

# Examining Private Accommodation in Dubrovnik

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# Examining Private Accommodation in Dubrovnik

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## **ABSTRACT**

This paper examines the recent phenomenon of sharing economy, specifically the private accommodation renting sector and its effects on local communities. Through examples of several European cities, issues and implemented solutions of private renting are analysed.

The focus of this research is on Dubrovnik, where issues/problems and possible solutions inspired by the examples of London, Barcelona and Amsterdam are presented to the local community in the form of a questionnaire. The results collected are further presented and explained.

**KEY WORDS:** Sharing economy

Private accommodation

Private rental

Laws and regulations

Internet rental platforms

## INTRODUCTION

The desire and need for humans to travel beyond their home boundaries has been ever present. As our world is shrinking rapidly through the exploration and innovation making virtually every place more accessible, travelling has consequently become an integral part of the global economy evolution (Dell, Doby, Tillipman & Zhuplev, 2017). Today, the tourism and travel sectors have a tremendous impact, supporting one in ten jobs worldwide and generating 10.4% of the world GDP (World Travel and Tourism Council , 2019). One of the largest components of this travel industry is lodging, which has undergone major changes in recent years. The traditional lodging industry previously included mostly accommodation options like hotels and hostels, bed & breakfast and boutique hotels. However, the rapid integration of technology and the internet in recent years has had a revolutionary impact on the overall lodging industry, creating the so called peer-to-peer economy, otherwise also known as the sharing economy (Dell, Doby, Tillipman & Zhuplev, 2017).

The recent phenomenon of sharing economy has been a major driver for a large number of fields and disciplines to dive into the research area of it. Due to variety of perspectives and attempts to define sharing economy, it is a concept that still remains a “blur” for some. However, it is important to point out that the act of sharing is most certainly not new – in fact, bartering systems and communal ways of life have a very long history and date all the way back to initial concepts of trading. What makes sharing economy an innovation in today’s world is its step away from ownership, and focus on access on resources, assets and services via numerous internet platforms (Examples of this include platforms such as Airbnb, Uber, Ebay, Lyft ...) (Belyh, 2015).

Even though a universal and specific definition for sharing economy does not exist, there are very recognizable elements encompassing the nature of the model. One of the essential ones

is the usage of idle or underused resources for commerce through collaborative online platforms, thereby essentially cutting out the middleman. The result of this is the creation of various forms that challenge traditional institutions and allowing for an easier exchange of resources on demand, additionally increasing efficiency (Belyh, 2015).

Examples of these forms are ranging from banking and funding which are being replaced more and more by peer-to-peer lending and crowdfunding, taxi and rental car companies are facing major competition from Uber and carsharing platforms, trading and reselling are facing up to online stores, hotels are competing with private apartment and house renting, etc. (Martucci, 2015)

The reason why shared economy is rapidly gaining popularity is because of the number of benefits it provides to consumers, as well as providers of the resources. Some of the most obvious benefits include access to cheaper goods and services, extra income for providers, and convenience. On the other hand, this model does not come without several downsides as well, some of the most prominent being associated with security issues and market distortions which will be explained in more detail further in the paper (Martucci, 2015).

The traditional hospitality industry has been majorly disrupted by the arrival of lodging shared economy that has introduced lower prices on the market and generally forced hotels to reduce their prices or compete based on differentiation strategy (Zervas, Prosperio & Byers, 2015). Although this impact is beneficial for all consumers and not just those participating in the sharing economy, it is however a major challenge for traditional hospitality industries to adapt and stay competitive. However, Airbnb as one of the most influential initiators of the lodging industry revolution, claims that they are simply attracting travellers that would not normally travel, and that they are not in direct competition with hotels (Airbnb, 2016).

The decision line between these two lodging options is still probably not very clear, but there is most certainly an evident rise in the popularity of private accommodation, resulting in increased profits and number of users (Meleo, Romolini, & De Marco, 2016). Indeed, many elements still remain in favour of hotels for reasons of security, hygiene, and fluctuating and uncertain quality of private accommodation, but on the other side, many technological, social and economic changes in the society are accelerating the growth of the sharing economy. In the case of Airbnb, one of the leading companies in the sharing economy industry, these changes are disruptive innovations that focus on enhancing customer experience through the wide offer of accommodation options ranging from “a US\$15 per night spot on the couch to an US\$8,000 per night mansion”. Furthermore, the social changes are increasingly steering travellers’ desires towards more meaningful social interactions with the local community and unique experiences in authentic settings, while at the same time allowing people to travel more, stay longer and participate in various activities which in traditional industry would be charged additionally (Mody, Sues & Lehto, 2017).

With all the benefits enlisted previously, it does not surprise that this is a rapidly growing industry with increased attractiveness for many different tourist profiles. Specific example includes Airbnb which has since its foundation in 2008 reached more than 7 million listings in over 220 countries and regions, and an average of over 2 million people staying in an Airbnb per night (Airbnb Newsroom, 2019).

However, such rapid exponential growth of the entire private lodging industry has faced several downsides too. Much research has been done with focus on this topic, concluding that an array of legal issues in this segment has risen due to technology moving faster than the laws to regulate it (Belarmino & Koh, 2019). Furthermore, some sharing-economy platforms have been criticised for the way they operate so much that in some cases they were forced to shut down their operations because of alleged law evasion intended to regulate certain

traditional business practices. The problem with regulation of sharing companies, such as Airbnb, is that they cannot be classified under the category of resellers or retailers, and, as a result, are difficult to be put under a comparable taxing regulation for the Internet – sharing economy (Jolly, 2014).

Operating in such a highly unregulated fashion, shared lodging companies have started facing a rising number of issues from parties outside of the transactions - communities have been largely impacted from such companies in both economic and social aspects. Some of the specific examples of issues created are negative tourist impacts in areas of the city that have previously been sheltered from major crowds – the results often include increased noise, nuisance, traffic, parking and waste management issues for the local residents (Gurran & Phibbs, 2017). Furthermore, presence of a shared lodging company like Airbnb can make residents uncomfortable with the tenant turnover, as problems of peace and safety arise. In addition to all the previously mentioned issues, shared lodging company presence can impact the local housing market, felt through increased scarcity of rental units, or the rise of their costs. Several researches done on this topic even suggest that in some cases, shared lodging companies can facilitate a sort of tourism gentrification – process of shifting a neighbourhood's racial/ethnic composition by developing new, more expensive housing, businesses and improved resources (Cruz & Rodrigues, 2019). Researchers argue that these short-term rental housing facilitators are systematically driving the gentrification process through raising potential rentier income without any need for redevelopment, in a geographically uneven fashion. The result of this is presented in the form of the ‘rent gap’ a theory developed by a geographer Neil Smith in 1979, describing the disparity between the current rental income of a property and the potentially achievable rental income. Investor interests to renovate a particular object (or ultimately entire neighbourhoods) arise from the

difference between the two rental incomes, finally causing the increase of rents and value of the property (Wachsmuth & Weisler, 2018).

