

Tourist Accommodation, Consumption and Platforms.

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Abstract: The expansion of mediated accommodation on Peer to Peer (P2P) platforms, such as Airbnb, has generated extensive economic impact and structural changes in all the destinations involved. This study proposes an innovative analysis which estimates the economic impact associated with the expenditure of tourists staying in traditional hotel establishments in comparison to the impact of those staying in tourist housing mediated through P2P platforms. This research analyses fieldwork based on 1,343 surveys carried out in the city of Granada, one of the main tourist destinations in Spain. Through the application of the Input-Output methodology we found that tourists staying in tourist housing mediated through P2P platforms generate a greater impact as a consequence of longer average stays and more heterogeneously distributed consumption. Their average expenditure is similar to that of tourists in hotels, but the indirect impact generated is greater. Consequently, we can better comprehend the economic impact associated with these platforms and their real effect. Public planners have to consider this information as part of the regulation and restriction of this activity.

Key words: consumption, tourism, Airbnb, Peer to Peer (P2P) platforms, impact.

1. Introduction

In many destinations, tourists traditionally have the possibility of renting accommodation to holiday in (Belk, 2014). This option, which in some areas is supported through informal channels, has expanded exponentially with the arrival of peer-to-peer platforms, specifically with the creation of Airbnb in 2008 (Dredge & Gyimóthy, 2015). The activity of these platforms is part of the broadest concepts of ‘collaborative consumption’, ‘sharing economy’ and ‘peer to peer economy’. All these concepts refer to practices involving access to underused goods and services, prioritizing use over ownership (Schor & Fitzmaurice, 2015). The online platforms involved in the process facilitate a direct connection between homeowners interested in renting their properties and holidaymakers (Martín et al., 2019a). Since the creation of the leading service, Airbnb, in 2008, the amount of accommodation has increased

greatly. It can be verified that more than 5.6 million accommodations are available in more than 200 countries and 100,000 cities (The Zebra, 2021). Undoubtedly, this has resulted in inconveniences for local communities (Martín et al., 2021), besides debates about its legitimacy (Bort, 2014) and the method of regulation (Cheng, 2016). The growth of this activity relies on benefits for both the tenants and the owners. The former obtain accommodation that is usually at a lower price than a hotel, while the latter receive extra revenue linked to underutilized assets (Fang et al., 2016).

The large number of tourist accommodations mediated through online platforms, the associated tourist flow and the resulting workload, have produced a disruptive phenomenon with a great capacity to alter the productive structures of the tourism industry (Guttentag, 2015) and the life of the residents in touristic areas (Martín et al., 2020). Indeed, the nature of economic development has continuously changed and shifted fundamental factors (Skare & Ribeiro-Soriano, 2021; Puertas-Medina et al., 2022; Chen et al., 2022; Audretsch et al., 2022; Bertello et al., 2022; Sharma et al., 2021). In addition, entrepreneurs have a leading role in economic and social change (Abatecola et al., 2022; Belchior & Lyons, 2021; Belitski et al., 2021; Callegari & Feder, 2021; Grupta et al., 2020). Presently, there is an open debate about the legitimacy of this activity, while it has an obvious effect on the traditional accommodation sector (Bort, 2014). In this paper we use different terms, commonly used interchangeably in the academic literature on this subject, to refer to the two groups of accommodations. Within the controversy generated around this type of tourist accommodation, this work focuses on the economic impact associated with these platforms. Indeed, the traditional accommodation sector is more controlled and supervised, and less prone to informal economy (Martín et al., 2019a). However, other voices highlight the positive effect of these platforms. For instance, tourists in this kind of accommodation stay in the destination longer (Airbnb, 2014). The lower price opens up travel to those who would not normally do so, or not as frequently (Juul, 2015). It is postulated that reducing the price of the accommodation enables them spend more on other items, resulting in a more heterogeneous and spatially distributed increase in consumption in the destination, (Fang et al., 2016). Specifically, the goal of this study is to analyze the consumption patterns of the users of tourist housing mediated through P2P platforms, and to determine whether these patterns produce a greater or lesser economic impact on the destination, compared to the expenditure of tourists in traditional hotel establishments,

which has never been studied before. Thus, it is possible to provide evidence of the actual impact of this kind of accommodation on the environments where they are located. Specifically, this research, with an empirical-exploratory nature, raises the following research questions (RQ) RQ1: Do tourists staying in tourist accommodation mediated through online platforms develop different consumption patterns? RQ2: Does the consumption associated with users of accommodation mediated through online platforms generate a lesser impact than users of regulated establishments? From the bibliographic research on Airbnb performed by Guttentag (2019), we can see that in the academic literature there is no research focused on the proposed RQ. This has been corroborated through an analysis of terms in the Scopus and Journal Citation Report databases. Based on the controversy described and the limited analysis on this new object of study, it is important to know the implications of the consumption of tourists staying in this type of establishment. Thereby, we can advance knowledge about the interactions that take place between different kinds of tourists and the economic and social environment. In this comparison, two groups of accommodations were created. The first group “tourist accommodation mediated through online platforms” refers to homes located in residential buildings that are offered through peer-to-peer online platforms for use as tourist accommodation; while the second group refers to establishments whose primary orientation is visitor accommodation and to which the specific regulation of hotel accommodation activities applies. This research is exploratory in nature, it does not seek to test or complete a previous theoretical framework. Instead, it seeks to expand the analytical knowledge about the subject under study, testing partial ideas described in the academic literature, as is explained later. Given that the subject under study is very recent, this analysis serves to build specific theoretical frameworks.

