Assessing the Interstitial Rent: The Effects of Touristification on the Historic Center of Naples (Italy)

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Abstract. The paper explains a research methodology to understand the impacts of touristification and overtourism on the urban dimension. A block of the Naples historic downtown (Italy) has been selected as a sample to verify the transformations induced by the airification process of the city since 2015 on the social and urban environment, investigating the influence on real estate dynamics, and their impacts related to economic, social, cultural and urban criteria.

The mapping of Airbnb listings on the block has allowed to analyse the economic convenience of renting short-term housing, identifying an income surplus defined as "interstitial rent", which represents the economic advantage achieved. The analyses carried out on the average market values of the properties on Airbnb have revealed the tendency to redevelop the "waste building stock", which is unattractive for the ordinary market, in view of its turbo-valorisation by converting it into accommodation. The attractiveness characteristics of the properties were compared to the average market values to investigate the housing stock that can be removed from the ordinary residence market in view of its value enhancement. This research has highlighted the progressive gentrification of the historic center and the relocation of the permanent inhabitants outside it. Therefore, investigating the prevailing sentiment that agitates the social organisations of Europe, we have come to provide an intervention proposal for the regulation of post covid-19 housing policy, which tends to co-participated formulation of strategic choices, involving all interested parties, in order to find a shared application.

Keywords: Urban rent · Sharing economy · Short-term rental market · Web-scraping technique · Multiple regression analysis

1 Introduction

The touristification indicates the whole process of transformation of the urban space that shapes the city exclusively to make it attractive to the ordinary tourist. According to Renau [1], touristification is defined as the result of a relatively spontaneous and unplanned process of tourism development, which leads to the transformation into a

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tourist commodity of the space on which it insists. Some authors identify touristification as the process that transforms residential neighbourhoods into tourist areas [2, 3].

The transformation process can lead to a radical change in the appearance of the city, fuelled by that process which has been called the "Bilbao/Guggenheim effect", i.e. the possibility of changing the pre-existing aspect by investing in projects of great urban impact aimed at the search for a new image as a tourist destination [4]. After the deindustrialisation process, that took place in the last decades of the twentieth century or even after the economic crisis of 2008, to "survive" many cities have staked everything on the tourism industry, exploiting a natural vocation or creating the conditions. In all the cases observed, a common denominator, capable of being a powerful tourist magnet, seems to be the rediscovery or, in some cases, the invention of old traditional or typical atmospheres sold to tourists as authentic experiences [5].

Since touristification is a direct consequence of the emergence of mass tourism, it is the result not only of the needs but also of the trends and tastes that can make the city a "destination-city". These transformations generally do not recover anything authentic. On the contrary, they deplete the meaning of places and profoundly modify their image, homologating the destinations given daily needs related to the use (metro, pub, street food, souvenir shops) and, in the most severe cases, the creation of fakes leading to the Disneyfication [6] of cities. This is what has happened in some areas of Seoul, Korea, where some local media [7] threats such as Bukchon Hanok Village in the south of the city, famous for its traditional Korean houses, and Ihwa Mural Village in the Jongno district, in the centre of the city, known for its colourful murals, ended up becoming a sort of "theme parks", making it necessary to affix signs that invite silence during the visit of the neighbourhood, making the coexistence between tourists and residents conflicting. Other authors note that mass tourism in a historic city, in addition to causing conflicts between visitors and residents, also produces positive effects such as job creation, cosmopolitanism or the expansion of the cultural offer [8] and transforms urban spaces and neighbourhoods into recreational areas with substantial repercussions on residents [9]. Gurran et al. [2] identify in the shift of low-income residents due to the increase in the market values of the houses, the most significant social impact that tourism in the historic centre can produce. Touristification inevitably collides with the carrying capacity of tourist cities.

The United World Tourism Organisation [10, 11] defines carrying capacity as «the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic, socio-cultural environment and an unacceptable decrease in the quality if visitors' satisfaction». Carrying capacity cannot be measured by placing emphasis only on the size of tourist flows since it is influenced by the specificity of the context that is considered and in particular by two factors which are the characteristics of tourists and the features of the destination and its residents [12]. Touristification is inextricably linked to neologism "overtourism" which means "tourist overcrowding". The term was coined in 2016 by Rafat Ali [13], and according to him «Overtourism represents a potential hazard to popular destinations worldwide, as the dynamic forces that power tourism often inflicts unavoidable negative consequences if not managed well». The term was introduced in Collins in 2018 [14, 15], and became the word of the year in 2018 [16].

