



## **POLITECNICO DI TORINO**

Master's Degree in Engineering and Management

Study:

The sharing economy impact on the hospitality industry

An Airbnb focused systematic literature review

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## Abstract

Sharing economy is a complex phenomenon which in the last decade has been able to influence and modify not only worldwide customers behavior but also incumbents' business models and their profitability. Starting from an overall brief sharing economy introduction, this work carries out a systematic literature review based on 29 scientific papers aimed to deepen the sharing economy impact on one of the industries where it has spread the most: the hospitality one. In order to do it, it has been specifically investigated the case of Airbnb, representing the largest and more successful sharing economy platform in the hospitality scenario. Deepening, summarizing and schematizing, literature progress, findings obtained show the most beaten aspects of this competition but mostly where future research can be addressed in order to fulfill existing gaps. Overall, this thesis aims to present itself as a concise and complete document, an essential starting point towards future research.

**Keywords:** Literature Review, Sharing Economy, Hospitality Industry, Airbnb

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## 1. Aim and Objectives

Starting by providing an overview over the main sharing economy features and pillars, this systematic literature review aims to state Airbnb's impact on the hospitality industry, underling the literature progresses made in the most recent years. Differently from others disruptive sharing economy platforms, in fact, the effects generated from the success and spread of the most popular house renting platform on incumbent's market are controversial (Akbar and Tracogna 2018) (Sotiriadis and Van Zyl 2017) (Forgács and Dimanche 2016) (Richard and Cleveland 2016) (Oskam and Boswijk 2016) (Bashir and Verma 2016). From Airbnb's CEO, moving through different hotel managers opinions, many authors claim that sharing economy platforms, as Airbnb, provide a complementary service to the hotels' one. On the other side, some studies have shown how Airbnb's entry and spatial distribution can affect surrounding hotels' prices and revenues. Although the presence of many studies, relevant limitations have been identified in the employment of different approaches, different viewpoints and, above all, very often different conclusions, leaving a significant gap in an overall understanding of the impact of this extremely successful company. Some studies have been based on limited geographical areas and are difficult to generalize to wider contexts, others refer to data collected before the real expansion of Airbnb, reaching conclusion that cannot be considered universal.

Since the presence of this extremely broad and variegated database of recent works, it has been perceived a stronger necessity to realize a quantitative contribution aimed to summarize, order and catalogue concepts already studied in literature rather than carry out

a qualitative study with a new geographic limited focus. Indeed, from a selected scientific paper dataset, the most and least beaten aspects have been analyzed in order to get an overall conclusion on the main questions regarding Airbnb's impact on the hospitality industry. Can Airbnb and Hotels effectively be considered in competition? Is it possible to determine an idea of the price/revenues impact that Airbnb generate on hotel chains? Which are the aspects that brought around 150 million people worldwide to become Airbnb users? Which are the strategic moves that hotels directives can undertake to fight back the sharing economy threat? To these and many other questions tries to answer the following literature review.

## 2. Introduction

### 2.1 Sharing Economy Background

Sharing Economy is “*a new way of organizing economic activity that may supplant the traditional corporate-centered model*” (Sundararajan 2016), a new economic and cultural model that promotes a more conscious and thrifty use of tangible and intangible resources available in an innovative way: economic transactions that do not involve a change of ownership and that usually last a limited amount of time.

*“The core principle of the “sharing economy” is simple: owners of various underused assets (e.g. a room left unoccupied, an extra seat in a car and some spare time, or some capital) ought to remain free to make a deal to satisfy the large occasional demand for those goods (e.g. to accommodate or transport travelers, to support entrepreneurs)”* (Lecuyer, Tucker and Augustin 2017). The cornerstone, indeed, is represented by the aim of maximizing the common well-being, trying to find a second life or a reuse to tangible and intangible asset, creating value that would remain unexploited in the traditional economic framework where only the owner of an asset would use it. Founded in 2008, for instance, TaskRabbit is an American platform born from the idea to match among themselves neighbors in everyday home-tasks. *“Idling capacity is everywhere, though it’s not always easy to see: empty seats in cars; unused holiday homes or spare bedrooms; underutilized Wi-Fi; unoccupied office spaces; latent skills and capital; and of course underused consumer goods”* (Botsman 2013).

<b>Platform</b>	<b>Side A</b>	<b>Side B</b>	<b>Idle Asset</b>
Airbnb	Host	Guest	Room, House
BlablaCar	Driver	Passenger	Car Seat
TaskRabbit	Neighbor A	Neighbor B	Home-Tasks Skill

*Table 1: Sharing Economy Platform Examples (Original elaboration)*

People use to share and rent personal belongings since immemorial time (e.g. barter in antiquity), but, in the last two decades, this kind of business model exploded and consolidated. According to Oh and Moon (2016), two main reasons drove this positive trend: *“the global economic crisis of 2008 and the spreading of social networks”* (Oh and Moon 2016). Since 2008, in fact, the average consumer started reflecting more on how to economize and to reduce his consumption. Sharing Economies platforms worked perfectly to economize both the two classes of the platform’s costumers: as on one side the driver on a BlablaCar trip can save a percentage of the travel expenses, passengers have the opportunity to get a cheaper alternative to public transport. On the other hand, social networks shared a spreader trust on a virtual network community, able to reach a level in which people, do not feel unsafe lending, for example, their own car or apartment.

Botsman (2015) defines collaborative economy as *“an economic system of decentralized networks and marketplaces that unlocks the value of underused assets by matching needs and haves, in ways that bypass traditional middlemen”* (Botsman 2015). This definition, even though it captures one of the salient traits of the phenomenon, the horizontal relationship that arises between individuals, does not include models that are now considered collaborative as on-demand platforms such as Uber, Car2Go or sharing

bike services. Those companies do not make use of under-utilized resources but offer a shared sustainable alternative to public or private transport.

## 2.2 Categories

Being relatively new concepts, there has always been a lot of uncertainty about the terminology used in the sharing economy subclasses, mixing between them expressions that, despite being connected, are not strictly in the same semantic family. The following conceptual map (Figure 1) tries to clarify the links of the main sub-families that make up the sharing economy by following Martucci's (2019) re-elaboration of Botsman's work (2015).

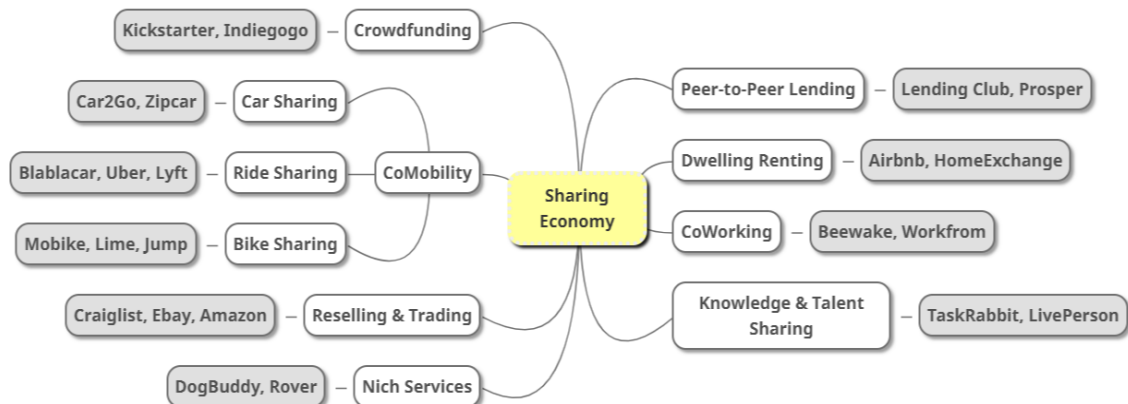


Figure 1: Sharing Economy Families. Personal Re-Elaborated Conceptual Map from Martucci (2019)

It is, therefore, possible to picture Sharing Economy as a conglomerate made by different platforms' families, serving the same aim to share underutilized assets but differing in the final product or service idea.

Here are listed the most significant ones:

- Peer-to-Peer Lending. This class is made by those platforms created in order to match people that need an economic loan and people with the possibility to lend them money. The platform works as intermediary replacing the traditional bank role and setting fixed interest rates applicable between the sides. Most known examples of this class are platforms as Lending Club or Prosper.
- Crowdfunding. Crowdfunding platforms are a specific subset of lending funding platforms where a startup, or a recent born business presenting its idea, product or service looks for investments. In order to do it, it is required to set a specific time period and a target figure willing to reach. Depending from the network's width and the entrepreneur's ability on presenting its business, crowdfunding platforms can collect huge amounts of investments in relative short time. Differently from peer-to-peer lending platforms, a crowdfunded company could return the money received from investors in several ways: as business' product/services or even as a percentage of the company's equity. Most famous platforms of this type are Kickstarter or Indiegogo, which works charging a percentage of the total found collected when a campaign goes well.
- Dwelling Renting. Platforms like Airbnb or HomeExchange allow people with an unused space, as a room or an entire house, to rent it to other people (mostly travelers) looking for a place where to spend a usually short period of time.
- CoMobility. The mobility class is probably the most complex one, it can be subdivided into three big sub-classes. The first one is made by the pure car sharing service, where platforms as Car2Go or Zipcar provide a certain number of vehicles

that can be utilized by the platform's users for a limited period. These companies take care of all the vehicle maintenance, from the insurance to the replacement of faulty parts, leaving users only the burden of having to pay a fee based on the time of usage. Differently, ridesharing platforms like Uber, Grab or Lyft are the evolution of the taxi business model, where professional and non-professional drivers carry passengers from one place to another in exchange of a predetermined amount of money. It works in a slightly different way BlablaCar, which *modus operandi* has already been described. It is possible to add to this macro-group different forms of transportation platforms as the bike sharing ones or the everyday more diffused electric Segways.