Considering the aforementioned issues, the focus of this research paper will further be directed towards finding information about the problems caused in local communities by highly unregulated shared lodging economy platforms. For the purposes of illustrating the issues better, the examples of three European cities will be used – London, Barcelona and Amsterdam.

### **The case of the city of London, United Kingdom**

Existing evidence on the short-term rentals in England has shown a significant increase in recent years due to sharing economy. A high number of online sharing economy platforms makes it difficult to express data accurately, so only Airbnb, a leading company in this industry, will be used to illustrate this growth. When it comes to London, it is a city that has experienced a rapid growth in the sector, reaching more than 77 000 listings overall in 2018, compared to 18 436 in 2015. Such substantial growth in rental units undoubtedly caused a number of significant issues within the local community that ultimately called for an implementation of novel regulative solutions (Johnson, 2020).

Through research, several repeating negative impacts on neighbourhoods and communities were reported: noise disturbance, anti-social behaviour (e.g. street drinking, littering, vandalism, nuisance, etc.), inappropriate disposal of food and generally reduced safety and security, overcrowding of properties, and tourists less likely to care about the area consequently undermining residential areas and devaluating them (Cromarty & Barton, 2018). In interviews conducted with permanent residents of London, some of the answers triggered concerns – “These people treat the place like a hotel because they have no interest,



it's not their home” and “They don’t care what damage they do, if they want to have a party, they’ll have a party” (Sullivan, 2018). Moreover, from the survey conducted by The Residential Landlords Association (RLA), a conclusion was that if such high growth rates continue to occur unregulated, the aforementioned issues will continue, but also, this could result in an exacerbated shortage of long-term housing supply and pushed up rents. (Simcock & Smith, 2016)

To ensure a responsible and sustainable growth, while making London’s communities stronger, authorities have decided to enforce a law that would limit short-term rentals for whole homes to 90 days a year. Furthermore, an umbrella organisation for shared lodging companies called the Short Term Accommodation Association (STAA) was founded, which has been in charge of setting out the responsibilities of property owners to raise standards in the industry by sharing data on booking with local authorities that will aid their enforcement and monitoring functions (Simcock & Smith, 2016)

Primarily, however, this law was introduced to help protect long-term rented housing and prevent properties and residents from being negatively affected by high turnover of tourists.

As Cllr Darren Rodwell, London Councils’ Executive Member for Housing & Planning, stated: “A registration system is an essential tool for strengthening boroughs’ regulatory powers over the short-term lets market. Robust data is crucial for providing boroughs with accurate information on how short-term lets are being used. Compulsory registration will help us to support local communities, protect housing stock, and take swift action against anti-social behaviour occurring in short-term lets” (London Assembly, 2019).

## **The case of the city of Barcelona, Spain**

Airbnb in Barcelona has experienced a phenomenal growth during recent years, reaching more than 17 500 listings overall (Airbnb, 2019). However, only ten years ago Barcelona still resisted the tide of mass tourism, but with the appearance of Airbnb and similar online short-term rental platforms, the city has undergone a complete transformation (Burgen, 2020).

In the eyes of local residents, this increased number of listings has only created ongoing issues that have left long-term consequences for entire neighbourhoods. An interview with some of the local residents has indicated specific issues that residents have been facing since the introduction of private home-sharing platforms. Firstly, one of the complaints stated that Airbnb has been a major factor in driving up the rents by almost 50% over the several years, as a result forcing locals to move out into other, more affordable parts of the city, which are usually far away from the city centre. In some cases, people have even decided to move into smaller nearby cities to have some peace and quiet, since they are often kept awake at night by parties in the close-by tourist rented apartments. Furthermore, short-term rentals have impacted residents' personal social life by forcing more and more of their friends and family members to move out of the area because the costs of living have simply gone too high up. Moreover, such major increase of rents in a combination with stagnant salaries, resulted in around 80% of Spaniards aged between 16 and 30 still living with their parents, financially unable to become independent.

The most obvious transformation, however, that Barcelona has gone through is its radically altered commerce. From the city that was dealing with wholesale trade, Barcelona has turned into 'a hotspot for vegan cafes, souvenir shops, cycle hire outlets and restaurants that local people can't afford to eat in', replacing essential neighbourhood shops and services like bakeries, butcher shops, hair salons, etc. (Burgen, 2020).

In order to combat these issues, the city of Barcelona has taken upon itself to introduce several regulations. Firstly, all short – term rental apartment owners are obliged to apply for a license - some being denied one in areas already saturated with tourist accommodations. Similarly to London, through registrations, valuable data on renters is collected, and for listing unlicensed apartments, a fine of €600,000 is given to Airbnb. In case the information about the renters is not available publicly, the offer is automatically considered illegal (Nieuwlanda & Melik, 2018).

The “touristic use of houses” (TUH), was a legislation that has existed since 2002, but was revisited in 2014, and is today based on three legal framework characteristics. The first characteristic states that “granting of the license removes the possibility for residential use and the apartment cannot function as an inhabited household but as a legal business property”. In other words, it is practically illegal to rent a room in the apartment where a local lives, and it is also not possible to rent a “household” since officially, no one is allowed to live in the apartment (Sans & Dominguez, 2016).

The second characteristic is linked to the local planning regulations. Barcelona’s urban plan specifically regulates the uses and activities of public business sights through issuing licences, thereby aiming to limit externalities and monopolies that are against the city’s interests. Specifically related to Airbnb, this urban plan proposes a limitation on the number of licences by forcing tourist apartments to be concentrated in non-residential buildings.

The third and final characteristic has been mentioned previously, and it concerns making data publicly available, to avoid rental spaces being considered illegal.

Finally, in 2016, a plan to close down unlicensed properties was in action – team of people combed the streets and created a website that enabled residents to report illegal rental. As a

result, three years after the action, supply of illegal apartment listings has dropped by the spectacular 95%. (Sans & Dominguez, 2016).

### **The city of Amsterdam, the Netherlands**

According to the latest known data, the city of Amsterdam has reached over 19 500 listings overall on an Airbnb platform (Inside Airbnb, 2020). Amsterdam is also almost always listed among top 10 cities in the world regarding Airbnb popularity, and in dealing with such popularity, the city has experienced a number of issues in communities and neighbourhoods that were expressed in hope to make a change for the better. The main problems that residents stated were that “tourists are a source of nuisance, the city is too crowded and inhabitants of Amsterdam are experiencing a loss of the unique vibe in their city”. Even though Amsterdam is earning a lot of money from their historical, architectural and touristic attractions, the citizens remain unsatisfied because from their perspective, “the city is slipping out of their hands into the hands of tourists, it is becoming overcrowded and the centre is losing its unique culture and is experiencing the homogenizing influence of globalization”. However, the most concerning problem for Dutch people is the threat of gentrification which has already started to take place in Amsterdam. The clear evidence of this is the rise in housing prices where in 2013 an average selling price for a property was 256 000 euros, rising to 359 000 euros in 2017 (Lageveen & Scheepens, 2018).

