Sharing economy disrupting aviation: travelers' willingness to pay

Sabine Sarlay and Barbara Neuhofer

Abstract

Purpose – *The sharing economy (SE) has transformed the tourism industry and continues to disrupt multiple sectors in the global business landscape. This paper aims to investigate the potential of the SE entering the aviation sector and examines travelers' willingness to pay (WTP) a premium for shared private air travel.*

Design/methodology/approach – *The context for the empirical study was the platform JetSmarter, one of the emerging SE platforms in the private aviation sector. A quantitative survey with a random sampling method was adopted to measure customers' WTP premium prices.*

Findings – *The results reveal a glaring interest of commercial air travelers in flying on a shared, private aircraft and show significant differences in the WTP for private aviation. The findings highlight a difference of WTP between customer segments, including Northern American and European customers, as well as business and leisure travelers.*

Originality/value – *The study makes a three-fold contribution to theory and practice. First, it bridges SE literature and the WTP construct, and with that, expands the understanding of pricing behaviors in a SE context. For tourism businesses, the study is valuable in that it offers concrete pricing suggestions for SE services when aimed at a premium rather than a budget customer segment. Third, the study is novel in that it taps into the aviation sector as a subsector of the SE ecosystem and offers critical implications suggesting the potential of the SE disrupting traditional aviation businesses.*

Keywords *Willingness to pay, Sharing economy, Aviation, Collaborative economy, JetSmarter*

Paper type *Research paper*

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共享经济对航空业的影响: 旅客的支付意愿

摘要

目的：共享经济不仅影响了旅游业，更进而改变了许多产业的运作模式。本文旨在研究共享经济在航空业的发展潜力，以及探讨旅客对于共享私人飞机的溢价的付费意愿。

设计/方法/途径：此实证研究是以一个新兴的共享私人飞机公司*JetSmarter*作为背景。本研究采用定量调查中的随机抽样方法去衡量客户支付溢价的意愿。

结果：研究结果显示旅客对乘坐共享私人飞机有浓厚的兴趣，并显示出不同客群在付费意愿度上有显著的差异。调查显示北美和欧洲旅客以及商务和休闲旅客的付费意愿明显不同。

原创性/价值：此研究对理论和实践做出了三方面的贡献。首先，藉由结合共享经济的文献和支付意愿的领域，它扩展了我们对共享经济的定价行为的理解。对于旅游企业而言，这项研究的价值是它为共享经济提供了具体的定价建议，且它针对的是高端客户而非中低端客户群。最后，这项研究的新颖性在于它将航空业定义为共享经济生态系统的一部分，并且它提供了批判性的建议，说明共享经济有可能对传统的航空业务造成负面影响。

关键字 共享经济 合作经济, *JetSmarter*, 航空, 支付意愿

文章类型 研究论文

Economía colaborativa que perturba la aviación: Disposición de los viajeros a pagar

Propósito : *la economía compartida ha transformado la industria del turismo y continúa afectando a múltiples sectores en el panorama empresarial global. Este artículo tiene como objetivo investigar el potencial de la economía colaborativa que ingresa al sector de la aviación y examina la disposición de los viajeros a pagar una prima por viajes aéreos privados y compartidos.*

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Diseño/metodología/enfoque : *el contexto para el estudio empírico fue la plataforma JetSmarter, una de las plataformas emergentes de economía compartida en el sector de la aviación privada. Se adoptó una encuesta cuantitativa con un método de muestreo aleatorio para medir la disposición de los clientes a pagar precios superiores.*

Conclusiones : *los resultados revelan un interés evidente de los viajeros aéreos comerciales en volar en aviones privados compartidos y muestran diferencias significativas en la disposición a pagar por la aviación privada. Las conclusiones resaltan una diferencia de disposición a pagar entre los segmentos de clientes, incluyendo a los clientes norteamericanos y europeos, así como a los viajeros de negocios y de placer.*

Originalidad/valor : *el estudio hace una triple contribución a la teoría y la práctica. Primero, une la literatura sobre economía compartida y el constructo de la disposición a pagar, y con eso, amplía nuestra comprensión sobre los comportamientos de fijación de precios en un contexto de economía compartida. Para las empresas de turismo, el estudio es valioso porque ofrece sugerencias concretas de precios para servicios de economía compartida, cuando se dirige a un segmento de clientes premium en lugar de un segmento de clientes de presupuesto. En tercer lugar, el estudio es novedoso porque aprovecha el sector de la aviación como subsector del ecosistema de la economía colaborativa y ofrece implicaciones críticas que sugieren el potencial de la economía colaborativa que perturba las empresas de aviación tradicionales.*

Palabras clave *Economía compartida, Economía colaborativa, JetSmarter, Aviación, Disposición a pagar*

Tipo de papel *Trabajo de investigación*

Introduction

In the past years, consumer preferences and behaviors have become more complex, not only due to the proliferation of digital technology (Buhalis, 2019; Stylos, 2019; Tussyadiah and Sigala, 2018; Wang *et al.*, 2016) but also due to a major shift toward the experience economy (Pine and Gilmore, 1999) and the sharing economy (SE) (Altinay and Taheri, 2019; Cheng and Edwards, 2019; Tussyadiah and Pesonen, 2016). One of the behaviors that has often been overlooked or sometimes even confused with commodity exchange or gift-giving, is sharing (Belk, 2010). Sharing is a practice that has become omnipresent in the contemporary lives of consumers (Tussyadiah and Sigala, 2018; Wang *et al.*, 2016).