This investigation is based on field work carried out in the city of Granada (Spain) in 2018. This city is the Spanish destination that receives most tourists per resident and is one of the main locations of urban-cultural tourism in the country (Martin et al., 2021). According to the National Statistics Institute, it receives more than 3.5 million travelers annually, including tourists staying in rented housing and tourists who do not stay overnight (National Institute of Statistics, 2022). The fieldwork consisted of a survey carried out on 1,343 tourists that visited Granada in 2018.

First, the research questions are established based on a research gap in the academic literature. Then the object of the study and the area of application of the fieldwork is described. The following section presents a review of the academic literature, including references to reports, showing the different ways in which the activity of tourist accommodation platforms generates an economic impact on the environment in which they are located. The methodology section describes in detail the analysis framework applied, as well as the process followed to obtain the data through fieldwork. This is followed by the results, which compare the economic impact associated with the spending of tourists staying in traditional hotel establishments and those staying in tourist housing mediated through P2P platforms. The last section presents the conclusions of the study, its limitations, directions for future research, as well as the theoretical and applied implications of this study.

2. Economic impact associated with tourist housing

In the past decade, the academic literature dedicated little effort to this disruptive phenomenon (Dolnicar, 2019; Andreu et al., 2020). Various authors suggested that the sharing economy is more commonly explored by the so-called “grey literature,” such as research reports, papers presented at conferences and commissioned studies (Sigala, 2017; Sainaghi et al., 2021).

Tourist destinations are subject to a great economic impact associated with tourist consumption (Martín & Salinas, 2022; Martí & Puertas-Medina, 2022; Singh et al., 2015), which takes place in a more intense form in urban destinations (Martín et al., 2018). The impact described below refers only to those associated with the activity of online platforms for the intermediation of tourist accommodation. The substantial increase in tourists in cities has caused major changes (Gravari-Beard & Guinand, 2017). Hence, due to this growth in tourist numbers in the last decade, the focus lies on urban destinations. These arrivals constitute almost half of international tourism flows, having increased more in the past decade than non-urban destinations (World Travel & Tourism Council, 2018). Arrivals in urban destinations have increased more than in coastal destinations. Urban destinations have a greater dependence on catered accommodation (Ashworld & Page, 2011). Additionally, cities enjoy steadier touristic activity and the pressure on certain zones is more intense (Martín, 2019a). The potential

volume of business is in the spotlight of these destinations, which has resulted in an increasing concentration of activity around tourism

As Fang et al. (2016) point out, the tourist market has expanded from the consolidation of the phenomenon of tourist housing, while the number of tourists, their overnight stays and their spending in shops and restaurants has grown. In fact, residents in tourist areas perceive a change in the orientation of businesses, as a consequence of the change in tourist demand (Porrás et al., 2022). The fast growth in activities linked to the sharing economy is a consequence of the distribution of value in the supply chain (Gansky, 2010). As a matter of fact, in the academic literature there are opinions that indicate that Sharing Economy is able to change the dynamics in the field of hospitality and tourism (Guttentag, 2015; Sigala, 2017). New opportunities, new business models and risks have definitely been generated, and the way of making decisions has altered (Pedersen & Netter, 2015). The digital economy, which includes tourist accommodation platforms, has become an essential means of consumption, which we can call mainstream (Güngör & Çadırcı, 2022; Martín et al., 2022).

As stated previously, one of the main economic effects associated with these platforms is the ability to spread the tourists throughout the city and bring touristic consumption to traditionally non-benefiting areas (Freytag & Bauder, 2018; Porges, 2013). In fact, some of the users of collaborative economy platforms are motivated by consumption with a greater social impact (Małecka, et al., 2022; Lee & Cha, 2021). Nevertheless, others accuse tourist housing of increasing the concentration of accommodation places in already saturated areas (Ioannides et al., 2019), although this debate is still ongoing (Gutierrez et al., 2017; Gyòdi, 2017). The importance of this spatial distribution is very significant, given that it conditions the dynamics of commercial specialization. Shops located in the vicinity of accommodation concentration sites are adapting to the activity carried out there, shifting from a traditional orientation focused on residents to a tourist-oriented one (Aall & Koens, 2019). Thus, the expansion of tourist housing can be a trigger for commercial transformation (Anguera-Torrell & Cerdan, 2021). Transformations in the commercial structure are especially significant for urban destinations, as they are distinguished by the functional and special integration of touristic activity (Aall & Koens, 2019).