The issue is very close to Italy with Venice which in 2018 was elected world capital of overtourism. The repercussions of overtourism can be analysed on different levels: economic, social and environmental. It is necessary to investigate these three fields to arrive at the structuring of a methodology suitable for the study of the phenomenon and the consequent formulation of a more sustainable future scenario. According to Tomaselli [17], the tourism industry is an extractive industry, precisely like the oil industry and therefore, does not produce goods, but extracts value from "deposits" rich in added value. Furthermore, according to some authors [18], the development of a tourism industry does not guarantee to solve the local socio-economic problems faced by some destinations. Thanks to the emergence of sharing tools, such as Airbnb, the season of the so-called "platform capitalism" has been inaugurated [19–23]. According to Bernardi [24], indeed, since 2008 the traditional postulates of economic and social growth, and the entire capitalist system, have been called into question, prompting people to ask themselves what they needed and how to extract value from the things/capacities possessed. It is precisely in this context that the awareness has been acquired that every property can turn into a potential profit, every person into a potential entrepreneur. The competition in the panorama of Airbnb hosts is very high. Therefore, the reliability of the hosts is calculated through reputational algorithms, which collect opinions and feedback on the experience and disposability of the guest. In this way, each host is associated with a rating that serves to give an approximate measure of the trust that the digital tourist community places in it. What we are witnessing is the formation of "symbolic capital" [25, 26], that is a "cognitive" capital: what others think, the way they judge you, takes on value, regardless of the truthfulness of these conjectures or the existence of certain behaviours or qualities of the social actor. This symbolic capital, thanks to what we can define as a digital reputation economy, is converted into economic capital: having a good reputation will imply a higher flow of earnings [24]. Indeed, Airbnb has created new paradigms, bringing the home-sharing economy from a hidden economy to a new model of experiential tourism accessible to everyone, radically changing the hospitality market.

Research by the Ladest Laboratory [27], studying the penetration of Airbnb in thirteen Italian cities has shown how extremely unequal the distribution of rental income is. Indeed, the local administrations focus everything on tourism as a tool for the revitalisation of the economy, not only as a source to replenish the tax funds, but also to face social problems (high rate of unemployment, especially of young people). At the same time, the local communities live daily all the difficulties that uncontrolled tourism brings. It is not only private individuals or municipalities that benefit from tourism. In 2017, the diffusion of Airbnb, supported by the National Association of Italian Municipalities (ANCI) and by the Ministry for cultural goods and activities (Mibact) [28], took the opportunity of tourism to draw up a program. This program provided for the enhancement of over 40 villages, spread throughout the country, through a range of different projects with the collaboration of Airbnb for the recovery of the public spaces of three villages [29]. An effect was an out of control tourism, made up of more and more people who pass through a location for a short period, determining an environmental and social "pressure" on the context. A more significant influx of vehicles and a greater presence of people inevitably define an increase in the production of waste and an increase in the consumption of water and electricity.

The European Environment Agency [30] calculated that each tourist consumes a daily quantity of water 3 or 4 times higher than a permanent resident, with non-tourist water consumption of between 100 and 200 litres per day a person throughout Europe [31]. Furthermore, the problem of transport intervenes, according to estimates by the United Nations World Tourism Organization (UNWTO) according to which in 2017 57% of international tourism used the air mode [32]. However, according to the European Environment Agency [33], if air transport is responsible for the largest share of greenhouse gas emissions associated with tourism, while cruises remain the mode of transportation that generates the most greenhouse gas emissions per kilometre travelled. Besides, most cruises start with a flight to the port of departure, and this increases the total emissions produced by the journey by 10–30%.

In 2014 Hollenhorst et al. [34] had already revealed the unsustainability of tourism when they unmasked the image of tourism as a false embodiment of sustainability since it is one of the most carbon-emitting industries and resource depletion factor. According to some studies, indeed, the tourism sector would be responsible for the emission of 4.5 Gigaton of CO_2 in 2013, corresponding to the 8% of global carbon footprint and increasing four times more than the previous year estimation [35]. In this perspective, a general analysis allows having a clear picture of the saturation situation of a specific tourist resort at a particular time t. Nevertheless, long-term sustainability of tourist flows has to be assessed [36]. Due to the advent of mass tourism, the social mixite of consolidated urban centres has changed a lot. Overtourism, boosted by platform capitalism, has propelled existing phenomena i.e. the exploitation of labour and the gentrification of entire neighborhoods, amplifying the old social problems closely linked to the contradictions of capitalism [1].

The houses, often old and in poor condition, have been renovated and the same fate has fallen on disused industrial buildings which have been transformed into apartments and, in some cases, new buildings are built. This whole operation was possible thanks to the emergence of a rent gap [37]. Capital is invested in the neighbourhoods where the annuity values are depreciated due to the widespread degradation given an economic advantage that resides in the potential annuity due to the interventions [38]. The intervention of investors in neighborhoods brings the value of the capitalisation annuity in line with that of the potential annuity. As a direct consequence, we are witnessing the increase in the market value of the properties. Whether the cause of gentrification is tourism or the opportunity for the upper-middle class to be closer to city attractions, it is considered essential to preserve the existing social stratification to preserve what Ruth Glass called the "social personality" of a neighborhood [39].

The progressive tourist saturation of cities is reflected only on the shortage of housing, but also on the inefficiency of services that generate stressful situations in the resident population, as well as competition in the use of services in the city [40, 41]. In Spain, in Barcelona, we have witnessed several times in recent years, the reaction of citizens who have occupied the streets and squares of the city by ordering tourists to go home [42]. Because uncontrolled tourism not only saturates cities, it also brings with it environmental repercussions and transformation of places to respond to the hunger for the authenticity of the ordinary tourist, depleting the resources of the territory and expelling the most fragile and weakest part of the population "authentic". Within the above-mentioned background, the paper shows a methodology design allowing to

emphasise the economic convenience of renting short-term housing, through mapping of listings and detecting of income surplus referring to as "interstitial rent" in terms of achieved economic profit.