- Coworking. These type of platforms enables freelancers, small business and other professionals to share a building arranged as set of many offices, conference rooms and break areas. To access them, users need to pay a weekly (or monthly/yearly) fee based on the size of the space reserved and on the time. For small scale businesses this structure allows to save expenses respect to traditional entire office rents.
- Reselling & Trading. Enabling people to trade between each other new or used goods made the fortune of B2B and B2C platforms as eBay or Amazon. Anyway, focusing always more on new goods' trade, a free market space has been created for platforms as Wallapop that made its success on facilitating users' interactions.
- Knowledge & Talent Sharing. The already described TaskRabbit is probably the most famous example of this class. Similar companies are LivePerson or Fiverr, matching users demand and request of specific personal skills.

- Niche Services. Finally, there are some platforms able to provide some very niche services. Some examples are DogBuddy and Rover, smartphones applications where dog owners can easily find someone available to look for their pets for a specific timeframe.

### 2.3 Main Characteristics

According to Botsman (2015), there are 5 main criteria able to identify whether a company fits in the sharing economy classification:

- The core of the business is to leverage the value obtained from under-utilized assets for monetary or non-monetary benefits.
- The company's mission must include value-driven principles as transparency, humanness and authenticity.
- Supply-side's providers should be valued, respected and empowered.
- Customers on the demand side should have the possibility to access the product/service for a certain time without having the asset's ownership.
- The business should be based on a network able to create a sense of community and collective accountability.

This new economic movement took, always more, the form of a popular trend spreading itself in transversal ways between the population social classes. It encourages more conscious forms of consumption, being based on the reuse of goods and a more smart and flexible access. On the basis of the different business models affirmed on the economic scene, three players are usually identified in these transactions: providers, i.e. those who



commit themselves to provide goods and services and who can be full-time workers or occasionally engaged; users, i.e. the final consumer of goods and services; and finally, intermediaries (workers belonging to the platforms) who connect providers and users and manage the exchange.

In order to analyze it, it is crucial to identify the pillars at the base of the sharing economy business models. Botsman and Rogers (2010) distinguish four main points:

1. Achivement of the critical mass, intended as the minimum number of initial adopters of collaborative systems. The biggest obstacle is often to reach this critical level because network models such as those of the sharing economy are only successful if services are widely spread and known. In the specific Multi-Sided platform scenario, the pursuit of the critical mass is strictly linked with the called chicken and egg problem, a situation where *“to attract buyers an intermediary should have a large base of registered sellers, but these will be willing to register only if they expect many buyers to show up”* (Caillaud and Jullien 2003). In order to gather a significant number of adopters, companies use marketing strategies such as free pricing (offering the service for free for the first N subscribers to the platform) or by granting discounts when new friends are added to the network. Moreover, the achievement of a consistent number of users on a platform has a positive side effect on others, it is well known that people use to trust easily a service when it is largely shared among peers.
2. Idling capacity. The, already mentioned, possibility to convert into an economic gain the huge amount of tangible (e.g. cars, rooms, clothes, expensive sport equipments) and intangible assets (e.g. people personal time) that people collect and use just for a limited

- period of time. Indeed, are increasingly spreading platforms that allow professionals to share their knowledge in a coworking environment (e.g. Copass, OfficeRnD).
3. Belief in the commons. This principle is intended as the positive value that the business model create for a community that share the same interests. This aspect reflects as the platforms models based on the pure sharing of assets between users (e.g. car2Go, Grab, oBike ...) as the utilization of someone else's (e.g. Airbnb, BlablaCar).
  4. Trust between strangers. This concept has a fundamental importance and it is at the base of every relationship in the sharing economy. During the last decade, people's trust on online platforms changed completely. It happened, mostly, thanks to technological implementations made on the platforms of some trust-aimed systems as, for instance, digital ranking ones. *"This "engineered trust" is baked into our daily interactions with the sharing economy. When you call a Lyft, you can see your driver's face, name, and sometimes even his or her music preferences. You can follow this person's journey in real-time, as they zig-zag toward you like a fare-munching Pac-Man. And most importantly, you can see the person's star rating, validated by the collective trust of other users."* (Crockett 2018)

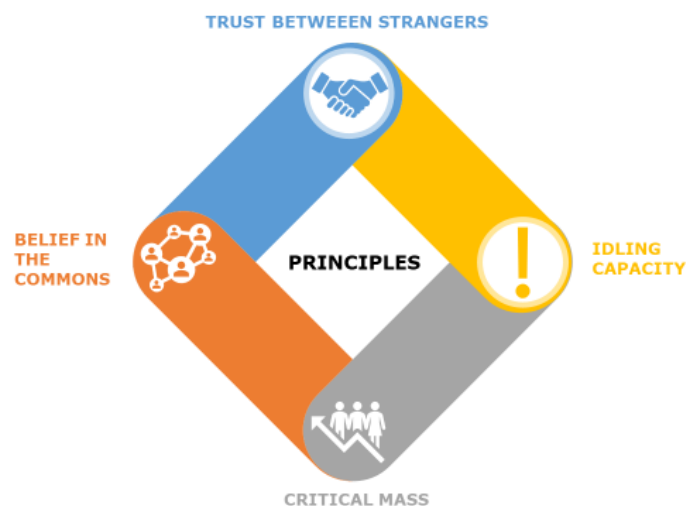


Figure 2: Sharing Economy's Principles (Botsman and Rogers 2010)

## 2.4 Pricing Structure

One of the most important strategic keys for sharing economy platforms is the pricing structure. In fact, *“it doesn’t matter the ‘price level’, defined as the total price charged by the platform to the two sides, but the “price structure”, that is the decomposition or allocation of the total price between the different sides”* (Ardolino, Perona and Saccani 2016). In other words, rather than the sum of the prices charged to the different sides, it attracts more attention the ratio between the two prices (Rochet and Tirole 2006) (Filistrucchi, et al. 2013).

Despite other minor differences, the opportunity to charge distinct amount and in different modalities between platform’s sides represents the strategic feature that distinguish the most this business model respect to the traditional one. The traditional economic framework, where the pillar rules are represented by setting the price equal to the marginal cost in a perfect competition market, and above it in the monopolistic one, do not apply for Multi-Sided markets. Evans and Schmalensee (2008) reached three valid conclusions which summarize the aspects analyzed until now regarding the relationship of sharing economy multi-sided platforms prices and traditional markets:

1. The platforms’ optimal sides prices depend in a complex way on the following factors: sensitivity of the demand sides, cross network effects and products (or services) marginal costs.
2. The profit-maximizing price could be below the marginal cost to supply that side (or even negative).

3. Traditional one-side market formulas that relate price with costs do not apply for Multi-Sided markets where these relationships are much more complex.

Due to the cross-side externalities, the increasing participation of one side of the platform could lead to a higher willingness to pay for the other side. *“Because of the interrelationship between the sides, it is possible that a platform will respond to an increase in costs on one side with an increase in prices on the other side”* (Sanchez-Cartas and Leon 2018). *“The low price on one side not only attracts elastic consumers on that side but also, as a result, leads to higher prices or more participation on the other side”* (Rysman 2009). This aspect brings often to the situation in which the platform sides are charged in a wider distinct way. As Weyl (2010) explains, consumers utility is conditioned by cross-side externalities because the price will be set from the platform in order to compensate the number of users in the opposite side.

## 2.5 Strategic Innovation

In order to point out the main strategic business characteristics of sharing economy multi-sided platforms and differentiate them from the traditional ones, it is required to sum up the most relative differences between their business structures. Differently from platforms, traditional business can simplificationally be defined as pipelines. Their main objective is to create value for the customer by controlling the key series of activities in the production and delivering the product or service (Van Alstyne, Parker and Choudary 2016). The simplest example is given by the production of a product made by a set of complementary inputs, which acquire value during the production process (e.g. a car, a phone, etc.). A key aspect in pipelines business strategies is the competitive advantage

respect competitors given by the control of valuable (preferably inimitable) assets, tangible as could be a gold mine or intangible as a knowhow (Van Alstyne, Parker and Choudary 2016). Other, no less important, aspects are the value chain costs optimization (as for materials, sales, service etc.) through economies of scale and the constant focus on the customer, placed at the end of the ideological pipeline. On the other hand, sharing economy platforms' main asset is the network and the tangible or intangible contribution that every user could bring to the network. Acting as an intermediary tool and aiming to the reduction of transactional costs, their focus moves, respect to the pipeline model, toward an expansion of the network through new participants and a smoother interaction's management between users. Finally, in a platform, the user is not located at the end of an ideological chain, but it is part of a big circular ecosystem made by iterative, feedback driven processes (Van Alstyne, Parker and Choudary 2016). The differences just mentioned make the traditional five-forces Porter's model work differently, having to consider specific aspects not preset in the pipeline's models but fundamental in the Multi-Sided platforms.

<b>Pipeline</b>	<b>Platform</b>
Resource Control	Resource Orchestration
Internal Optimization	External Interaction
Focus on Customer Value	Focus on Ecosystem Value

*Table 2: Strategic Difference Set Between Pipelines and Platforms (Van Alstyne, Parker and Choudary 2016)*

Unlike pipelines, due to the presence of network effects (both direct and indirect) sharing economy platforms' focus shifts towards different aspects, as the number of interactions among users or their access on the platform. Customer value is based and scaled on the volume of possible transactions that the network could provide. Porter's five forces are not enough to describe properly a platform because do not take into consideration network effects and the value that they create (Van Alstyne, Parker and Choudary 2016). While in traditional pipelines, external forces are seen as a threat for the company, giving the customer the opportunity to switch to a substitute product, in a platform's framework they could even increase the overall platform value. The platform ability should indeed be turned on understanding which forces, intended as sides, increase the network's value and if they will continue to do it in future.

Finally, Van Alstyne, Parker and Choudary (2016) define as *forces exerted by ecosystems* those which came from a platform opportunity to move into a completely different industry. Amazon, for example, born as book retailer, expanded to every kind of goods; and nowadays is moving towards different industries as the pharmaceutical and the loan ones. Google started as search engine and moved towards mapping, mobile software, hardware systems and much more. From a well known brand and a sufficient large network providing users' data a platform is able to overcome the entry barrier of innumerable industries. Furthermore, having completely different business structures it is much harder the competition for the pipeline incumbents.