Further economic effects identified in the academic literature concern the following aspects. Visitors may experience better value for their money, obtaining more sustainable products and services and a more authentic tourism experience (Forno & Garibaldi, 2015). The availability of beds linked to P2P platforms has expanded the capacity to accommodate visitors in peak seasons (Juul, 2015), as well as affordable accommodation options (Juul, 2015; Ioannides et al., 2018). Reducing accommodation costs can boost tourist volumes (Zervas et al., 2014). Under the collaborative economy, it is easier to carry out entrepreneurial activities (Nadler, 2014). Some studies have linked the expansion of tourist rental housing to rising house prices, evictions of long-term tenants and even homelessness in urban centers (Edelman & Geradin, 2016; Lines, 2015). This may be intensified by large investment groups acquiring residential housing to be converted into tourist accommodation (Gurran & Phibbs, 2017). Some studies pointed out that activity linked to P2P platforms can increase the income of residents in tourist areas, but may also lead to a downgrading of working conditions for those who are dependent on this activity (Lyones & Wearing, 2015; Schor & Fitzmaurice, 2015). The deterioration of the employment situation may also affect hotel employees, as lower occupancy and inputs may be triggered by lower wages (Suciu, 2016). Several studies analyzed the effect on the hotel sector (Zervas et al., 2014; Choi et al., 2015). In terms of society as a whole, the impact associated with tax evasion and unfair competition have been described (Lyons & Wearing, 2015; Oskam & Boswijk, 2016).

We have described a balance between the benefits and negative effects, the result of which is unclear. More empirical studies are needed to indicate the impact of new tourism expenditure patterns on the destinations where tourist rented accommodation is located. This will help to understand the chain of economic effects on destinations.

3. Methodology and data.

We used an input-output analysis methodology to answer the questions posed in this study by analyzing the consumption patterns and, in a differentiated manner, the economic impact generated by tourists who stay in rented tourist accommodation mediated through online platforms compared to those who stay in regulated tourist establishments (Martín et al., 2019b). This methodology has been widely validated in the scientific literature for this type of study (Fletcher, 1989; Surugiu, 2009). The main applications of input-output analysis were presented in the works of Leontief (1986),

Fleissner (1993), Holub and Schnabl (1994), Kurz et al. (1998), Ten Raa (2006), Eurostat (2008) and Miller and Blair (2009). The input-output framework is a statistical-accounting tool that represents the totality of production and distribution operations. These operations take place in an economy in a given period of time, relating each sector of activity to the purchases and sales of goods and services that are produced or imported. In such a way, this provides a systematic and detailed description of an economy, its components and its relationship with other economies, following the methodology contained in The European System of National and Regional Accounts (ESA 2010). This framework is based on three tables: table of origin, table of destination, and symmetric input-output table.

To carry out this work, we used the input-output tables of Andalusia (Spain), the administrative region to which the city of Granada belongs. These tables were provided by the Institute of Statistics and Cartography of Andalusia. The economic effects produced by tourism are registered in this Spanish region, specifically in the city of Granada. This is an advantage in itself, since not all Spanish regions have their own input-output tables and have to be subordinated to the national tables, which could distort the analysis. The latest input-output tables available for Andalusia are those for 2016. Since the production structure changes slowly, these tables are not updated annually. In the input-output analysis, the interdependence relationships between the different sectors and branches of activity were represented by structural coefficients which, in quantitative terms, make it possible to determine the inputs used by each unit of goods and services produced. The interdependence between sectors can be defined by a set of linear equations that express the balance between the total inputs and outputs of each product and service provided (Eurostat, 2008).

This methodology can be used to calculate the direct and indirect effects that arise as a result of intermediate consumption in the sectors that carry out the production of final goods and services and which boost demand from the sectors supplying these intermediate inputs through forward or backward linkages. The intersectoral transactions collected in an input-output table can be formulated as a linear system of n equations, where n is the number of sectors or productive branches into which an economy disaggregates

$$x_{11} + x_{12} + \dots + x_{1n} + Y_1 = X_1$$

$$x_{21} + x_{22} + \dots + x_{2n} + Y_2 = X_2 \quad (1)$$

.....

$$x_{n1} + x_{n2} + \dots + x_{nn} + Y_n = X_n$$

where,

x_{ij} = is the number of inputs sector j purchases from the selling sector i

Y_i = is the final demand of sector i

X_j = is the output for the sector j

If $i = j = 1, 2, \dots, n$, a symmetric $n \times n$ matrix can be constructed

In order to use the input-output tables as a simulation or projection tool in the study of the economic effects of tourism on a given territory, it is necessary to build an analytical model that expresses, in matrix form, the transactions of intermediate inputs between the productive sectors. For this purpose, we define the matrix of technical coefficients (matrix A), which shows the requirements of intermediate inputs used by each sector or branch per unit of production.

