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# Coping with overtourism

8 case studies across Europe

Master Thesis

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## ABSTRACT:

The tourism industry is experiencing a turbulent time. In 2017, a wave of anti-tourism protests spread across Europe, causing local residents to let their voices be heard about the negative effects of tourism. However, the COVID-19 pandemic also showed the economic importance of the tourism industry. Many destinations and local residents who are working in the tourism industry are also dependent on tourism. It provided time to rethink strategies and some decided to act accordingly to tackle overtourism, whereas some failed to do so. This paper addresses eight case studies across Europe that are all identified as areas at risk of overtourism. These case studies treat tourism in very different ways. The impact of tourism within these case studies is analyzed using two theoretical frameworks that have shown its importance within the literature field for several decades: the Tourism Area Life Cycle model and Doxey's Irritation Index. Whereas some destinations still want to increase the number of tourists, others put strict regulations on the number of tourist arrivals. There is no one size fits all solution to reduce the negative externalities of overtourism. However, several similar measurements are implemented in most destinations, at least to some extent.

**Keywords:** Doxey's Irritation Index, Europe, Overtourism, Policy Making, Tourist Area Life Cycle

<b>1. INTRODUCTION</b>	<b>2</b>
<b>2. LITERATURE REVIEW</b>	<b>6</b>
<b>3. THEORETICAL FRAMEWORK</b>	<b>10</b>
<b>4. CASE STUDIES</b>	<b>14</b>
Amsterdam	15
Berlin	19
Barcelona	21
Venice	26
Dubrovnik	29
The Azores	31
Ibiza	33
Iceland	34
<b>5. SIMILARITIES AND DIFFERENCES</b>	<b>36</b>
Tourist density	36
Cruises and day visitors	36
Share of Airbnbs and a limited number of accommodations	37
Seasonality	37
Local residents' resilience	38
Tourist behavior campaign	38
Comparison matrix	38
<b>6. CONCLUSION</b>	<b>39</b>
<b>7. LIMITATIONS AND FURTHER RESEARCH</b>	<b>40</b>
<b>8. BIBLIOGRAPHY</b>	<b>41</b>

## 1. INTRODUCTION

Protests and social movements against mass tourism are growing in number ever since the first large wave started in Barcelona. Local residents in Barcelona took a leading role in fighting against the economic, social, and environmental consequences of overtourism (Hughes, 2018). These protests started during the summer of 2017 and gained worldwide attention with the slogan; *'tourists, go home!'*. These anti-tourism tactics represent a global movement that is against the current practices or image of the international tourism industry. As a result, it has challenged the current image of Barcelona as a world-class tourism destination (Karyotakis et al., 2018). Overtourism threatens the quality of life within the city and this has resulted in a countermovement that got worldwide media attention. It is not surprising that local residents in other overcrowded destinations like Amsterdam, Venice and Dubrovnik, followed the anti-tourism movement in Barcelona. Venice is perceived as one of the front runners when it comes to experiencing the consequences of overtourism. Whereas the city highly depends on the visitor economy, it loses its authenticity due to the massive number of visitors every day, which is part of a double-edged sword between economic gains and negative externalities. The city is sinking due to the weight of mass tourism and as a consequence, this increases the chances of flooding (Hospers, 2019). Tourism pushes residents out of the area through noise disturbance, littering, and increasing prices for food and rent. Residents tend to move out to other cities and therefore the number of inhabitants has been falling for years. The main motivations for leaving are too many tourists, lack of services and that living costs have become too expensive (Bertocchi & Visentin, 2019). This resulted in anti-tourism protests in Venice proposing extreme measures to control tourist inflows and regulate visitor behavior which makes the double-edged sword of tourism a complicated story (Alexis, 2017). Overtourism has all kinds of negative externalities and is a growing problem within cities, but it is not exclusively a city phenomenon. Overtourism can occur all across Europe such as in national parks in Iceland, during the summer season on most Mediterranean islands and other destinations such as the German island Sylt, but also in small towns that are also cruise destinations, for example, Dubrovnik and Kotor. World Heritage Sites are threatened in existence due to the overload of the number of tourists. Overtourism is not limited to Europe, it is a worldwide phenomenon from the Great Barrier Reef in Australia, Machu Picchu in Peru, national parks in the USA, and even Mount Everest in Nepal. Overtourism is difficult to tackle, due to no possibility of a worldwide one size fits all solution.

The United Nations World Travel Organization (UNWTO) recorded 1.5 billion international tourist arrivals worldwide in 2019, a 4% increase compared to 2018 (UNWTO, 2021). The same growth was expected in 2020, however, the COVID-19 pandemic created a drastic drop in the number of visitors per year. Around 381 million international tourist arrivals were counted in 2020 which was a worldwide reduction of 74% (UNWTO, 2021). The pandemic and its regulations were discouraging and challenging to travel. The visitor economy slowly recovered in the following period and is expected to recover even further within the next few years. The

UNWTO created three scenarios in 2020 for further years that are made visible in figure 1. Much is yet unknown but within all three scenarios, it is expected that the visitor economy will recover to the level of 2019 within the next four years. As shown in figure 1, a record amount of 1461 million international tourist arrivals was counted in 2019. In 2021, the number of tourist arrivals was 415 million, which is a small increase that is in line with the most conservative scenario (UNWTO, 2022b). Figure 2 shows the recovery within the tourism sector in 2021. Given the most recent update of international tourist arrivals which dates back to March 2022, Europe experienced a decrease of 39% in international tourist arrivals compared to March 2019, indicating a more rapid recovery in the last few months that could be explained by the lifted COVID restrictions which made it more convenient and relaxed for people to travel (UNWTO, 2022b). Some continents have experienced a faster recovery in the tourism sector, like Europe compared to Asia, where countries are considered conservative and hesitant in re-opening their borders. In the same month, UNWTO (2022b) addresses that the international tourist arrivals in Asia were still minus 91% compared to March 2019.

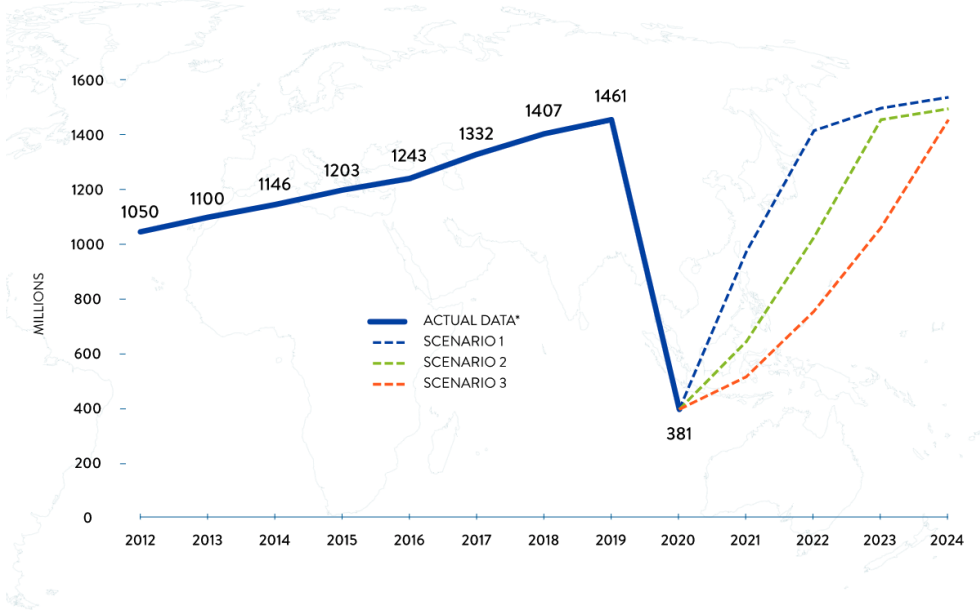


Figure 1: the number of international tourist arrivals in millions annually. The UNWTO expects a recovery of international tourist arrivals within the next 2,5 to 4 years (UNWTO, 2021).

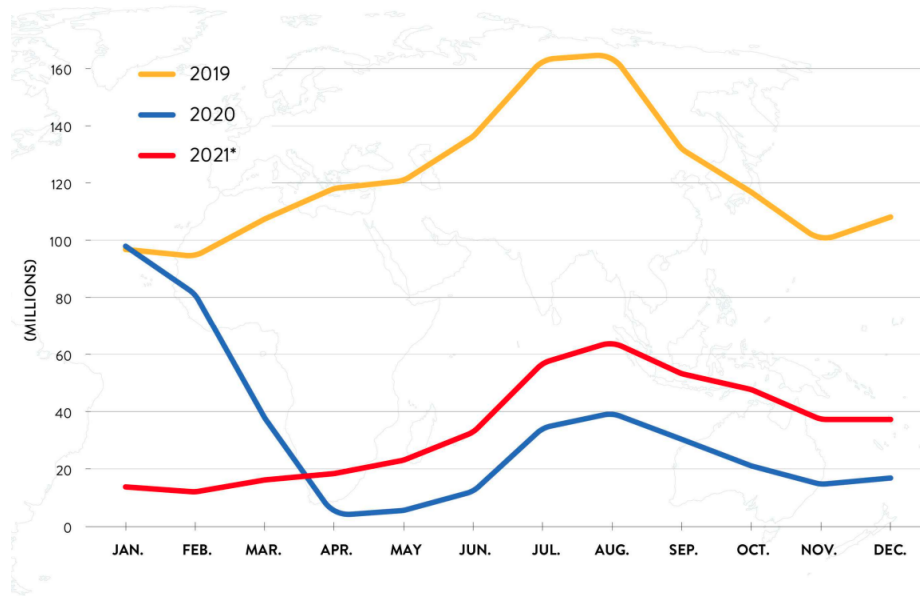


Figure 2: the number of international tourist arrivals in millions per month worldwide (UNWTO, 2022a).

Visitors have defined expectations when they reach their destination. The location may be famed for its cuisine, tropical beaches, historical sites, or cultural or natural heritage. Using the unique features of the destination, the Destination Marketing Organization (DMO) can develop a branding strategy to ensure that the city or area captures the interest of potential visitors. This is described as place branding and it enables DMOs to put these strategies into action. The reset during the pandemic provided the tourism industry to reconsider and reconstruct its strategies (Skinner, 2021). Especially due to the phenomenon of undertourism, which also occurred in some overcrowded destinations. Moving from undertourism to an increase in tourism without a return of overtourism is possible through a successful place branding strategy (Skinner, 2021). Tackling overtourism is a huge challenge, but local policymakers realized the negative impact of it after the wave of anti-tourism protests and the pandemic and have chosen not to wait any longer and took action. Destination Marketing Organizations and other policymakers are trying to deal with overtourism, and the result was the development of policies to reduce the negative externalities of overtourism.

There is a shift from the perspective of increasing the number of tourists to a focus on the quality of tourism. Policymakers are becoming increasingly aware that there are limits to growth and that they must strive to balance economic gains with the livability of the destination. Overtourism is a shared responsibility, which must be managed by policymakers and destination marketing organizations in a proper, consistent manner to regulate visitor flows. Place branding plays an important part in the rise of overtourism (S eraphina et al., 2019). For example, in 2017, the Copenhagen Tourism Board declared "the end of tourism as we know it!" (Gravari-Barbas et

al., 2019). They are pushing for policies to secure the quality of life in the city. The DMO of Amsterdam; amsterdam&partners set up a long-term project to promote the surrounding area for international tourists. They renamed the surrounding area to spread tourists and reduce the burden on the city center. Venice is going even beyond this. In 2021 they banned cruise ships from entering the city center and are for now planning a "contributo di accesso" (pay per visit) starting in January 2023, which will mean an entrance fee for day visitors who do not stay overnight in Venice and do not pay city taxes (CNNPhilippines, 2022).

Regulating overtourism is a multidimensional approach that has received substantial attention in recent literature. The COVID-19 pandemic provided a necessary reset for policymakers and DMOs to rethink their strategies for dealing with tourism and the consequences thereof. Overtourism is hard to tackle and even though the COVID pandemic resulted in more research on overtourism and how to build back the tourism industry. However, building back stronger is not the same as reinventing the wheel. DMOs and policymakers need guidance and they can have it by looking at other DMOs and policymakers of other destinations as well. In order to do so, DMOs need clarity to understand the concept of overtourism. The definition of overtourism is required to be consistent and straightforward, as the literature lacks a coherent definition of overtourism and this will be explained in the literature review. In the current situation, local DMOs and policymakers are somewhat left alone in making decisions about tourism regulations. The research field focuses on individual destinations and how they deal with overtourism. This paper takes a closer look at the topic of overtourism and attempts to draw a comparison between different case studies across Europe. Most papers address the importance of taking action, but the research is somewhat limited when it comes to a broad comparison of overtourism. They focus on individual areas and how they deal with overtourism, make some comparisons between comparable areas or promote some approaches to address the negative externalities of tourism. This paper aims to compare different types of destinations in a variety of forms. A multiple case study approach is used to shed light on different aspects of overtourism. The research questions are structured in five questions that provide not only an overview of the identifying overtourism, but also the attractiveness and accessibility of the current situation. This paper builds on the limitations of the current research field that underexposes comparing different case studies with each other. The case studies need guidance to be analyzed. Thus, the research questions are structured as follows: Why do tourists come in the first place? What is overtourism and how is it perceived by stakeholders? To which extent are different Destination Marketing Organizations and policymakers managing the consequences of overtourism? To what extent are there similarities and differences?