## 2.6 Airbnb in the hospitality industry

Founded in 2008, Airbnb's name comes from Airbed & Breakfast. The idea of the platform, in fact, came to three roommates in making tourists looking for a stay in San Francisco sleep in air mattresses in their apartment (Aydin 2019). Indeed, during particularly famous events, the maximum capacity provided by hotels was not enough to satisfy the total turnout in the city. As many other sharing economy platforms, Airbnb utilizes a revenue structure designed to receive commissions from both guests (9 – 12 %) and hosts (3%).

Thanks to genial marketing ideas (as the utilization of cereal boxes representing the Obama-McCain political campaign or the exploitation of the competition's website Craigslist (Brown 2014)) aimed at receiving funding and increasing the user base; to the unregulated taxation present until few years ago (Dogru, Mody and Suess 2019), the platform has been able to go from small to incredible high figures. According to the data provided by Bustamante (2019) the platform at December 2019 reached more than 150 million users worldwide, 6 million listings in 191 countries and the average of more than 2 million users per night. Furthermore, regarding strictly financial data, Airbnb reached the worldwide valuation of 38 billion, generating, in 2017, almost 100 million profit. Impressive numbers even when compared to those of famous hotel chains that have been operating for several years. By comparison, at December 2019, Hilton's market capitalization was around \$31 billion (macrotrends - Hilton Worldwide Holdings Market Cap 2020) and Marriott's was \$48.8 billion (macrotrends - Marriott Market Cap 2020).

Even if at a glance it could appear direct, Airbnb's competition with hotels is, actually, very complex. The same company, for instance, claims to consider itself a complementary business to the traditional hotel's one, stating that, for example, in the case of the city of Paris about 70% of the listings are outside the central hotel's corridor (Airbnb.com). Moreover, Airbnb founder and CEO Brian Chesky pointed out how *"the average Airbnb stay is 2.5x longer than the average hotel stay, and roughly 20% of all Airbnb stays are longer than 30 days"* (Business Insider 2017). Finally, unlike Airbnb, the vast majority of hotel guests are businessmen, not willing to lower their comfort's standards for a lower price (Roma, Panniello and Lo Nigro 2019). It is evident in fact that one of the main differentiation indicator between Hotels and Airbnb is the price. In average, to book an entire dwelling on Airbnb it costs less (6 % – 17 % in Europe / US) than a single hotel room (Bustamante 2019). According to Roma, Panniello and Lo Nigro (2019), given the characteristics of the hospitality industry, the price plays the role of one of the most important drivers.

Unlike what Airbnb claims, in literature are present countless studies that have found a direct links in the competition between hotels and hospitality sharing platforms as Airbnb. Zervas, Proserpio and Byers (2016) and Roma, Panniello and Lo Nigro (2019) state that hotels that suffer the most from Airbnb's competition are the ones serving low-end consumers (1-3 stars). High-end hotels, in fact, are able to escape from the pricing war generated from the entry of sharing platforms even raising their prices in order to maintain their core value in the quality of the offered services. On the same path, the analysis made by Blal, Singal and Templin (2018) confirming that Airbnb could represent a real threat



towards the hotel industry. Haywood, et al. (2017) on the other side, take more neutral positions, arguing that there is no clear connection between the presence of Airbnb and the demand for hotel rooms. The work made by Xie and Kwok (2017) concludes that although it is impossible to deny competition between room sharing platforms and hotels, this one is mitigated by the wider price dispersion present in these platforms, being driven by the individual price positioning made by the hosts.

Given the presence of such conflicting views on the same basic competition between Airbnb and hotels, it has decided to apply a quantitative-systematic approach to the literature written so far, which methodological approach has been discussed in the following chapter.

### 3. Methodology

In this paper, it is proposed a systematic literature review regarding the impact of the sharing economy, represented by its most popular house renting platform Airbnb, on the hospitality industry. From Cetobelli, Cerchione e Esposito (2017) analysis on how to apply a systematic literature review, came out the methodological guidelines that have been followed to carry out this work. Two main phases are distinguished: to the initial stage of papers acquisition and selection followed a later one based on the description and analysis of the selected papers. The former is mainly characterized by the material research, identifying the database, keywords and paper selection criteria for the inclusion/exclusion of determined studies. The latter, on the other hand, consist in the real in deep review of the selected papers, clustering them according to the specific aspects and features analyzed.

#### 3.1 Material Research

The papers have been selected using the database Scopus, searching the ones published from 2008, year in which Airbnb was founded, and 2019<sup>1</sup>. The keywords set used is: “Airbnb” or “sharing” and “economy” or “platform”, combined with “hotel” or “hospitality”. The extraction generated a dataset of 122 initial papers (Table 5). Analyzing the abstract of these papers, an additional filter criterion has been applied, digging out exclusively studies able to assess any possible Airbnb’s impact on the hospitality industry. In this way, work that was limited to analyze specific Airbnb’s aspects, or that dealt with separate platforms (such as Couchsurfing) was excluded, being considered out of the scope

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<sup>1</sup> 10/05/2019

of the research. The resulted dataset for the subsequent descriptive analysis resulted made by 29 scientific papers (Table 6).

### 3.2 Descriptive Analysis

In order to give a first overview of the selected papers, a preliminary descriptive analysis has been made according to five main perspective point of views. It has been analyzed the distribution of the studies basing the attention on:

- Time of publication
- Journal
- Topic area
- Methodology
- Geographic area

Regarding the first variable, from the initial Scopus interval 2008 – 2019, the subsequent paper skimming, generated works made in an interval of just four years: 2016 – 2019. This aspect explains how, the impact of sharing platforms on the hospitality industry is a topic exclusively related to the last 5 years and how, in the first period of life of these platforms 2008 - 2015, the academic attention was limited on studying this platform's business model itself without the aim of determine the external impact towards incumbents competition.

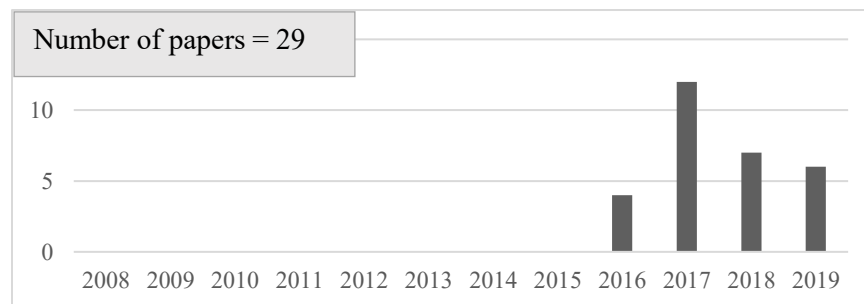


Figure 3: Paper distribution over time

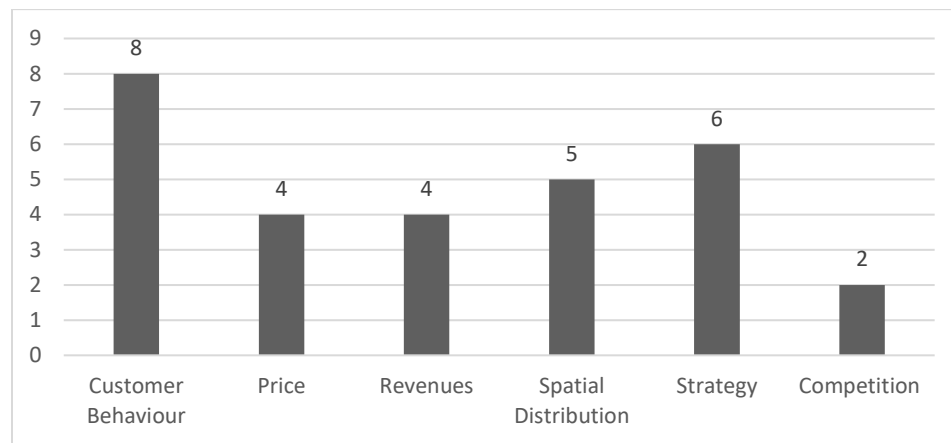
Analyzing the journals from which the selected papers come from, it is possible to extract interesting considerations. Even if the paper dataset is spread in many, different, journals (19), it is possible to identify a single overall sector regarding the hospitality management and tourism. Exceptions are made by a single journal concerning the information technology and one focused on marketing researches.

<b>Journal</b>	<b>Number of papers</b>
International Journal of Hospitality Management	6
International Journal of Contemporary Hospitality Management	4
Tourism Management	3
Geojournal of Tourism and Geosites	1
Information Technology and People	1
Intangible Capital	1
International Journal of Applied Business and Economic Research	1
International Journal of Culture, Tourism, and Hospitality Research	1
International Journal of Production Economics	1
Journal of Cleaner Production	1
Journal of Marketing Research	1
Journal of Revenue and Pricing Management	1
Journal of Tourism Futures	1
Journal of Travel Research	1
Journal of Vacation Marketing	1
Tourism Analysis	1
Tourism Geographies	1
Tourism Recreation Research	1
Tourismos	1

*Table 3: Paper distribution by Journal*

Furthermore, papers have been clustered according the topic area. Two of them concern the overall debate regarding if Airbnb and hotels can effectively be defined in competition while the remaining studies show common patterns in the analysis of specific aspects of this competition. The following six topic macro-groups have been identified:

- Customer Behavior
- Spatial Distribution
- Price
- Revenue
- Strategy
- Competition

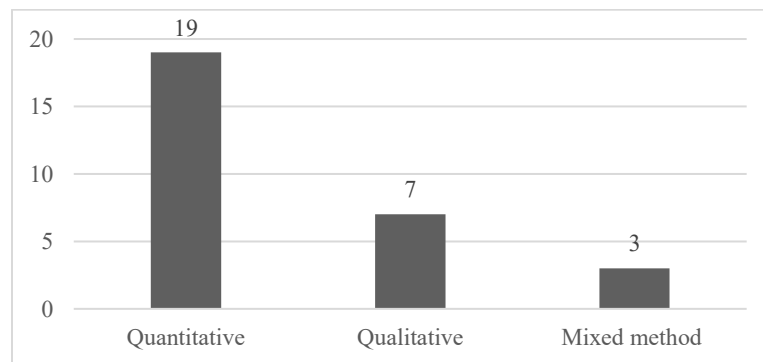


*Figure 4: Paper clustering distribution*

The most discussed topic on literature, with 8 papers, focuses on customer behavior. This area covers aspects regarding brand loyalty, service experience and customer satisfaction, it analyzes the main elements influencing customers choosing sharing-economy platforms rather than traditional hotels. Afterwards, no little interest has been dedicated to the strategic point of view (6 papers). In addition to deepening the principles of the business model that led to Airbnb's success and distinguishing it from incumbents' one, authors mainly aim to investigate hotel's adoptable strategies in order to contrast at the best the expansion of this new kind of competition. Less, but not little, importance has furthermore been dedicated to the geographical distribution perspective, deepening how

Airbnb has spread in the cities and what impact it has on specific districts. This cluster introduces, somehow, the latter two. In fact, are present papers that, starting from the spatial distribution of Airbnb's listings, study the impact on revenues/prices of the surrounding hotels. These last two macro-groups can be considered the most relevant to these analyses, including studies able to assess, with some limitations, the specific economic impact of Airbnb on surroundings hotels. Finally, two papers are those exclusively related to the pure competition that, in any case, represents the underlying thematic at the base of the entire dataset.