The technical coefficients (a_{ij}) were calculated by dividing the values of the matrix of inter-industrial transactions or the matrix of intermediate consumption by the total production of the branches or sectors of activity.

$$a_{ij} = \frac{x_{ij}}{X_j}$$

Each a_{ij} represents the number of intermediate inputs which the sector j uses in order to produce a unit of a product, and they are supplied by the sector i .

Thus, if we substitute $x_{ij} = a_{ij} * X_j$ into the previous system n of equations (1), the result will be the following:

$$a_{11}X_1 + a_{12}X_2 + \dots + a_{1n}X_n + Y_1 = X_1$$

$$a_{21}X_1 + a_{22}X_2 + \dots + a_{2n}X_n + Y_2 = X_2 \quad (2)$$

.....

$$a_{n1}X_1 + a_{n2}X_2 + \dots + a_{nn}X_n + Y_n = X_n$$

In matrix terms, the system of equations (2) can be shown as:

$$AX + Y = X \quad (3)$$

Where, A is the symmetric matrix of order n of technical coefficients, X is the vector of production by sectors, and Y is the vector for final demand.

When we solve the production vector X , in the equation (3), we obtain:

$$X = (I - A)^{-1}Y$$

Where $(I - A)^{-1}$, is the Leontief Inverse Matrix, I is the identity matrix and A is the matrix of technical coefficients.

Therefore, through this model, we can obtain the production requirements of goods and services that are required to meet a certain increase in the final demand:

$$\Delta X = (I - A)^{-1}\Delta Y$$

Each element r_{ij} of the Leontief Inverse Matrix represents the amount by which production in the sector i must increase, in order to supply an additional unit of final demand in sector j . So, the r_{ij} of the Leontief Inverse Matrix are multiplier coefficients which calculate the effects that are successively produced in the economy, as a result of the initial increase in the production of a sector or branch of economic activity.

The results that were obtained, when we applied this methodology, enabled us to quantify the effects derived from tourism: 1) Initial effect, tourist expenditure at the place of destination; 2) Direct effect, the production of goods and services carried out by the sectors which are subject to the initial tourist expenditure; 3) Indirect effect, generated by purchases of intermediate goods and services which are made by the sectors directly affected by tourist expenditure, to the rest of the economy, which, in turn, also generates new demands in the economy. The result of these successive

rounds of effects in production is the so-called indirect effect. Moreover, the application of this model allows for the estimation of the number of jobs needed to supply the increased final demand as a result of expenditure by tourists. For this purpose, we determined the employment multiplier (L). It measures the employment requirements of all sectors of the economy to satisfy one additional unit of final demand in a specified sector j . Previously, we calculated the direct coefficient of employment l_j for each sector:

$$l_j = \frac{N_j}{X_j}$$

N_j being the number of jobs in sector j , and X_j its total production.

The employment multiplier is calculated as follows:

$$L = l * (I - A)^{-1}D$$

l a $n \times n$ is a matrix containing the direct coefficients of employment of each activity sector on its main diagonal, and zeros in all other positions.

The data supporting this study came from field work considering the visitors to Granada city that we conducted throughout 2018 in the main tourist attractions of the city. In total, 1,343 visitors were surveyed, 226 of which were excursionists (who did not stay overnight) and 1,117 were tourists (who did). According to the official estimations for 2019, the city attracted 3.5 million visitors; a total of 9,751 places were offered in tourist housing, while the places offered by hotels reached 15,402 (National Institute of Statistics, 2022). Considering this as the size of our target population, and taking into account the number of surveys conducted, we estimated a margin of error of $\pm 3\%$, with 95% certainty. The survey we conducted includes the necessary variables to characterize the tourist that visits Granada city, regarding their origins, sociodemographic characteristics, average stay, type of lodging, way of organizing the trip and purpose, average daily expenditure divided into concepts and their opinion of the destination.

The survey was aimed at visitors to the city of Granada who stayed in conventional hotel establishments or in tourist homes rented through P2P platforms. Visitors staying

in their own homes, or those of friends or relatives, as well as those who did not spend the night in the city (excursionists) were excluded. Therefore, this study focused exclusively on visitors who spend money on accommodation during their stay in Granada. To identify the two groups of visitors, a filter question was introduced at the beginning of the questionnaire; if the interviewee did not spend the night in either of the two types of accommodation under study, the survey was considered to be finished at that moment.

The places where the surveys were carried out were located in the main monumental and tourist locations of the city. A simple random sampling was carried out among the visitors who were in said tourist points. The process was carried out throughout 2018, which made it possible to obtain a complete view of the profile of tourists who stay in establishments in the city of Granada during all seasons of the year. Data collection was scheduled covering a wide spectrum of days, including weekends, working days, long weekends and holidays, and the holiday periods of Christmas, Easter and summer. The distribution of questionnaires was adjusted according to tourist demand, distinguishing between high, medium and low seasons. All data were collected using a tablet, with a preloaded questionnaire, available in Spanish, English and French.