These major issues have been recognized by the Dutch community and as a result, several strict measures have been introduced. The main novel regulatory approaches include four major restrictions. The first of them includes the limitation on the number of nights the property can be rented. This number is 60, but there have been negotiations to even reduce

this number to 30. In turn, this will decrease the number of tourists that flood the streets of Amsterdam throughout the whole year. The second restriction implemented is that a property cannot be rented unless the person is the main occupant. This rule has been introduced to prevent commercial renting and disruption of housing market from real estate investors buying up homes on a massive scale and renting them out to tourists, which has also shown to be a very serious problem in the city of Amsterdam. The third restriction requires hosts to register with the council and restrict their property occupancy to a maximum of four guests at the same time. Finally, a mandatory requirement implemented is that every property listed for rental must be fireproofed and comply with the necessary safety requirements, since this is in the best interests of guests, neighbours and naturally, the owner.

The final requirement for the renters is that their guests must not cause any disturbance to local residents. Therefore, it is the renter's responsibility to set clear agreements with their guests in advance to prevent any inconveniences (Thoma Post, 2018).

### **The case of the city of Dubrovnik, Croatia**

Croatia is a country that bases its economy predominantly on the tourism sector that has been experiencing a growing rate every year in the past two decades. To represent the importance of this sector in Croatia, it is enough to say that in 2018 contribution of travel and tourism to GDP (% of GDP) for Croatia was 24,9% (World Data Atlas, 2018).

One of the most popular destinations in Croatia is Dubrovnik, the city on the far south of the country known for its beautiful Old City that has been under UNESCO's protection since 1979 (UNESCO). Being recognized for its spectacular and unique beauty, Dubrovnik attracts more than a million tourists every year, allowing majority of local residents to profit from so many visitors in different ways. Naturally, one of those ways is private accommodation

renting that has, according to the latest data, achieved over 436 000 overnight stays, compared to 688 000 in hotels. This shows that Dubrovnik is still dominated by hotel accommodation, but private accommodation renting is on the rise and can host a large number of visitors (Dubrovnik tourist board, 2019).

These numbers are quite high and considering they are continually rising each season, according to the UNESCO's remarks, the city is in danger of being revoked its heritage status because the streets of the Old Town are simply becoming overcrowded. UNESCO's statement clearly allows a maximum of 8000 people in the Old Town at any given time, and exceeding that number would mean reaching the city's carrying capacity and facing serious issues (UNESCO, 2020).

Private accommodation in Dubrovnik has caused a number of problems that resulted from a rapid growth in listings of private accommodation units. Firstly, many seasonal workers come to Dubrovnik, but with so many private units offered exclusively for tourists, there is very little room to accommodate the much - needed workers. Local people who run private businesses and require a number of seasonal workers face difficulties providing accommodation for workers that would not be too expensive or too far from the workplace (K. Walker, personal communication, April 7, 2020).

Another one of the serious problems is the virtual inability of being a year-long tenant, since the majority of private units are reserved for tourists, or the price of renting is incredibly expensive, far beyond the affordable range for an average citizen. To illustrate, an average monthly rent for an apartment in Dubrovnik costs approximately 550 euros (net.hr, 2018), while an average wage amounts to 850 euros (Drzavni Zavod za Statistiku, 2019).

Many of the privately listed units do not include a parking spot, unlike hotels where a garage or a parking space is usually ensured and available to use. This leads to serious traffic

problems, where many of the local residents have complained that they are left without a spot to park their own car. Another one of the problems mentioned in the Dubrovacki Dnevnik in 2019 article is the city's sewerage and water supply system that is overburdened with the influx of so many visitors during peak season.

However, the biggest problem of all remains the overpriced real estate, which is in most cases practically impossible to purchase by the locals, or even rent for longer term as mentioned previously (Wisniewska, 2019).

The mayor Mato Frankovic proposed several initiatives that could be taken in order to deal with the problems caused by over tourism in general, in which private accommodation plays a large role when it comes to supporting and exploiting it. The main proposal suggests introducing a "decentralization system" where the city itself will be able to bring in novel laws regarding private accommodation, independent from the rest of the country. Furthermore, he suggests increasing the tax rate significantly for those who rent 3 or more units (Marusic, 2020).

### **Laws and regulations**

When it comes to legal obligations of the renter and regulations they must follow, the bar in Croatia is actually set quite high. Subjected to regular inspections, all private property renters must accommodate to numerous laws and standards in order to avoid facing legal actions (Pisac, 2018).

According to the law, the renters are obliged to pay the lump sum for private renters and city tax. Their legal duty also includes issuing an invoice to every guest, highlighting their VAT ID number and having a legitimate and standardized board displayed showing unit's

categorization status. The regulations continue in the forms of checking in and checking out each guest into an online eVisitor system, as well as registering every unit and each guest with the Ministry of Internal Affairs, and finally having a publicly available personal tax number (Pisac, 2018).

Talking about safety issues, the first aid kit and a fire extinguisher are not required to be in every apartment, however, they must be placed somewhere on the property, where they will be easily accessible for everyone to use. All the mentioned rules and regulations are set to ensure the minimization of illegal private renting (Pisac, 2018).

When it comes to an Airbnb platform in Croatia, it creates a certain grey zone in a way and enables illegal renting because when joining Airbnb's program, it is not required of the renters to follow the local law. As a result, illegal landlords damage local landlords with price dumping since they do not have any particular costs to their business like legal landlords do, and furthermore, an issue with illegal renters is that they often list substandard accommodation (Pisac, 2018).

However, for a person to rent legally through an Airbnb platform, they do not need to worry about many restrictions. They have to follow the generally imposed rules about private renting by the government, and all they need to do is make sure with local authorities that their property is available for a legal listing (Airbnb, 2020)

The goal of this research paper is to test out how the local residents of Dubrovnik would feel about imposing certain restrictions on an online platform like Airbnb based on practices implemented in other European cities that are experiencing similar private accommodation issues, and to ultimately see whether some solutions could be proposed to the authorities and Airbnb itself, along with desired effects of the proposed measures.



## **RESEARCH METHODOLOGY**

In the previous section, detailed information on the topic of private renting was provided. Since many issues are often connected with this sector of business, it seems worthwhile to explore this topic further in order to come up with viable solutions for areas that have not yet done so. In particular, one of the areas that could use suggestions on combating issues related to private renting is the city of Dubrovnik, as presented previously.