The paper's structure proceeds as follows. The first part (Sect. 2) explains the methodological approach by describing methods and different research phases; the second (Sect. 3) identifies the case study related to the historic centre of Naples; the third (Sect. 4) analyses the transformation processes; the fourth (Sect. 5) shows the discussion of the data processed; and the last (Sect. 6) discusses the conclusions about the whole process.

2 Materials and Methods

"The first research conference on tourism and SDGs" [43] highlighted the relationships between tourism and SDGs objectives, eliciting the positive and negative impacts of tourism in terms of sustainability. In a nutshell, the SDGs consider the idea that tourism, and more generally, the activities that generate profit, must deal with the environmental contexts in which they are inserted, creating positive impacts through social responsibility programs. Therefore, the United Nations program calls for respecting the seventeen goals to capitalise while contributing to more sustainable development. Taking into account the SDGs contents, the research has focused on the study of a block in the historic centre of Naples (Italy) which takes on the features of an example to evaluate the effects of touristification in the downtown. The methodological process considers the following four main steps (Fig. 1): 1. Knowledge; 2. Data processing; 3. Assessment; 4. Outcome.

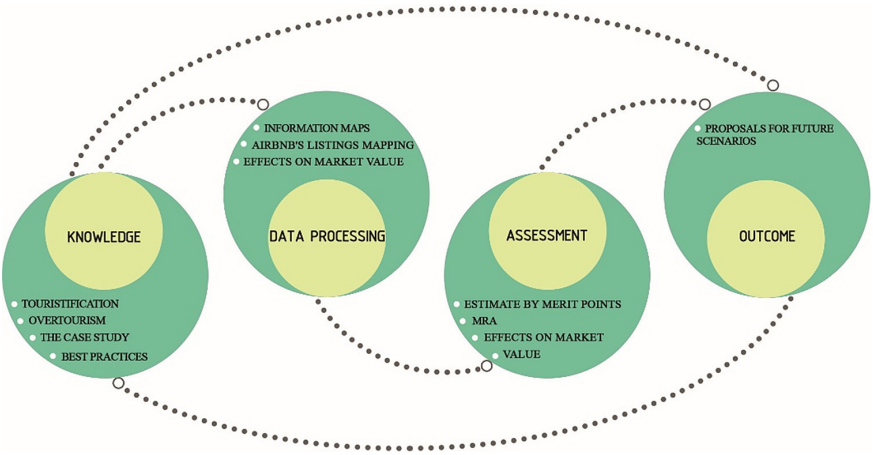

Fig. 1. The methodological framework

In the assessment phase, the different data were elaborated by multiple regression analysis. All the assessments produced to contribute to the structuring of proposals for future more sustainable intervention scenarios for the inhabitants and the city, also in light of the recent covid-19 pandemic which has generated the impossibility of moving people, changing the dynamics of uncontrolled growth of overtourism.

3 The Case Study

The case study selected a block in the heart of Naples historic downtown, located between the sections of San Lorenzo and Pendino (Fig. 2), between the fourth and second municipalities of Naples. The block is located on the ruins of the ancient agora [44], enclosed between the lower decuman south of via San Biagio dei Librai and the middle decuman north of Via dei Tribunali. Nowadays the Naples historic downtown is configured as the stratification of transformations undergone by its Greek foundation to today.

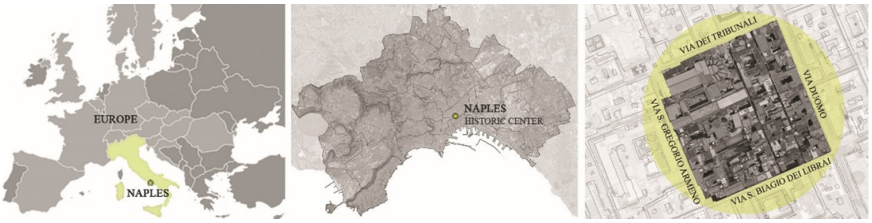

Fig. 2. The study area: on a block of Naples historic downtown (Italy)

The methodological process focuses on:

- the analysis of the transformations induced by touristification in urban dynamics;
- the study of the accommodations on Airbnb;
- the average market value of the buildings in the block on Airbnb;
- the identification of the most influential characteristics that determine the market value.

Thanks to the study of the Airbnb listings, it is possible to determine the extent of the economic advantage of renting under a short-term lease. Instead, the analysis focused on market value serves to understand what are the characteristics that properties must have more than others, to be attractive for the short-term rental market.

4 Transformation Processes: Approaches and Tools

The touristification involves several spheres of reality; therefore, to understand the transformation processes of the observed block, it has been necessary to construct a knowledge framework through the collection and processing of hard data.

The data collected refer to four criteria: economic, social, cultural and urban. The indicators matrix has been elaborated by selecting the indicators based on the survey criteria (Fig. 3), indicating for each one of them: Criterion; Indicator; Unit of measurement; Territorial coverage; Source; Reference year.