The contents of the questionnaire included a number of topics, among which it is worth highlighting: sociodemographic data of the respondents (sex, age, origin, level of studies and employment status), modality and size of the group in which they traveled, nights spent in the destination and type of establishment in which they stayed, motivations for the trip, tourist and cultural activities scheduled during the visit to the city, budget for the trip and expenditure.

Through the survey, the expenditure of the tourist during their stay was identified, disaggregated into the traditional items of tourist consumption. This made it possible to quantify the average daily expenditure, distinguishing between tourists who spent the night in traditional establishments and those who spent the night in tourist homes mediated through P2P platforms. Specifically, the data collected on tourist consumption focused on the following expenditure items: 1) Accommodation, 2) Transport to the destination, 3) Expenditure on food and drinks, 4) Tickets to museums and monuments, 5) Guided and organized visits, 6) Souvenir purchases, 7) Other purchases (clothes,

footwear, books, press, etc.) and 8) Other expenses. The tourists surveyed indicated the expenditure per person and day for each item, which was measured in Euros.

The results of the survey allowed us to extract differentiated sociodemographic data for the two groups under study (Table 1). In the profile of the users of tourist homes rented through P2P platforms, a greater presence of women stands out compared to users of traditional establishments; in addition, they had a lower average age. Likewise, most of the users of these accommodations were foreign and had a higher level of education.

Table 1. Sociodemographic data of the survey according to the type of accommodation used.

	Regulated tourist establishments	Tourist homes rented through P2P platforms
Gender		
Male	48.3%	45.2%
Female	51.7%	54.8%
Total	100%	100%
Average age (years)	40.6	35.5
Origin of visitors		
Andalusia	12.6%	4.5%
Spain (excluding Andalusia)	43.1%	36.2%
European Union (excluding Spain)	26.4%	37.7%
Other countries	17.9%	21.6%
Total	100%	100%
Level of studies		
Non-University Studies	35.8%	22.6%
University Studies	64.2%	77.4%
Total	100%	100%
Employment situation		
Employed	72.4%	74.9%
Unemployed	3.6%	3.5%
Inactive	24.0%	21.6%
Total	100%	100%

To answer the RQ posed in this study, we used the following strategy. For the RQ1, we disaggregated the expenditure incurred by a tourist during their stay in Granada into different items. This was achieved by calculating the Average Daily Expenditure (ADE) and making a distinction between tourists lodged in traditional tourist establishments and those in accommodation rented via P2P platforms. To answer the RQ2, the Input-Output methodology was used to calculate the economic impact of both types of tourists. In this case, the final demand vector was obtained from the Andalusian input-output table for 2016. It was calculated by assigning the expenditure items to the sectors and branches of activity that show tourist expenditure. Furthermore, the Leontief model was used to calculate the direct and indirect effects on production and employment.

4. Results and Discussion

4.1. Results

The first interesting result, obtained from the fieldwork, was related to the disaggregation of the average daily expenditure into expenditure items (Table 1). This allowed us to determine the patterns of differentiated consumption that exist among tourists in Granada (those who stay in accommodation mediated through online platforms compared to those who stay in conventional, regulated establishments). The analysis showed that average daily expenditure was very similar for both types of tourists. There was a small difference of €0.82 in favor of those staying in regulated establishments (which is less than 1%). Thus, in 2018, the average daily expenditure of tourists staying in rented accommodation was €92.44 and €93.26 for tourists staying in traditional touristic establishments.

According to the works of Juul (2015) and Fang et al. (2016), tourists staying in online mediated houses pay less for accommodation, which implies an increase in other expenditure during their stay (favoring greater consumption in the tourist destination). As shown in Table 2, the breakdown of the average daily expenditure into expenditure items reveals that the cost of lodging was 27.9% lower in tourist houses, while other items were favored by greater consumption, for example, food and drink. It is the second expenditure item of greatest importance, and its contribution is 29.1% higher for tourists staying in rented accommodation than for tourists staying at regulated establishments.

Table 2. Breakdown of the Average Daily Expenditure (ADE) according to the contribution of each expenditure item, differentiated by type of tourist. Year 2018.