This paper takes a closer look at eight areas in Europe that are threatened by the effects of overtourism: Amsterdam, Berlin, Barcelona, Venice, Dubrovnik, the Azores, Ibiza, and Iceland. These destinations were selected because of their identification by the European Parliament's Committee on Transport and Tourism as an area at risk or at high risk of exposure to overtourism

(Peeters et al., 2018). These are divided into four subcategories; city trip, cruise destination, beach holiday destination, and nature. Each case study covers the cause of overtourism, its consequences and perceived impact, and how DMOs and policymakers are addressing these challenges to strive for a new balance between local residents and tourists (Hospers, 2019). The aim is to find a balance between ensuring the quality of life for local residents and the economic benefits derived from tourism. Similarities and differences between destinations will be discussed throughout the case studies to ensure a logical structure. Two theoretical models will be used in the case studies to provide an insightful perspective of overtourism. The Tourism Area Life Cycle Model (TALC), was first discussed by Butler (1980) and focuses on destination development. It provides the perspective of DMOs and policymakers. The other theoretical model is Doxey's Irritation Index, which was developed in 1975 (Uğur & Ödemiş, 2018). This model, also called Irridex, looks at the perspective of local residents and how their attitudes are about tourists. Therefore, the use and implications of only TALC and the Irridex are elaborated in the theoretical framework section, which is the third chapter.

## **2. LITERATURE REVIEW**

Even though the phenomenon of overtourism is not new, the word and its definition are. Skift, a travel site started in 2012, writes about all the phenomena happening within the tourism industry. They experienced the impact of mass tourism on Iceland and wrote on the 14th of June, 2016 an article about an occurring phenomenon: overtourism (Skift, 2018). According to them, the word had an element of alarm and fear in it. The word overtourism became widely used within the media and Skift trademarked the word itself (Skift, 2018). However, the definition is lacking consistency within the literature and media, which makes the correct use of the word a challenge. The reason for this is that the definition of overtourism is still in the early stages of development and currently lacks a standardized and recognized characterization (Capocchi et al., 2019). The concept of overtourism is considered very broad and understood as an umbrella term that includes all the unfavorable conditions created by means of several tourism activities (Kainthola et al., 2021). It is a result of the absence of good management and uncontrolled development (UNWTO, 2018). According to Capocchi et al. (2019), overtourism has three parameters: tourism growth, tourism concentration, and tourism governance. These parameters can either increase or decrease the impact of overtourism but it is not limited to the definition. Overtourism also includes the impact on the quality of living of local residents, who are dealing with the major consequences of overtourism. Since the use of the term overtourism is new, it leaves room to have multiple interpretations (Koens et al., 2018). Zemła (2020) agrees with the inconsistency of the definition and addresses several different definitions argued within the current literature. All possible stakeholders have to be included within the definition and this includes the visitors themselves. Overtourism is not limited to mass tourism. Celata & Romano (2022), sees the concerns of overtourism are not due to the rising number of tourists per se, but to their increasing penetration into the residential city. Furthermore, to conceive of overtourism merely as overcrowding is not only inadequate but counterproductive. Goodwin (2017) specifically

addressed the overload of the number of tourism as including aspect and defines overtourism as a phenomenon occurring in destinations where hosts or guests, locals or visitors, feel that there are too many visitors and that the quality of life in the area or the quality of the experience has deteriorated unacceptably. Zemła (2020) looked at several definitions and compared them. One of these definitions is described by the UNWTO, which defines overtourism as ‘*a situation in which the impact of tourism on a destination, or parts thereof, excessively influences the perceived quality of life of citizens and/or visitors in a negative way*’. This definition of overtourism has the closest meaning that the definition of overtourism requires and is used as the only definition in this paper.

The definition of overtourism may only exist for a few years, but the negative impact of tourism itself exists for a much longer time. Brighton, previously called Brighthelmstone, became a famous holiday destination for the upper class in England during the 18th and 19th centuries. Berry (2000) addressed the impact of increasing numbers of visitors on the city center of Brighton. Being considered a fishing village, the local fishermen were dissatisfied with the threat of visitors. As the demand for more space increased, the plan was to turn the Steine into facilities for visitors including a promenade. The fishermen who dried their nets in the south tried to argue but lost their battle (Berry, 2000). This is one of the earliest phenomena that we call overtourism today and the first attempt to tackle overtourism by policymakers that is found within the literature. Not much later, another example of overtourism emerged in the United States. The astonishing view over Niagara falls became an interesting destination for the early adopters of tourism within the US. However, some travelers already noted in the 1830s that the landscape surrounding the falls was being destroyed by commercialization and industrialization (Weiss, 2004).

After the second world war, the tourism industry started to grow and mass commercial tourism found its existence. First, only happening in industrialized countries, but since the 1970s has also been a growing phenomenon in the rest of the world (Pleumarom, 1994). Not long after the occurrence of increasing tourism, the literature already had some preliminary research on overtourism before overtourism was defined as a word. Groundbreaking research was made by Doxey (1975), Butler (1980), and O'Reilly (1986). Doxey's focused on the local residents' attitude toward tourists and therefore developed the Irritation Index (Uğur & Ödemiş, 2018). It has four stages; euphoria, apathy, irritation, and antagonism. Next to that, Butler came up with the concept of the Tourism Area Life Cycle (TALC) with the six different stages; exploration, involvement, development, consolidation, stagnation, and the last stage for reconsidering the future direction of the destination; decline, or rejuvenation, O'Reilly identified tourist carrying capacity or the extent to which destinations can cope with visitation (Milano et al, 2019). Carrying capacity is defined as the maximum number of users that can be supported without an unacceptable decline in the quality of the resource or the visitor experience (Wall, 2020). The literature had a focus point on national parks, where the number of visitors can be controlled. Furthermore, Wall (2020) has recognized that overtourism is not a new concept but the ideas



have crossed continents and are now being hotly debated, in a different context, particularly in historic cities of Europe. The visitor economy increased in numbers every single year and as a result, it exceeded its carrying capacity. The concept of carrying capacity since it primarily focuses on the number of visitors within an area, whereas overtourism includes all kinds of negative consequences for the visitor economy.

The causes of overtourism are often specific to particular destinations. Goodwin (2017) addressed a few significant causes that resulted in overtourism in quite a few destinations. First of all, the falling costs of traveling cause an increase in traveling. Aviation became an interesting option for leisure opportunities after the second world war, especially after low-cost carriers were introduced in the 1990s. This made it possible to reduce the pricing of aviation significantly. Low-cost airlines have the ability to ask for a low price due to dynamic pricing and reduction in costs. All the extra luxuries, such as extra luggage, the ability to check-in at the airport and food and beverages during the flight are possible for extra costs. Furthermore, aircraft fuel is untaxed and due to their efficient logistics, they can offer flights for sometimes even less than ten EUR per seat. It became a great opportunity for traveling and a much better and more available option than trains, cars, or buses which are considered more expensive and also have a long travel time compared to aviation. With the introduction of the internet, the time and effort that was necessary to buy an air ticket dropped massively. Furthermore, it impacted the knowledge customers had on the pricing of airlines. Web-based and consumer-oriented tools like Skyscanner and Kayak shed light on the possibilities of the cheapest fares (Fuellhart, 2015). Therefore, the accessibility of information became much easier and it reduced the time to find an affordable flight. Consumers were much more informed about the cheap prices and the time that was needed to buy a ticket dropped to a couple of minutes.

The second major cause of overtourism is P2P (Peer-to-Peer) platforms such as Airbnb, HomeToGo, and Booking.com to some extent (Goodwin, 2017). These platforms offer accommodations facilitated by individuals and provide the local experience since they are mostly located in residential neighborhoods. They made it much more accessible for visitors to book a specific accommodation online and rent it for the short term. The accommodation can be a dormitory, or complete apartments, and even renting a whole villa is not exceptional. P2P platforms provide opportunities for hosts that are looking for ways to rent out underutilized spaces for different reasons, like to increase their income, to get to know new people from all over the world, or to become part of a community of like-minded people. Potential customers look for accommodations on peer-to-peer sharing platforms to save time and money, a certain location or amenities, and establish new social ties (Reinhold & Dolnicar, 2018).

Moreover, social media has a tremendous impact on tourism (Alonso-Almeida et al., 2019). Social media users can show their travel experiences with their followers, and mention their preferred places. The way of sharing their experiences, videos, and photos can contribute to promoting a destination that leads to the congestion of certain destinations. Not to neglect the increasing number of users on popular social media platforms like Facebook, Instagram, Twitter,

YouTube, and Tiktok. Social media is seen as an accelerator for the process of overcrowding destinations due to the fast way that information can be shared (Dodds & Butler, 2019). These social media channels allowed many people to become aware of the many tourist destinations and how to reach them (Dodds & Butler, 2019). Influencers are traveling around the world and sharing their experiences on social media. Travel blogs, like HolidayPirates, provide tips and tricks to travel as cheaply as possible and use their social media channels to promote destinations (HolidayPirates, 2022). Next to that, Tripadvisor is trying to act as a community and encyclopedia for travelers. It puts pressure on the likelihood to visit bucket list destinations (Dodds & Butler, 2019). The ease of information accessibility like the pricing of low-cost carriers is of increasing significance for traveling. Information about the highlights of destinations is much more accessible and promoted among social media users. Friends and family, but also influencers and travel companies share their experiences of traveling on social media and this phenomenon is called Word of Mouth (eWOM). eWOM is defined as the creation by potential, actual, or former customers about a product or company through the internet either as a positive or negative statement (Hennig-Thurau et al., 2004). Social media is considered an important and useful tool for the analysis of the attitude of tourists whereas potential customers obtain the necessary information in order to make the right decision concerning travel, due to the uncertainty of traveling (Živković et al., 2014). Information accessibility has increased massively within the last decade, resulting in the realization that destinations are accessible and affordable to reach. Furthermore, Živković et al. (2014), addressed that when social media becomes increasingly expressive, consumers are able to increasingly influence other consumers using eWOM by sharing their own opinions and experiences. Since social media is low-cost and bias-free, it is an advantage for marketing communications.

Currently, there are changes in the social environment. People are becoming increasingly individualistic and self-centered, seeking self-fulfillment and trying to make their lives more meaningful. Traveling is seen as a perfect leisure opportunity to escape from working environments (Seraphin et al., 2020). Seeking new experiences, cultures, and people is for many a way of personal development. This increases the likelihood of people wanting to travel and therefore it results in more (over)tourism. Tourists can have different needs when visiting either as domestic tourists or as international ones. Even though some research findings indicated that domestic tourists have different mobility patterns than international visitors, behavioral differences were also found among international tourists in this research (Padrón-Ávila & Hernández-Martín, 2019).

As defined earlier by the UNWTO (2018), overtourism is defined as ‘*a situation in which the impact of tourism on a destination, or parts thereof, excessively influences the perceived quality of life of citizens and/or visitors in a negative way*’. This is not limited to mass tourism, since a small number of tourists could harm the environment already. Mass tourism focuses only on the negative externalities of the exceeding numbers of tourists. However, mass tourism can make the city centers, around sights and amenities too crowded that is resulting in a negative impact on its

users, which can be local residents but also other visitors. Overtourism goes beyond the scope of mass tourism and has several implications that need to be elaborated. Peeters et al. (2018) found a significant relationship between eight indicators for NUTS 2 regions and the chance that destinations within the region develop overtourism. These indicators are: (1) tourism intensity, (2) tourism density, (3) air transport density, (4) the share of Airbnb, and (5) share of tourism in the economy, (6) closeness to cruise ports, (7) airports and (8) World Heritage Sites, show significant relationships with overtourism. These indicators are further elaborated on in the next chapter.

### **3. THEORETICAL FRAMEWORK**

Even though analyzing different levels of overtourism can be perceived as challenging, there are several theoretical frameworks constructed made for analyzing the different stages of overtourism. Butler's Tourism Area Life Cycle Model and Doxey's Irritation Index are two of the most commonly used models that have been contributed to the literature for some time. As mentioned within the literature review, there is another model that sheds light on the limitations of tourism, which was addressed by O'Reilly (1986). Even though the carrying capacity focuses on these limitations, it primarily focuses on the number of visitors within an area, whereas overtourism includes all kinds of negative consequences for the visitor economy. It addresses the impact of mass tourism, which is not the same as overtourism entails, according to the definition of overtourism used by the UNWTO (2018). Therefore, the TALC and the Irridex are used for the case studies.

#### **TALC Model**

The Tourism Area Life Cycle Model was first discussed by Butler (1980). Tourist destinations go through six stages; exploration, involvement, development, consolidation, stagnation, and the sixth stage which has an open ending. It could be either decline or rejuvenation or somewhere in between. This is visualized in figure 3. The chosen destinations for this case study are beyond the first stages of Butler's model since they are already experiencing a high volume of tourism. As stated before, all these destinations are identified as (high) risk areas for overtourism, but some destinations may experience the visitor economy in different ways compared to others. It might be the case that some destinations adapted themselves to high levels of visitors and other destinations protected themselves against mass tourism to decrease the number of visitors. Overtourism as a whole can be seen as subjective but is essential to look at very closely due to its significant impact. Butler's model is addressed as a theoretical framework to be able to not be restricted by destinations but to have a clear overview of the direction of development within the destination.

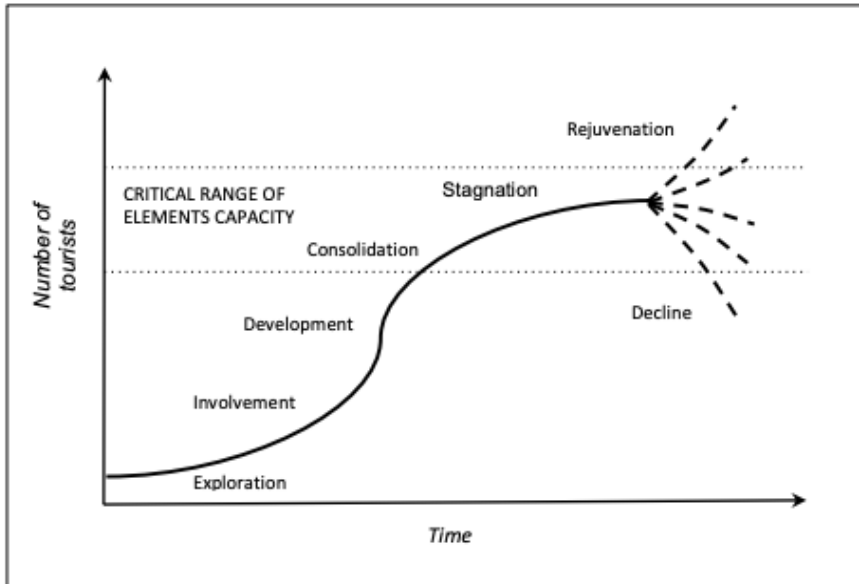


Figure 3: the Tourism Area Life Cycle Model (Ribó & Plana Villa, 2018).