Criteria	Indicator	Unit of measurement	Territorial coverage	Source	Reference year
Economic	Marke Value - Housing	€/smq	Area OMI B8; B9	OMI	From 2014 to 2019
	Rental Value -Housing	€/smq	Area OMI B8; B9	OMI	From 2014 to 2019
	Economic activities	Number	Cadastral section	Istat	1991-2001-2011
	Restaurants and pizzeria	Number	Cadastral section	Open Street Map	2019
	Bars	Number	Cadastral section	Open Street Map	2019
	Take away	Number	Cadastral section	Open Street Map	2019
	Pastry shops	Number	Cadastral section	G.M. / on-site	2019
	Local food markets	Attendance	Neighborhood	G.M. / on-site	2019
	Local craft markets	Attendance	Neighborhood	G.M. / on-site	2019
	Supermarket	Number	Cadastral section	Open Street Map	2019
	Clothing stores	Number	Cadastral section	Open Street Map	2019
	Bookshops	Number	Cadastral section	Open Street Map	2019
	Pharmacies	Number	Cadastral section	Open Street Map	2019
	B&Bs	Number	Neighborhood	G.M. / on-site	2019
	Hotels	Number	Neighborhood	G.M. / on-site	2019
		Number	Cadastral section	Open Street Map	2019
Social	Residents total	Number	Cadastral section	Istat	1991-2001-2011
	Foreign residents	Number	Cadastral section	Istat	1991-2001-2011
	Age of the resident population	Number	Cadastral section	Istat	1991-2001-2011
	Education of residents	Number	Cadastral section	Istat	1991-2001-2011
	Occupied resident population	Number	Cadastral section	Istat	1991-2001-2011
	Unemployed resident population	Number	Cadastral section	Istat	1991-2001-2011
	Active resident population	Number	Cadastral section	Istat	1991-2001-2011
Cultural	Churches and convents	Number	Cadastral section	Open Street Map	2019
		Number	Neighborhood	G.M. / on-site	2019
	Historical buildings	Number	Neighborhood	G.M. / on-site	2019
	School buildings	Number	Neighborhood	G.M. / on-site	2019
	Castles, walls (doors) and towers	Number	Cadastral section	Open Street Map	2019
	Theaters and Cinemas	Number	Cadastral section	Open Street Map	2019
	Museums and archaeological sites	Number	Cadastral section	Open Street Map	2019
		Number	Neighborhood	On-site research	2019
	Archives	Number	Cadastral section	Open Street Map	2019
	Cloisters of religious buildings and universities	Number	Cadastral section	Open Street Map	2019
	Squares	Number	Cadastral section	Open Street Map	2019
		Number	Neighborhood	G.M. / on-site	2019
	Cultural and social associations	Number	Cadastral section	G.M.	2019
	Neighborhood events	Attendance	Cadastral section	G.M. / on-site	2019
Urban	Unoccupied buildings	Number	Cadastral section	Istat	1991-2001-2011
	Institution	Number	Cadastral section	Open Street Map	2019
	Station	Number	Cadastral section	G.M. / on-site	2019

Fig. 3. Matrix of indicators for the economic, social, cultural and urban criteria

The institutional data referring to property valuations, returned as an aggregate data that refers to a larger area than that of the investigation since the survey block is a portion of the space between different homogeneous territorial areas (OMI), therefore in the subsequent evaluations, the average values have been considered. Furthermore, the existing institutional data have a temporal limit, which cannot capture the most recent transformations. This critical point has been overcome by proceeding with the development of an integrative mapping, with field surveys (on-site) and the support of the open-source data of the Google Maps and the Open Street Map. The indicators matrix has been the starting point for the elaboration of information maps thanks to the spatial representation of the selected indicators, referring them to the census tracts indicated by Istat [45], to compare the data and provide a common basis to the different maps. The resulting maps enable us to describe the existing relationships in the selected area spatially and to quantify and compare them with the transformations ongoing induced by the growth in the number of b&bs. The number of accommodations on Airbnb has been acquired by scraping with an open-source software "Airbnb Data Collection" [46]. Data have been extracted monthly, from June 2018 to May 2019. Through their comparison with field surveys and research on home-sharing websites, it has been possible to map the Airbnb listings spatially. The mapping has made it possible to observe the relationships that the growing accommodation urban function has woven with the other features, serving as a basis for identifying new urban scenarios.

5 Results and Discussion

According to the cadastral data, 655 buildings were officially designed for housing in the block. This official number excludes most of the buildings used as dwellings called "bassi" which were once unhealthy homes or artisan workshops on the ground floor. Istat data from 2011 showed that there were 1039 residents on the block under analysis (Fig. 4).

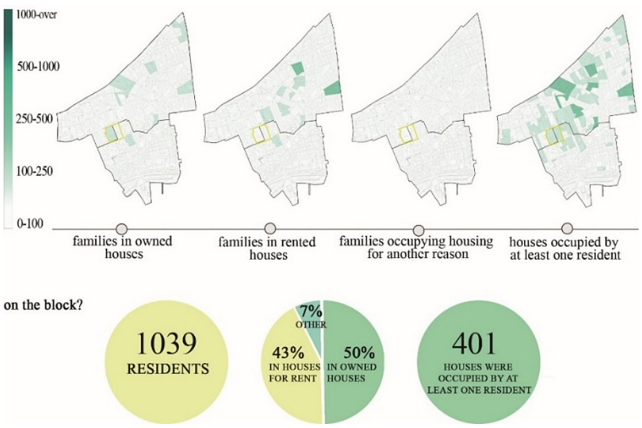

Fig. 4. Families who occupied the block in 2011

Although the city is attractive from a tourist point of view, the database of the observatory on property valuations provided by the revenue agency, underlined that, from 2014 to 2019, the market value of the property is slightly decreasing, as well as also the rental value (Fig. 5).