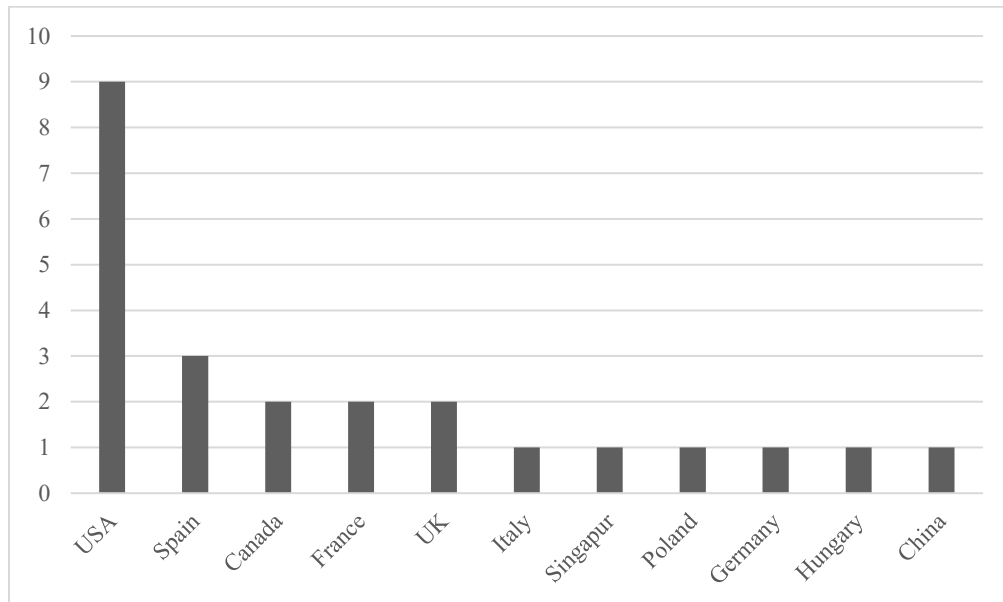
Subsequently, papers have been analyzed according to the study methodology. The results show how the majority has been based on quantitative approaches respect to the qualitative ones, while just three papers adopted mixed methodologies. The first methodological set includes works based on large datasets obtained from surveys as much as from official websites ([www.airbnb.com](http://www.airbnb.com), [www.trivago.com](http://www.trivago.com), [www.insideairbnb.com](http://www.insideairbnb.com) ...). The qualitative ones, in contrast, rely on a much smaller number of sources, as open questioned interviews or literature studies, which are analyzed from a more conceptual point of view.



*Figure 5: Paper distribution by methodology*

Moreover, it is interesting to identify a clear path connection between the topic clusterisation and the methodological one. In fact, for each area of interest, have been employed always the same approaches: in order to deepen the customer behavior have been analyzed data obtained from customer surveys; to investigate the strategy, qualitative literature studies; to evaluate the price/revenues impact, mostly quantitative studies based on extensive databases.

Finally, it was felt necessary to sort the geographical area of origin of these studies. Again, it has been identified a path that follows the topic clusterisation: while customers behavior studies have been based on large national (or international) areas the spatial distribution or the impact on price and revenues ones have been based on narrower areas, defined by one or more cities.



*Figure 6: Geographic paper distribution*

## 4. Discussion

### 4.1 Competition

As mentioned, even the simple statement that Airbnb and hotels are in competition raises several doubts. Although focused on different aspects and objectives, all the studies analyzed in this literature review are based on the investigation of the competition between hotels and Airbnb, trying to define the most popular sharing economy platform's impact on the industry incumbents.

Among them, Williams and Horodnic (2017) is the most focused study on the pure thematic of the competition. Basing its findings on more than 600 interviews conducted in 2013, specifically addressed to the hospitality sector, in a geographic area covering European and Asian nations, authors try to assess the perceived threat by hotels and restaurants executives, towards the informal sector (i.e. the sharing economy). Findings show how, already in 2013, just few years after the birth and not yet established popularity of Airbnb, almost the 50% of the business respondents consider the informal sector as a threat, considering *“the informal sector as a significant barrier to the growth of the legitimate hospitality industry”* (Williams and Horodnic 2017). More specifically, around the 13% considered their activity effectively in competition with the informal sector. On the same path, Guttentag and Smith (2017) findings show how almost two-third of the interviewed, on a total sample of 844 customers userbase, use Airbnb as an hotel substitute and only the 2.3% had as Airbnb alternative the option of not taking the trip at all. Differently, Koh and King (2017) qualitative study on Airbnb impact on Singapore's



budget hotels, show how nine over ten hotel management in 2016 still did not consider Airbnb an actual competitor but just a possible future threat.

Gutiérrez, et al. (2017) added considerable relevance on the location pattern of the competition. Its findings, in fact, show how Airbnb, besides competing with hotels in the most central cities areas, provides a complementary service in peripheral zones. These conclusions have also been confirmed by Gyódi (2019) spatial analysis *“which showed that the degree of substitutability between accommodation provided by Airbnb and by the traditional hotel sector was dependent on location”* (Gyódi 2019). Moreover, its price related considerations are in line and complete the works of Zervas, Proserpio and Byers (2017) and Xie and Kwok (2017). The former, basing its study in Texas over a period of six years (2008-2014) found a direct relationship between the increase in the number of Airbnb accommodation and the decrease of hotel revenues. As for Roma, Panniello and Lo Nigro (2019), their findings confirm that budget hotels are the most impacted by Airbnb. Xie and Kwok (2017) deepened this impact underling the relevance of Airbnb listing prices on surrounding hotels revenues. Common findings, therefore, show how Airbnb can effectively be considered, for specific aspects that will be discussed, a disruptive innovation regarding its competition with the hospitality industry.

#### 4.2 Customer Behavior

The largest cluster identified, among the studies analyzed in this literature review, addresses its attention to the customer perspective of choosing a sharing economy solution, as an Airbnb room, rather than a traditional hotel offer. Basing their findings on large customer feedback databases, all these studies aim to point out the main strengths and

weaknesses of both the alternatives from the customer perspective. How did sharing economy become a so solid and valued alternative to the traditional hospitality offer? Which have been the key aspects that facilitated the shift for at least a share of consumers? What weak points could hotel chains improve in order to fight against sharing economy competition? To have an overall picture of the Airbnb impact on the hospitality industry is therefore basic to deepen the customer considerations about sharing economy alternatives.

First, it is essential to subdivide hospitality customers in two macro groups: business and leisure travelers (Li and Tabari 2019). According to the type, customers will have certain necessities rather than others (i.e. wi-fi connection rather than swimming pool etc.). As Young, Corsun and Xie (2017) show, exists a clear distinction in the customer purchase intention according to their travelling purpose. In fact, as the host interaction can result one of the main strengths in order to enter the local authentic experience for leisure travelers, *“the thought of having to spend time with a P2P<sup>2</sup> host is unappealing”* (Young, Corsun and Xie 2017) for the business ones. Moreover, sharing economy alternatives, often involve a major waste of time in the booking stage which doesn't fit with business travelers time requirements.

Besides this overall distinction, from a customer perspective, there are generic intrinsic features that are influencing an incremental shift towards P2P solutions. Common findings show how the most influential factors in the choice of a sharing economy listing are lower prices and more authentic experiences (Li and Tabari 2019) (Birinci, Berezina

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<sup>2</sup> Peer-to-peer accommodation

and Cobanoglu 2018) (Guttentag and Smith 2017) (Young, Corsun and Xie 2017). Regarding the former, respect to mid/up scale hotels, Airbnb's host can afford lower renting prices, achievable thanks to the minimal labor costs, untaxed extra income and, mainly, fixed amortization costs of rent and utilities (Li and Tabari 2019). Moreover, the other cornerstone behind Airbnb's success is represented by customers possibility to enjoy authentic experiences being in close contacts with local residents (Li and Tabari 2019) (Mody, Suess and Lehto 2017) (Mody and Hanks 2019) (Yan, Zhang and Yu 2019) (Birinci, Berezina and Cobanoglu 2018) (Guttentag and Smith 2017) (Mody, Suess and Letho 2019) (Young, Corsun and Xie 2017). This one is probably the most interesting and discussed aspect in the customer perspective context. Being globally recognized as the major differentiating factor, Airbnb's authentic experience has been analyzed, in the mentioned studies, from several points of view.