Web 2.0 and social media have given rise to an era of sharing, one that has been adopted by millions of consumers around the world (Buhalis and Foerste, 2015; Camilleri and Neuhofer, 2017; Tussyadiah and Sigala, 2018). We witness an increasing number of individuals who open and share their homes, food, resources and belongings with their families, co-living household members and beyond that, with a wider connected local and global community.

These practices have led to the proliferation of the "collaborative economy," which has unlocked new ways of collaborating at an unprecedented global scale (Botsman and Rogers, 2011; Dervojeda *et al.*, 2013; Dredge and Gyimóthy, 2015; So *et al.*, 2018). Sharing is not merely another form of buying and selling. Rather, it is "a powerful movement in which people are getting goods and services from each other" (Owyang *et al.*, 2014, p. 3). In an attempt to tap into this potential, there has been an emergence of online platforms. Some of the early pioneers of sharing platforms yielding global success include Couchsurfing (Decrop *et al.*, 2018) and HomeExchange (Forno and Garibaldi, 2015), with Airbnb and Uber currently leading the way as the most prominent representatives of the SE globally (Camilleri and Neuhofer, 2017; Guttentag, 2015; So *et al.*, 2018; Sthapit and Jiménez-Barreto, 2018a, 2018b). The potential of the SE is proclaimed as so immense (Dervojeda *et al.*, 2013), that in the European Union alone, collaborative platforms' gross revenue in 2015 reached 28bn EUR.

It is with this potential of growth and disruption that the SE has moved into the center of economic research, and the travel context in specific (Altinay and Taheri, 2019; Cheng, 2016; Heo, 2016; Lorde *et al.*, 2019). Recently, we have seen a major increase of studies examining the SE in tourism and hospitality (Camilleri and Neuhofer, 2017; Cheng and Edwards, 2019; Johnson and Neuhofer, 2017; Sthapit and Björk, 2019a, 2019b;

Tussyadiah and Sigala, 2018). Yet, the academic discourse remains fragmented, largely focusing on economic and legal aspects (Guttentag, 2015), particular platforms and business models, as well as motivational and value perspectives on SE offers (Camilleri and Neuhofer, 2017; Cheng, 2016; So *et al.*, 2018; Sthapit and Björk, 2019a). For instance, Tussyadiah and Pesonen (2016) investigated changes in travelers' behaviors when using peer-to-peer accommodation, Camilleri and Neuhofer (2017) explored tourists' value co-creation and co-destruction in the context of Airbnbs and So *et al.* (2018) explored motivations and constraints of Airbnb consumers.

In a review of the emerging areas in the tourism SE, Altinay and Taheri (2019) identify complexity theory, social exchange theory and value co-creation as leading theoretical avenues, while trust and reputation, segmentation and pricing concepts have received less attention to date. In addition, the current literature reveals that specific sub-economies of the SE's ecosystem merit further exploration. Some SE sectors are well-established, including accommodation (e.g. Couchsurfing, Airbnb) and ground transportation (e.g. Uber, Lyft) (Botsman and Rogers, 2011; Qiu *et al.*, 2019; Sthapit and Björk, 2019b; Tussyadiah and Pesonen, 2016), while we are at the edge of seeing new platforms tapping into hitherto uncharted areas.

One of such promising ventures is JetSmarter, a company founded in 2013, seeking to disrupt the aviation sector by bringing "the sharing" into air travel. Within only a few years since its start, it has reached a critical mass of users and is oftentimes referred to as "the Uber of skies" (Cao, 2016). JetSmarter is not the only player, but certainly one of the major ones presenting itself with a SE business model in the (private) aviation sector. Among competitors, JetSmarter stands out in its speed of development, innovation and business strategy targeting a customer segment that could have major ramifications for air travel around the globe. The business model particularly challenges commercial aviation within first and business class segments and shows interest in taking on luxury and experience-centric travelers.

Based on this rationale, this study is the first to tackle the notion of SE disrupting aviation. Specifically, this research seeks to explore the potential of the SE and understand customers' willingness to pay (WTP) a premium to use shared, private air travel, which leads to the research question as follows: "What is commercial air traveler's WTP a premium for luxury air travel within the SE?"

This study maps out a part of a novel economic territory: the SE in private aviation. The aim of this study is:

- to determine whether there is a demand for luxurious aviation experiences among current commercial passengers;
- to reveal whether air travel passengers are supportive of the idea of sharing a private plane to fill up otherwise unused capacities, and in a final step; and
- to quantify their WTP for such a service.