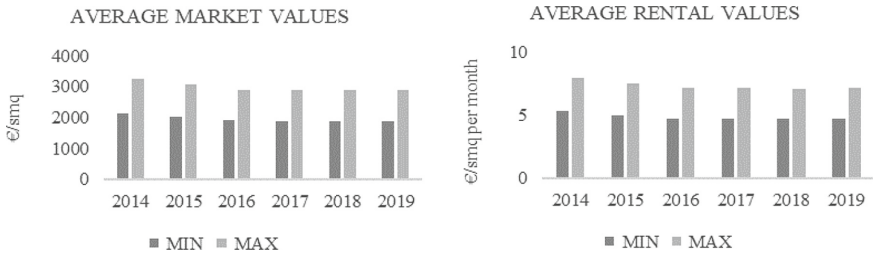

Fig. 5. Real estate dynamics from 2014 to 2019

In 2016, when Airbnb began to establish itself in the Neapolitan landscape, the average market values began to fall. This decrease also affected the average rental prices, which from 2016 onwards have undergone minimal fluctuations, with the first significant increase in the number of listings in the historical centre 197% compared to 2015 (Fig. 6).

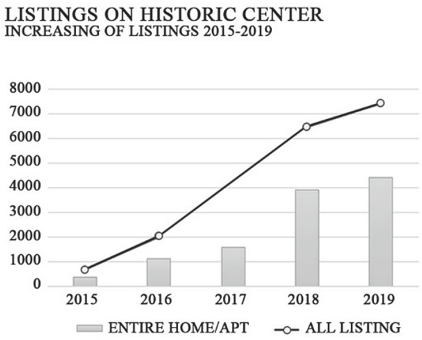

Fig. 6. Increasing of listings from 2015 to 2019 on the Naples historic centre

The average market values observed indicate that they have decreased from 2695 €/sqm in 2014 to 2380 €/sqm in 2019, while for the average rental values it went from 6.68 €/sqm per month in 2014 to 5,97 €/sqm per month in 2019.

The institutional data refer to aggregate data that consider the fluctuations of property valuations relating to three leading real estate categories: noble, civil and low-cost. In particular, the noble type housing (cadastral category A1) from 2016 onwards

show constants market values in a progressive decline from 2014 going from 3900 €/smq to 3300 €/smq, the same lowering occurs for leases that decrease from 8,78 €/smq per month to 7,45 €/smq per month. The decline of property valuations is also reflected in the other cadastral categories observed.

For civil housing (cat. A2) from 2014 to 2019, the average market value decreases from 2825 €/sqm to 2537 €/sqm and the average rental value decreases from 7 €/sqm per month to 6,4 €/sqm per month.

For low-cost housing (cat. A3) from 2014 to 2019 the average market value decreases from 1962 €/sqm to 1762 €/sqm, and the average rental value decreases from 5,22 €/sqm per month to 4,72 €/sqm per month.

Through field analysis, it has been estimated that the drop in prices is often the consequence of the increasingly degraded conditions of the properties placed on the market. Degradation conditions not only concern real estate but often refer to the dilapidated context in which they are inserted. The mapping of the properties on Airbnb highlights the presence of 39 entire apartments, 37 single rooms and 0 shared rooms, for a total of 310 beds (Fig. 7).



Fig. 7. Mapping of Airbnb listings

The study of the individual listings has made it possible to skim the data and to detect that 99% of the listings refer to an entire apartment, for a total of 41 real estate units present on the platform. The presence of 38% of hosts that publish multiple listings also notices the growing trend to value the second home on the short-term rental market.

The data of the 41 real estate units have been crossed with the cadastral data to obtain information relating to: the building category, the number of rooms and the income.

The cadastral research shows that the 41 real estate units 61% are popular housing (A4), 20% ultra-popular housing (A5) and 19% civil housing (A2).

From direct observation, however, it emerges that the maintenance status of the buildings is mainly average (64%), and only a small percentage (12%) has an excellent maintenance status. The average market value of these real estate units is 1,562 €/sqm. It has been calculated as a weighted average between the value inferred from the summary estimate by merit points and the calculation of the normal unit value.

Through multiple regression analysis [47], it has been possible to study all those characteristics that determine the observed market value. In this case study, the dependent variable Y is the Market Value (MV). At the same time, the predictors consist of 42 indicators at two main scales of investigation referring to: (i) the analysed property and (ii) the urban and socio-economic context.

The SPSS software provided by IBM has been used to lead data analysis and statistics. The predictors most influencing the MV - ordered by most significant influence - are the following: surface; elevator; finishes.