### Irridex

Doxey's Irritation Index was developed in 1975 and has four stages; euphoria, apathy, irritation, and antagonism (Uğur & Ödemiş, 2018). This is visualized in figure 4. In the first stage, local residents tend to be accepting of visitors and willing to help them out. Local residents tend to be happy to receive tourists and share their experiences with them. When there are more tourists, local residents tend to feel a somewhat apathy towards them. They are used to them and tourists are blending in with the local society. In the third and fourth stages, local residents perceive the visitors as threatening to their living conditions and rather see them like a plague. Doxey's Irritation Index focuses on the local residents as a stakeholder in tourism.

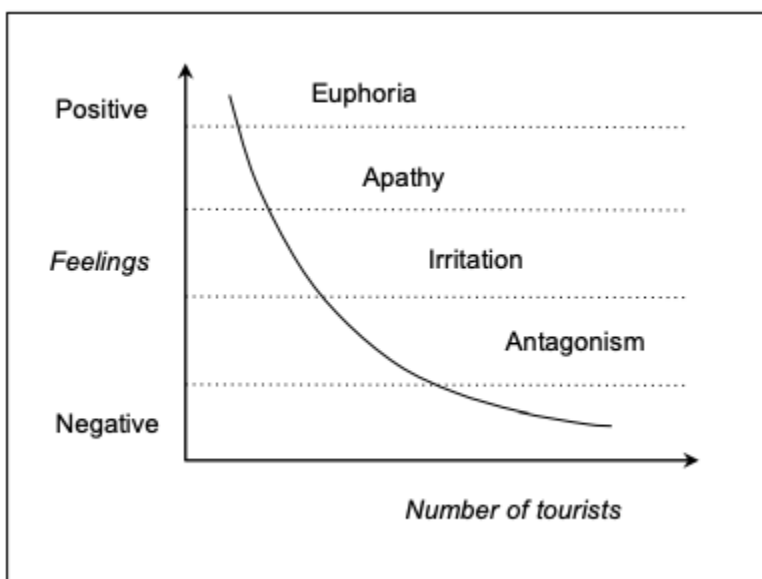


Figure 4: Doxey's Irritation (Ribó & Plana Villa, 2018).

Both models are still heavily debated and within the literature, some researchers tried to extend the models, both models existed for over forty years and maintained their relevance till nowadays. There are academic papers that shed light on the relation between Doxey's Irritation Index and Tourism Area Life Cycle Model (Uğur & Ödemiş, 2018). It has been further extended by implementing a new stage 'Trexit' in Bourliataux-Lajoinie et al. (2019). Bourliataux-Lajoinie et al. (2019) discussed the addition of Trexit, a combination between tourism and exit faces. This resulted in some papers debating the model and concluded with a lot of criticism. Seraphin et al. (2019) argue that Trexit as the added last stage is not a sustainable solution to overtourism and that an alternative strategy needs to be adopted to tackle overtourism. In line with the critics, it is stated that entering the last stage, the so-called trexit strategy can be perceived as destructive for tourism and will therefore not be used. However, it is important to address that the model is still open for debate and that the model can be adjusted in the future.

As addressed in the literature review, Peeters et al. (2018) found a significant relationship between eight indicators for NUTS 2 regions and the chance that destinations within the region develop overtourism. These indicators are being used in all of the cases to a certain extent. Note that not all indicators are applicable for every case study. The indicators that are used are: (1) tourism intensity, (2) tourism density, (3) air transport density, (4) the share of Airbnb, and (5) share of tourism in the economy, (6) closeness to cruise ports, (7) airports and (8) World Heritage Sites, show significant relationships with overtourism. Whereas the first three have a reference to mass tourism, the share of Airbnb as an indicator has a higher focus on the negative externalities that go beyond the concept of mass tourism, but it is included within the definition of overtourism. Airbnbs are more segregated across the city and mainly located in residential areas, compared to hotels and hostels. This could be a major reason for overtourism because it directly affects the livelihoods of many citizens living in quiet neighborhoods and is not used to higher levels of noise disturbance and liveliness of tourists at night (Peeters et al., 2018). Airbnbs provide affordable accommodations, but this harms the neighborhood like less availability of houses and increased rents. It also threatened the livability of the neighborhood, like increased traffic and usage of public transport. Noise pollution is also a common issue, mainly due to binge drinking by tourists and being disrespectful to the neighborhood. Lastly, the large number of tourists increases criminal activities and inappropriate behavior that becomes mainly prevalent in the form of commercially organized begging and pickpocketing (Hospers, 2019). The last three indicators are conditional; if an airport, cruise port, or World Heritage Site is close to a destination, there is a higher chance to develop overtourism (Peeters et al., 2018).

So far, many destinations have tried but failed to overcome overtourism. The main reasons for this are the short-term orientation on economic priority, lack of clear definitions, and conflict of interest (Butler & Dodds, 2022). Neglecting some stakeholders is a significant failure to tackle

overtourism. Furthermore, it happens that not all stakeholders are even identified. As mentioned in the definition of overtourism, it occurs that often the visitors as stakeholders are not addressed. A trade-off can be suggested between the local residents whose life can be impacted by tourism in a negative, but also positive way and the business, like restaurants, museums, shops, etc. are perceiving mainly a positive impact since more tourists can result in more income. A negative impact is competition since the likelihood of more businesses will be investing in the same area to compete against the potential customers. Also, the government and therefore the policymakers need to be addressed as stakeholders. They need to establish a balance between the impact of the tourism industry. Lastly, Destination Marketing Organizations (DMOs) have their own stake in this industry. They are branding the destination in such a way that they want to regulate tourism flows. It might be a case that a DMO only focuses on increasing the number of visitors, others on changing the type of visitors, or even trying to reduce the number of tourist arrivals.

All eight cases are introduced and in order to understand the impact of overtourism within these destinations, several research questions are addressed to provide insight into different aspects of overtourism.

- A.** Why do tourists come in the first place?
- B.** What is overtourism and how is it perceived by stakeholders?
- C.** To which extent are different Destination Marketing Organizations and policymakers managing the consequences of overtourism?
- D.** To what extent are there similarities and differences?

The research questions are selected to provide all the information needed to make comparisons between the destinations. It is important to analyze why tourists are coming to that destination in the first place. Important considerations are the sights to see, but also how accessible a certain destination is. As Padrón-Ávila & Hernández-Martín (2019) describes, behavioral differences between domestic and international tourists are present. However, there are a lot of differences even among international tourists. Because these differences are complex, this paper does not provide a distinction between domestic and international tourists. All the case studies are at risk of overtourism, therefore it is important to look at these destinations how overtourism is perceived and how stakeholders are dealing with it. This includes DMOs and policymakers that contribute to overtourism by not taking action or making the wrong decisions. Both theoretical models are used in this multiple case study. After all the cases are addressed, the similarities and differences are analyzed. A matrix provides the necessary information to make comparisons between these eight case studies. The matrix also provides insight into different aspects of overtourism, especially it shows the similarities and differences in a clear overview.

#### 4. CASE STUDIES

This chapter is discussing the multiple case study approach that is used in this paper. Eight case studies are presented and elaborated. A variety of different destinations are selected and divided into four categories: city trips, cruise destinations, beach holiday destinations, and nature destinations. The selected case study destinations are not limited by one of these categories but can attract several kinds of tourism. For example, Barcelona is a cruise- and a city trip destination, but also a beach holiday destination to some extent. The cases are discussed by addressing the research questions. The first question: *‘Why do tourists come in the first place?’* Will be answered by a paragraph that describes the attractiveness of the destination and by including the amenities and highlights. Another paragraph is followed addressing the accessibility of that destination, which allows the ease of a potential visitor to explore the specific destination. The next research question *‘What is overtourism and how is it perceived by stakeholders?’* is answered by the third and fourth paragraph that first describes the impact of overtourism and the fourth paragraph describes how it is perceived by local residents including Doxey’s Irritation Index. This includes to which level the local residents have resilience towards tourism. The fifth and last paragraph of this chapter answers the research question: *‘To which extent are different Destination Marketing Organizations and policymakers managing the consequences of overtourism?’*. Policymakers and DMOs might take actions to regulate in such a way as to prevent overtourism. As a theoretical framework, the TALC model is implemented to provide a theoretical framework for what direction tourism is moving. They might aim for tourism growth, stabilization, or only degrowth. Furthermore, policymaking and its implications are addressed including the TALC model. The last research question: *‘To what extent are there similarities and differences?’* is answered in the fifth chapter. These eight case studies shed light on the eight indicators addressed earlier that have a significant relationship between them and being at risk of overtourism (Peeters et al., 2018).

- A. Amsterdam
- B. Berlin
- C. Barcelona
- D. Venice
- E. Dubrovnik
- F. The Azores
- G. Ibiza
- H. Iceland

Only by looking at the numbers of tourist arrivals can one have a narrowed view of overtourism. The definition used by the UNWTO (2018), does not end at only numbers. However, it is necessary to address these numbers first, since they can provide an introduction to the severity of overtourism. These destinations all have a different influx of people and table 1 shows the number of passenger arrivals at different airports in eight destinations within Europe. It indicates

that the visitor economy has grown massively between 2010 and 2019. Yet, 2020 was a year of a massive decline in passenger arrivals. The table does not provide any insight into seasonality.

<b>Passenger arrivals airport (airport code)</b>	<b>2010</b>	<b>2019</b>	<b>2020</b>
Amsterdam (AMS)	45.1	71.7	20.9
Azores (PDL + HOR + TER)	1.5	3.0	1.0
Barcelona (BCN + GRO airport)	34.0	53.7	12.6
Berlin (BER and former SXL and TXL airport)	22.2	35.6	9.1
Dubrovnik (DBV)	1.6	2.9	0.3
Ibiza (IBZ)	5.0	8.1	2.1
Iceland (KEF)	2.0	7.2	1.4
Venice (TSF + VCE)	9.0	14.8	3.3

Table 1: number of passenger arrivals at airports in Europe (Eurostat, 2022).

#### A. Amsterdam

The capital and biggest city of the Netherlands has developed as an attractive city for tourism. Due to its rich history, the city center has a lot of architecture from the 17th century that has been kept preserved, world-class museums, and the vibrant and open-minded atmosphere makes the city an interesting place for leisure tourism. The narrow streets, canals, bikes, and historical sites make the city a small, but pleasant destination. Amsterdam is seen as a progressive city, however, it became associated with cheap drinks, commercial sex, and the legality of drugs, which attracted a certain kind of tourist (Dai et al., 2019). According to a survey by the municipality of Amsterdam, the presence of coffeeshops has been given as one of the major reasons to visit Amsterdam (Gemeente Amsterdam, 2018). Amsterdam has been the decor of many movies, and they supported these associations to a certain extent. The parks, canals, and dozens of museums make the city an interesting destination for a city trip.

Amsterdam is accessible by (international) trains, and long-distance buses like Blablabus and Flixbus and has one of the biggest airports in Europe. There are direct international train connections to Paris, London, Berlin, Basel, Zürich, Munich, Innsbruck, and Vienna, and some of them are night trains. Amsterdam is a popular destination for cruises and has two ports; the Port of Amsterdam and IJmuiden, which is near the city of Amsterdam. Schiphol is one of the biggest airports in Europe and covers many continental and intercontinental flights. As the home base of Transavia and KLM, also low-cost carriers that fly to and from Amsterdam, such as Ryanair, EasyJet, and Transavia. Next to that, Rotterdam-The Hague Airport and Eindhoven



Airport are considered close to Amsterdam and both airports are offering many connections mainly by low-cost airlines.

In 2019, the city of Amsterdam received more than 21 million overnight stays (Iamexpat, 2022). According to CBS (2022), the large majority (around 78%) of all Amsterdam's visitors were foreigners. The visitors stayed within the city center mostly in either hotels, hotels, or Airbnbs, which resulted in pressure on the central neighborhoods. The local municipality Amsterdam researched the impact of tourism on the different neighborhoods in Amsterdam (Sleutjes et al., 2020) and this is presented in figure 5. The (dark) blue areas indicate a high pressure of the significant number of tourists on the livability in these neighborhoods. Some neighborhoods, such as the Burgwallen, Grachtengordel-Zuid, Oud-Zuid, Oud-West, De Pijp, De Jordaan and Haarlemmerbuurt experienced high pressure of tourism on the neighborhoods. In some districts, a high or very high score for tourist pressure coincides with a moderate score on the quality of life. In these neighborhoods, very high tourist pressure goes hand in hand with moderate or unfavorable livability. There is relatively much disturbance experienced by other people, by drunk people on the street and by vacation rentals (Sleutjes et al., 2020). Even though the felt pressure is concentrated in a small part of the city, it impacts the quality of life for a significant number of local residents.