Therefore, the purpose of this particular research paper is to find out how the citizens of Dubrovnik would feel about introducing some of the proposed restrictions which are based on other European cities' responses to negative aspects associated with private accommodation, and described in the questionnaire.

The quantitative method in the form of a questionnaire will serve the purpose of identifying which suggested restrictions would the residents of Dubrovnik agree with to possibly be applied in the future.

The questionnaire given is divided into the demographics section which will give insight into residents' current living status, whether they rent rooms or apartments, and confirm whether they have experienced any of the previously mentioned issues related to short term rentals.

The second part of the questionnaire is composed of proposed solutions inspired by the European cities described previously (London, Barcelona and Amsterdam).

One of the most important questions posed is the one about whether a person answering is a renter or a non-renter. Based on the answers, two distinguished groups of respondents will be created. In case of matching answers in the proposed restrictions section by the two groups, the result will mean that there is a mutual agreement on restrictions to be possibly applied that would benefit both parties. In the case that these two groups do not have similar

responses, then that would suggest that the city's approach to addressing private accommodation issues will require careful and deliberate consideration.

## **DATA COLLECTION AND RESULTS ANALYSIS**

In collecting primary data, the questionnaire was made in a Google Documents format and distributed through different online channels, mainly social media platforms such as Facebook and Whatsapp. The respondents targeted were the citizens of Dubrovnik. All data were collected through "snowball sampling", where the targeted respondents further shared and distributed the questionnaire to their appropriate contacts. In total, 60 responses were received in the period between April 11, 2020 and April 19, 2020, fully completed and valid for analysis.

The questionnaire was composed of 19 questions (please refer to TABLE 1 in Appendix), where the first three questions formed a section of demographics – related information. The following 7 questions described problems / issues with private accommodation inspired by those described in the cases of European cities - London, Amsterdam and Barcelona. Responses given were in a form of 1-5 Likert scale, where 1 meant "strongly disagree" and 5 stood for "strongly agree". Finally, the questionnaire offered 10 solutions and restrictions inspired by the cities previously mentioned, also allowing responses in the form of the same 1-5 Likert scale.

After analysing the received data in Microsoft Excel program, 24 (40%) of respondents stated that they rented units in Dubrovnik, while 36 (60%) do not. Questions relating to the demographics data showed that 70% of respondents live in an Old City and the nearby areas, while other 30% live in other parts of the city.

Since the main purpose of this research paper was to examine how local people feel about private renting that has in recent years become very popular but remained highly unregulated, the most interesting way to observe this was by comparing the two groups of respondents – those who rent units and those who do not. Because they share different interests when it comes to private accommodation, it was worthwhile to explore the issues both parties agree on, and more importantly, whether they share beliefs towards implementing some specific regulations described in the questionnaire.

After analysing all 60 responses, the results showed a mean value of 4.58 and a standard deviation of 0.79 for Question 4, confirming that the majority of participants agree with noticing an increased activity in short term rentals in Dubrovnik in recent years. Regarding the set of questions pertaining to whether or not respondents were experiences problems or issues with private accommodation that citizens of other major European cities, this research found that only two of these problems / issues are present in Dubrovnik: Question 7 (that participants have experienced traffic issues such as lack of parking spots near short - term rental areas, scoring a mean value of 4.4 and SD = 1.09) and Question 9 (that real estate prices are too high for an average Dubrovnik citizen, scoring a mean value of 4.78 and SD = 0.64). Respondents were neutral as to whether private accommodation created additional noise issues, and rejected the idea that private accommodation made them feel uncomfortable in their neighbourhoods (mean = 2.667 and SD = 1.444) or unsafe in their buildings (mean = 2.183 and SD = 1.097). Finally, when asked if they believe that the city of Dubrovnik should institute some new general restrictions regarding short term rentals, participants agreed, providing a mean value score of 3.72 (SD = 1.14).

When it came to the nine proposed solutions section, overall sample answers indicated agreement with three possible measures. With a mean value of 4.3 (SD = 1.03), most respondents agreed that one of the possible solutions could be the city establishing a public

website where people can report illegal rental units. Another measure the participants gave the affirming mean score of 4.16 (SD = 1.07) shows that the citizens would mainly not oppose the measure of the city fining Airbnb and other private accommodation platforms if they list illegal units. Finally, the proposed solution with the strongest agreeing answers was the one of the city actively collecting and tracking data associated with private accommodation renting, allowing the city to better understand and manage private accommodation activities, scoring a mean value of 4.3 (SD = 0.76). The remaining six proposed solutions either had means of approximately three or slightly below three. Please refer to FIGURE 1 in Appendix for full results.

As previously mentioned, valuable information of this survey was to be achieved if looked at from a comparative point of view, splitting the respondents into groups of renters (those who rent rooms and/or apartments) and non-renters (those who do not rent rooms and/or apartments). Moreover, in order to test for significant differences between renter and non-renter groups, t-tests were run, identifying significance at the P=0.10 and P=0.05 levels. When it comes to some significant results, the two different groups again indicated agreement on the same issues presented in Questions 4, 7 and 9. For these questions the renters group scored mean values of 4.38 (SD = 0.970), 4.21 (SD = 1.382) and 4.67 (SD = 0.868) respectively, while the non-renters group scored mean values of 4.72 (SD = 0.679), 4.53 (SD = 0.555) and 4.67(SD = 0.483). Please refer to FIGURE 2 in Appendix for full results.

In fact, after comparing renters and non-renters, the results showed how these two groups are almost completely in agreement concerning the prevalence problems/issues related to private accommodation. Specifically, the groups are only in slight disagreement on the mentioned issue of whether they feel uncomfortable with privately rented accommodation

in their neighbourhood. Both groups showed denial, however, the renters group did so more forcefully (mean 2.12) than non-renters (mean=2.289), and  $P=0.099$ .

Even though both groups shared fairly similar opinions on the issues section, differences, however, emerged in the solutions part of the questionnaire. The first solution the groups disagreed on was the Question 12 that suggested that listed units in residential buildings without a private entrance should not be available for a short term rental. With a mean value of 2.79 (SD = 1.25), renters indicated an opposing view from the non-renters group that scored 3.28 (SD = 0.94),  $P=0.088$ . Another proposed solution that the groups did not agree on was that a person renting more than three units should pay higher taxes or fees, as indicated in Question 13. While the renters group graded this with a mean value of 2.13 (SD = 1.39), the non-renters group showed agreement with it by giving it a 3.83 mean value score (SD = 1.22)  $P=0.00$ . Finally, with a mean score of 2.2 (1.56) the renters disagreed with the proposal in Question 15 that stated that a number of short-term rental licences should be limited and not everyone can rent as many units as they want. Note, however, with a standard deviation of 1.56, it is evident that minority of respondents from the renters group showed a somewhat agreeing attitude with this solution. The non-renters group gave a response scoring the mean value of 3.25 (SD = 1.25), while  $P=0.025$  for both groups, again showing a somewhat ambiguous opinion on the matter, but generally leaning more towards it. Please see FIGURE 3 in the Appendix for full results.