The market value is low compared to the position in the historic centre and the ability to extract buildings through the platform. In fact, by comparing the 2018 turnover data of the hosts with those of the taxation regime to which the properties are subject, it is shown that the properties under observation produce a surplus of income, definable as interstitial income, equal to 707%. From the observed data, it emerges that the most attractive properties considering their potential reconversion for accommodation use are those of popular category. Indeed, considering the residential building stock of the block, excluding the 0,5 and 1 room properties, those of category A2 and those already present on the platform, it has been observed that 62% of residential real estate units (408) are susceptible to turbo-valorisation. Therefore, Airbnb becomes a tool to make income from building waste, which is not attractive for the ordinary market, generating an "interstitial rent". In this context, the property rental market can choose a third way: not the lease to residents or students, but the short contract to tourists that allows to exploit the advantage of a disadvantageous starting condition and transform it into an opportunity by pursuing a higher turnover.

6 Conclusions

The research shows that degraded contexts can become an opportunity for platforms like Airbnb to relaunch the "authentic" live like a local [48].

The difference between this new accommodation and traditional tourism spaces is that their function is based on relationality rather than on visual consumption or any type of traditional tourist gaze [49, 50].

According to Dredge and Gyimóthy [51], tourism understood in this way needs to rely on new skills such as relationality, so that a new resource (private houses) can be made available to tourists. This process is leading to the creation of new meanings, where the tourists can live the experience as a local.

This process in turn transforms tourism and the space in which tourism is produced, consumed and executed. The analysis of the feedback about the hosts shows that the guests are happy to be in contact with a more authentic and raw reality of the city. For tourists, it is not a problem to walk four floors to reach the apartment, because this too is a characteristic of the real way of life, in a historic building.

The "napolitaness" is pursued, which takes shape through the imagination of tourists and materialises through the expressions of city culture and history, which from the semantic analysis are related to: art, church, tribunal, old, popular, typical.

The increase in tourist presence in the city has pointed out the gradual replacement of neighborhood businesses in favour of those intended for tourists, contributing to the change in urban balances.

In the context analysed, it is clear that it is possible to turbo-valorise a property only in particular conditions that depend on the characteristics of the property itself but also on the context in which it localised. Therefore, in this case, it is possible thanks to the natural attraction of the historic centre of Naples, combined with the marketing ability of the host who online must make his property attractive and must be able to build and maintain an excellent virtual reputation. The possibility of buying properties at a low price compared to the profit potential has generated a series of "make-up" interventions on them. These are often conducted only in terms of finishes, to give a new image to the apartments and make them increasingly attractive to tourists, thus generating the expected profits. Indeed, compared to the announcements observed, a furniture homologation emerges that can be defined as an "IKEA effect": low-cost furniture to furnish spaces according to contemporary tastes. Given the earnings prospects, a real risk, already manifested in Italy in cities like Venice [52, 53], is the bulk purchase of properties managed by holding companies, which would thus erode the already limited availability of housing in the historic centre of Naples.

Due to the progressive increase in properties destined for the short-term rental market, weaker economic groups have already been marginalised, increasing the evictions not only of residents but especially of off-site students.

The gentrification in the Naples historic downtown can be read above all in the impossibility for students to occupy properties near the numerous university sites in the historic centre. This phenomenon of expulsion from the city centre also affected other Italian cities and especially Bologna [54], where the student groups gathered in university associations and social spaces such as Link – Studenti Indipendenti and the Arci Ritmolento circle, which they are asked about the need for concrete action that would allow on the one hand to create connections and links between competing subjects, and on the other to put pressure on the political decision-maker to take radical action to put an end to the airification of the city.

The problems related to airification cities have responded with various actions from below to deal with the lack of housing, such as "solidarity couchsurfing" [55] created to give hospitality to off-site young people looking for a room to rent.

The current condition of the global pandemic of covid-19 has shown all the fragility of an economic system that foresee the tourism monoculture for the revitalisation of the cities. Indeed, the impossibility of moving freely has paralysed this economic sector, and it is, therefore, necessary to rethink the method of use of properties sold on the short-term rental market. In this circumstance, it may be essential to activate synergies between public and private resources to pursue not only economic but also social development objectives. It is desirable that the central government encourages the reintroduction of this building heritage into the medium-long term residence circuit, contributing to the resolution of the housing problem concerning those who do not have a fixed home and those who need isolation from their family.

In the long run, this partnership could be the key to the solution of urban conflicts generated by touristification and promote a greater balance in the distribution of the population residing in the city, drastically reducing the number of tourist apartments, and returning them to the stock of rental housing in agreement with what is required by the SET network [56] and the Manifesto for the Reorganisation of the City after covid19 [57, 58]. Therefore, a policy is set up, which enables a virtuous use of the waste real estate assets. The key points of the policy are identified in: tourist degrowth; integrated housing policy; economic degrowth. The tourist decreasing is necessary so that citizens can regain possession of the contended spaces [59–61] of the city and contrast its commercialisation. Only with a reduction of the tourist phenomenon can we also pursue concomitant objectives, such as mitigation of environmental impacts and precarious jobs that gravitate around the tourism industry. The ongoing global pandemic has made housing inequalities even more evident, leaving those who do not have a home entirely on the sidelines. Therefore, the vision of an integrated housing policy, which also involves private individuals in a joint effort, would allow on the one hand private individuals to obtain a profit, albeit less than the pre-covid 19 situation.