Guided by the theoretical frameworks of the SE and the WTP construct, this paper sheds light on the economic implications of how a SE company, such as JetSmarter, could use its potential to disrupt the market of current commercial airline consumers. The findings offer critical implications for research and practice on how businesses can respond to cutting-edge developments in the tourism SE.

Literature review

The sharing economy in the travel and tourism industry

Sharing, defined as "the act and process of distributing what is ours to others for their use and/or the act and process of receiving or taking something from others for our use"

(Belk, 2007, p. 127) has not only disrupted the global business sector but has also particularly been prominent in the travel industry. Sharing is practiced by most people throughout their everyday lives. However, the Web 2.0 has taken sharing to a whole new level (Belk, 2010; Botsman and Rogers, 2011; Camilleri and Neuhofer, 2017). Today, consumers are more interconnected than ever before, and they use online platforms to seek new forms of tourism experiences and value co-creation (Johnson and Neuhofer, 2017; Sthapit and Jiménez-Barreto, 2018b; Tussyadiah and Sigala, 2018; Zhang, 2019).

While more than 10 years ago Belk (2007) argued that there is only little sharing outside of our immediate family domains, Dervojeda *et al.* (2013) were among the first to capture the transition from ownership toward accessibility-based consumer systems where people are willing to pay for temporary access rights. The SE offers a marketplace that promotes economic activity between buyers and sellers of resources of excess quantities, such as making bedrooms or cars available to others (Ert *et al.*, 2016). These activities have been recognized as SE or "collaborative consumption," two terms that share similarities in offering temporary access to online products, while they differ in that the latter focuses on consumers rather than producers (Cheng, 2016; Dredge and Gyimóthy, 2015).

The SE impacts every sector of society, business and government (Cheng and Edwards, 2019) at a speed and scale nobody would have been able to imagine at the beginning of the century (Owyang *et al.*, 2014). Botsman and Rogers (2011) argue that such behaviors point to an emerging socioeconomic rise in which cooperatives, collectives and communes are being re-invented. Former consumers have become funders, producers, sellers and distributors, who have a major impact on big corporations, brands and whole industries because they can get what they need from each other instead of buying from professional vendors and suppliers (Owyang *et al.*, 2014).

The travel and tourism industry has been greatly impacted by the SE with a rise of players connecting individuals who temporarily seek to share their belongings with tourists (Camilleri and Neuhofer, 2017; Tussyadiah and Pesonen, 2016). In fact, some of the most successful innovators in the SE are related directly to tourism economic activity, e.g. accommodation (e.g. Airbnb), transport (e.g. Uber) and in-destination activities (e.g. EatWith) (Ketter, 2019; Qiu *et al.*, 2019; Sthapit and Björk, 2019b). Whilst these sectors have received much attention, the aviation sector has largely been ignored to date, despite its huge potential. In fact, the aviation sector is expected to experience a major disruption, and it is argued that "the next five years may see more change within airline distribution than the previous 50" (Harteveldt, 2016, p. 70). Beyond that, the International Air Transport Association predicts that "the airline of 2021 will be a technology, data and retailing company that happens to fly airplanes. It will have more in common with Google and Amazon than Pan Am and TWA" (Harteveldt, 2016, p. 29).

The aviation sector on the verge of the sharing economy

Several platforms within the aviation sector are on the verge of emergence as the next big disruptor of the industry. One of these firms is JetSmarter, a company that introduced the SE business model to the aviation sector by offering consumers the possibility to share private jets instead of flying on commercial flights. The question is, how does JetSmarter make use of the SE business model in aviation? The SE is primarily a combination of two elements as follows:

1. to make use of under-used assets by establishing a rental model; and
2. with the help of technological advancements and consequentially reduced transaction costs, make certain assets or resources accessible to a wider range of people (Goudin, 2016).

JetSmarter is built on these principles in that it makes use of under-used private jets, by offering their seats through an online platform to a wide range of people. JetSmarter's customers – as of right now – mostly consist of frequent flyers who primarily travel in business or first class.

This trend is in line with a globally rising segment of consumers, who are becoming more affluent, are more selective, and want to spend their disposable income on highly personalized experiences rather than efficient services or material goods (Dykins, 2016; Johnson and Neuhofer, 2017). Luxury experiences are being democratized. Premium and luxury services are no longer reserved for a few but have become accessible to a wide customer market. In fact, customers are looking for unique and memorable experiences (Pine and Gilmore, 1999). As the target group for luxury consumption continues to grow (Silverstein *et al.*, 2008), the aviation sector could potentially address this demand, as consumers are willing to pay premium prices in exchange for time savings (Dykins, 2016) and flexible scheduling arrangements (Brons *et al.*, 2002). In fact, one of the main reasons to go private nowadays is "not the luxury, it is the time saving," argues Adam Tidwell, chief executive officer of PrivateFly.com. The long term goal for the founder of JetSmarter, Sergey Petrossov, remains to "democratize" the private jet industry and lower prices over time to a level where flying private becomes affordable to the general mass market (JetSmarter Inc, 2016).