Basing their findings on a sample of more than 1.200 surveys, Mody and Hanks (2019), point the attention on the impact of the experience authenticity on brand love both for Airbnb and hotels. Identifying the three main consumption authenticity components: brand, existential and intrapersonal; authors discover how Airbnb leverages all the three dimensions *"in creating brand-loving and brand-loyal customers"* (Mody and Hanks 2019). On the other hand, for hotels, a relevant relationship has only been denoted between the brand component, by discovering significant shortcomings in comparison with Airbnb from the perspective of interpersonal and existential authenticity. Surely, these findings are in line with the intrinsic distinction that the two services offer and underline a substantial

difference in the customer purchase intention distinguish travelers attracted to a major contact experience with locals.

Experience economy and experiencescape in the accomodation industry context are also the core of Mody, Suess and Lehto (2017) (2019). In line with previous literature, authors underline the sharing economy superiority of *“facilitating positive affect-laden and memorable experiences”* (Mody, Suess and Letho 2019) showing better customers feedback for all the eight experience dimensions: entertainment, education, escapism, esthetics, serendipity, localness, communitas and personalization (Mody, Suess and Lehto 2017). Authors introduce the concept of hospitableness, providing a number of aspects on which hotels can improve, in order to gain competitive advantages over the sharing economy. Findigs, in fact, show how exists a potential margin to be exploited based on *“providing true hospitality in a commercial setting to facilitate memorable consumption experiences”* (Mody, Suess and Letho 2019). In other words, differently from sharing economy listings, hotels can leverage a proper know-how based on *“the human dimention of the guest experience; aspects of welcoming, kindness, respect”* (Mody, Suess and Letho 2019).

Beyond the experience authenticity and the economic savings, different other Airbnb strenghts have been identified. Li and Tabari (2019) and Young, Corsun and Xie (2017) focus on the importance of some facilities often present on sharing economy listings (as kitchens) which are not included on the traditional hotel offer. On the other hand, Yan,

Zhang and Yu (2019) developing a PPM<sup>3</sup> model based on almost 300 customers surveys and aimed to analyze hotels consumer's switching intention, recognize a clear satiation and boredom towards traditional hospitality standardized services. On the other side, almost half of the analyzed studies identify appealing qualities able to tip the scales in the direction of hotels rather than sharing economy solutions. Safety and security as been identified as hotel strenghts from Li and Tabari (2019) and Young, Corsun and Xie (2017) but not from Birinci, Berezina and Cobanoglu (2018); while Guttentag and Smith (2017) compare Airbnb's level with midrange hotels. Further hotel strenghts points have been found in the implementation of loyalty programs (Li and Tabari 2019) or in the location of the listing itself (Young, Corsun and Xie 2017).

<b>Study</b>	<b>Airbnb strenghts</b>	<b>Hotels strenghts</b>	<b>Sample Survey</b>
Lu L., Tabari S.	Price Authentic experience Facilities (Kitchen, ...)	Safety Loyalty Programs Facilities (Gym, Swimming pool, ...)	100
Mody M., Suess C., Lehto X.	Esperiencescape	Hospitableness	630
Mody M., Hanks L.	Existential and intrapersonal authenticity	Brand authenticity	1256
Yan R., Zhang K.Z.K., Yu Y.	Satiation towards hotel experience Social/economic value	-	292
Birinci H., Berezina K., Cobanoglu C.	Authentic experience	-	391
Guttentag D.A., Smith S.L.J.	Authentic experience Low prices	-	844
Mody M.A., Suess C., Lehto X.	Esperiencescape	-	630
Young C.A., Corsun D.L., Xie K.L.	Price Facilities (Kitchen) Size of the unit	Location Safety Security	788

*Table 4: Customer Behavior studies summary*

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<sup>3</sup> Push-pull-mooring

### 4.3 Spatial Distribution

Having broadly analyzed Airbnb-hotels' competition and deepened the importance of the customer-perspective's side, the following cluster will deal with their listing's spatial distribution. Comprehensively, being a study concerning tourism aimed services, dwellings' and hotels location plays a key role in the competition, proving to be a topic considerably discussed in literature. Of the total sample, made by twenty-nine papers analyzed in this literature review, five are those that focus more specifically on the study of the differences between Airbnb's and hotels' spatial distribution. Findings described hereafter are specifically based on studies carried out in the following cities: Warsaw, Berlin, Barcelona, Paris, London and Budapest. Differently from others thematic clusters, therefore, the following conclusions have as their main limitation the exclusive presence of data based on European cities.

In addition to common results, which show how both Airbnb and hotels are located near the main tourist attractions (monuments, beaches, etc.), several differentiation factors were found between hotel and Airbnb locations. Boros, et al. (2018) and Xu, et al. (2019) analyzing Budapest and London's Airbnb spatial distribution highlight how both hotels and Airbnb show an higher concentration in the city centres, creating a strong competition on the most touristic districts.

Gutiérrez, et al. (2017) case study, based on data collected in 2015 for the city of Barcelona, is one of the first deepened analysis related on the P2P accommodations impact on a specific city, giving special focus on lodgings' location. Through a series of spatial

comparisons between Airbnb and hotels, authors demonstrate how, differently from hotels, whose location is strictly determined by factors as the presence of touristic sightseeing spots or business areas, Airbnb's dwellings expand over a much wider area showing relevant presence also in many residential districts (Figure 7). Same conclusions are shared by Xu, et al. (2019). Authors, moreover, highlight the distinction in customer preferences shown in the previous paragraph, depending on whether it is a business or leisure traveler. Findings show how Airbnb listings distribution is much simpler and more regular than the hotels' one, raising considerable doubts on how Airbnb and hotels can be considered in competition targeting different geographic areas.

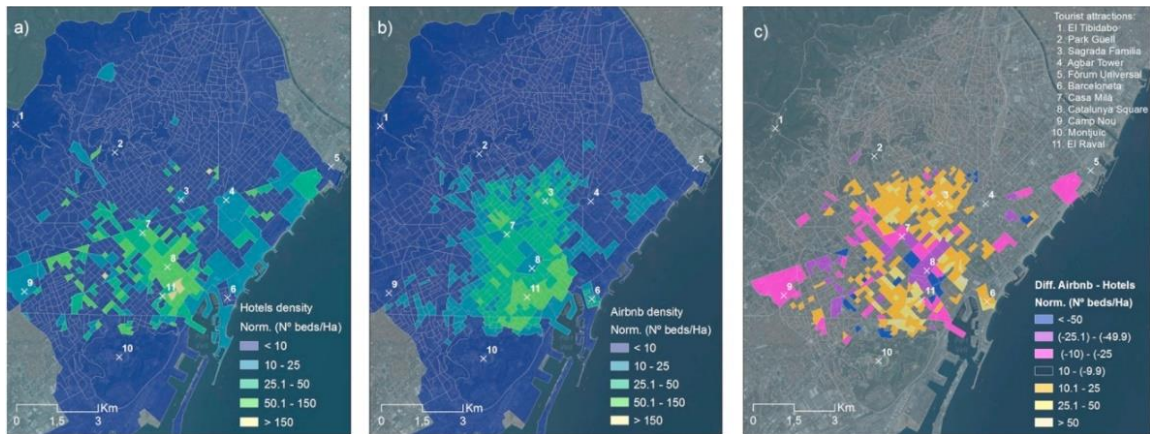


Figure 7: Density of normalised distributions: a) hotels; b) Airbnb; c) differences (Gutiérrez, et al. 2017)

From the same perplexities, Heo, Blal and Choi (2019) base their study, focusing on the city of Paris from a dataset harvested during 7 years (2009-2015). Their findings demonstrate *“different growth and seasonality patterns for Airbnb and hotels and dissimilarities in the geographical location of the offers”* (Heo, Blal and Choi 2019) to the point of stating that the two services can not be defined in direct competition.

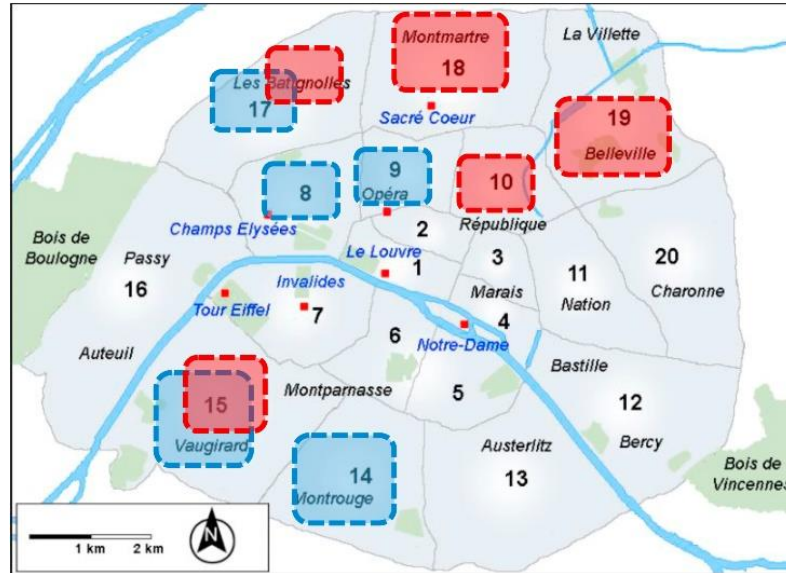


Figure 8: Distribution of hotel room supply and Airbnb listing by district: Top 5 districts (2014) (Heo, Blal and Choi 2019)

Inspired by Gutiérrez, et al. (2017), Gyódi (2019) realizes a mapping of four main european touristic destinations (Warsaw, Paris, Berlin and Barcelona). Findings (Figure 9) display how, with the exception of Warsaw, Airbnb dwellings are spread in a much wider areas than hotels, supporting the common literature hypothesis that Airbnb convey tourist to new peripheral areas, incrising the total number of touristic visitors. Furthermore, it is possible to see that in all four cities, it is present a considerable density of Airbnb listings in the areas where the hotels are most concentrate. Findings therefore, confirm the hypothesis that Airbnb competes effectively with hotels in specific areas of the cities and completes their offer in more periferal areas (Gyódi 2019). From a visual comparison of Figure 7, Figure 8 and Figure 9, it is possible to see how findings are in line with Gutiérrez, et al. (2017) and Heo, Blal and Choi (2019).