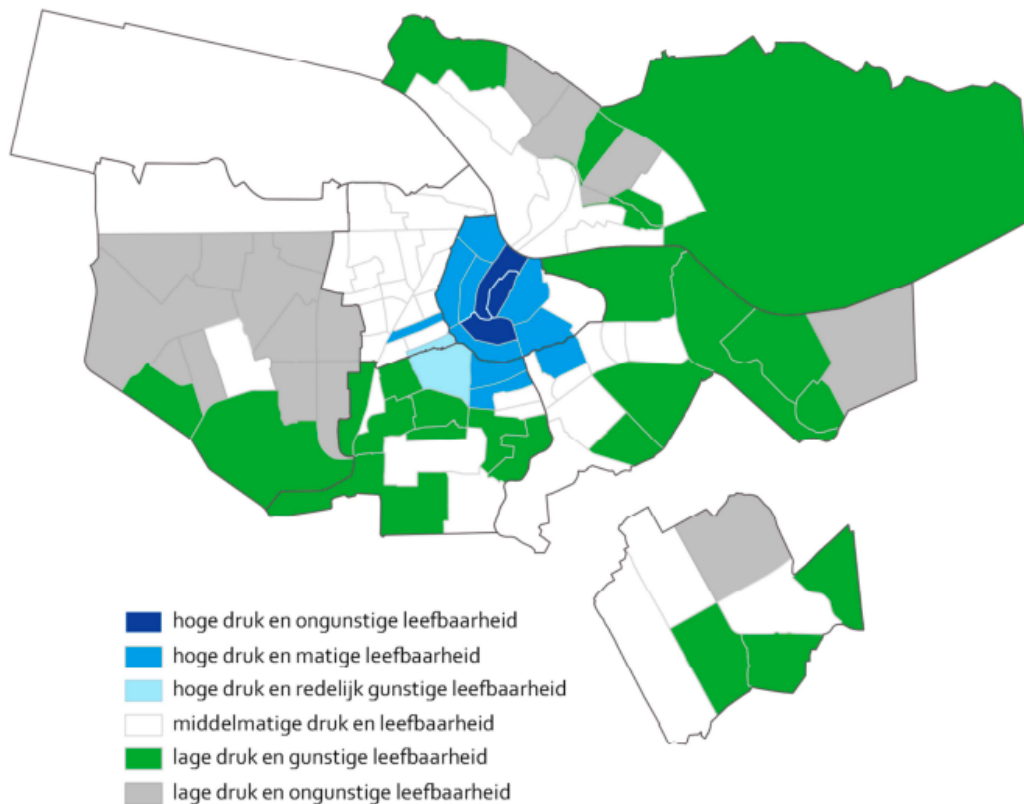


Figure 5: the pressure of tourism on the livability within the neighborhood (Sleutjes et al., 2020).

During the anti-tourism movement in 2017, Amsterdam was not left out. During the summer, protests against tourists were held. The negative stereotypes have affected the local residents of Amsterdam in such a way that they perceive a negative attitude in international social interactions since it shapes Amsterdam's society into a stereotype of Dutch people being "potheads" and "sex-crazed (Waard, 2012). However, Gerritsma & Vork (2017) reported that for the most part, residents have a positive attitude to tourists and tourism. Of course, there are different points of view in different neighborhoods, but overall it was a positive experience for tourism. Gerritsma & Vork (2017) also took into account Doxey's Irritation Index, which results are presented in figure 6. The perceived feeling of irritation is mainly consisting of different components such as overcrowding, excessive noise, littering, and lack of safety. There is a significant difference between the perception of overtourism within their neighborhoods and the city center of Amsterdam. This is in line with the data provided in figure 5, whereas the pressure of overtourism is mainly concentrated within the (historic) center of Amsterdam. It shows that the tourists are mainly concentrated within the center. Residents are more irritated when they are in Amsterdam's city center compared to their own neighborhood. It can be the case that local residents live in the center as well. According to Gerritsma & Vork (2017), residents in Amsterdam-West for example, where the development of tourism is more advanced than in Noord, are more annoyed by tourists in their own neighborhood, and above all by those in the city center, than the residents in Amsterdam-Noord. It shows that there is some irritation towards tourists, however this is mostly the case in the city center. Using Doxey's Irridex, indicates that Amsterdam is between stages 2 and 3.

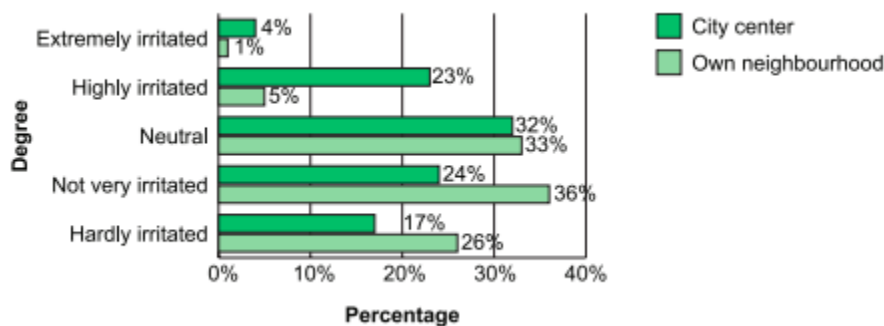


Figure 6: level of irritation in Amsterdam (Gerritsma & Vork, 2017).

In recent years, many local governments realized the negative impact of overtourism and have decided to take action. The DMO of Amsterdam; amsterdam&partners established a long-term project to promote the surrounding area for international tourists to reduce the pressure on the historic city center of Amsterdam. This project; Amsterdam Bezoeken, Holland Zien (ABHZ)-*Visit Amsterdam, See Holland*, started in 2009 and differentiated six regions around Amsterdam (Amsterdam Marketing, 2018). For example, one of them is Amsterdam Beach. This area consists of the municipalities Zandvoort, IJmuiden, and Beverwijk. The DMOs of these

municipalities work closely together with amsterdam&partners to attract tourists to the coast. For each of these regions around Amsterdam, communication resources such as local maps and social media campaigns are developed to seduce tourists to explore interesting destinations surrounding Amsterdam. A regional public transport card is created to make it easier for visitors to explore these six regions around Amsterdam. More bus lines are created to reduce the travel time to sights outside the city. To measure if there was a significant reduction in the pressure on the city center because of the ABHZ project, Amsterdam Marketing calculates the percentage of international tourists who visit the region around the capital, the spreading percentage. This percentage increased from 18% of the total number of tourists visiting Amsterdam in 2009 to 24% in 2015. Most of them are exploring heritage sites such as de Zaanse Schans, Volendam, Marken and Haarlem (Amsterdam Marketing, 2018). This is to reduce the pressure on the city center, which is shown in figures 5 and 6.

Moreover, getting a grip on overtourism does not stop here for Amsterdam. The demotion of tourism is to become part of city policy, The intent is not to make Amsterdam unattractive to tourists but not to promote it to attract greater numbers (Dodds & Butler, 2019). Furthermore, Amsterdam implemented a threshold of 20 million tourists as a maximum number of tourist arrivals per year (Iamexpat, 2022). This number exceeded only in 2019, but it is expected to be a fast recovery of travelers within the next few years, which is also in line with the expectations of the UNWTO. When Amsterdam exceeds this threshold, this has to lead to an intervention by the municipality. Using this threshold, the city aims to avoid that the city is not becoming unattractive to visitors due to overtourism. One of the indicators of being at risk of overtourism is the number of Airbnbs in the city (Peeters et al., 2018). The current market share of Airbnb in Amsterdam is 12 percent, with a total of 27,649 rooms in 2018. The most popular district in Amsterdam to rent out apartments via Airbnb is Oud-West and De Baarsjes (Noordeloos, 2018). These neighborhoods are located within the city center, where the most overtourism is perceived. In 2018 the local government decided to change the maximum accommodation time allowed from 60 nights to 30 nights per year for a maximum of four people in 2019 (Gerritsma, 2019). That resulted in a slow decline in the number of Airbnbs. In 2020, the municipality of Amsterdam increased the city tax for staying overnight to 7% of the room price, and an addition of a flat tourist tax of 3 EUR per person which is considered the highest tourist tax in Europe at that moment. More measures against Airbnb have been implemented during the COVID-19 pandemic. In 2020, renting out your home became forbidden in three neighborhoods in the center of Amsterdam. These three neighborhoods are the same as the dark blue areas shown in figure 5 (Sleutjes et al., 2020). However, this ban has been lifted by the administrative judge less than one year after. A more successful policy is the National Housing Law came into force on 1 January 2021 that introduced a registration system for Airbnbs. As a result, the number of accommodations that were rented out was reduced from 18,715 to 4,128 within a year (RTL Nieuws, 2021) which is a reduction of around 78%. The relevance of this percentage can be debatable since this regulation has been implemented during the pandemic.

According to Butler's TALC model (Butler, 1980), Amsterdam is choosing decline as a way out of tourism. Ensuring the livability, especially within the city center and implementing a cap of a maximum of 20 million tourist arrivals instead of the 21 million tourist arrivals counted in 2019. Other interventions, such as reducing the number of Airbnbs and higher city taxes are regulations that are discouraging tourists to visit Amsterdam.

## B. Berlin

Berlin is an attractive destination to visit, due to its rich but turbulent history. The Second World War and the division of the city left their mark on the present society. Since the fall of the Berlin Wall in 1989 followed by the unification in 1990, the city was left in poor conditions in matters of infrastructure and wealth. The urban landscape has remained filled with a large number of voids and disused sites (Colomb, 2012). This enabled a new kind of tourism: "new urban tourism", which shows a preference for off-the-beaten-track areas and 'authentic' experiences of the city (Füller & Michel, 2014). The city has unique features, such as the remains of the Berlin Wall and Tempelhofer Feld, a former airport near the city center, and the relaxed, open, and progressive atmosphere. As the former capital of Nazi Germany and a divided city between communism and capitalism, Berlin provides a lot of different kinds of museums and sights to explore. Great examples are the Fernsehturm, Mauerpark and Teufelsberg. Next to that, the disused sites offered space for different purposes, such as urban clubbing, that made Berlin worldwide famous. Clubs like Berghain, KitKat, and Sisyphos attracted worldwide attention and therefore visitors and became highly associated with urban lifestyle and techno music. The city is seen as LGBT+ friendly, liberal and open-minded, which attracts many tourists. Lastly, the city promotes itself as 365/24 indicating that the city never sleeps. Even though this slogan is heavily debated since it promotes itself as a party city (Sommer, 2018).

As centered in the east of Germany, the city has many direct (night)train connections. There are direct connections to many cities within Germany, such as Hamburg, Cologne, and Munich but also international train connections to Warsaw, Amsterdam, Prague, Vienna, and even Minsk and Moscow. However, the last two destinations are currently on hold. Berlin Hauptbahnhof is considered one of the largest train stations in Europe. Furthermore, long-distance buses like Blablabus and Flixbus are operating to destinations all across the continent. Because Berlin is not located near the sea, it does not have a cruise port. It does have a large newly built Berlin Brandenburg airport operating from 2020 and replacing the older airports Schönefeld and Tegel, which had more limited capacity. Even though not much can be said about the usage of the airport due to its opening during the COVID-19 pandemic, the airport offers many flights and especially low-cost airlines from many destinations all over Europe. Due to its central location and connectivity, the German capital is extremely well accessible to visitors.

Since the fall of the Berlin Wall in 1989 tourism has played an important role in the city's economic and urban development policies (Novy, 2016). Since then, the growth rate of the

number of tourists has exploded. In 2019, the city of Berlin received 34 million overnight stays. Figure 7 shows the density of tourist attractions, hotels, restaurants, and holiday flats (Schäfer & Hirsch, 2017). The majority of the visitors stay in areas such as Mitte, Friedrichshain-Kreuzberg, but also Charlottenburg-Wilmersdorf and Pankow (Prenzlauerberg).

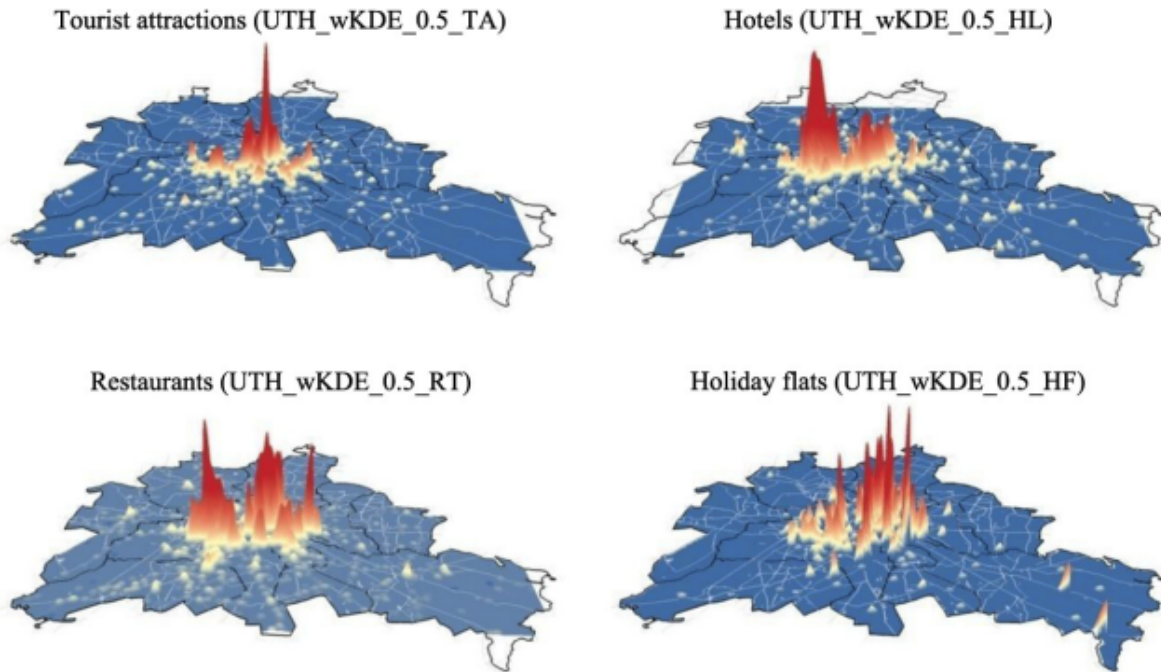


Figure 7: weighted kernel density estimation for all amenity categories across Berlin with a bandwidth of 0.5 km (Schäfer & Hirsch, 2017).