	(A) Tourists staying in rented accommodation	(B) Tourists staying in regulated establishments	Differential in Euros (A-B)	Differential in percentage (A-B/B)
Accommodation	€37.78	€52.43	€-14.65	-27.9%
Food and drink	€35.37	€27.39	€7.98	29.1%
Museums and monuments	€6.48	€3.13	€3.35	107.0%
Guided tours	€7.55	€5.62	€1.93	34.2%
Shopping and souvenirs	€4.27	€3.47	€0.81	23.3%
Transport at destination and other expenses	€0.99	€1.23	€-0.24	-19.2%
TOTAL ADE	€92.44	€93.26	€-0.82	-0.9%

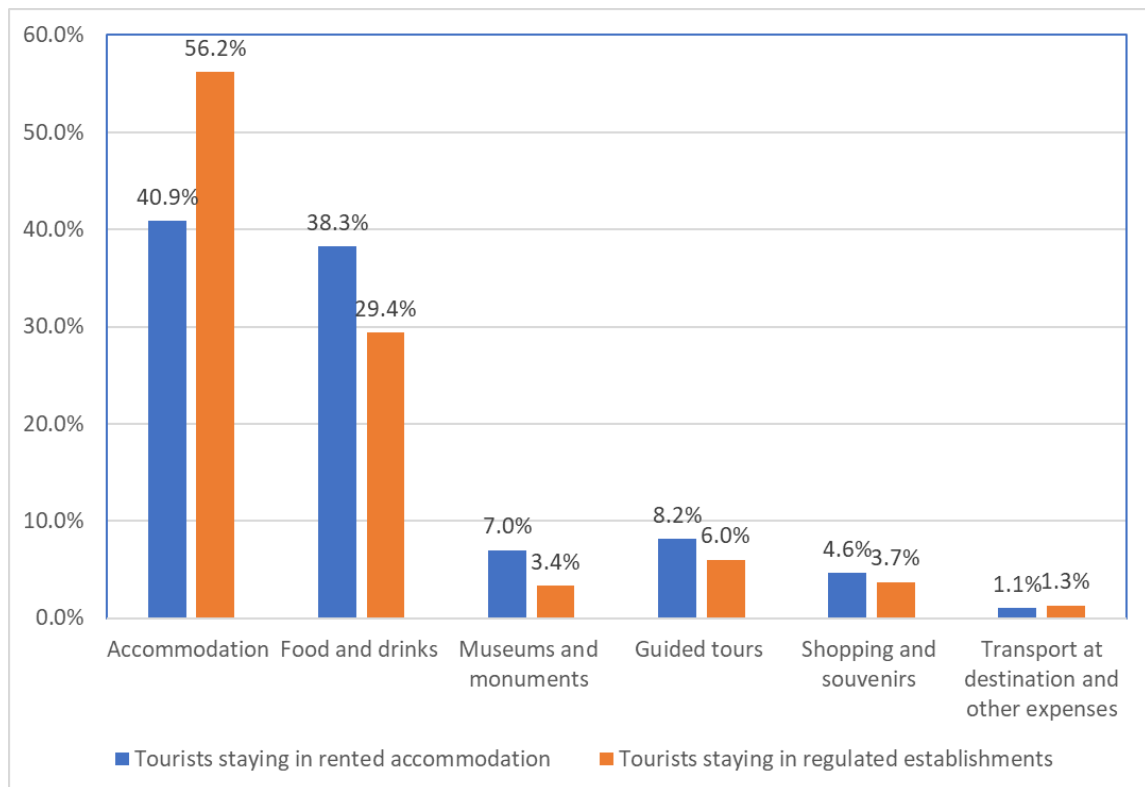
SOURCE: The authors based on a survey of visitors to the city of Granada in 2018.

Among the other activities carried out by tourists during their stay, it should be noted that monuments and museum visits, guided tours, and buying gifts were the most relevant. Savings on accommodation costs (which benefit tourists who rent housing through online platforms) imply a significant increase in visits to museums and monuments (107% more), through guided tours (34.2%) and purchasing gifts (23.3%). Regarding tourists staying in regulated establishments, only transport at the destination and other expenses presented a higher cost, even though the weight of this item in the Average Daily Expenditure (ADE) is not very relevant.

Based upon the foregoing, and in response to the RQ1 proposed in this research, it was confirmed that tourists who stayed in Granada in rented accommodation presented different consumption patterns than those who stayed in regulated establishments. Analyzing the percentage contribution of the expenditure items of the ADE, which are related to touristic consumption at the destination (Figure 2), the differences between the two types of tourists are evident. The two most relevant items, which were expenditure on accommodation and food and drinks, added up to 79.2% of the ADE, for tourists who spent the night in rented accommodation, compared to the 85.6% contribution of tourists who stayed in regulated establishments. As a consequence, regarding the ADE of tourists staying in rented housing, there is an increase in the

weight of the rest of the items associated with touristic activities, such as the purchase of guided tours, and museum and monument tickets, as well as expenditure on shopping and souvenirs, which result in an added impact on the local commercial sector.

Figure 1. Percentage contribution of each expenditure item to the ADE of tourists in the city of Granada. Year 2018.



SOURCE: The authors based on a survey of visitors to the city of Granada in 2018.