It is worth noting that for the remaining six proposed solutions, the renters and non-renters groups were in agreement, either rejecting or supporting the proposals. Both groups rejected the proposals suggesting that: a thirty or sixty night limit should exist on how often an accommodation may be rented and that the maximum number of guests that can stay in an accommodation be set at four. However, both groups showed a supportive attitude towards proposals suggesting that: website to report illegal units should be established and

that ; Airbnb and other platforms should be fined for listing illegal units, as well as having the city work to collect data associated with private accommodation.

One remaining proposal stating that only the main occupant of the residence can rent rooms (effectively prohibiting one person from owning multiple properties and renting them all out), received mixed results with the renters rejecting it (mean = 2.38 and SD = 1.49) and non-renters essentially feeling neutral about it (mean = 3.07 and SD = 1.11),  $P=0.067$ . Please see FIGURE 4 a and 4 b in the Appendix for full results.

Finally, a valuable comparison made was the one between residents living in the Old City and nearby areas versus the ones living in other, more remote areas from the Old City. 42 (70%) of respondents stated that they live in the Old City and nearby, while other 18 (30%) stated they live in other areas. The results showed to be somewhat different from the previous two analyses. Both groups strongly agreed that they have noticed an increased activity in short term rentals in Dubrovnik in recent years. However, residents living in the Old City and nearby stated that they have been disrupted with short term rentals by the noise from the guests by giving an overall answer of 3.26 (SD=1.4), while those living in other areas disagreed by rating this problem with a mean score of 2.44 (SD = 1.42). However, both groups again showed a strong agreement with a problem of real estate prices being too high, giving it almost identical mean scores of 4.79 (SD = 0.72) and 4.78 (SD = 0.43). Finally, both residents from the Old City and nearby along with residents from other areas strongly agreed with questions 17, 18 and 19 mentioned previously rating it with mean scores of 4.36 (SD=0.96) , 4.12 (SD=1.09) and 4.3(SD=0.79) respectively (Old City+nearby areas); and 4.3 (SD=1.2), 4.3 (SD=1.07) and 4.33 (SD=0.84) respectively (other areas).

See FIGURE 5a and 5b in the Appendix for full results.

## DISCUSSION

After analysing the collected data, several valuable conclusions can be made. When it comes to the responses of all 60 participants, the general consensus showed how majority has noticed an increased activity in short term rentals in Dubrovnik in recent years. Furthermore, the problems they mostly agree they experienced in the city of Dubrovnik were the issues of facing traffic issues such as lack of parking spots near short-term rental areas and believing that real estate prices are too high for an average citizen of Dubrovnik. The reasons why these issues are connected to private accommodation is because rental units are growing rapidly in number, many of whom do not have an available private parking spot or a garage, but rather they are smaller apartments in residential buildings, rooms turned into small apartments, or in some instances even garages are transformed into an apartment that is later listed for seasonal or whole year renting. Because majority of citizens live from seasonal work and high influx of tourists during summer months, many find a source of income in private renting. For this reason it becomes very difficult to find an available apartment to rent or buy, and even if there are any, their price is far beyond acceptable for a citizen with an average paying job. Because real estate is such a valuable and limited resource in Dubrovnik, its prices also reflect this scarcity.

Question 10 ‘‘Do you believe that the city of Dubrovnik should institute some new general restrictions regarding short term rentals?’’ was asked in the questionnaire as some sort of a ‘‘turning point’’ question. The 60 responses scored a mean value of 3.72 showing that many feel how private accommodation is not regulated enough and is creating certain problems for the local community. When presented with solutions inspired by several European cities that faced issues and introduced new regulations, the 60 respondents showed agreement with three measures. These measures were presented as follows:

*Q.17 The city should establish a public website where people can report illegal rental units, Q.18 The city should fine Airbnb and other private accommodation platforms if they list illegal units and Q.19 The city should actively collect and track data associated with private accommodation renting, allowing the city to better understand and manage private accommodation activities* (Figure 1). Just like rental platforms function online, the citizens also supported highly technologically oriented solutions to the problems in which they can personally participate and in a way regulate private rental market.

After splitting the participants into two groups of renters and non-renters, the answers showed surprisingly similar results to those of all 60 respondents together. Both groups showed agreement with the same problems mentioned previously, as well as agreeing that some new measures should be imposed. Questions 17, 18 and 19 again showed positive responses from both groups. However, the difference was evident in three responses. The renters group showed disagreement with *Q.12 Listed units in residential buildings without a private entrance should not be available for a short term rental, Q.13 A person renting more than three units should pay higher taxes or fees and Q. 15 A number of short-term rental licences should be limited; not everyone can rent as many units as they want*. On the other side, the non-renters group showed agreement towards implementing these measures (Figure 2).

The probable cause of disagreement by the renters group is because measures like those can quite negatively impact the possibilities and earnings renters have from listing their units, so overall response such as this one does not surprise. Both groups agreeing on several proposed measures indicates that a possible implementation of those in the future in order to prevent existing problems from expanding, or even continuing to exist at all.



Finally, the groups split based on their location (Old City + nearby areas and other areas), shared different opinions when presented with the various problems. In **question 6** *Have you ever been disrupted with short term rentals by the noise from the guests?* residents of Old City and nearby areas gave an affirmative answer with a mean score of 3.26, while residents of other areas disagreed and rated this question with a 2.44 overall. The reason for this difference could be that the Old City and nearby areas have more clustered residential units, so the noise, if there is any, is easier to notice. Other reasons could depend on the types of tourists that come to each area of the city (e.g. older, younger...) but this can only be an assumption. When talking about proposed solutions, the answers to questions 17, 18 and 19 again received a strong agreement from both groups. This goes to show that those proposed measures are quite significant since they received a positive feedback from three different standpoints.

The significance of this particular research paper lies in presenting a possible beginning for Dubrovnik in terms of addressing issues that private accommodation causes. Specifically, apart from identifying those issues, the research also provides several solutions that the general population, as well as renters, non-renters, Old City and non-Old City residents all support.

In addition, this research has also showed that other proposed solutions might seem problematic in a way that different groups identified in the research have shown conflicting opinions. For this reason, these proposed solutions would have to be approached more carefully and possibly get slightly modified unlike the other offered set of solutions.