Tourists also spend their time in Schöneberg and Neukölln since these areas are centrally located and have their local vibrant atmosphere. Whereas tourist attractions are more concentrated in Mitte, hotels and holiday flats are more spread out in the neighboring areas. One of the most visited attractions is Checkpoint Charlie, a rebuilt checkpoint at the border of West- and East Berlin during the Cold War. Due to its many daily visitors, Checkpoint Charlie has triggered some controversies about the right way of remembrance on-site (Sommer, 2018). Local residents fear Disneyfication of the site, where fake items such as Soviet Red Army fur hats, gas masks, and pieces of the Berlin Wall can be bought (BBC, 2019).

The visitors became associated with many problems in the city. Residents in Berlin are tired of tourists, calling them '*terrotourists*', and have had enough of the rattling of suitcase wheels. The mobilization against tourism also is strongly tied to wider struggles, including, the struggles for affordable housing, gentrification, and corporate developments that (are perceived to) destroy the fabric of local communities (Novy, 2018). Local residents consider tourists complicit in gentrification, massive crowds in the center, and higher rents (Novy, 2016). As a result, tourists were discouraged from returning to Berlin by local residents by put stickers all over street signs.

Even though there is a certain negative attitude towards tourists, most residents don't feel disturbed or restricted by tourism (DW, 2022). The approval rating of tourists is in Berlin 85% and even Friedrichshain-Kreuzberg the approval rating is around two-thirds (DW, 2022). Even though there have been protests in the past, these protests focused on side effects of tourism, such as higher rent costs and gentrification rather than the tourists themselves. This indicates that looking at Doxeys' Tourist Irritation Index, Berlin is still at lower levels of the irritation index.

It is because of activism and protests within the city that the development of tourism has become a controversial topic of discussion. Moreover, the almost exclusively growth-oriented tourism policy of Berlin's municipality resulted in outweighing the costs and benefits of tourism, their distribution, as well as questions of tolerability are now being publicly discussed (Novy, 2016). Interestingly, even though Berlin is experiencing overtourism, the local municipality focuses on monitoring tourism flows and seeking new potential ways of tourism, such as maximizing cultural tourism (visitBerlin, 2018). Visitors to congresses and tourists who are interested in culture are attracted rather than party tourists. Their Berlin experience along with the quality of life of the residents is to be improved. Yet, some regulations have been made, such as revoking the performing license of a group of performers at Checkpoint Charlie who demanded money for taking pictures in 2019 (BBC, 2019). Berlin has taken a strong regulatory approach when it comes to Airbnbs which already started in 2014, introducing measures to curb the growth of short-term rentals following repeated complaints from residents (RICS, 2022). This is considered as strong regulations on renting accommodations from an early stage that avoided major negative externalities.

According to Butler's TALC model (Butler, 1980), Berlin has not met the end stage of tourism. Therefore it is seeking further growth and development of tourism. By monitoring the growth of tourism and attracting cultural tourism, they are aiming to control tourist flows and minimize negative externalities. This indicates that Berlin has fifth the last stage of the TALC model.

### C. Barcelona

Barcelona, the sunny capital of the region Catalonia in Spain attracts millions of tourists every year. The city bears its heart for football since one of the biggest football clubs in the world has its home base here; FC Barcelona. Gaudi left his mark on the city and provided the city with many highlights such as Park Güell and Sagrada Família. The Sagrada Família is projected to be under construction until 2026 which makes it one of the longest construction projects in the world. The favorable climate and the plenty of beaches at the heart of the Costa Brava combine a city trip with beach holiday destinations. Like many cities in Spain, Spanish cuisine invites many tourists to come to this area. Their way of dining, late and many but small portions (tapas) including a glass of sangría got worldwide attention.

Barcelona is well connected and operates as a train hub between many cities in Spain, and the central station provides connections to Seville and Madrid, but also France even up to Paris. Flixbus offers direct routes to cities in Italy, France, Belgium, and Germany. Barcelona has two airports near the city; El Prat (BCN) and Gerona (GRO). These airports offer many low-cost airlines operating continental and even intercontinental flights. Barcelona is a popular cruise destination and the leading cruise port in the Mediterranean, therefore many tourists explore the city by cruise (Navarro-Ruiz, 2019). In 2019, the number of passenger arrivals was 3.138 million (Statistica, 2022) which is around 10% of their total visitors. the leading cruise port in the Mediterranean, Due to the COVID-19 pandemic, this number dropped significantly in 2020 to 199,000 arrivals but is recovering fast.

The visitor economy generates roughly 15% of the city's GDP (RICS, 2022) which creates a dilemma for the municipality in how to deal with tourism. This number is a significant number for the local economy, however, the local economy does not rely entirely on tourism. On one hand, the tourism industry offers a significant number of jobs, but the impact of overtourism results in negative externalities. The municipal government, in collaboration with private interest groups, rebranded the city and included its rich heritage to make it a specific brand for tourists that can be addressed as an explanatory factor for its success. (Paredes-Rodriguez & Spierings, 2020). Over 30 million tourists visited Barcelona in 2019 (TourismReview, 2022). The increase in the number of tourists visiting the city has grown in recent years due to a combination of various factors, such as a wide offer of low-cost flights plus the accommodation opportunities provided by online platforms such as Airbnb. (Paredes-Rodriguez & Spierings, 2020). The number of Airbnbs is an indicator of overtourism as addressed earlier (Peeters et al., 2018). In Barcelona, Airbnbs are clustered within the city center, showing that certain neighborhoods are experiencing a high level of overtourism. This is addressed in figure 8 and shows that the number of Airbnbs is clustering in three neighborhoods; Ciutat Vella, Eixample, and Sant Marti.

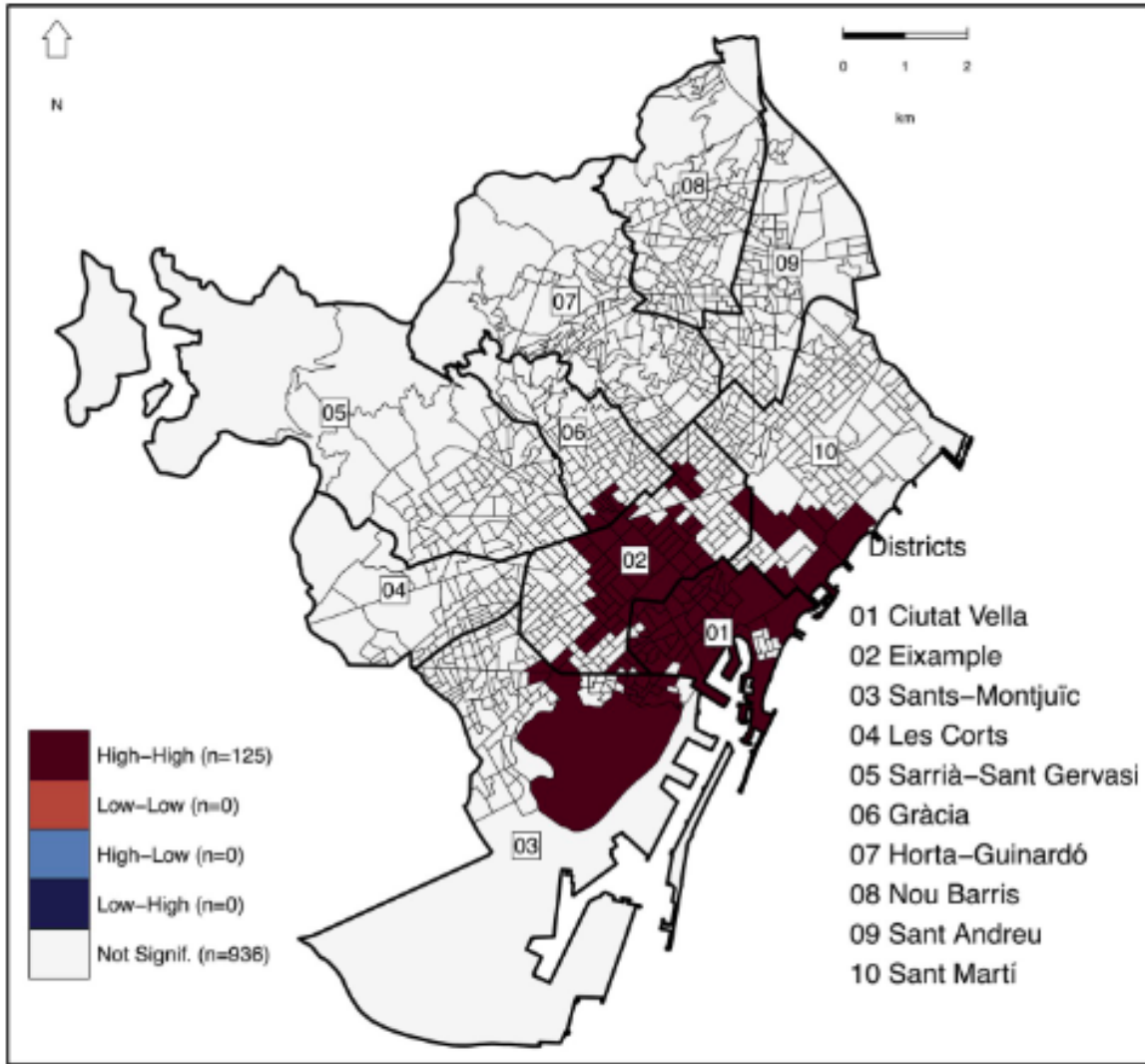


Figure 8: significant clusters of Airbnb accommodations (Lagonigro et al., 2020).

Barcelona has a highly significant number of one-day visitors, partially explained by the high number of cruise arrivals and tourists that stay in resorts, apartments, and hotels at the Costa Brava. These tourists do not stay the night but generate, but they account for almost 50% of visitors to Barcelona (Murillo et al., 2013). However, these visitors generated not more than 10% of visitors' direct expenditure in 2013. One-day visitors are seen as low contributors to the local economy and around three million of them arrive by cruise ships, which makes up for twenty percent of the total number of one-day visitors. Despite the economic gains, this rise in the number of tourists has caused negative impacts on its population, such as an increase in the living costs, gentrification, and manipulation of its identity, which provides a negative attitude towards tourism by local residents (Simas et al., 2021).



Local residents in Barcelona have held anti-tourism demonstrations and perceive a high level of tourismphobia, which makes Barcelona one of the leading destinations where local residents act against tourism. Already since 2008, the number of reports of increasing conflicts between tourists and residents in Barcelona (Martins, 2018). During the summer of 2017, a widely reported wave of anti-tourism mobilizations by leftwing nationalist activists swept through Barcelona and several other Catalan cities (Hughes, 2018). The claims against tourism sparked a recent debate on touristification and tourismphobia (Simas et. al., 2021). Overtourism is being identified as Barcelona's biggest problem in recent opinion polls (Candidatura d'Unitat Popular, 2017). Therefore it can be concluded that Barcelona experiences antagonism against tourism according to the Doxey's Irritation Index. Even though COVID-19 has provided a break from tourists, this did not change the perception of local residents.

The city council approved a Municipal Action Plan (PAM) in 2008, which committed the city of Barcelona to develop a Tourism Strategic Plan (Martins, 2018). This strategic plan had as its main objective to promote a tourism model which will strengthen the balance between local residents and tourists while preserving the identity values of the city. The local government of Barcelona implemented a strategic tourism plan for the period 2010 to 2015. This vision was both ambitious and groundbreaking for its time (Martins, 2018). Some objectives were territorial deconcentration, to spread out the visitors more and better across the city, and the governance of tourism to the development of new structures of management and coordination of the tourist activity. After the evaluation of this ambitious plan, it turned out that most of the governmental efforts to manage tourism were not effective, due to a massive increase in new forms of accommodations such as Airbnbs, as well as advances in technology and its applications to the city that made it easier to visit the city. These phenomena have favored a continuous increase in tourist activity and have put more pressure on some neighborhoods of the city, those with a higher density of tourism impacts (Martins, 2018).

The government increased its efforts to achieve more. Between 2014 and 2017, granting of tourist housing licenses was suspended, with the implementation of the Special Urban Planning (PEUAT). This was enforced as a new instrument of Barcelona to regulate tourist accommodation distribution. It resulted in prohibitions of new licenses in certain districts of Barcelona city (Lambea Llop, 2017). However, the PEUAT was highly criticized after complaints and suggestions received both by stakeholders and political parties. According to some, the PEUAT plan is too restrictive while for others that are too indulgent (Lambea Llop, 2017). The plan consists of dividing the city into several areas to control all types of tourist accommodations and seasonal rentals to gradually take them away from the city center (StayUnique, 2022). Figure 9 shows this division including a red zone where the short-term renting accommodations have to be decreased, a yellow zone where this number has to be maintained, and a green zone where this number may increase. The gray zone has additional regulations.