On the other hand, governments can deal with more tools for the housing emergency, promoting the social function of public and private real estate assets. An economic degrowth that supports the social and local economy, the cooperative and sharing economy, and small businesses become necessary. The current circumstances have shown that mutual support networks are indispensable especially in emergencies. Touristification and gentrification have fragmented and weakened entire neighborhoods, determining an inability to better respond to the primary needs of the resident population. A new policy has to consider the goal to calm the unlimited consumption of goods, resources and territory so that a balanced condition is reached. This process which does not exclude any segment of the market in the future, but sets guidelines for an inclusive use of the city that it is not a source of urban tensions, breaking down all forms of tourist hegemony.

References

1. Del Romero Renau, L.: Touristification, sharing economies and the new geography of urban conflicts. Urban Sci. **2**(4), 104 (2018)
2. Gurran, N., Zhang, Y., Shrestha, P.: 'Pop-up'tourism or 'invasion'? Airbnb in coastal Australia. Ann. Tourism Res. **81**, 102845 (2020)
3. Sequera, J., Nofre, J.: Shaken, not stirred: new debates on touristification and the limits of gentrification. City **22**(5–6), 843–855 (2018)
4. Marchi, M.: Declino e rigenerazione urbana in Europa: i casi di Glasgow e Lipsia. In: Dini, F., Randelli, F. (eds.): Oltre la globalizzazione: le proposte della geografia economica. University Press, Firenze (2012)
5. Gilli, M.: Autenticità e interpretazione nell'esperienza turistica. Franco Angeli, Milano (2009)
6. D'Eramo, M.: Il selfie del mondo. Indagine sull'età del turismo. Feltrinelli, Milano (2017)
7. Korea JongAng Daily (2016). http://koreajoongangdaily.joins.com/news/article/article.aspx?aid=3023439

8. Bujalance, S.G., Barrera-Fernández, D., Scalici, M.: Touristification in historic cities. Reflections on Malaga. Revista de Turismo Contemporâneo **7**(1), 93–115 (2019)
9. Lim, S.E.Y., Bouchon, F.: Blending in for a life less ordinary? Off the beaten track tourism experiences in the global city. Geoforum **86**, 13–15 (2017)
10. UNWTO, Saturation of Tourist Destinations: Report of the Secretary General, World Tourism Organisation, Madrid (1981)
11. Kennell, J.: Carrying capacity, tourism. In: Jafari, J., Xiao, H. (eds.) Encyclopaedia of Tourism. Springer, Cham (2014)
12. O'Reilly, A.M.: Tourism carrying capacity: concept and issues. Tourism Manag. **7**, 254–258 (1986)
13. Ali, R.: Foreword: the coming perils of overtourism (2016). https://skift.com/iceland-tourism/
14. Singh, T.: Is over-tourism the downside of mass tourism? Tourism Recreation Res. **43**(4), 415–416 (2018)
15. Dickinson, G.: Dear dictionaries, this is why 'overtourism' should be your 2018 word of the year (2018). https://www.telegraph.co.uk/travel/comment/overtourism-word-of-the-year/
16. Dickinson, G.: 'Overtourism' shortlisted as Word of the Year following Telegraph Travel campaign (2018). https://www.telegraph.co.uk/travel/news/overtourism-word-of-the-year-oxford/
17. Tomaselli, E.: La metafora del petrolio. Dove porta la turistificazione, Wsimag (2018)
18. Sanchez, P.M., Adams, K.M.: The Janus-faced character of tourism in Cuba. Ann. Tourism Res. **35**(1), 27–46 (2008)
19. Olma, S.: Never Mind the Sharing Economy: Here's Platform Capitalism. Institute of Network Culture (2014)
20. Martin, K., Zysman, J.: The rise of the platform economy. Issues Sci. Technol. **32**(3), 61 (2016)
21. Langley, P., Leyshon, A.: Platform capitalism: the intermediation and capitalisation of digital economic circulation. Finan. Soc. **3**(1), 11–31 (2017)
22. Srnicek, N.: Platform Capitalism. Polity Press, Cambridge (2017)
23. Celata, F.: Territorio **86**, 48–56 (2018)
24. Bernardi, M.: Un'introduzione alla Sharing Economy. Fondazione GianGiacomo Feltrinelli, Laboratorio Expo KEYWORDS, Milano (2015)
25. Bourdieu, P.: Raison pratiques. Sur la théorie de l'action, Éditions du Seuil, Paris 1994; trad. it. Ragioni pratiche, Il Mulino, Bologna (1995)
26. Mele, V.: Capitale simbolico e stile della vita in Pierre Bourdieu, Sociologia e ricerca sociale, n. 84, Franco Angeli, Milano (2007)
27. Picascia, S., Romano, A., Teobaldi, M.: The airification of cities. Making sense of the impact of peer to peer short term letting on urban functions and economy. In: Proceedings of the Annual Congress of the Association of European Schools of Planning, pp. 2212–2223 (2017)
28. MIBACT. https://www.beniculturali.it/mibac/export/MiBAC/sito-MiBAC/Contenuti/visualizza_asset.html_664421166.html. Accessed 10 May 2020
29. AIRBNB. https://italianvillages.byairbnb.com/it/. Accessed 10 May 2020
30. Agenzia Europea dell'Ambiente, https://www.eea.europa.eu/soer-2015/europe/tourism. Accessed 10 May 2020
31. EEA: Water resources across Europe - confronting water scarcity and drought, EEA Report No 2/2009. European Environment Agency, Copenhagen, Denmark (2009)
32. UNTWO: http://people.unica.it/calamassidda/files/2017/06/UNWTO_TourismHighlights_2017.pdf. Accessed 10 May 2020