In order to compete with the challenging threat on the horizon, it comes as no surprise that commercial airlines have started to launch their own private jet services, including Delta Airlines, Lufthansa, Korean Air, Qatar Airways and Hainan Airlines to name but a few. The question that remains unexplored is whether (and how much) consumers would be willing to pay a premium price for shared, private jet travel?

Customer willingness to pay

In the 1980s, the theory of planned behavior proposed that WTP is connected to a person's motivation and capability (Ajzen, 1985). The concept of WTP refers to the "maximum amount of money that customers are willing to spend for a specific product or service" (Homburg *et al.*, 2005). This concept applies to any product prices, which are not attributed to market rules. For practitioners, the knowledge about people's WTP plays a key role in pricing decisions, marketing management and product development (Breidert *et al.*, 2006; Fleischman Foreit and Foreit, 2004; Tu *et al.*, 2018). Even minor variations in pricing can have eminent effects on consumer behavior, and therefore, thus on revenues and profits (Marn *et al.*, 2003). In fact, Lorde *et al.* (2019) underline the sensitive role of pricing and price-setting behaviors of hosts in a SE context. In the marketing and tourism domain, WTP represents a well-established theoretical construct, frequently adopted when scholars seek to understand the relationship between novel consumer behavioral phenomena and WTP. For instance, Homburg *et al.* (2005) examined the relationship between customer satisfaction and WTP, Masiero *et al.* (2015) examined hotel guests' WTP for hotel room attributes and Tu *et al.* (2018) assessed the potential increase of revenues from engaging customers in co-creation through WTP.

This study is the first that aims to understand the potential of the phenomenon of collaborative private aviation, and assesses how interesting this service could be for individuals, who do not (yet) feel the need to travel this way or do not feel they could possibly afford it, and to use the WTP construct to examine their WTP for this kind of luxury service. Several hypotheses were developed for this purpose.

Hypothesis development

The first hypothesis is concerned with a distinction between business and leisure travelers and a difference in their WTP. The assumption that business class travelers are willing to

pay more than people who choose to fly in economy class is based on several previous studies. Brons *et al.* (2002) found out that business class travelers usually show a lower price elasticity than economy class passengers. A primary explanation for this revelation is that business class passengers show a higher level of valuation of time (Brons *et al.*, 2002), with business travelers having a higher WTP for a better-quality service and more flexibility (Fender, 2010). As a result, business travelers spend more, particularly on airfare and often travel business class. Thus, we hypothesize that business travelers are more likely to pay a premium for private air travel than leisure travelers in the SE:

H1. Business passengers are more likely to be willing to pay a premium for private air travel than leisure travelers within the SE.

The second hypothesis builds on the fact that today's travelers are moving from owning to experiencing luxury in new ways (Dykins, 2016). With a shift from material focus to experiences and value co-creation (Camilleri and Neuhofer, 2017; Johnson and Neuhofer, 2017; Sthapit and Björk, 2019a, 2019b), private flying companies and JetSmarter as a SE business, in particular, aim to attract passengers who increasingly search for experiential values, want to enjoy flexible services and save time. We thus hypothesize the following:

H2. Air travelers who consider flying with a commercial airline to be a necessity rather than a pleasure are more likely to be willing to pay a premium for private aviation within the SE.

The aim of the third hypothesis was to find out whether any significant differences in WTP between Northern American air travelers and European air travelers exist. Fiske and Silverstein (2002) argue that sociographic trends that drive trading up are not only to be found in the USA but also the extent to which trading up is happening might be slightly lower in other parts of the world. The US American luxury market remains the world's largest (Li, 2016). While North Americans tend to spend considerable amounts of their disposable incomes on luxury consumption, the European customers' purchasing behavior is more rational and selective, which makes it more difficult for luxury brands to attract them (Li, 2016). We thus hypothesize the following:

H3. Air travelers from North America are more likely to be willing to pay a premium for private air travel compared to European travelers.

Methodology

To test consumers' WTP, a quantitative methodology was adopted by means of a self-completion survey aimed to assess consumers' WTP for shared, private air travel. A WTP survey measures the potential demand for products and services, and strives to answer the question, "Would you purchase this product if it were offered at this price?" (Fleischman Foreit and Foreit, 2004, p. 2). Fleischman Foreit and Foreit (2004) suggest WTP surveys as a particularly suitable research design for testing existing products and services, as well as new goods that are not yet available on the market.

Survey-based WTP measurement techniques are categorized as either direct or indirect (Breidert *et al.*, 2006; Louviere *et al.*, 2000). Whilst direct surveys ask (potential) customers to state how much they would be willing to pay for a product, indirect surveys use sequential rating or ranking procedures and estimate a preference structure from which WTP can be derived (Breidert *et al.*, 2006). The latter approach, however, is known to generate rather conservative estimates as consumers usually tend to underestimate their maximum WTP. For this particular research, a direct WTP surveying technique was chosen, which is considered favorable to ask for direct estimates and to improve the accuracy of predicting responses to the price change (Fleischman Foreit and Foreit, 2004).