## CONCLUSION

From the perspective of being a student at RIT Croatia on Dubrovnik campus for four years, each year major issues when finding a place to live in were present because every unit was either too expensive, in very poor condition, or it was simply hard to find an available unit at all because practically all of them were reserved for tourists. In addition, there were no student dormitories of any kind. Seeing tourists flood the streets of Dubrovnik during summer and spring months was also an inspiration of wanting to investigate the issue of private accommodation in more depth than just by personal observation. However, the reason why this research was conducted from the perspective of local residents was because of the wish of finding out if they think that turning every available space, including garages into improvised apartments has in any way gone slightly out of control and has started to disrupt residents in their every day life.

After exploring the issues that have emerged in other European cities after the appearance of rental platforms like Airbnb and Booking.com, and finding out that local residents expressed dissatisfaction with certain elements of private renting, it was certain that such research could also be valuable to conduct for the city of Dubrovnik. London, Amsterdam and Barcelona have found several solutions to control and mitigate their issues/problems and inspired by their examples, testing out how local residents of Dubrovnik would feel about some of those measures and seeing if there are any solutions that could be implemented without causing extremely negative impacts on a number of different stakeholders was overall an interesting project. As a result, three viable measures emerged:

1. The city should establish a public website where people can report illegal rental units.

2. The city should fine Airbnb and other private accommodation platforms if they list illegal units.
3. The city should actively collect and track data associated with private accommodation renting, allowing the city to better understand and manage private accommodation activities.

Final conclusion suggest that these proposed measures could serve as a valuable insight into realizing that local residents agree that private accommodation should be more regulated, and preferably, they would want to take part in doing so personally, according to the measures they agreed with. The results also give certain direction towards what type of regulatory solutions could be appropriate for their city, and these are mostly online based solutions accessible to every resident of the city.

## **LIMITATIONS**

While conducting this research, several limitations have been factors for reducing the extensiveness and quality control of gathering data. Firstly, time was one of those very important factors because the whole research needed to be completed within a 3-month long college semester. The scheduled plan of doing the research also consisted of regular meetings in person with college professors whose role was mentoring and assisting the students in the process of writing the research paper. However, due to COVID-19 world pandemic and strict measures imposed about social distancing, the meetings were not possible to be held anymore, except in the form of online written communication.

In regards to the pandemic and social distancing, it was not possible to gather data in person by handing out the questionnaires to people, and instead this was possible to do only through online platforms. Therefore, this process was slightly slower and more difficult to supervise, and along with a time limitation, the sample size amounted to 60 respondents overall.

## **FURTHER RESEARCH**

As this research shed a light on existing issues with private accommodation but also gave certain perspective into what could possibly be done to combat the issues mentioned, it would be valuable to conduct the same type of research in the future. A more extensive study with less limitations and a larger sample size could be done, as well as approaching the study by gathering data in pre-season, high-season and post-season in order to analyse whether respondents' opinions might vary depending on season activity.

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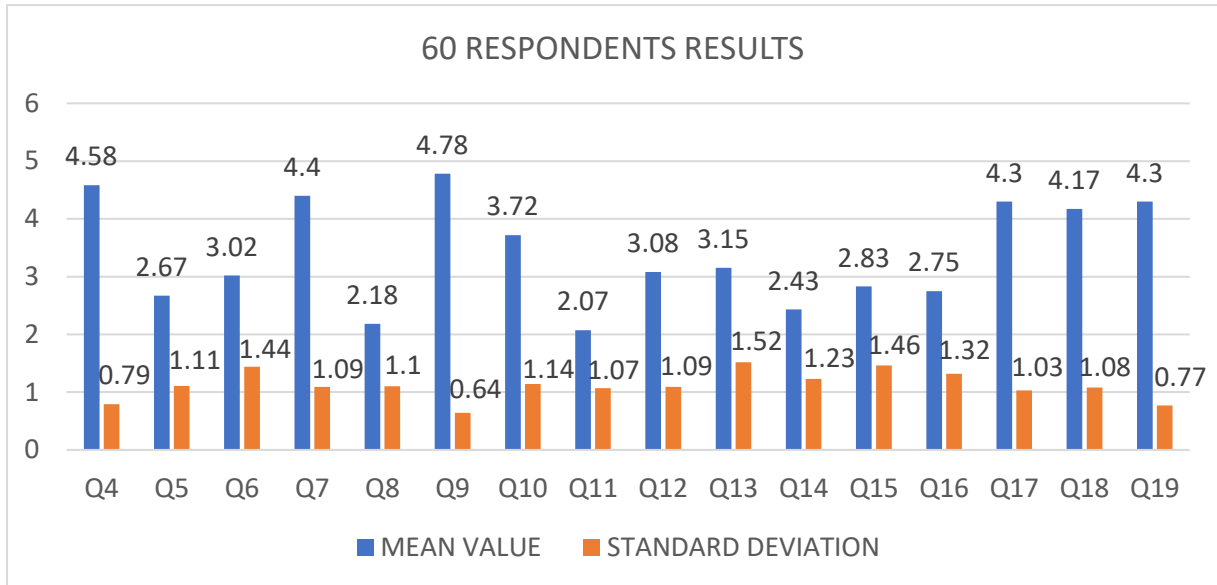
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## **APPENDIX**