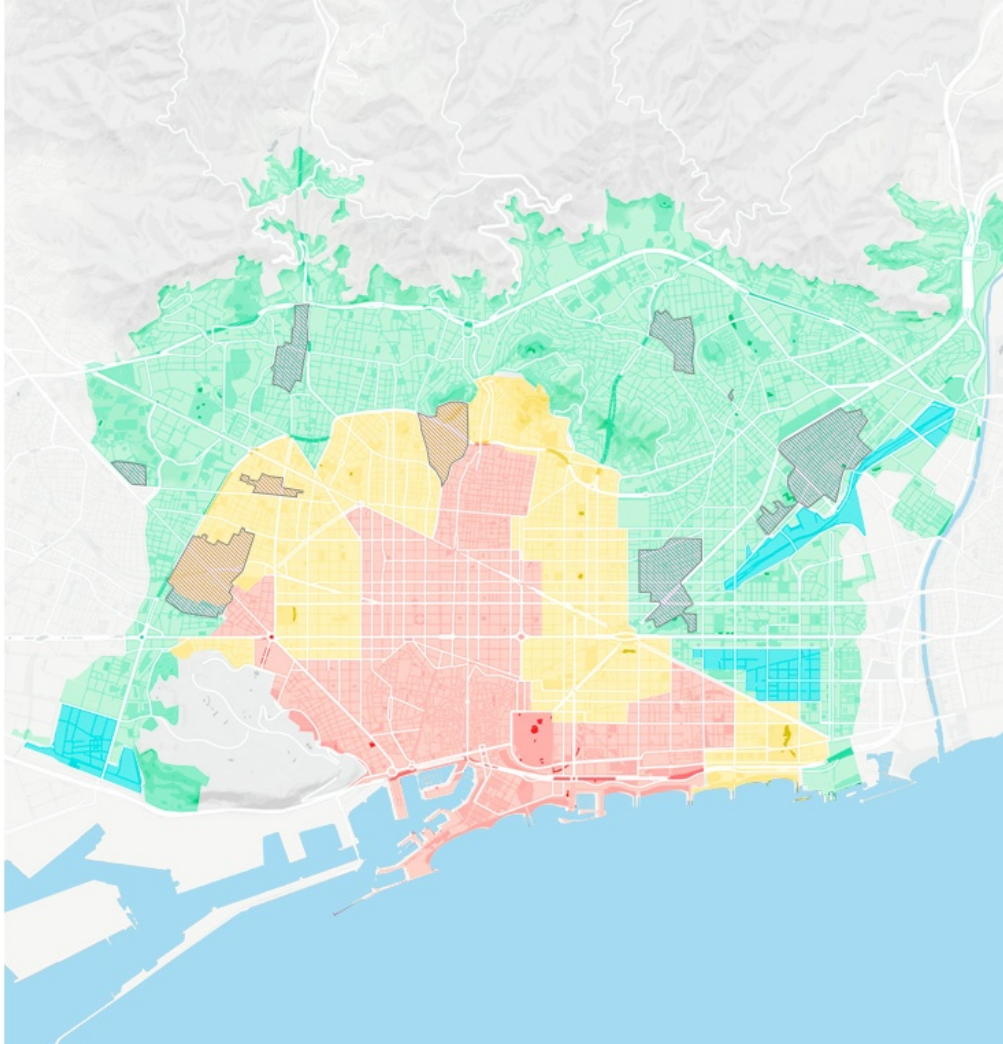


Figure 9: PEUAT plan in Barcelona to reduce tourist pressure (StayUnique, 2022).

Monitoring and control functions are being undertaken in order to detect, fine, and close non-registered tourist dwellings, and also some pressure and responsibility are transferred to the online platforms, which are being fined for offering non-registered accommodations on their websites (Lambea Llop, 2017). In 2015, the municipality took the step of fining Airbnb and HomeAway €30,000 for advertising unlicensed apartments on their online platforms. When both platforms failed to address the city administration's complaints, new fines of €600,000 were imposed in 2016 (Hughes, 2018). Zerva et al. (2019) address a clear distinction between the anti-tourist perception of local residents and the DMO's tourism-philic one, going from complete opposites to searching for common ground when tourism is addressed as part of the city's identity by both sides. Moreover, the city has also run campaigns aimed at raising tourists' awareness of their impact on the local population in areas such as noise disturbance and environmental sustainability (Hughes, 2018). To summarize, the PEUAT plan in Barcelona aims to spread out tourism more across the city. Barcelona instituted a new tax on stays in tourist

establishments that goes to the municipal government. It could raise as much as €16.5 million annually with the revenue used to promote less-visited neighborhoods, such as Poblenou and Gràcia (Bloomberg, 2022). Barcelona has designed a network of bus stops that enables tourists to travel across the city faster. However, the local government has limitations to what extent they can do. For example, the port of Barcelona is out of the local's municipality restriction (TheGuardian, 2022). Even though they cannot limit the number of cruise passenger arrivals, the local municipality aims to find other ways to have an impact on the cruise ship industry. For example, they are imposing a new cruise tax on tourists to combat emissions coming from large cruise ships (Euronews, 2022a).

According to Butler's TALC model, Barcelona aims for a more stabilization of the number of visitors. They aim to spread out the tourists more across the city instead of decreasing the number. Due to its importance to the local economy and the negative externalities that arise from tourism taken into account, the tourism industry is seen as a double-edged sword that Barcelona aims to tackle by spreading the tourists using the PEUAT plan.

#### D. Venice

Venice is a medium-sized European city with a lot of architectural history. It is also one of the most popular tourist destinations in the world (Seraphin et al, 2018). It was added to the UNESCO World Heritage list in 1987 and has been expressed as one of the most romantic and scenic cities. The rich and famous heritage of the past centuries kept preserved almost perfectly. Venice is located on 117 small islands connected by many small bridges. The touristic heart of Venice is the San Marco neighborhood including the St Mark's Basilica. Other famous landmarks are Palazzo Ducale, also known as the Doge Palace, and the Rialto bridge. The gondolas, the traditional boats, are a symbol of Venice and nowadays held the function mainly as a tourist attraction.

Even though Venice is located on islands, it has a good connection with the mainland. The Ponte Della Libertà is a 4-kilometer-long bridge that is the only connection between the city to Venezia Mestre, on which trains, buses, and cars can travel to the city. Venezia (Santa Lucia) central station is connected to many Italian cities but is also directly connected to foreign cities such as Innsbruck and Munich. International buses reach out to plenty of destinations and offer direct connections to Paris, Krakow, Barcelona, and Bucharest. Venice has two airports, Venezia Marco Polo (VCE) and Venice-Treviso Airport (TSF). Both airports, but especially Venice-Treviso Airport offers a significant number of low-cost airlines to destinations all across the continent.

Venice is at high risk of the consequences of overtourism. Currently, the city is experiencing negative externalities in all different kinds of fields. First of all, the city is losing its inhabitants. The cause of the declining population is mainly described as a result of overtourism. The main motivations for moving out are too many tourists, lack of services and that life has become too expensive (Bertocchi & Visentin, 2019). Residents are pushed out of their homes because of

disrespectful behavior, such as noise pollution and littering, but also due to increasing prices for food and rent. Residents decide to relocate to other cities and give up their life as Venetians.

Residential homes are turned into Airbnbs and hotels, and prices are increasing, making it hard for the Veneziani to maintain their living within the city. The decline of the residents and increase in the number of tourists has been referred to as Disneyfication, museification, and gentritouristification (Guaraldo, 2021). As a result, increasing prices for food and rent, noise disturbance, and littering push pressure on the quality of life, and therefore residents decide to move to other cities (Bertocchi & Visentin, 2019). As shown in figure 10, the number of tourism bed places per resident is outnumbering the local residents multiple times, even up to more than twenty times. Bertocchi & Visentin (2019) argued that tourism pressure occurs not only around the San Marco square but also in the surrounding six neighborhoods: Cannaregio, Castello, San Polo, San Marco, Dorsoduro, and Santa Croce.

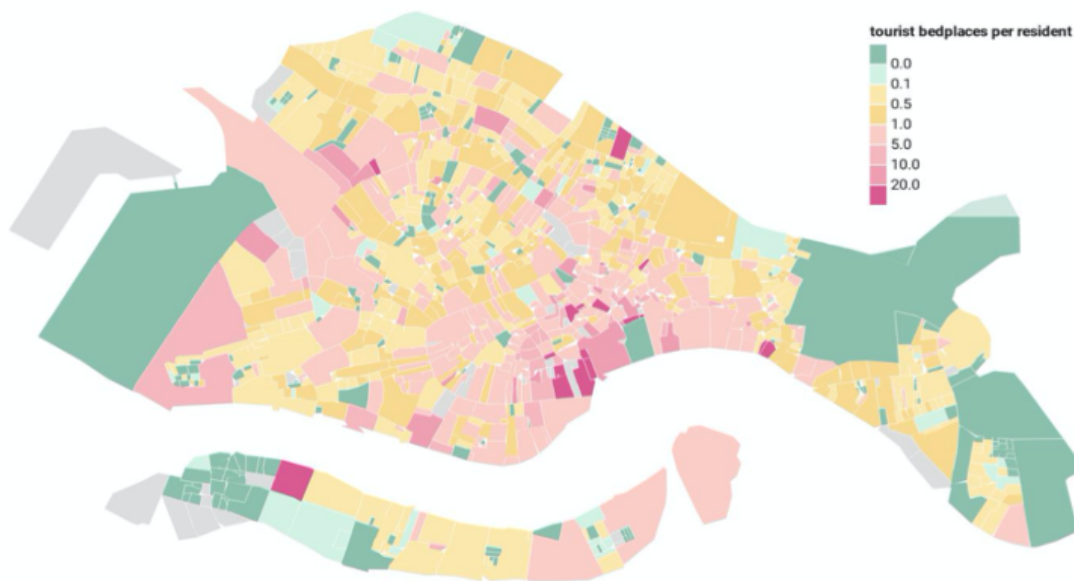


Figure 10: bed places in all types of accommodations per inhabitant in Venice's census zones (Salerno & Russo, 2020).

Lastly, the city is sinking due to several reasons. Venice is built on wooden piles and the ground on which the city is built is fragile and erodes easily due to its weight. Next to that, rising sea levels have a strong impact on the city that is built just above sea level. The fact that Venice is sinking is a process accelerated by mass tourism (Hospers, 2019). The MOSE project, which is completed in 2020, tries to protect the city against flooding up to three meters.

The city is considered a victim of its own success (Bertocchi & Visentin, 2019). In recent years, high tourism pressure and increases in prices in Venice have attracted public attention, especially regarding the many demonstrations in all kinds of forms by Venetians against tourism (Bertocchi

& Visentin, 2019). Venice is pushed into a kind of company town, where it highly relies on the tourism industry. The anti-cruise protests in Venice proposed extreme measures to control tourist inflow and regulate visitor behavior. The aim of these protests is to have a different impact not only on economic levels, but also on social, cultural, and environmental levels. This is in line with Horváth (2018) since this paper addressed that the protests of local residents in Venice emerged due to the lack of proper tourism management and the externalities caused by uncontrolled tourism growth. Furthermore, they argued that these social movements should be considered more worried about the lack of tourism management rather than anti-tourism since they do not want to be against tourism itself, but against the lack of management and growth within the tourism industry in general. Even though there is high resistance to tourism, local residents are pushed into two groups, those who are dependent on the tourism industry and those who are not. The residents that rely on their income from tourism, do not perceive tourism as threatening as other local residents. This polarization makes it challenging to create consensus on solutions.

To conclude, the Venetians experience a high level of irritation resulting from the lack of proper management and uncontrolled growth of tourism. The perception most local residents have about tourists and the conflicts that have arisen is not considered positive, but rather a strong negative sentiment. This means that local residents of Venice experience a level of antagonism, according to Doxey's Irritation Index.

Even though the government was aware of the negative impact of overtourism that caused damage to the environment and society, they did not immediately address this phenomenon because tourism is one of the most important sectors that contributed to Italy's per capita income significantly (Azzahra & Nugrahani, 2022). After the major protests in 2017, the municipality of Venice decided to take action and launched an awareness campaign named #EnjoyRespectVenezia during the International Year of Sustainable Tourism for Development (Città di Venezia, 2022). The municipality has set up 12 good rules for the responsible visitor, such as discovering the less visited areas, stimulating booking of qualified tours, and visiting Venice when it is less crowded. Furthermore, using the campaign #Detourism to promote a completely different Venice, visiting the less visited areas, to support sustainable tourism within the destination (Venezia Unica, 2022). Furthermore, the municipality gives visitors two choices, either respect the city and play by the rules, or get fined. Some of the forbidden activities in Venice are swimming or wearing swimwear, cycling and camping (Skift, 2017).

Next to changing the visitors' behavior, the municipality also acts to change the tourism industry more sustainably. This especially took a snowball effect after UNESCO took the step of recommending Venice be placed on its list of World Heritage in Danger sites and the COVID-19 pandemic. As a result, many steps have been taken. Veneto region developed a plan for relaunching tourism activities to save the city from succumbing to the threats of overtourism. The plan consists of controlling the arrivals of day-trippers, stimulating start-ups, boosting permanent residents to reverse the trend of declining population, limiting the stock of private

apartment rentals and gaining control over commercial zoning (NYpost, 2021). In 2021, the Italian government officially banned cruise ships from entering the Giudecca canal and therefore they cannot enter the old center but are restricted to Marghera port and other ports on the mainland (Guaraldo, 2021). Moreover, the local municipality is implementing ‘*contributo di accesso*’, which would be implemented from January 2023 (CNNPhilippines, 2022). This is a day ticket to enter Venice only if you are not staying the night within the city. This is because staying at an accommodation means that an overnight stay tourist tax is included. The prices vary between €3 and €10, depending on the number of visitors during that day. This experiment is unique in the world, but possible due to the city’s location on the islands, accessible by only one bridge.

According to Butler’s Tourist Area Life Cycle model, Venice is aware that the city needs to take extreme measures to regulate the tourism flows. Therefore the city is in the last stage of the model and its priority is to limit tourism and decline the massive flows of tourists.

#### E. Dubrovnik

Dubrovnik gained worldwide attention due to TV series like Game of Thrones, which made the city a popular destination to visit. Contu & Pau (2022) showed that Game of Thrones had a significant impact on the tourism arrivals in Dubrovnik. This coastal city, also known as the pearl of the Adriatic, located in the south of Croatia combines a summer holiday with a historical city trip. The Old Town of Dubrovnik is a UNESCO World Heritage Site and is most famous for its historical city center surrounded by medieval city walls that have been preserved ever since the walls were built in the 13th century. The city offers a great base to explore the surrounding environment, such as a huge variety of Croatian islands.