Another conclusion that found in peer-reviewed scientific literature is the longer average stay of tourists in online-rented accommodation, which is also confirmed by the survey conducted on visitors to the city of Granada. In 2018, these spent an average of 3.21 nights, whilst the average stay of tourists in traditional accommodation was only 2.41 nights (Table 3). Therefore, if, as earlier described, the ADE of both tourist typologies is similar; the result is a greater impact of tourists in rented accommodation during their stay at the destination. More specifically, visitors spent, on average, a total of €297.01 during their trip to Granada, compared to €225.02 by tourists staying in regulated establishments, 32% more.

Table 3. Average stay and total expenditure of a tourist during their stay in the city of Granada, by type of accommodation. Year 2018.

	Average stay (no. of nights)	Total expenditure per tourist during their stay (ADE x Average stay)
Tourists staying in rented accommodation	3.21	€297.01
Tourists staying in regulated establishments	2.41	€225.02

SOURCE: The authors based on a survey of visitors to the city of Granada in 2018.

Greater tourist spending by visitors staying in rented accommodation during their trip to the city of Granada has an effect on the production of goods and services, as well as on employment. In order to quantify the direct and indirect impact generated by both types of tourists, the demand Leontief model was applied, thus providing an answer to RQ2 posed in this study. As shown in Table 3, a tourist who stayed in accommodation mediated by online platforms generated an impact on the production of goods and services of €446.33 during their stay in Granada, compared to €334.07 for a tourist staying in regulated lodgings, which represents a difference of €112, 33.6 % more, in relative terms. This difference is due, on the one hand, to the longer average stay of tourists staying in unregulated lodgings and, on the other hand, to a greater diversification of tourist expenditure.

When the direct and indirect effects on production were disaggregated by branches of activity (Table 4), a greater sectorial concentration was evident in the case of tourists staying in regulated lodgings. This was a consequence of the higher initial expenditure by these tourists on accommodation. The "Accommodation services" branch gathers 38.4% of production, boosted by spending at the destination by this type of tourist, compared to 27.6% in the case of tourists staying overnight in rented accommodation. As a consequence, their expenditure was distributed among a greater number of sectors, causing a multiplier effect in production of 1.502 for each Euro spent, while the multiplier effect of the expenditure of visitors who stayed overnight in traditional establishments was 1.484 per euro spent, reducing its overall impact on the economy of Granada and Andalusia.

Table 4. Impact generated on the production of goods and services by a tourist during their stay in Granada, according to type of tourist accommodation and activity sector in Input-Output tables for Andalusia. Year 2018.

Activity sector (Tables I-O)	Tourists staying in rented accommodation		Tourists staying in regulated establishments	
	Production impact	%	Production impact	%
Accommodation services	€123.40	27.6%	€128.26	38.4%
Food and drink services	€114.39	25.6%	€66.61	19.9%
Creative, arts and entertainment services; library, archive, museum and other cultural services; gambling and betting services	€47.51	10.6%	€23.61	7.1%
Real estate services	€16.98	3.8%	€12.47	3.7%
Retail trade services, except for motor vehicles and motorcycles	€15.20	3.4%	€9.43	2.8%
Wholesale trade services and trade intermediaries, except for motor vehicles and motorcycles	€14.01	3.1%	€9.90	3.0%
Production, transportation and distribution of electrical energy	€8.69	1.9%	€7.10	2.1%
Beverage manufacturing	€8.41	1.9%	€5.17	1.5%
Construction	€7.25	1.6%	€6.16	1.8%
Land transport services and transport services via pipelines	€6.75	1.5%	€4.80	1.4%
Other productive branches	€83.74	18.8%	€60.56	18.1%
TOTAL PRODUCTION	€446.33	100.0%	€334.07	100.0%
MULTIPLIER ON TOURISM EXPENDITURE	1.5027		1.4846	

SOURCE: The authors based on the latest Input-Output tables available for Andalusia.

This difference in the tourism expenditure multiplier was due to the disparities in the intensity of the linkages or existing interdependencies between the different branches of activity in the economy, which caused a greater or lesser overall impact on production, depending on the sector or branch that received the initial demand. Likewise, differences in apparent labor productivity led to an unequal impact on the creation of employment. This is because the more labor-intensive branches, with lower productivity, tend to create more employment than others, due to an increase in final demand driven by tourist spending in the destination. In the fourth table, we show the different types of job indicators that show the impact generated on full-time jobs by a tourist according to the type of accommodation used during their visit to Granada. The

employment rate per tourist was 37.9% and accordingly the expenditure on rented accommodation was higher than that for a regulated establishment. In consequence, to create one full-time job, it would be necessary to satisfy the demands of 211 tourists for the former and 291 for the later.

Table 5. Impact generated on full-time equivalent jobs according to type of tourist accommodation. Year 2018.

	Tourists staying in rented accommodation	Tourists staying in regulated establishments
Employment per tourist received	0.00474	0.00344
No. of tourists needed to create 1 job	211	291
Apparent labor productivity	€94,114.51	€97,141.86

SOURCE: The authors based on the latest Input-Output tables available for Andalusia.