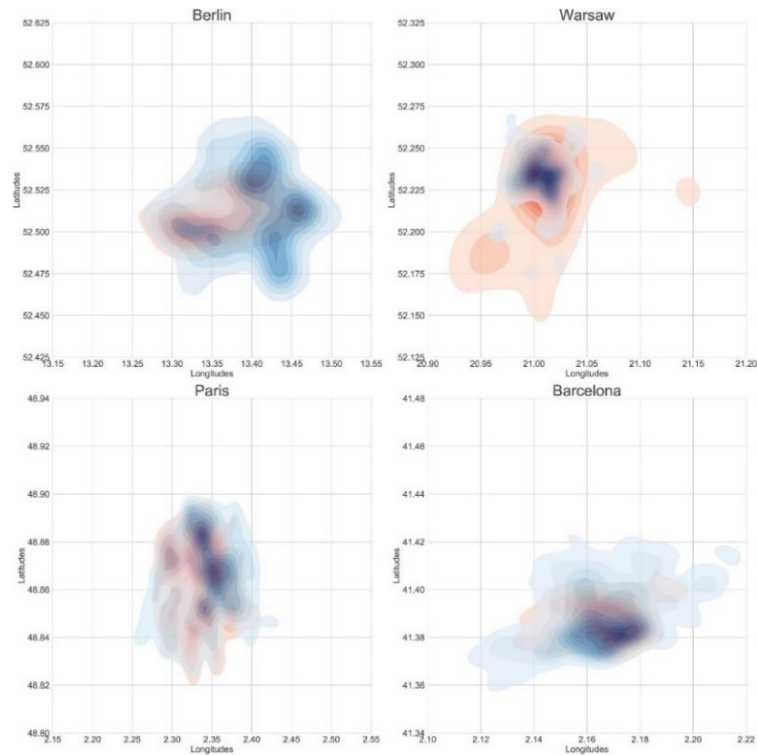


Figure 9: Densities of Airbnb (blue) and hotels/hostels (red) (Gyódi 2019)

In conclusion, these studies demonstrate common results determining how spatial distribution is a fundamental key in competition between Airbnb and hotels. An overall spatial distinction has been identified in almost all the studied cities, distinguishing a central area where Airbnb and hotels can indeed be defined in competition, sharing the same customer target with an high concentration of listings, and other districts, as more peripheral zones or business oriented areas where is instead present a visibly greater concentration of Airbnb in the former and hotels in the latter.

#### 4.4 Price

As introduced in the opening chapter, price represents a “*core competitive advantage for the sharing economy*” (Gibbs, et al. 2018). “*Pricing is one of the most*

*important competitive weapons in this industry*” (Roma, Panniello and Lo Nigro 2019). Consumers, in fact, *“perceive price as the most influential factor in their purchasing decision”* (Xie and Kwok 2017). As for many new disruptive products or services, the lower price and the introduction of new benefits are in balance with the inferior performance that the disruptive product or service provides respect to incumbent ones. Therefore, before to compare Airbnb and hotels prices, and to study how Airbnb listings influence hotels’ ADR<sup>4</sup>, it is fundamental to deepen the price determinants which generate these differences. First, it is necessary to highlight how Airbnb’s hosts, differently from hotels, are able to cover most of their fixed costs (rent, electricity, ...) and to keep minimal the labor ones (Li and Tabari 2019). In addition, in most countries, taxation is still relatively low compared to the hotels’ one (Gibbs, et al. 2018) (Dogru, Mody and Suess 2019).

Comparing Airbnb and hotels price determinants, Wang and Nicolau (2017) base their study on 33 cities and more than 180.000 accommodations. Main findings show how, differently from hotels, which main quality signaling factors have been identified in stars and chain affiliation, Airbnb’s main price determinants are recognized in the host attributes. Among others, the presence of the superhost<sup>5</sup> status, more than one listing or the verified identity are variables able to raise prices. Clearly exist relevant price determinants common to the hotels industry as the location and the property attributes or even related to the customers reviews or the rental rules.

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<sup>4</sup> Average Daily Rate

<sup>5</sup> Superhost status is awarded when hosts have hosted at least 10 trips, maintained at least 90% response rate, received a 5-star review at least 80% of the time they have been reviewed, completed each of their reservations without cancelling. (Wang and Nicolau 2017)

Among the studies related to the clustering thematic of price, two (Roma, Panniello and Lo Nigro (2019); Xie and Kwok (2017)), are those that tried to analyze how the presence and penetration of the sharing economy influenced prices of surrounding hotel rooms. In line with these two, there is the work carried out by Gyódi (2019), in part already analyzed in the strictly related thematic of the spatial distribution.

With its study, the latter sets the market groundwork of the price distribution differences and similarities among hotels, Airbnb and hostels. Data collected from Berlin, Warsaw, Paris and Barcelona show how hostels are in direct price competition with Airbnb shared rooms having comparable distribution functions (Figure 10). On the other hand, Airbnb entire rooms position themselves in the hostels private rooms or budget hotels listings price segment, offering themselves as a potential valid price alternative. Finally, Airbnb entire apartments show a firm price substitution value with many hotel rooms price segments. Gyódi (2019) conclusions therefore, differently from what emerged from the spatial distribution elaboration, suggests that, from a price perspective, Airbnb provides a range of hospitality alternatives that can perfectly replace the traditional hotels/hostels offer. Moreover, differently from Xie and Kwok (2017), Gyódi (2019) results show how in all three the price segment comparisons (Airbnb shared rooms vs hostels, Airbnb private rooms vs budget hotels, Airbnb entire places vs high-end hotels) hotel listings show an higher price dispersion than Airbnb (Figure 10).

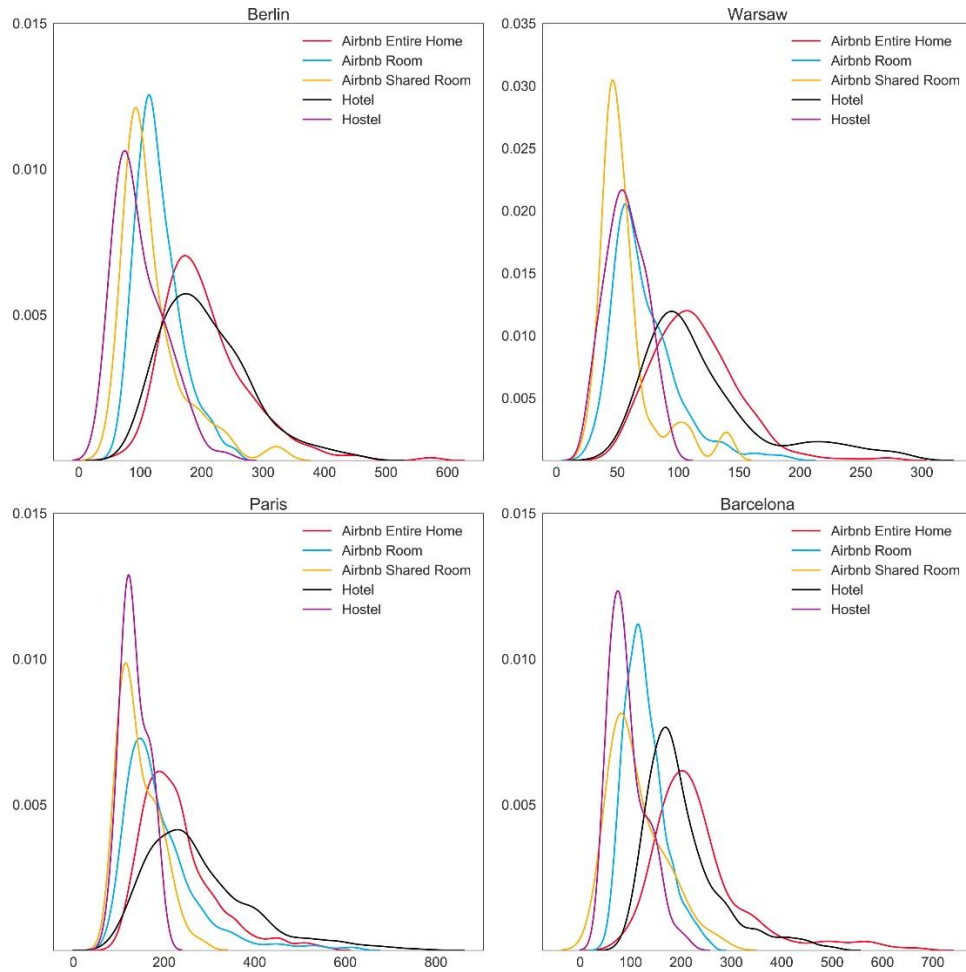


Figure 10: KDE plots of the prices of different accommodation types (Gyódi 2019)

The greatest difference between hotels and Airbnb's price setting, however, is related to the Airbnb choice of letting its hosts set the listings price. Differently from other sharing economy companies like Uber or Lyft, Airbnb undertakes this particular decentralisation of the price decision making. While hotels prices are set by trained professionals, with the assistance of updated technical data-tools and huge market benchmarks, Airbnb listings are administrated by people with very low experience and few supportive tools in the price setting decision. According to Gibbs, et al. (2018), this discrepancy in the price choice led to a loss of almost the 50% of the potential hosts revenue, while differently from Gyódi (2019), Xie and Kwok (2017) consider that Airbnb's

significant price dispersion represents the main mitigation towards the penetration to the hotel business. Even if Airbnb tried to solve the issue with the implementation of a own dynamic pricing tool, price remains one of the main challenge for the future of the sharing economy platforms' success.