Questionnaire design

In this study, the following structure of pricing questions was used. First, respondents were presented with the price of a regular flight for the given route from Vienna to London and asked to state their interest in a flight on a shared, private plane. This question was followed by a medium price increase and the question of whether individuals would purchase at that given price. Depending on their answer, they were presented with yet another price increase or decrease, respectively, and asked whether they would purchase at that given price. Hence, all respondents were asked three price questions, while the target price was put in the question with the medium price increase, following the approach as suggested by Fleischman Foreit and Foreit (2004). Regardless of their previously chosen answers, all respondents were also asked to state the *maximum price* they would personally be willing to pay for that specific flight. This allowed for a finer distinction between the highest price agreed to and the lowest price they find unacceptable.

The survey, based on the WTP measurement proposed by Fleischman Foreit and Foreit (2004), asked a series of 35 questions, including the respondents' type of travel, routing for the day, the class they were holding tickets for and airlines they were using, as well as flight details, such as cost and travel frequency throughout the year. Within the first segment, they were asked whether they considered flying an exciting experience or a necessity to get to where they need to go. The second section related to perception investigation, asking respondents about their attitude toward certain aspects of flying with a commercial airline, such as queuing, service on the ground and onboard, meals, delays, etc. Questions on likes and dislikes when taking an aircraft as a method of transportation, based on a five-point Likert scale measurement, were followed by a question about the importance of the above mentioned aspects that come into play when flying. The third part of the questionnaire assessed people's WTP for a service such as JetSmarter. Participants received an explanation of flying private and the characteristics of a typical JetSmarter flight offer. The private flight fare was priced based on the data that JetSmarter is currently testing in the USA, and a triple-bound choice was used in the scenario design. First, the starting price was set. The respondents were confronted with a concrete product and a price that was aligned with JetSmarter's current pilot program to offer flights for 1$ per flight mile. Air travelers were asked whether they were willing to pay the stated price to fly private. Subsequently, the participants were asked if they were willing to pay another price. If respondents had stated that they would be willing to pay the initially suggested price, they were redirected to yet a higher price suggestion, if not, a lower price was given as another choice. Finally, the maximum price they would be willing to pay was asked, completed by a set of socio-demographic questions.

Data collection

A structured self-completion questionnaire was distributed at Vienna International Airport, Austria on four non-consecutive days over the course of two weeks. With a total of 34.4 million passengers in 2018, the airport represents a major transportation hub in central Europe, as an appropriate set for randomized data collection. The sample population consisted of air travelers traveling to/from Vienna Airport while the sampling frame consisted of people who were spending time in the public spaces of the airport on the chosen days of data collection. To gather a representative sample and to keep sampling error to a minimum, a probability sampling was used. A total of 335 participants answered the survey through a digital device (smartphone and tablet). The final response rate, based on 260 entries that remained after data cleaning, represents 77.61 per cent of the sample.

Results and findings

This section presents the results of the quantitative survey, including a sample profile, respondents' interests in flying private and hypotheses testing regarding people's WTP premium prices for shared, private flights.

The sample

The sample of respondents consisted of 171 female (65.8 per cent) and 89 male respondents (34.2 per cent). Given the random recruitment process, it is claimed to be a representative sample of Vienna Airport. Almost 60 per cent of the population were flying for leisure that day, 31 per cent for business and 9 per cent indicated another reason as the purpose of their trip. These numbers almost perfectly represent the official traveler structure at Vienna International Airport (38 per cent business travelers, 62 per cent leisure travelers) (Marktforschung Vienna Airport, 2016). In total, 17.7 per cent of the respondents were 18-25 years old, 36.5 per cent were between 26 and 35 years old, 18.5 per cent stated their age to be between 36-45 and the age groups 46-55, as well as 56-65 contributed to the final number of respondents with 10 per cent each. Only 7.3 per cent of the interviewees were 66 years old and above. In total, the surveyed passengers came from 60 different countries. In total, 62 per cent of the respondents accounted for a high share of Europeans, followed by 21 per cent North Americans (including Canada and the USA), while 10 per cent came from Asia and 3 per cent were Latin Americans.

Consumers' interest in flying private

This study sought to first explore wider contextual information on commercial air travelers' preferences and behaviors, and measured people's interest in flying private. Overall, participants showed a high interest in the matter. More than 69 per cent of the respondents stated to find flying on a private plane "very interesting" or "interesting," followed by respondents who checked a medium interest (13 per cent). Only 18 per cent showed very little to no interest in flying private. A similar picture may be drawn when comparing the interest of flying on a private plane between respondents describing themselves as business and leisure travelers. While business flyers seem to show a slightly higher percentage in both categories ("very interesting" and "interesting"), leisure travelers are almost just as interested in this service opportunity. Whilst interest was generally found to be high, it is worth noting that the results reveal that most of the respondents (81 per cent) did not know any of the suggested companies for private air travel. In total, 10 per cent of the respondents indicated that they knew or had heard about JetSmarter. Slightly more than 6.5 per cent of the people knew SkyUber, followed by XOJet and SurfAir with 3.4 per cent each. Barely any of the respondents in the sample population knew any of the other private jet service companies. Respondents were also asked about the perceived benefits of flying private. The three most dominant value propositions were "saving time" as indicated by 74 per cent of the respondents, followed by "flying whenever you want" (66.5 per cent) and "no waiting in line" (61.5 per cent). Other characteristics of flying private that more than 47 per cent of the respondents found to be among the best benefits of private aviation were "no baggage claim" and "being able to fly out of smaller airports (more choice, shorter distance to city center)."

