their stay and that the quality of the workout facilities available affects their booking decision.

Pricing is a big factor of consideration even for travelers on corporate budget. Nearly half (46 percent) of the respondents in the Global Business Travel Association survey stated that they have to travel within a tight budget (Global Business Travel Association, 2011). Perhaps this is
why corporates are starting to see a huge growth in the usage of Airbnb among business travelers (Matt, 2014).

Safety is greatly important both to male and female business travelers (Global Business Travel Association, 2011). While men are generally content with fire exits and in-room safes, women express other concerns such as intruders and assaults. Well-lit hallways, covered parking, and deadbolts on doors are highly valuable to female travelers (Lyon, 2013).

**Leisure Travelers**

Leisure travelers also have certain preferences when booking a hotel stay. A 2011 experiment simulated the real process that consumers go through when choosing accommodation. Participants were asked to use a real website to book a real hotel in Las Vegas. They were given a travel date, the number of travelers, and a budget. Participants were told that any leftover money from the budget can be utilized for other purposes during their stay. Study findings showed that when searching for properties to stay at, the most popular attributes in forming the final decision were: non-smoking, swimming pool, high-speed Internet, hot tub, fitness center, and room service (Peter & Chen, 2011).

Connectivity is among one of the new trends influencing booking decision in leisure travelers. Aside from Wi-Fi, many travelers are looking for the ease of recharging their electronics. Easy access to an outlet that they can plug into is a simple, yet often overlooked room design feature (Stellin, 2011). Another emerging trend among travelers is the preference for “green” hotels. A recent survey by TripAdvisor.com showed that nearly two-third of travelers consider the environment when booking hotels. However, a very small number of guests (17 percent) stated that they are willing to pay more for an eco-friendly hotel. This shows that green initiatives are starting to become more of a requirement than an added benefit (Bender, 2013).
Experiential traveling is an emerging trend in the industry. More and more travelers are looking for the “authentic” travel experience and want to be immersed in the local culture. Gavin Tollman, CEO of a major tour operator, commented: “Our guests and potential guests wanted more immersive options and opportunities to interact with the locals” (Baran, 2014). Airbnb’s business model of matching locals with travelers has allowed the company to tap into this emerging trend seamlessly. Recently, Airbnb launched a new marketing campaign complete with a new logo and the tagline “Belong Anywhere”. With the rebranding, Airbnb differentiated from hotels by promising an experiential travel experience that would bring them closer to the local people and culture (Roy, 2012). Jan Freitag, senior vice president at hotel research firm STR Global, praised Airbnb: “It’s more about the feel … It's about being part of the community—with art, tasting menus, events, trying to make the lobby more of a social hub than anything ... and make you feel you're part of the town you're in” (Langfield, 2014).

Summary

Chapter 2 looks at relevant literature that lays the foundation for the methodology suggested in the following section. First, the chapter establishes the need for this study by examining the conflicting arguments about whether Airbnb has a negative impact on the hotel industry. These opposing opinions are drawn from both non-academic publications and empirical research. Second, the chapter looks at the theoretical framework behind the research and shows previous applications of the competitor identification tool developed by Mark Bergen and Margaret Peteraf across different disciplines. Finally, the chapter provides an overview of the Airbnb product and varying consumer needs, which are highly pertinent to the research design described in the following chapter.
CHAPTER 3
RESEARCH DESIGN AND METHODOLOGY

Introduction

The research is modeled after Bergen and Peteraf’s competitor identification tool. The research identifies the market needs correspondence and capability equivalence indicators of Airbnb through a survey. The survey is intended to be conducted by Qualtrics with the main purpose of researching:

1) The needs consumers are looking to fulfill when booking accommodation
2) Whether Airbnb meets those needs
3) How well they fulfill those needs

The research takes into consideration findings about varying needs across different groups of customers based on their purpose of travel (business or leisure). The research design also incorporates findings from the Boston University study showing that budget, economy, and midprice hotels are more vulnerable to Airbnb than upscale and luxury hotels.

Research Design

Participants

The participants of the research are over the age of 18 and reside within the United States. They have an active profile and have booked at least one reservation through Airbnb.