Dubrovnik has a somewhat unique location since it is located in an exclave, separated by Bosnia-Herzegovina from the rest of Croatia. Till 26th of July 2022, it took extra time to enter Croatia from one place to another due to the border crossings with Bosnia-Herzegovina. On that date the Pelješac Bridge opened for public use, and this bridge is passing only through Croatian territory, which will make the border crossing unnecessary. Flixbus and other buses offer routes from Dubrovnik to other Croatian cities, but also to Montenegro, Albania, Bosnia-Herzegovina, and Slovenia. The airport of Dubrovnik (DBV) has many connections all across the continent, operated by many different airlines. This also includes Transavia and EasyJet, which offer cheap flights to Dubrovnik. Ferries operate between Croatian cities and Dubrovnik, but also have a connection with Bari in Italy. It is a popular city to explore as a passenger on a cruise ship due to its attractive but small city center, which makes it easy to visit in one day.

The impact of overtourism has led to severe consequences. Local residents move out of Dubrovnik’s Old Town. The number of permanent residents of Dubrovnik’s Old Town decreased from 5,000 people in 1991 to 1,157 inhabitants (Stanchev, 2018). One of the arguments for leaving the historical center is the congestion, the lack of space in peak months and the lack of



amenities in the center for local residents. For example, there are very few grocery shops in the historic center (Stanchev, 2018). Homes are changed into holiday rental apartments. Airbnb made locals move out of the city centers, which impacted the community that lost its connectivity (Todorivić, 2019). Moreover, Todorivić identified several issues within Dubrovnik. First of all, overcrowding of the city's public places not only had an impact on the mobility of local residents, it also had an effect of wiping off the local identity from the city. The second one identified was tourists' misbehavior. Drunk tourists making noise, which contributes to the noise disturbance in general, is made visible in figure 11.

Cruise ships are a big problem for many coastal cities, such as Dubrovnik because they bring a lot of passengers who don't spend much (Todorivić, 2019). Dubrovnik covers around 80% of cruise tourism in Croatia and mainly the size of the ships can be problematic. These cruises can carry 2,000 passengers and more at the same time, which causes a lot of overcrowded spaces, especially during the summer season (Katušić, 2021). Cruise tourism causes a lot of negative impacts on the historical center. Within recent decades, there has been an increase in road traffic. Especially during the summer season, the existing road network has to deal with 40% to 60% more traffic than capacity allows, undermining residents' mobility (Camatti et al., 2020). During the summer, everyday traffic jams, overcrowded spaces, and noise disturbance create a negative image of Dubrovnik as a tourist destination (Katušić, 2021). The infrastructure of Dubrovnik is challenged by the number of tourists, especially during peak season. This includes the local water supply, electricity consumption and insufficient waste management that does not meet the required EU standards (Camatti et al., 2020).



Figure 11: recorded levels of noise in Dubrovnik above the legal limits, July till September 2018 (Camatti et al., 2020).

The consequences of overtourism generated tensions between the tourists and the local residents (Camatti, 2022). However, according to Abbasian et al. (2020), this is no argument to talk about the risk of tourismphobia or antagonism among local residents. The reason for this is that the whole city's economy relies almost entirely on tourism. Therefore, according to Doxey's Irritation Index, the local residents of Dubrovnik are considered between stages two and three; apathy and irritation. Due to seasonality, it might be the case that during the summer, the town has a higher perceived stage level than during the winter.

Like Venice, Dubrovnik is also threatened to be removed from the list of UNESCO World Heritage sites. In 2018, the local municipality decided that the number of tourists that arrive in the city at the same time would be limited by putting the cap at 4,000. Furthermore, tour operators that are organizing day trips to Dubrovnik are limited. To track visitors, the city introduced surveillance cameras to monitor tourism flows and adjust accordingly if needed. (Stanchev, 2018). Furthermore, the tourism board of the Dubrovnik region, addressed as the Dubrovnik Riviera, encourages visitors to visit the surrounding region (VisitDubrovnik, 2022). The Rural Dubrovnik-Neretva web platform promotes 84 agritourism destinations, however, this is in an early stage of development and requires more users. According to Butler's Tourist Area Life Cycle model, Dubrovnik is considered a destination in the last stage due to its rapid increase in visitors during the last decade. Due to their recent regulations, the destination focuses on declining tourism to reduce the negative externalities.

#### F. The Azores

The nine Portuguese, but autonomous islands in the Atlantic Ocean have scenery that is not the standard cup of tea when thinking of a European island. When arriving on one of these islands, the perception arises that it is not part of Europe. The mild and somewhat tropical climate makes it a favorable destination all year round. The volcanic islands, including the biggest island Saõ Miguel, offer many natural pools and hot springs. For example, the beautiful natural scenery, including large calderas that can be visited, Angra do Heroísmo on the island Terceira, a UNESCO world heritage site, and the local cuisine. The nature of the islands, compared with their remote location makes visiting the Azores something special.

Due to their remote location, these islands are not easily accessible. There are two main airports, the one on the island Saõ Miguel is the largest one and has connections with many cities in Europe, such as Amsterdam, London, Porto, and Lisbon, but also Boston, New York, and Toronto. The other airport on Terceira offers similar destinations, however, is more limited to less frequent flights. Low-cost carrier Ryanair only offers flights from these to Porto, Lisbon, and London. There are no ferry operations from the mainland to the Azores, leaving the accessibility only focusing on aviation and is therefore very limited.



The government of the Azores started to be involved in tourism activity at an early stage to anticipate on possible consequences of the negative impact of overtourism. Starting as early as 2015, the government decided to put a cap on the number of beds available for tourists (Farandwide, 2019). The main asset attracting tourism is the nature and thermal spas, therefore to avoid losing their assets, avoiding overtourism is considered a priority. Therefore, local residents do not perceive a significant number of negative externalities due to overtourism. For instance, in an article in Conde Nast Traveller, a tour leader in the Azores says: “*We don’t want to be ‘the next Iceland’*” (Sæþórsdóttir et al., 2020). Avoiding overtourism is possible due to the remote location, the difficulty to access and the strong regulations. However, even though overtourism is not perceived, this does not mean that the Azores are not vulnerable to overtourism. The archipel is identified as a risk area for overtourism (Peeters et al., 2018) and small changes such as lifting the cap of beds available for tourists could have a severe impact on being at risk of overtourism.

Therefore, there are strong regulations on bed accommodations, and the focus of the Azores is to limit tourist arrivals and their isolated location. This makes the perceived negative impact of tourism limited. According to Sousa et al. (2022), the perception of local residents toward tourism is largely considered as a positive social and cultural impact on the region. However, Jordan et al., (2020) found some evidence that local residents have different perceptions of different kinds of tourism. Cruise tourism is perceived as far more negatively than tourism in general or Airbnb tourism. Next to that, Jordan et al. (2020) argued that local residents think that the arrival of cruises was neither negative nor positive for the prices of goods and services on their islands. So far, the research shows no protest against tourists being held on the islands. For the island of Saõ Miguel, this is a sign that perhaps the future of tourism on the island should head in a different direction. Residents do not perceive a lot of negative impacts caused by tourism and are therefore considered in the first stage of ‘euphoria’ according to Doxey’s Irritation Index.

The current management models for tourism embedded sustainability principles. Therefore they focus more on the valuation, preservation, and conservation of the resources of the Azores (Castanho et al., 2020a). Next to that, Castanho et al. (2020a) addressed that tourism is considered one of three key areas in the Smart Specialization Strategy for the Azores and their focus on sustainable tourism resulted in the Azores being one of the most sustainable destinations in the world and therefore won several international awards and distinctions. This results in policies designed with a focus on sustainability, promoting conservation and preservation of ecological systems, and especially favoring rural tourism over mass tourism (Castanho et al., 2020b). Creating a win-win relationship, where the islands can be appreciated and cared for collectively and where the visitors can enjoy nature during the present, but also during the future (Jorge & Borges, 2021). The Azores are still in the early stages of tourism development and, according to Butler’s Tourism Area Life Cycle model in stage involvement or

development due to its strong regulations on tourism. The DMO has a priority to focus on slow and steady but sustainable growth rather than focus on the money of mass tourism.

### G. Ibiza

The island Ibiza, one of the Spanish Balearic Islands that consists besides Ibiza of Mallorca and Menorca, is famous for its nightlife. Many nightclubs and beach clubs attract famous DJs to play during the summer season which attracts millions of tourists, but also the rich and famous are highly interested in the vibrant nightlife of Ibiza. The island is increasing in popularity as a luxury travel destination. Next to that, the glorious climate makes the island very attractive to visit between April and October. The laid-back atmosphere, the hippie markets and the cultural and alternative art scenes that leave their mark on a global reputation for a perfect sunny holiday. Last but not least, the beaches and especially Cala Jondal, Cala D'Hort and Playa d'en Bossa beach. The beaches are often covered with soft golden sand surrounded by beautiful nature and an azure sea.

As an island, Ibiza has its limitations in the ease of accessibility. However, many low-cost carriers are offering flights from the mainland of Spain, but also from all over the continent to Ibiza Airport (IBZ), especially between April and October. Ferries operate between Ibiza and Dénia, Valencia, Formentera, Barcelona and Palma de Mallorca. Next to that Ibiza had around 163,000 tourist arrivals that visited Ibiza by cruise ship (Statistica, 2019).

As an island with more than 150,000 inhabitants, Ibiza accommodates more than three million tourists per year. The economy of the island is largely dependent on tourism (Ramón-Cardona et al., 2021). Due to its many visitors, increasing water demand and wastewater production put the fragile balance of the ecosystems in danger (Pérez et al., 2020). The tourism industry is well known for its heavy water consumption, and this has numerous conflicts with local communities. As a consequence, the current resources available on the island are not sufficient to meet the water demand of the resident population at this destination, especially during the summer season (Pérez et al., 2020). The impact of seasonality has more negative consequences such as an exceedingly crowded island and that prices are immoderately inflated during this season (Winberg, 2021). Airbnb is largely present in Ibiza. The home-sharing platform has one rental apartment for every thirty residents (Reuters, 2017). This puts a lot of pressure on some villages and neighborhoods that are experiencing a high share of Airbnbs.

The attitude of local residents towards tourism can be divided into three categories: supporters, opponents and light opponents, whereas the primary motivator to be a(n) (light) opponent is the noise perceived in the neighborhood (Zucco et al., 2020). Most opponents have a negative perception of the all-inclusive resorts that Ibiza has to offer, due to the harm caused for the nearby bars, cafes and restaurants. These tourists hardly ever leave the hotel and tourists show little to no interest in the destination (Ramón-Cardona et al., 2021). As a result, local residents

can be perceived between stages two and three in terms of Doxey's Irritation Index. This might be different in low season, whereas in high season the island is visited the most.

Ibiza's drive to find a balance between economic gains and costs is challenging but resulted in an increasing number of regulations to accommodate the sustainability of the island. For example, the island introduced a Sustainable Tourism Tax that varies between €0.50 and €4 per day, depending on the time of year and tourist accommodation. This tax is designed to support the island's natural resources (Euronews, 2022b). Next to that, some measures have been taken such as the ban on pub crawls, happy hours and party boats in San Antoni de Portmany, one of the most popular destinations on the island (Travelpulse, 2020). Furthermore, the sale of alcohol after 9:30 PM and jumping in the pool from their balconies are banned and bars can no longer promote free alcohol. The Balearic Islands implemented regulations to penalize landlords for illegally renting apartments to tourists with fines up to €40,000 (Reuters, 2017). According to Butler's Tourism Area Life Cycle model, Ibiza is considered in the last stage of the model. To conclude, there is not much evidence according to the literature that the municipality of Ibiza is trying to reduce the number of visitor arrivals. As a consequence, the rejuvenation of the tourism of Ibiza is based on high-end tourism growth.

#### H. Iceland

With less than 350,000 residents, the country Iceland is considered a low populous country. Nevertheless, many foreigners are interested in visiting this Nordic country. The diverse landscape provides many highlights to explore, such as glaciers, geothermal hot springs, and stunning waterfalls. Next to that, due to its nordic location, the possibility exists to see the northern lights, as well as the midnight sun. In addition to visiting Reykjavik, the northernmost capital city in the world, many tourists visit the Golden Circle. The Golden Circle consists of many famous sights such as the Gullfoss waterfall, Geysir geothermal area, and Thingvellir National Park.

Iceland is considered a remote island with only one ferry from Denmark to Iceland once a week. Tourists visit Iceland mainly by plane to Keflavik Airport (KEF). Iceland can be visited through a few low-cost airlines, such as Wizz Air (Milan, Gdansk, Venice, London, etc.) and EasyJet (London, Edinburgh, Manchester, etc. Finally, Iceland is also visited by cruise passengers. In 2019, approximately 188,000 cruise passengers arrived at the port of Reykjavik (CruiseIcelandStatistics, 2022). Their arrivals are largely not limited to the one-stop in Reykjavik. In 2019, 146,000 cruise passengers arrived in Akureyri and about 98,000 in Ísafjörður.

The tourism industry in Iceland began to grow after the eruption of the Eyjafjallajökull volcano that impacted Europe in 2010, resulting in the cancellations of 95,000 flights (Skift, 2019). It has put Iceland on the map and increased many people's interest to visit the country. Next to that, it

was relatively affordable to visit Iceland due to the country's weak currency because the financial crisis in 2008 impacted the country's economy significantly (Skift, 2019). Iceland tackled the negative news about the country through an "Inspired by Iceland" campaign. It is considered a creative marketing campaign supported by favorable exchange rates and increased flight capacity with a lucrative layover program that stimulated the tourism industry to grow (Honey & Frenkiel, 2021). The growth of tourism in Iceland was considered limitless. In 2017, tourism revenue accounted for 42 percent of Iceland's economy (Skift, 2019). Iceland had to deal with around two million in 2019. Iceland is one of the destinations that experiences the discourse of overtourism, but the distinction is that tourism there is based on visiting natural areas (Sæþórsdóttir et al., 2020). Many of Iceland's natural highlights are popular on bus tours nowadays but were once untouched natural wonders enjoyed in solitude by local families. Crowds are damaging the fragile moss in Thingvellir National Park and causing damage to various lava fields (ResponsibleTravel, 2022). Overtourism is not happening all over the island but happens in certain parts of the country, for example in Reykjavik, the Golden Circle, and Ísafjörður, overtourism can be perceived. Ísafjörður is Iceland's third busiest port for cruise ships. The town, consisting of around 3,000 inhabitants, is small, and therefore crowding occurs easily. This is likely to also affect local users of the tourism facilities (Regan, 2020). Overcrowding at these most popular tourist destinations in Iceland is a negative consequence for visitors and this is the case not only during the summer but also during the winter (Sæþórsdóttir et al., 2019). The rise of tourism also had the consequence that prices began to rise for local residents (Skift, 2019). The growth has resulted in the lack of accommodation supply due to an unexpectedly large number of tourists and as a result, this contributed to pressure on the local housing market (Sutherland & Stacey, 2017). Furthermore, this working paper addressed that companies like Airbnb blossomed as hotel room capacity has not kept pace with demand. This resulted in some apartment blocks in Reykjavik having switched from being residential to being given over largely to short-term holiday rentals.