Hypothesis testing and willingness to pay

The study then went on to analyze people's WTP for private aviation in the SE. With the help of the data, a demand curve was calculated. It showed that people's WTP drastically drops as the price increases. Compared to a normal demand curve, an overly rapid decline was revealed, showing how sensitively people respond to price in this product category and price range, and how important it is to keep this in mind when setting the pricing structure

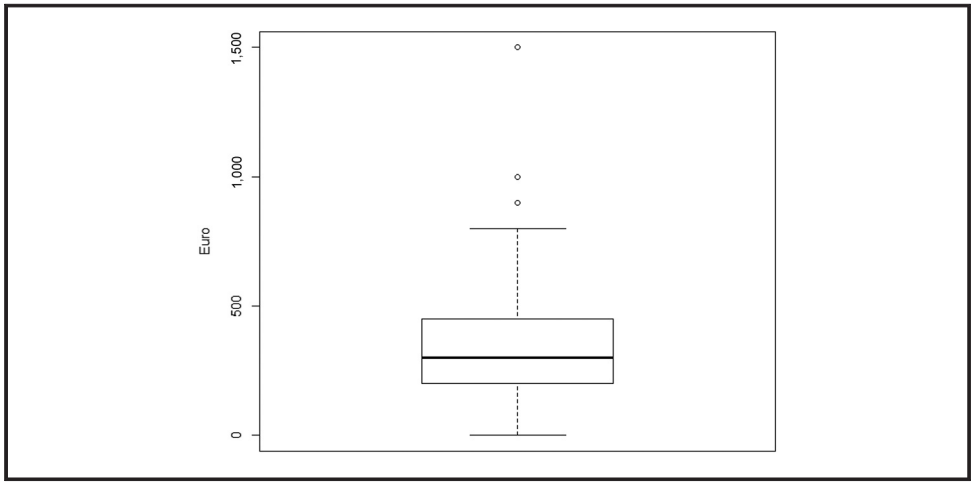
for a particular target group. The respondents' WTP was measured by following a structure suggested by Fleischman Foreit and Foreit (2004). Taking all the respondents into consideration, their average WTP to fly on a shared, private jet is 378.10 EUR. This is illustrated in Figure 1.

The boxplot shows that the lower quartile (Q1) is at 200 EUR, while the upper quartile (Q3) is at 450 EUR. The mean, as a measure of central tendency, and therefore, the average WTP among respondents equals 378.10 EUR. The median is 300 EUR and displays that 50 per cent of the data is greater than this value. Three outliers were found and are represented within the graphic. The rather small size of the box shows that responses were quite homogeneous, and people do not differ too much in their stated WTP premium for private aviation within the SE. Because medians are more robust against outliers, they were chosen to represent the average WTP more accurately within the statistical tests. Hence, they are continuously being used but also compared to the mean, which ultimately represents the average WTP throughout this analysis.

H1 was tested to find out whether there is a significant difference in WTP premium for private air travel between business and leisure passengers. A significant difference could be detected in this regard (p = 0.00). The WTP of business flyers (median = 350 EUR; mean = 453.60 EUR) is significantly higher than the WTP of people who are flying for the purpose of leisure (median = 250 EUR; mean = 307.20 EUR). The lower quartile in these calculations (Q1) is at 154.50 EUR for leisure flyers while at 200 EUR for business trips. The upper quartile (Q3) is at 400 EUR in regard to leisure travelers and rises to 506.80 EUR concerning the answers of business flyers. In total, 50 per cent of the WTP data are within the box. Hence, a larger box suggests wider dispersed answers, and with that, a higher average WTP. When stricter statistical measures for the types of business flyers were applied, it became apparent that the more frequently business travelers fly, the higher their WTP becomes. People who fly more often for business also stated higher figures as their maximum WTP. This difference becomes apparent in the medians and means for business flyers who fly less than five times a year (median = 300 EUR; mean = 372.20 EUR), and those business travelers who fly five times a year or more (median 349.50 EUR; mean 398.70 EUR). Also, the upper quartile (Q3) of the respective boxplots rises from 400 EUR to 614.80 EUR when comparing these two groups of business travelers.

H2 assessed whether people, who consider flying on a commercial airline a necessity, are more likely to be willing to pay a premium for a flight on a private aircraft with JetSmarter.