33. European Environment Agency. https://www.eea.europa.eu/it/segnali/segnali-2016/articoli/i-trasporti-aerei-e-marittimi. Accessed 10 May 2020
34. Hollenhorst, S.J., Houge-Mackenzie, S., Ostergren, D.M.: The trouble with tourism. Tourism Recreation Res. **39**(3), 305–319 (2014)
35. Lenzen, M., Sun, Y., Faturay, F., et al.: The carbon footprint of global tourism. Nat. Clim Change **8**, 522–528 (2018)
36. Tajani, F., et al.: Data-driven techniques for mass appraisals. Applications to the residential market of the city of Bari (Italy). Int. J. Bus. Intell. Data Min. **11**(2), 109–129 (2016)
37. Slater, T.: Clarifying neil smith's rent gap theory of gentrification. Tracce Urbane Rivista Italiana Transdisciplinare di Studi Urbani. **1**(1), 83–101 (2017)
38. Diappi, L., Bolchi, P.; L'effetto della rendita nelle dinamiche locali di degrado e ristrutturazione edilizia: un modello Multi Agente. In: Bruzzo, A., Ocelli, S. (eds.) Le relazioni tra conoscenza e innovazione nello sviluppo dei territori. Franco Angeli, Milano (2004)
39. Glass, R.: London: Aspects of Change. MacGibbon & Kee, London (1964)
40. Nocifora, E.: Turismo, società, patrimonio, Cedam (2019)
41. Séraphin, H., Sheeran, P., Pilato, M.: Over-tourism and the fall of Venice as a destination. J. Destination Mark. Manag. **9**, 374–376 (2018)
42. Hughes, N.: 'Tourists go home': anti-tourism industry protest in Barcelona. Soc. Mov. Stud. **17**(4), 471–477 (2018)
43. UNTWO. http://tourism4sdgs.org/tourism-for-sdgs/tourism-and-sdgs/. Accessed 10 May 2020
44. Ferraro, I.: Napoli; Atlante della città storica. Centro antico. Clean, Napoli (2002)
45. Istat - Istituto Nazionale di Statistica, Dati e indicatori (2011). https://www.istat.it/. Accessed 10 May 2020
46. GitHub. https://github.com/tomslee/airbnb-data-collection. Accessed 10 May 2020
47. Simonotti, M.: L'Analisi di regressione nelle valutazioni immobiliari. Stud. di Economia e Diritto **3**, 369–401 (1988)
48. Benner, K.: Airbnb Wants Travelers to 'Live Like a Local' With Its App. The New York Times (2016). https://www.nytimes.com/2016/04/20/technology/airbnb-wants-travelers-to-live-like-a-local-with-its-app.html
49. Urry, J.: The Tourist Gaze: Leisure and Travel in Contemporary Societies. Sage, London (1990)
50. Richards, G.: Creativity and tourism in the city. Curr. Issues Tourism **17**(2), 119–144 (2013)
51. Dredge, D., Gyimóthy, S.: Collaborative Economy and Tourism: Perspectives, Politics, Policies and Prospects. Tourism on the Verge. Springer (2017)
52. Hardy, P.: Sinking city: how Venice is managing Europe's worst tourism crisis. The Guardian (2019)
53. Cerreta, M., Cannatella, D., Poli, G., Sposito, S.: Climate change and transformability scenario evaluation for venice (Italy) port-city through ANP method. In: Gervasi, O., et al. (eds.) ICCSA 2015. LNCS, vol. 9158, pp. 50–63. Springer, Cham (2015). https://doi.org/10.1007/978-3-319-21410-8_4
54. Semi, G.: Gentrification. Tutte le città come Disneyland? Il Mulino, Bologna (2015)
55. Arci. https://www.arci.it/appuntamento/welcome-fuorisede-il-couchsurfing-solidale/. Accessed 10 May 2020
56. Emergenza Cultura. https://emergenzacultura.org/2020/04/29/la-rete-set-il-covid-19-e-le-sue-conseguenze/?fbclid=IwAR1FnQbD7ctD8aqDhCw_W00CMneS5ZOTx2ZRqUE6yui-FlvNFf4t0ShpbFM. Accessed 10 May 2020
57. Manifiesto por la reorganización de la ciudad tras el covid19. https://manifiesto.perspectivasanomalas.org/. Accessed 10 May 2020

58. Argemi, A.: Por una Barcelona menos mercantilizada y más humana Más de mil personas firman el 'Manifiesto por la reorganización de la ciudad tras la covid19'. El Pais (2020)
59. Ruggiero, L., Scrofani, L.: Turismo e competitività urbana. FrancoAngeli, Milano (2011)
60. Cusimano, G.: Spazi contesi spazi condivisi. Geografie dell'interculturalità, Pàtron, Bologna (2010)
61. Tajani, F., Torre, C.M., Di Liddo, F.: Financial feasibility assessment of public property assets valorization: a case study in rome (Italy). In: Misra, S., et al. (eds.) ICCSA 2019. LNCS, vol. 11620, pp. 82–93. Springer, Cham (2019). https://doi.org/10.1007/978-3-030-24296-1_9