On the other hand, Table 5 reveals that delivering the final product, goods and services for rented accommodation is less productive, which contributes to the requirement of a new workforce. These differences in employment between tourists in rented accommodation and in regulated establishments were caused by the impact and diversification of production which was generated during their stay in Granada, not to mention, the disparities in productivity among the most benefited sectors due to tourist expenditure. As can be seen in Table 4, these sectors include hotels and catering, and commerce, which have historically recorded low productivity in Spain compared to the European average and to other industrial and service activities (Cuadrado & Maroto, 2012).

4.2. *Limitations and Directions for Future research*

The main limitation of this research derives from the area in which the field work was carried out. Therefore, it would be advisable to repeat the field work in other cities with a different tourist profile. Another limitation of the work is that the results may suffer from endogeneity problems, since is possible that people who want to stay longer and enjoy more heterogeneous consumption are more likely to choose P2P accommodation platforms than hotels.

According to Paul and Bhukya (2021), it is advisable to point out future lines of research that take the conclusions issued as a starting point. In this sense, several lines

of research are proposed to deepen the conclusions of this paper. It would be interesting to continue this study by applying a similar methodology in different territorial areas, such as coastal and rural areas in order to verify the conclusions drawn. It is necessary to analyze the consumption patterns of tourists in different tourist destinations, differentiating the type of accommodation they use. With this, in addition to obtaining a consumption pattern adjusted to the type of destination, the conclusions on the economic impact of each type of user will be reinforced. This is a necessary condition to reinforce the answer to the two research questions raised in this work. It must be noted that the COVID-19 pandemic fundamentally changed the world (Milaković, 2021; Das et al., 2022; Kim et al., 2022; Gordon-Wilson, 2022), so up-to-date empirical information is required, taking into account the new consumption patterns of tourists.

4.3. Implications for Theory

In line with other studies published on the subject, it was found that tourists staying in accommodation mediated by online platforms spent less of their average daily expenditure on accommodation compared to tourists staying in traditional establishments, but nevertheless spent more on other items, such as visits to museums and monuments, guided tours, shopping and gifts. This led to the average daily expenditure of both types of tourists being very similar, which supports the conclusions of some authors that the lower expenditure on accommodation results in greater consumption of other goods and services during their stay at the destination. In addition, it was found that tourists staying in rented accommodation had a longer average stay, which increased the total expenditure during their trip. The above conclusions are highly relevant in terms of the economic impact generated by both types of visitors. The greater and more diversified tourist spending by visitors staying in rented accommodation means that a greater number of areas of activity benefit, as a result of the existing inter-sectoral links, generating a greater direct and indirect impact on the production of goods and services in the surrounding area.

4.4. Implications for Consumers (Tourists)

These results shed light on the economic impact of the expenditure made by the segment of tourists who stay in accommodation mediated through online platforms, in contrast to the segment that stays in regulated tourist establishments. However, the fact

that the economic impact generated by the first segment of tourists in the destination is more positive should not be understood as an undervaluation of the second segment, but rather as an opportunity to facilitate the coexistence of both types of accommodation, introducing the relevant regulatory changes to equalize the framework in which they carry out their activity.

4.5. Implications for Managers (Managerial Implications)

It is necessary to introduce homogeneous regulations at different territorial levels, which clearly define the rules of the game and establish the limits within which the activity of tourist rental properties is developed, above all to guarantee fair competition with regulated establishments and minimize the negative impact on the resident population. This study can help planning licenses for tourist accommodation. Taking into account the impact that users generate in various economic activities, a homogeneous distribution in the city of the licenses would help to distribute the impact of consumption by tourists. In addition, this study shows that the impact of consumption associated with users of tourist homes is not less than that referring to other tourist profiles, and may be complementary. Therefore, public authorities are encouraged to establish regulatory frameworks that permit a harmonious coexistence between the different accommodation options in order to maximize the economic impact.

5. Conclusions

This empirical, exploratory paper makes a new contribution to scientific knowledge about rented accommodation intermediated through online platforms. We researched the consumption of tourists in Granada city, determining whether their stay was in a regulated establishment or not. The aim was to discern whether there were disparities between staying overnight in rented accommodation or a regulated establishment. Furthermore, the investigation studied the impact generated on production and employment by the expenditure of the two types of visitors during their stay in a relevant Spanish tourist destination specialized in urban-cultural tourism. The goal was to determine whether there were significant differences in the economic effects of tourists staying in rented accommodation compared to users of regulated establishments. As a result, this work shows that the expenditure driven by users of rented accommodation has a greater effect on production than that generated by tourists

staying in traditional establishments. The impact on employment creation was also more favorable in the case of tourists staying in tourist accommodation, since, by generating more a diversified production of goods and services, inter-sectoral differences in apparent labor productivity come into play, which can boost employment in those branches of the economy that are more labor-intensive. As has also been noted, the consumption patterns of visitors staying overnight in rented accommodation favors production in less productive branches and sectors, requiring the creation of more employment to meet an increase in demand.

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