Figure 1 Respondents' WTP



The respondents were divided into "necessity" and "experience" groups, according to their answer to question nine in the survey. Those who primarily considered flying to be an experience showed a lower average WTP (median = 280 EUR; mean = 338.80 EUR) compared to those travelers who thought of flying as a necessity rather than an experience (median = 349 EUR; mean = 395.30 EUR). Although it seems that people who mostly fly out of necessity show a higher average WTP, no statistically significant difference could be proven. It must be recorded that almost 70 per cent of all respondents in the sample population considered flying with a commercial airline to be a necessity as opposed to an exciting experience. As a result, no significant difference in the WTP a premium for private air travel between air travelers could be confirmed ($p = 0.22$). Also, the interest in flying on a private plane was looked at in this regard. While both groups show a rather high interest in flying private, the ones who already consider flying to be an experience showed an even greater interest in flying on a private plane, as can be seen in Figure 2.

H3 was built on the assumption that travelers from North America would show a significantly higher WTP for private aviation in the SE. The Mann–Whitney test ($p = 0.03$) confirmed that North American travelers have a significantly higher WTP (median = 350 EUR; mean = 393.40 EUR) compared to European travelers (median = 250 EUR; mean = 339.50 EUR). Additionally, the shape of the boxplots – as can be seen in Figure 3 – is of interest. Evidently, not only is the North Americans' median higher but also the range of 50 per cent of their answers is wider and going up higher than that of European air travelers. Overall, Europeans and Latin Americans revealed a rather low average WTP, while the medians of Africans, Asians and North Americans tend to be higher. Their WTP comprises higher maximum amounts of the individuals' WTP. However, only 3 per cent of the sample population came from countries in Latin America, which must be taken into consideration when drawing conclusions on the results.

Discussion and implications

This study examined commercial airline travelers' WTP a premium for private aviation within the SE and offers several implications for SE research and practice. First, in measuring the interest toward private air travel, it is evident that respondents across all socio-demographic backgrounds and travel types revealed an interest in flying on a shared, private aircraft. The topic of "trading up," indicating the persuasion of a customer to spend a higher amount of money on a good by improving its features, its quality or simply its associated benefits (Silverstein *et al.*, 2008), is of tremendous interest in this regard.

Figure 2 Interest in flying private by the attitude

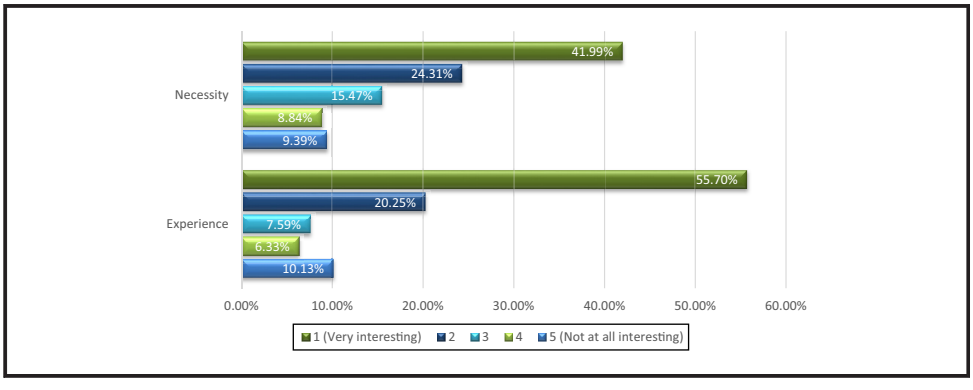
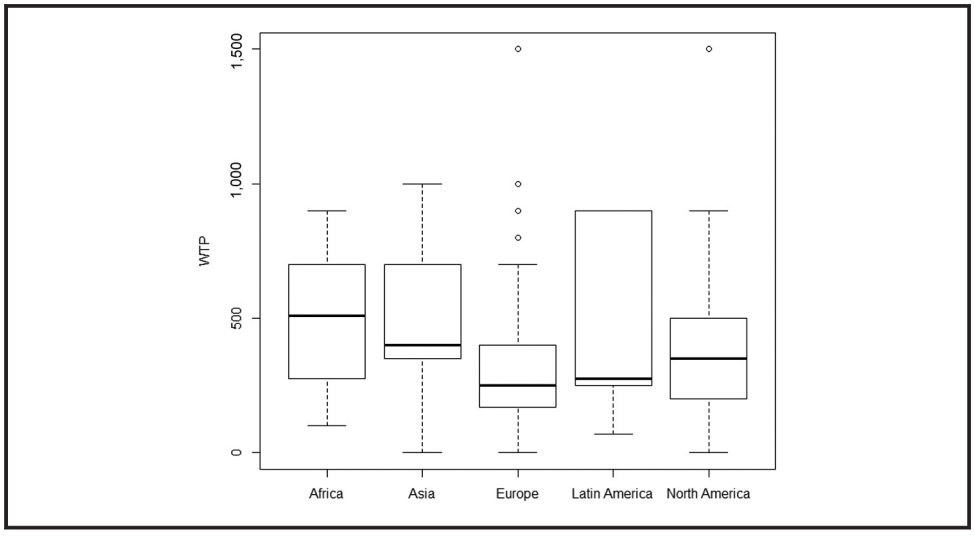