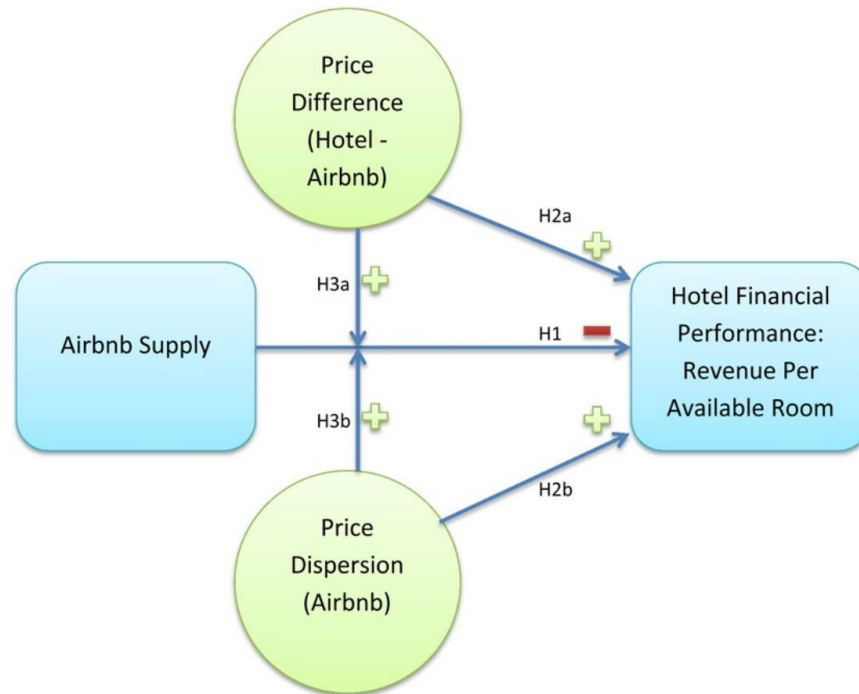


Figure 11: The Effect of Price Positioning on Hotel Performance (Xie and Kwok 2017)

While Xie and Kwok (2017)'s study, based on data related to the first years of Airbnb's launch<sup>6</sup> in Austin Texas, keeps a more theoretical approach, analyzing the impact of the price differences and price dispersion on hotels performance and highlighting its negative effect, more concrete findings come from Roma, Panniello and Lo Nigro (2019). In the study, based on data collected from the thirteen most visited cities in Italy<sup>7</sup>, authors point out how, regarding low/medium-end incumbents<sup>8</sup>, an higher presence of sharing

<sup>6</sup> 2008 - 2011

<sup>7</sup> Rome, Milan, Venice, Florence, Turin, Naples, Ravenna, Bologna, Verona, Genoa, Pisa, Padua, Palermo

<sup>8</sup> 1-3 stars category hotels

economy listings in a city leads to lower hotels prices, mostly during weekend rather than weekdays. This conclusion is in line with the customer target described in the customer behavior paragraph, sharing economy companies in fact *“emerged as suitable alternatives mostly for consumers traveling for vacation or other recreational purposes rather than due to job/business reasons, given that the former usually display much higher price sensitivity”* (Roma, Panniello and Lo Nigro 2019). On the other hand, regarding high-end incumbents<sup>9</sup> authors experienced a counter-intuitive trend. Results, indeed, show a visible hotel price rise in cities where the Airbnb (or other sharing economy platforms) penetration is significant. Lowering their prices, these hotels would enter in a price-war with sharing economies P2P platforms that would drive them away their core quality standards.

#### 4.5 Revenue

Airbnb's impact on hotel revenue represents the core of this literature review. The analysis of customers perspectives, of the spatial distribution relevance and finally of Airbnb's impact on hotels prices led to this final evaluation of the measure on which Airbnb listings affected the hospitality industry profitability. As introduced in the methodology, among the papers' sample employed to realize this literature screening, just four works deepen with a quantitative approach the real effects that the incremental spreading of Airbnb listings had on surrounding hotels revenue. The presence of such small number of studies addressed to this purpose and the limitations to which each of them is affected due the specific time and spatial frames, give the idea of how much the results obtained so far cannot be considered definitive and how much can still be done in future researches.

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<sup>9</sup> 4-5 stars hotels

An introductive analysis on this direction has been given by Aznar, et al. (2017), a first revenue oriented overview, based on the city of Barcelona, that highlights the presence of a positive correlation between Airbnb's listings and positive surrounding hotels return on equity. Findings, indeed, show how Airbnb high presence on a specific location represents an indicator of touristic attractiveness able to influence hotels revenue.

A more specific contribution, instead, has been given by Dogru, Mody and Suess (2019). Basing their findings on data collected for the ten most important US cities<sup>10</sup> for the period between July 2008 and June 2017, authors demonstrated how an overall Airbnb supply increase of 1% led to a decrease in hotel RevPAR<sup>11</sup> by between 0.02% and 0.04%. Results that somehow confirm precedent findings from Zervas, Proserpio and Byers (2017) obtained studying data from 13,395 distinct listings in Texas in a period between January 2008 and August 2014. The esteem of the latter, in fact, set that *"each additional 10% increase in the size of the Airbnb market resulted in a .39% decrease in hotel room revenue"* (Zervas, Proserpio and Byers 2017) which reduced to an 1% increase perfectly match the 0.02% - 0.04% interval defined by Dogru, Mody and Suess (2019). Discrepancies between the studies can be found with regard to the hotel segments of the affected classes. Namely, Dogru, Mody and Suess (2019) showed how Airbnb's impact was not only limited to the low-end hotel segment but that also the up class and the luxury one were considerably affected (respectively 0.03% and 0.04% RevPAR drop) introducing Airbnb's entry in the luxury segment. On the other hand, Zervas, Proserpio and Byers

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<sup>10</sup> Boston, Chicago, Denver, Houston, Los Angeles, Miami, Nashville, New York, San Francisco, Seattle

<sup>11</sup> Revenue Per Available Room

(2017) findings demonstrated a proportional impact increase moving down with the hotel price tier with a related more considerable repercussion on the hotel budget segment in line with Roma, Panniello and Lo Nigro (2019) price analysis while Aznar, et al. (2017) did not highlight any relationship between profitability and star category. Moreover, authors deepen an aspect untreated by precedent literature: *“Airbnb’s differential impact on chain hotels versus independent hotels”* (Zervas, Proserpio and Byers 2017). Unsurprisingly, results show how chain remain less affected than independent hotels due to higher marketing budgets and a more constant service standards.

These two studies, however, show inconsistent results with respect to Blal, Singal and Templin (2018). This investigation in fact, based on data obtained from 101 hotels<sup>12</sup> from December 2013 and February 2016 for the city of San Francisco, demonstrates how Airbnb supply did not affect hotel sales, showing a complementary more than competitive service offer. More than Airbnb’s supply, indeed, authors found out that hotels RevPAR are affected negatively by Airbnb user satisfaction score and that, in line with Zervas, Proserpio and Byers (2017), *“lower scale hotels are affected more than upper scale”* (Blal, Singal and Templin 2018). Compared to previous studies, however, it is important to consider the limitations to which the latter's findings are subject due to the geographical restriction limited to a single city.

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<sup>12</sup> Economy-Luxury sample



#### 4.6 Strategy

As introduced in the methodology, literature papers dealing with the strategic thematic, related to both hotels and Airbnb, are characterized by the prevalence of a qualitative-discursive methodological approach. Common traits are a large introductive section targeted to a detailed explanation of Airbnb business model and a conclusive part in which the focus is addressed on a list of strategical advices which hotels chain can implement in order to face Airbnb competition. The one described above is the structure of almost all the six studies came out from this literature screening. Some of them, like Forgács and Dimanche (2016), Richard and Cleveland (2016) and Bashir and Verma (2016) stop here, highlighting how hotels chain should analyze more in depth aspects at the base of Airbnb success and use them as improvement opportunities (Forgács and Dimanche 2016); how to transfer hotel brand knowledge and resources from their current business models to the sharing economy one (Richard and Cleveland 2016) or showing the importance of the value creation in a competition scenario of a business model innovation (Bashir and Verma 2016).

More in-depth analyses are those carried out by Akbar and Tracogna (2018), Sotiriadis and Van Zyl (2017) and Oskam and Boswijk (2016). The latter, based on information collected from the opinion of a group of 31 sector experts<sup>13</sup>, implements a real forecast of the competition between hotels and Airbnb, reaching the following conclusions: hotel chains will shift their focus from just providing their guests a physical place where to sleep, towards an innovative attention of the guest interactions and, especially, to local

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<sup>13</sup> ten hotel executives, 11 destination marketers and ten consultants and trend watchers (Oskam and Boswijk 2016)

experiences; moreover, due to the increase of travellers and gentrification, authors expect that the key variable in this competition will be the adoption of governmental regulatory measures. Applying a Transaction Cost Theory, Akbar and Tracogna (2018), point out how hotel chain could leverage their superiority in dealing with three key strategic transaction aspects: frequency, uncertainty and asset specificity. According this paper, in fact, hotels could bundle *“independently owned properties with destination (asset-specific) services”* (Akbar and Tracogna 2018) like restaurants, spas etc. Besides, hotels can limit transaction uncertainty assuring quality standards on pre/after stay experience and create new value bundles, leveraging existing assets and exploiting economies of scale. Finally, Sotiriadis and Van Zyl (2017), describe how hotel chains need to cooperate with competing P2P companies introducing the concept of “coopetition”, launching their own sharing platforms or listings their rooms on external sharing economy portals.

## 5. Conclusion

As demonstrated, scientific literature studies regarding the impact of sharing economy platforms, and more specifically Airbnb's impact on the hospitality industry, are not only independent from each other from a geographical point of view, showing different aspects but also, very often, opposite findings. The aim of this literature review, therefore, has been to make a quantitative screen of the existing scientific studies in order to give an overview able to help further research to address the covered thematic in a most specific way and delve into the gaps that have been neglected so far.

From the initial paper dataset extraction of 122 studies, a subsequent screening left the 29 scientific papers on which is based the picture displayed in this literature review. This work conclusions state how nowadays it is impossible to not define Airbnb and hotel chains in competition, highlighting key topics considered relevant in defining the impact of Airbnb on incumbent's industry.