Survey Questions

1. What is your age?
   • 18-24 years old
   • 25-34 years old
   • 35-44 years old
• 45-54 years old
• 55-64 years old
• 65-74 years old
• 75 years or older

2. What is your total household income?
• Less than $10,000
• $10,000 to $19,999
• $20,000 to $29,999
• $30,000 to $39,999
• $40,000 to $49,999
• $50,000 to $59,999
• $60,000 to $69,999
• $70,000 to $79,999
• $80,000 to $89,999
• $90,000 to $99,999
• $100,000 to $149,999
• $150,000 or more

3. What is the main reason why you travel?
• Business
• Leisure

4. What types of hotels do you usually book?
• Budget (examples: Motel 6, Super 8)
• Economy (examples: Red Roof Inn, Quality Inn)
• Midprice (examples: Holiday Inn, Hilton, LaQuinta Inn, Days Inn)
• Upscale (examples: Hyatt, Marriott)
• Luxury (examples: Ritz Carlton, Four Seasons, JW)

5. List 3 things that are most important to you when booking accommodation.

6. In your experience, did Airbnb fulfill those criteria? Yes or No.
   • Criteria 1
   • Criteria 2
   • Criteria 3

7. On a scale of 1 to 10, how well did Airbnb fulfill each of those criteria? 1 being not at all and 10 being extremely well.
   • Criteria 1
   • Criteria 2
   • Criteria 3

8. How many times have you booked a reservation on Airbnb?

9. Would you consider booking through Airbnb again?
   • Yes
   • No

10. Do you consider Airbnb a hotel substitute?
    • Yes
    • No

Data Analysis
Question 1-3 provide demographical information about respondents, specifically which age group, income bracket they belong in; and why they travel (business or leisure). Question 4 shows which market segment they belong to.

Question 5 shows what customers are looking for when booking accommodation. The researcher is looking for key words (for example: price, location) that are most frequently cited.

Question 6 determines the market needs correspondence. Question 7 shows the capability equivalence. 1-5 ratings are coded “low” and 6-10 ratings are coded “high”.

Question 8 and 9 establish the respondent’s brand loyalty for Airbnb. Question 10 is straightforward and asks the respondent to determine if Airbnb is a hotel substitute.

Results

The results are divided into different sets of information based on purpose of travel (business, leisure) and market segment (budget, economy, midprice, upscale, and luxury). Each set of data is applied to Peteraf and Bergen’s framework for competitor identification (Figure 6).

The result to question 6 (Yes or No) and the result to question 7 (High or Low) determine which quadrant Airbnb falls into. For example, the majority of business travelers indicate “Yes” in question 6 and “Low” in Question 7. This classifies Airbnb in Quadrant III (weak or non-competitor) for properties catering to that specific group of respondents.

Question 9 and 10 provide additional information about respondents’ likelihood to utilize the service again, and how they feel about Airbnb as a substitute of hotels.

Recommendations

Based on the results of the survey, different market segments within the hotel industry can determine if Airbnb is their competitor and if there is a need for a direct business response.
Based on the literature reviewed in Chapter 2, the following are some recommendations of actions hotels can take:

- **Reinforce the legal battle against regulatory shortfalls**

  Hotel lobbyist should continue to pressure Airbnb hosts to pay the same licensing fees and occupancy taxes, as well as obtaining the same liability insurance required from hotel operators. They should also encourage the media to educate consumers that Airbnb is not a perfect hotel substitute and guests using their services are exposed to threat from lack of security measures and fire hazard compliance. Alliance can be formed with other stakeholders interested in this issue, such as affordable housing advocates, disability groups, etc.

- **Integrate the local culture into traditional hotel services**

  The new wave of travelers seeks to be locally connected to where they are, and there are many ways for traditional hotel services to satisfy that with their product offerings. Concierge can design personalized itineraries that cater to their guests’ interests and preferences. Restaurants and in-room dining can utilize local products and offer local cuisine options. Elements of the culture should definitely be incorporated into the design and décor of the establishment.

**Conclusion**

Chapter 3 suggests a methodology that can be utilized to determine if Airbnb is a competitor of the hotel industry. The research design is a simple 10-question survey that can be carried out by Qualtrics. The results can be applied to the competitor identification framework by Mark Bergen and Margaret Peteraf to determine the level of competitiveness of Airbnb against the different market segments within the hotel industry (business, leisure, budget, economy,
midprice, upscale, and luxury). The chapter also includes recommendations of potential actions the industry can take as a business response to Airbnb.
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