Figure 3 WTP by geographic region



Most research on the SE to date has put emphasis on specific platforms, economic activities and value creation practices (Camilleri and Neuhofer, 2017; Decrop *et al.*, 2018; Qiu *et al.*, 2019; So *et al.*, 2018; Sthapit and Björk, 2019a, 2019b). This study contributes to the existing body of work in several realms. First, this research contributes to the concept of pricing, as one of the emerging areas of interest in the SE (Altinay and Taheri, 2019). Second, it helps create a better understanding of aviation as a specific subsector of interest within the global SE. Whilst JetSmarter to date has only operated within the premium luxury segment, the company actively promotes the democratization of private air travel and shows tendencies of targeting wider economically dispersed customer segments. This way, private air travel could become affordable for a new segment of consumers in the SE with the potential to disrupt traditional aviation.

Second, this study has revealed significant insights into commercial airline travelers' WTP premium prices for private air travel. The main findings reveal differences in the WTP a premium for private aviation between Northern American and European customers, as well as between business and leisure travelers. The empirical data from this research revealed that commercially flying passengers exhibited an average WTP of 378.10 EUR (mean) with a relatively high standard deviation of 392 EUR for a seat on a private plane going from Vienna to London. For the tourism sector, this identified WTP range implies that there may be a target market within these consumer segments that fit the criteria to effectively trade up and become potential customers of JetSmarter. The significant difference that was found in the WTP between North American travelers and European travelers may serve as the first important building step to explore new SE offers and WTP in relation to regional development. For instance, it would be of value to assess markets, such as Brazil, Russia, India and China, which increasingly contribute to a growing middle class and where leisure travel is expected to grow between 60 per cent and 90 per cent (Harteveldt, 2016).

Further, the data revealed a significant difference in the WTP between business and leisure travelers, which implies that the travel purpose may be a key determinant for companies, such as JetSmarter, in the potential expansion of new customer segments. The company has already placed a strong focus on high spending business travelers, but beyond that, it appears that there is further potential in exploring consumer segments with a lower purchasing power. While pricing still represents one of the most important factors for people flying with commercial airlines, it is critical to note that individuals make buying decisions

based upon more influential criteria than just the lowest price. When asked about the motivational drivers to buy a seat on a shared, private aircraft, the study revealed that consumers are willing to pay a higher price for a service that offers saving time, flexibility to fly at convenient times, avoidance of waiting in line, ease of baggage handling and access to smaller airports.

For tourism practice, this means that based on the identified consumer WTP, SE platforms, such as JetSmarter, have a huge potential to tap into currently unexplored consumer segments. Whilst leisure travelers' WTP might be currently below the price that the company must ask for to be profitable, there might be a wider group of potential business travelers. This may include a segment that (yet) might not be able or willing to pay the price but may also represent a means to fill empty seats and to reduce the cost of unused capacity, as well as a promising venture for future growth and development. What supports this suggestion is the fact that services in the SE depend on a critical mass of users. JetSmarter would significantly profit from larger user numbers, as they would be able to increasingly fill up unused capacities but also offer more routes, a more frequent flight schedule for their shuttle program, and therefore, better service for their customers.

Beyond its practical contribution, the study offers several implications for further research. First, the research could expand on WTP measurement constructs. While hypothetical methods to measure WTP are generally popular in market research, an incentive-compatible survey approach might arise further or even different research findings. Second, the direct analysis procedure tends to underestimate people's maximum WTP because only a few price probes are interrogated. Using a multiple regression modeling technique instead of direct estimation might be helpful to address this issue. Third, the cross-sectional research design could not test effects on subsequent actual behavior, which is why a longitudinal research design could help create a more complete picture of travelers' needs and wants, as well as their WTP a premium for luxury services within the SE. In line with the growing importance of experience and value co-creation propositions (Altinay and Taheri, 2019; Camilleri and Neuhofer, 2017; Pine and Gilmore, 1999), consumers might be willing to pay a significantly higher amount of money if they considered flying on a private plane to be such an experience. Therefore, research devoted to study people's WTP for premium SE services within the wider experience economy context could be another interesting path for further investigation.

Finally, the implications of this study invite us to an outlook in the future. The WTP results suggest that there is more potential in the SE in (private) aviation than the industry has made use of so far. Although passengers who are using commercial airlines as their primary means of transportation do not (yet) exhibit the WTP that is needed to cater to these segments efficiently, there is potential in this group of consumers. People strive for new experiences and are willing to pay a premium for convenience and time-savings, which is something that suppliers must keep in mind when designing new experiences for different customer segments with a different purchasing power. The private aviation sector in the SE might not yet be ready for a large number of passengers, who to this point have only been using commercial airlines. However, trends and recent developments are pointing toward further democratization of private air travel and with time will reveal new opportunities for the industry. Practitioners and research should closely pay attention to these changing market structures and demands of experience-seeking consumers that may require businesses to adjust with a disruption of aviation services on the horizon.

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