From what concerns customer behavior and its preferences, findings are quite concordant on emphasize the strategic aspect representing the most striking difference in relation with traditional hospitality, contributing to Airbnb's creation and expansion: customers authentic local experience. Indeed, even if from a customer point of view (both hosts and travelers), the economic saving represents a huge differentiation factor, allowing an expansion of the traveler userbase that otherwise would not have traveled (comparable with what happened with the birth of low-cost airlines companies), the local authentic experience, which Airbnb hosts are able to provide, has been defined unanimously the first

driver of Airbnb's success. In line with these findings, are the takeaways obtained from the strategic related studies where, in advising the best strategy to address the sharing economy, authors suggest hotel chains a graduate shift towards the customer experience focus, facilitating the connection between guests and especially with locals. Suggestions that, naturally, do not have to be considered directed to business travelers, representing a separate customer subclass more faithful to traditional hospitality and that Airbnb still has not been able to reach.

Other than this contour analysis, the core of this study has been represented by a more quantitative assessment of Airbnb's impact on the hospitality industry according to the focus of three key interrelated variables: spatial distribution, price, and revenue. Regarding the geographical distribution, common findings show how, besides the city center, Airbnb and hotels cover almost complementary areas with a considerable larger spread of the sharing economy platform in the peripheral and more residential districts. Differently, the price in-depth analysis showed how, from an economic perspective, Airbnb offers a more than valid alternative to traditional hotel rates affecting especially low-end hotels. Finally, the revenue related focus demonstrated how Airbnb impact on hotels profitability has still not received the right literature attention showing findings still too related to individual single studies.

In addition to all this, impressive has been the limited attention dedicated to regulatory and legislative aspects of this competition considering the evolution and

importance that the thematic demonstrated for other sharing economy platforms as Uber. This can be considered the widest gap that this literature review has brought to light.

### 5.1 Limitations and recommendations for future research

As with most scientific studies, even this work is not exempt from certain limitations. As explained in detail in the methodology, findings obtained from this literature screening have been extrapolated from 29 scientific papers (Table 6) skimmed from the original 122 Scopus extraction (Table 5). Therefore, despite the broader analysis has been conducted from a considerable sample, the effective conclusions refer to a quite restricted subgroup of works. Specifically, as stated, even if every study is linked with previous works, the final subgroup is spread in papers written in just 4 years restricting significantly the viewpoint. From a geographical perspective instead, this study can be considered exempt from relevant limitations including sources belonging to Europe, Asia and America.

All in all, this thesis represents a schematic and organized overview over the last years most discussed facets related with the sharing economy and Airbnb's impact on the hospitality industry. Further research can undoubtedly rely on this work in order to have a rapid and systematic overview over the totality of the what studied until now, before to enter in specific technical analysis. As anticipated, there are two big topics that still did not receive literature due attention and interest: the legislative and governmental perspective, with a specific regard towards the overall city tradeoff of Airbnb's expansion addressed to fair taxation fees; and a more global analysis of Airbnb's impact on hotels profitability and

revenue considering findings obtained so far not universal enough to achieve definitive statements on the matter.

## 6. Appendix I

Authors	Title
Cheng M., Foley C.	Algorithmic management: The case of Airbnb
Mody M., Hanks L., Dogru T.	Parallel pathways to brand loyalty: Mapping the consequences of authentic consumption experiences for hotels and Airbnb
Roma P., Panniello U., Lo Nigro G.	Sharing economy and incumbents' pricing strategy: The impact of Airbnb on the hospitality industry
Liu X., Liu J., Law R., Liang S.	Power of profile name in online sharing
Tang L.R., Kim J., Wang X.	Estimating spatial effects on peer-to-peer accommodation prices: Towards an innovative hedonic model approach
Gyódi K.	Airbnb in European cities: Business as usual or true sharing economy?
Dogru T., Mody M., Suess C.	Adding evidence to the debate: Quantifying Airbnb's disruptive impact on ten key hotel markets
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Lu L., Tabari S.	Impact of Airbnb on customers' behavior in the UK hotel industry
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Mody M., Hanks L.	Consumption Authenticity in the Accommodations Industry: The Keys to Brand Love and Brand Loyalty for Hotels and Airbnb
Zhang J.	What's yours is mine: exploring customer voice on Airbnb using text-mining approaches

Xu F., Hu M., La L., Wang J., Huang C.	The influence of neighbourhood environment on Airbnb: a geographically weighed regression analysis
Lyu J., Li M., Law R.	Experiencing P2P accommodations: Anecdotes from Chinese customers
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Yan R., Zhang K.Z.K., Yu Y.	Switching from hotels to peer-to-peer accommodation: an empirical study
Ma S., Gu H., Hampson D.P., Wang Y.	Enhancing Customer Civility in the Peer-to-Peer Economy: Empirical Evidence from the Hospitality Sector
Marques L., Gondim Matos B.	Network relationality in the tourism experience: staging sociality in homestays
Pappas N.	The complexity of consumer experience formulation in the sharing economy
Bridges J., Vásquez C.	If nearly all Airbnb reviews are positive, does that make them meaningless?
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DiNatale S., Lewis R., Parker R.	Short-term rentals in small cities in Oregon: Impacts and regulations
Gal-Or E.	Peer-to-peer sharing in the lodging market: Evaluating implications for social welfare and profitability
Chau C.-K., Elbassioni K.	Quantifying Inefficiency of Fair Cost-Sharing Mechanisms for Sharing Economy
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Setiffi F., Lazzar G.P., Scotto V.	Meeting the prosumer: Transporting, hosting and feeding people in the sharing economy
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Dudás G., Boros L., Kovalcsik T., Kovalcsik B.	The visualization of the spatiality of airbnb in budapest using 3-band raster representation
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Williams C.C., Horodnic I.A.	Regulating the sharing economy to prevent the growth of the informal sector in the hospitality industry
Young C.A., Corsun D.L., Xie K.L.	Travelers' preferences for peer-to-peer (P2P) accommodations and hotels
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Costa R.B., Fernandes V.M., Gonçalves F.N.	The construction of trust in hospitality experiences mediated by the internet: The cases of couchsurfing and airbnb [A construção da confiança em experiências de hospitalidade mediadas pela internet: Os casos do airbnb e do couchsurfing]
Chen Y., Xie K.L.	Consumer valuation of Airbnb listings: a hedonic pricing approach
Karlsson L., Kemperman A., Dolnicar S.	May I sleep in your bed? Getting permission to book
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Wu L., Shen H., Li M., Deng Q.	Sharing information now vs later: The effect of temporal contiguity cue and power on consumer response toward online reviews
Forgacs G., Dimanche F.	Revenue challenges for hotels in the sharing economy: Facing the Airbnb menace
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Rodríguez-Antón J.M., Alonso-Almeida M.M.,	Collaborative economy. An approach to sharing tourism in Spain [La economía colaborativa. Una aproximación al turismo colaborativo en España]

Rubio-Andrada L., Pedroche M.S.C.	
Zha Y., Zhang J., Yue X., Hua Z.	Service supply chain coordination with platform effort-induced demand
Capdevila I., Zarlenga M.I.	Smart city or smart citizens? The Barcelona case
Weber T.A.	Intermediation in a Sharing Economy: Insurance, Moral Hazard, and Rent Extraction
Sabou G.C., Nistoreanu P., Vlad D.	The ethics of online touristic counselling: A matter of users satisfaction
Germann Molz J.	Social networking technologies and the moral economy of alternative tourism: The case of couchsurfing.org
Breukel A., Go F.M.	Knowledge-based network participation in destination and event marketing: A hospitality scenario analysis perspective
Jensen T.E.	Experimenting with commodities and gifts: The case of an office hotel

*Table 5: Original Scopus extraction - 122 papers*

## 6.1 Appendix II

<b>Authors</b>	<b>Title</b>
Williams C.C., Horodnic I.A.	Regulating the sharing economy to prevent the growth of the informal sector in the hospitality industry
Koh E., King B.	Accommodating the sharing revolution: a qualitative evaluation of the impact of Airbnb on Singapore's budget hotels
Lu L., Tabari S.	Impact of Airbnb on customers' behavior in the Uk hotel industry
Mody M., Suess C., Lehto X.	Going back to its roots: Can hospitableness provide hotels competitive advantage over the sharing economy?
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Yan R., Zhang K.Z.K., Yu Y.	Switching from hotels to peer-to-peer accommodation: an empirical study
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Young C.A., Corsun D.L., Xie K.L.	Travelers' preferences for peer-to-peer (P2P) accommodations and hotels
Roma P., Panniello U., Lo Nigro G.	Sharing economy and incumbents' pricing strategy: The impact of Airbnb on the hospitality industry
Gibbs C., Guttentag D., Gretzel U., Yao L., Morton J.	Use of dynamic pricing strategies by Airbnb hosts
Xie K.L., Kwok L.	The effects of Airbnb's price positioning on hotel performance
Wang D., Nicolau J.L.	Price determinants of sharing economy based accommodation rental: A study of listings from 33 cities on Airbnb.com
Dogru T., Mody M., Suess C.	Adding evidence to the debate: Quantifying Airbnb's disruptive impact on ten key hotel markets
Blal I., Singal M., Templin J.	Airbnb's effect on hotel sales growth
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Heo C.Y., Blal I., Choi M.	What is happening in Paris? Airbnb, hotels, and the Parisian market: A case study
Xu F., Hu M., La L., Wang J., Huang C.	The influence of neighbourhood environment on Airbnb: a geographically weighed regression analysis

Boros L., Dudás G., Kovalcsik T., Papp S., Vida G.	Airbnb in Budapest: Analysing spatial patterns and room rates of hotels and peer-to-peer accommodations
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Forgacs G., Dimanche F.	Revenue challenges for hotels in the sharing economy: Facing the Airbnb menace
Richard B., Cleveland S.	The future of hotel chains: Branded marketplaces driven by the sharing economy
Oskam J., Boswijk A.	Airbnb: the future of networked hospitality businesses
Bashir M., Verma R.	Airbnb disruptive business model innovation: Assessing the impact on hotel industry

*Table 6: Final paper dataset - 29 papers*

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