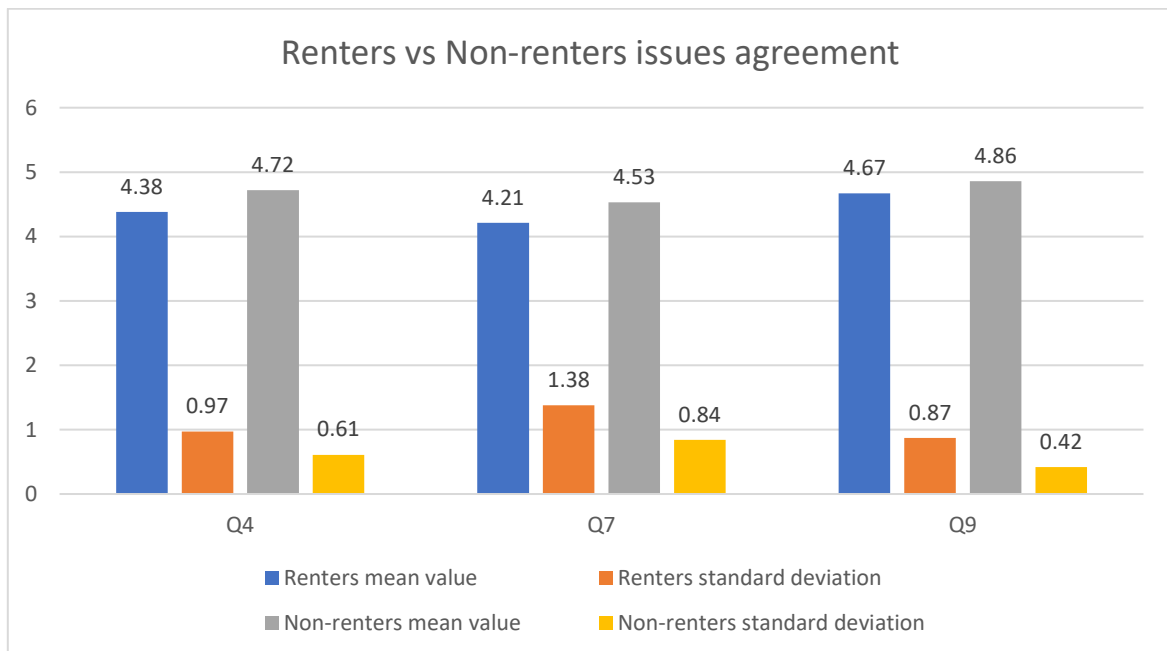
**TABLE 1**

<b>Q1</b>	What type of resident of the city of Dubrovnik are you?
<b>Q2</b>	In which part of the city do you live?
<b>Q3</b>	Do you rent short term rooms and/or apartments?
<b>Q4</b>	Do you believe there has been an increased activity in short term rentals in Dubrovnik in recent years?
<b>Q5</b>	Do short term rental(s) in your neighbourhood make you feel uncomfortable in any way?
<b>Q6</b>	Have you ever been disrupted with short term rentals by the noise from the guests?
<b>Q7</b>	Have you or one of your family members ever experienced traffic issues such as lack of parking spots near short -term rental areas?
<b>Q8</b>	Have you ever felt unsafe by unfamiliar people entering the building or a property you live in?
<b>Q9</b>	Do you believe that real estate prices are too high for an average Dubrovnik citizen?
<b>Q10</b>	Do you believe that the city of Dubrovnik should institute some new general restrictions regarding short term rentals?
<b>Q11</b>	Private accommodation units should be limited in terms of the number of nights they can be rented per year (for example 30 or 60 nights per year).
<b>Q12</b>	Listed units in residential buildings without a private entrance should not be available for a short term rental.
<b>Q13</b>	A person renting more than three units should pay higher taxes or fees.
<b>Q14</b>	Property occupancy should be restricted to a maximum of 4 persons at the same time.
<b>Q15</b>	A number of short-term rental licences should be limited; not everyone can rent as many units as they want.
<b>Q16</b>	Only the main occupant of a residence can rent the room/apartment; individuals cannot buy and own multiple properties and use them for commercial renting.
<b>Q17</b>	The city should establish a public website where people can report illegal rental units.
<b>Q18</b>	The city should fine Airbnb and other private accommodation platforms if they list illegal units.
<b>Q19</b>	The city should actively collect and track data associated with private accommodation renting, allowing the city to better understand and manage private accommodation activities .