Even though Icelanders were concerned about the effects of tourism, local residents here never organized opposition and social movements against tourism (Sæþórsdóttir et al., 2020). This does not imply that overtourism is not present. In Ísafjörður, Doxey's Irritation Index would suggest an inevitable shift towards antagonism among local residents (Regan, 2020). However, this is not the case yet and is not in line with the rest of the island. Local residents expect that tourists are like themselves when traveling; curious, somewhat disoriented, and not always aware of local cultures or the area to know where to go and how to behave (Helgadóttir et al., 2019). Moreover, this paper also addressed that local residents recognize tourism's economic and social importance and are proud of their place as a destination. The locals in Ísafjörður benefit from the industry since it provides jobs and cultural enrichment, but it is also a way to limit emigration from the area (Stith, 2018). According to Doxey's Irritation Index, besides that there might be some concerns, the local residents are still in the first stage; euphoria towards tourism.

VisitIceland, the DMO is integrating sustainability in their promotional activities, for example, to stimulate visitors to reduce their carbon footprint, provide information and tips on how to rent and use an electric car, and reward sustainable-friendly businesses with the Vakinn certificate (VisitIceland, 2022). They actively promote drinking their tap water instead of buying bottled water and stimulate visitors to take the 'Iceland Pledge', a behavioral campaign with seven rules that focuses on being a responsible visitor and respecting the natural environment of Iceland (VisitIceland, 2022). Also, the government implemented restrictions on the tourism industry. The government introduced in 2017 a limit for Airbnb rentals for an individual renting up to 2 flats and up to 90 days per year (Sutherland & Stacey, 2017). According to Butler's Tourism Area Life Cycle model, Iceland is addressed as a developed destination for tourism rapidly and is in the last stage of the model. Currently, the destination works on the stabilization of further tourism development (Kristjánsdóttir, 2016).

## **5. SIMILARITIES AND DIFFERENCES**

This chapter describes the similarities and differences of the different case studies, in terms of overtourism according to the two models. First, some major externalities of overtourism are addressed, followed by regulations made by destinations. These are in line with but not limited to the indicators provided by Peeters et al. (2018). Lastly, a matrix is provided that shows an overview of the theoretical models.

### **A. Tourist density**

Whereas the center of Berlin has to deal with much more tourists than Dubrovnik, the perceived disturbance of tourists is significantly higher in Dubrovnik. The carrying capacity of the center of Berlin is much greater than that of Dubrovnik because the city is much more upscale and tourists use high-capacity facilities. Berlin can cope with higher visitation and therefore the focus primarily lies on tourism growth, whereas Dubrovnik, but also Amsterdam, and Venice focus on promoting the visitation of neighboring areas. Amsterdam Bezoeken, Holland Zien is a great and also successful example of releasing the pressure on Amsterdam's city center. This regulation is mostly used in urban cities where space is limited and highlights are close to each other rather than destinations that are visited because of their nature, such as the Azores and Iceland.

### **B. Cruises and day visitors**

Following on from tourist density, cruise ships contribute significantly to tourist density. Because cruise ships can carry many passengers, they simultaneously release them into the city center of the destination, for example, Barcelona, Dubrovnik, Amsterdam, and Venice, but to a lesser extent also Ibiza and Iceland. Whereas Barcelona focuses on higher cruise ship taxes, Amsterdam and Venice are forbidding large cruise ships to arrive at the port in the city center. Dubrovnik implemented a cap on the number of cruise passenger arrivals. Closely related to cruise ship passengers, but not limited to it, day visitors are contributing largely to the number of

passenger arrivals in a destination, but they do not contribute to the local economy as much as tourists that stay for a longer time. In Barcelona, the day visitors are considered 50% of the total number of tourists that visit Barcelona (Murillo et al., 2013), however, they contribute to around 10% of the local economy. Some destinations are focusing on the quality of tourism, rather than just the mass numbers. Venice is implementing their entrance fee at the beginning of 2023 for day visitors as compensation since they are not paying tourist tax, which is normally paid for overnight stays. However, day visitors are using the local amenities that currently are being paid by the local residents. The unique location of Venice made this possible to implement but it is not doable for cities like Berlin or Amsterdam due to its well-connected location.

### C. Share of Airbnbs and a limited number of accommodations

Airbnbs are more segregated across the city and mainly located in residential areas, compared to hotels and hostels. It directly affects the livelihoods of many citizens who live in peaceful neighborhoods and are not accustomed to higher levels of noise pollution and vibrancy from tourists at night (Peeters et al., 2018). Due to the reason that many of these destinations perceive a certain extent of overtourism due to Airbnbs and are implementing regulations to reduce their impact. Whereas the Azores took preventative actions to avoid the negative implications of overtourism, most destinations realized the negative externalities of overtourism too late. These destinations also considered the economic importance of tourism and aimed to find a balance between the positive and negative consequences of tourism. Most destinations focus on putting a cap on the number of nights short stay accommodations may be rented, to avoid making it a profitable market. Some destinations implemented a register for Airbnbs to tackle illegal renting. It goes as far as Amsterdam aims for, to prohibit Airbnbs even in some neighborhoods, without success.

### D. Seasonality

Seasonality in tourism involves a higher level of tourists at a destination for a certain period of a year (Sæþórsdóttir et al., 2019). This can be the case during the winter season, which is the high season for ski destinations, but the majority of the destinations, including these case studies, have a high peak during the summer season when the weather is at its best and people tend to have more leisure time than during the winter. This is especially the case for destinations with a beach which is the case for many destinations near the Mediterranean Sea, like Barcelona, Ibiza, and Dubrovnik. During the winter, potential tourists do not find it attractive to visit destinations like Ibiza and other beach holiday destinations because it is too cold for visiting the beach. These destinations are urged to earn their income in a shortened time to sustain their levels of income. However, for Berlin or Iceland, visitation is more a whole-year-round concept with a peak during the summer season that is not as extreme as in the other destinations.

### E. Local residents' resilience

Interestingly, there are three different approaches to how local residents react to their visitors. Whereas in some case studies, there was a high resilience of local residents towards their visitors, in other destinations there was a more friendly approach towards tourists. In Iceland for example, locals were more likely to help tourists out. This was not the case for Barcelona and Venice where locals perceive strong negative externalities towards the high number of tourists. Lastly, inhabitants of some destinations such as Ibiza and Dubrovnik are aware of the negative impact of tourism, but they also know that they are largely dependent on tourism. Trying to decline this number would hurt its local economy hard.

### F. Tourist behavior campaign

#EnjoyRespectVenezia is a leading example of a tourist behavior campaign and was introduced in 2017 in Venice to increase the awareness of acting responsible and respectful as a tourist. Currently, several destinations implemented a tourist behavior campaign. In Ibiza, they put strict regulations on excessive alcohol use. Furthermore, the Iceland Pledge shows that DMOs are aware that it is also their responsibility to promote responsible behavior. Other destinations are not actively implementing some kind of behavioral campaign at the moment. Nevertheless, they may consider introducing it as well.

### G. Comparison matrix

	<b>TALC</b>	<b>Irritation Index</b>	<b>Policy</b>
<b>Amsterdam</b>	6	2-3	Degrowth
<b>Berlin</b>	5	2	Growth
<b>Barcelona</b>	6	4	Stabilization
<b>Venice</b>	6	4	Stabilization
<b>The Azores</b>	2-3	1	Growth
<b>Dubrovnik</b>	6	2-3	Degrowth
<b>Ibiza</b>	6	2-3	Growth
<b>Iceland</b>	6	1	Stabilization

Table 2: comparison matrix.

As table 2 shows, the case studies show different levels of the Tourist Area Life Cycle model. Most of the case studies are concentrated in the last stage of this model, except for the Azores and Berlin. Berlin perceives overtourism, however, there is still room for further development.

The Azores are still working on the development of the tourism industry. The negative impact of overtourism is very small due to its strong regulations on the tourism sector. However, the Azores are still vulnerable to overtourism. Lifting the cap on tourism beds or having more low-cost carriers flying to the Azores can have a dramatic change in the number of visitors.

The Irritation Index shows a very varied number of perceived irritations by local residents per destination. Where it might be logical that the Azores have a low irritation index, Iceland also has a positive attitude towards tourism. It results that local residents see tourism as important, but also try to put themselves in their perspective. Overtourism is perceived in some parts, but residents take this into account in their daily activities. Whereas Berlin they have a relatively positive attitude towards tourism, they perceive that the tourists are blending into their city quite well. Residents in Amsterdam have irritation towards tourists, however, this is mostly concentrated within the city center. Overtourism has its impact in Dubrovnik and Ibiza, but local residents acknowledge the economic benefits. This is not the case in Venice and Barcelona, where overtourism is considered a severe problem for the city, but also these destinations know that the tourism industry has significant economic importance. As a result, and taking all pros and cons into consideration, Berlin, the Azores, and Ibiza are aiming for growth, but they have different motivations to do so. Berlin has room for more tourist flows, whereas Ibiza is relying on high-end tourism which results in a lot of economic benefits. Other destinations are trying to see COVID-19 as a reset. Venice, Barcelona, and Iceland aim to reduce the impact of tourism but maintain the level of tourism inflows. Also, these destinations acknowledge the economic benefits but are trying different regulations to reduce the impact of overtourism. Only Dubrovnik and Amsterdam are focusing on a decrease in tourism. Whereas Amsterdam tries to put a cap on the total number of tourist arrivals per year, Dubrovnik implemented a cap on the passenger arrivals of cruises.

## **6. CONCLUSION**

The wave of anti-tourists protests in 2017 and the COVID-19 pandemic provided opportunities to rethink current policies and strategies on tourism. There is slowly a tendency to include the impact of tourism as a whole, rather than focusing on just the economic benefits. Many destinations have some regulations when it comes to avoiding overtourism, for example, restrictions on the number of Airbnbs within a destination. There are many different ways to tackle the severe impact of overtourism. Whereas some destinations try to maintain their numbers of tourist arrivals, other destinations aim for growth or degrowth. Tourist density can be considered more as an issue in destinations with a higher concentrated city center. Cruises and day visitors can have a lot of impact on the destinations, however, their economic benefits are limited. Regulations such as taxes on cruise arrivals at the destinations, a daily cap on cruise passengers arrivals, or even a day entrance fee are implemented or will be implemented soon. Whereas destinations choose different approaches, many consider this as an issue for their destination. Most destinations have regulations on Airbnbs to reduce their impact, but it differs highly to which extent the measurements are restricting the use of the platform. Seasonality is a



huge concern in summer holiday destinations that are mainly earning their income in a short-term period. Local residents have different points of view when it comes to the perception of tourists. Not every destination chose a behavioral campaign for example, whereas a good strategy can stimulate respectful behavior of tourists and reduce the negative externalities.

Overall, this paper shed light on the different aspects of the case studies. Whereas some regulations are unique like the entrance fee, some destinations can adapt and learn from each other. Higher city taxes can stimulate finding accommodations outside the city area in Amsterdam, but can also spread the tourist more across the city. The PEUAT plan for Barcelona induces a similar approach. Whereas spreading the tourists more among the destination is a good or bad idea, not much can be said about this. Different approaches can work well in one area, whereas being implemented in another can be unsuccessful. Regulating tourism is outweighing economic gains and the negative externalities, but some destinations are not as economically dependent on tourism as others. Therefore, if a destination perceives overtourism, the dependency on tourism should be reconsidered. Building tourism back strong and reducing the negative impact, is something all DMOs and policymakers should aim for. The fact that destinations are struggling with overtourism in a somewhat similar way is a reason to work together with others more closely. DMOs and policymakers need to seek opportunities to reduce the negative impact of tourism, but they have to make sure all stakeholders need to be heard. Finding a balance between the economic benefits and negative impacts of tourism is the double-edged sword that comes with tourism.

## **7. LIMITATIONS AND FURTHER RESEARCH**

The tourism industry perceives turbulent times. At the moment of writing, the COVID-19 pandemic is not over, nevertheless, the tourism industry is recovering fast due to fewer travel restrictions. Recently, many policies have been implemented or will be soon, but their impact cannot be measured yet. Therefore, the impact of many policies is unknown. The fact that many regulations are implemented during the pandemic leaves no room to draw conclusions from it. Some cases, like Venice, are planning to implement rigorous measurements such as the entrance fee which this paper is not yet able to address its success rate. Future research needs to find out if these measures are helpful to reduce the impact of overtourism. A limitation for this case study is the lack of a systematic and consistent overview of the impact of overtourism between cases within the literature. Every destination has its research field, and that makes their profiles different as well. Whereas for the case study Amsterdam the neighborhoods that had to deal with overtourism are clearly identified, this was much harder for Ibiza. There is more research needed to make a better comparison between destinations. This can be arranged by future research, but also by a collaboration between different DMOs and policymakers. This provides DMOs and policymakers better guidance to compare other destinations with themselves and allows them to tackle overtourism by using measures that other destinations use that could be applicable to them. Overtourism has a drastic impact on local societies in all kinds of ways. Researching overtourism is a large process that leaves plenty of room for further discussions and research.

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