**FIGURE 1**

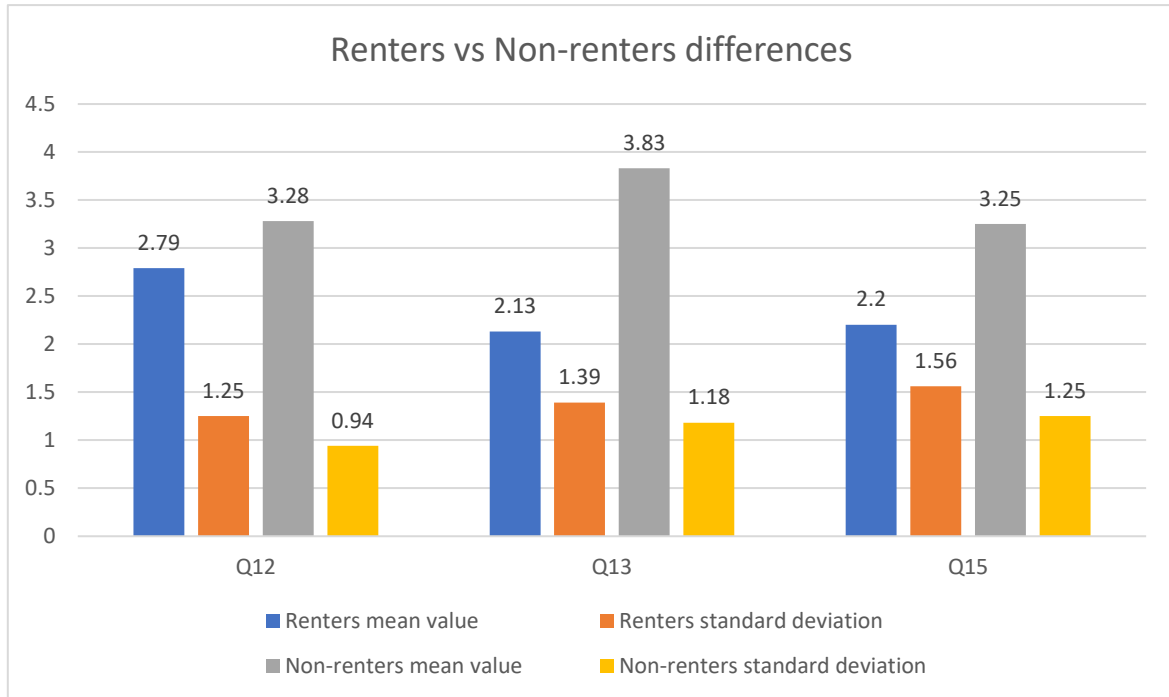


**FIGURE 2**

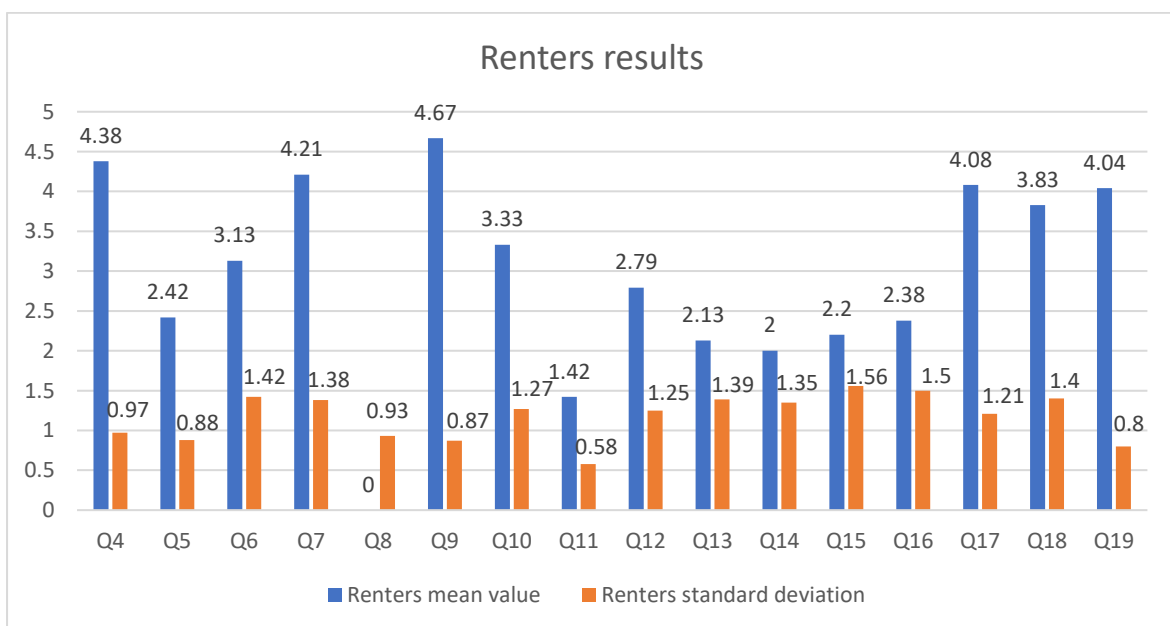




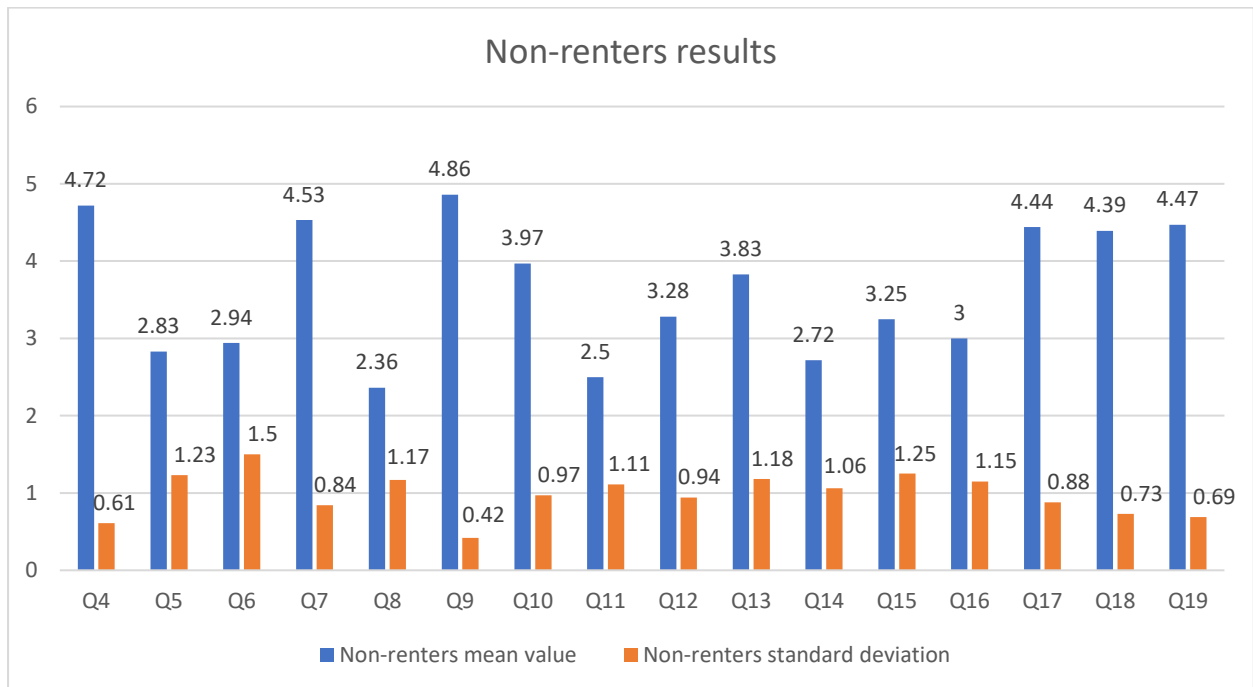
**FIGURE 3**



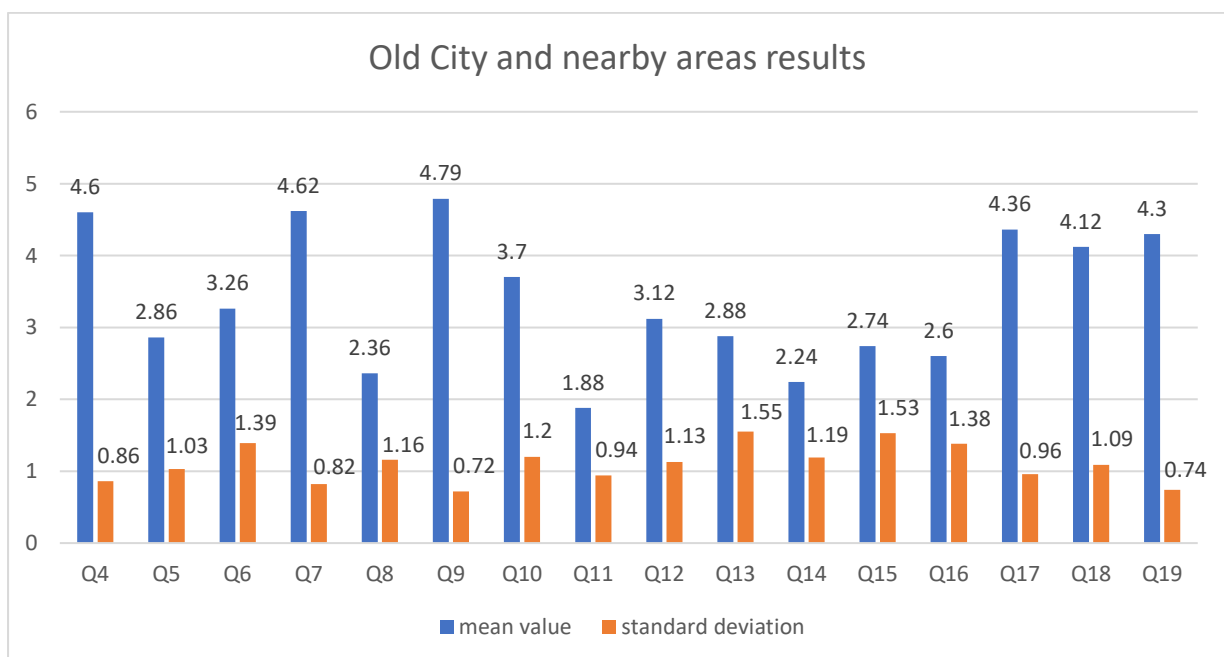
**FIGURE 4a**



**FIGURE 4b**



**FIGURE 5a**



**FIGURE 5b**

