

Exploring how perceived tourism impacts evolve over time (2009-2019) in an era of uncertainty: Economic crisis, host-guest interactions, and Airbnb

Abstract

Cross sectional studies focusing on a single setting are typically not sufficient in explaining how/why residents arrive at certain perceptions of impacts and attitudes towards tourism.

This study aims to explore how the impacts of tourism are perceived by local residents over time (2009 - 2019), potentially shaped by the transient global and local contexts (economic crisis, Airbnb expansion); and frequency of exposure to tourists, explained via the Mere Exposure Theory (MET). MET suggests that repeated exposure to a stimulus or people, is a condition for the enhancement of the attitude towards it. Targeting Kavala residents in Greece, survey data were collected in three different points in time (2009, 2011, 2019), coupled with 21 in-depth interviews with local residents conducted in 2019. Results revealed that residents' perceptions of tourism impacts are dynamic and fluid, greatly affected by the macro and micro economic environment; the rapid expansion of Airbnb in residents' living areas; and the subsequent increasing interaction with tourists. Implications for theory and practice along with limitations and future research directions are also discussed.

Keywords

Longitudinal study; residents' attitudes; guest-host interactions; economic crisis; Airbnb; mixed methods research

1. Introduction

Tourism largely relies on the support and goodwill of local residents for sustainable planning, development and marketing (Maruyama, Keith, & Woosnam, 2019; Ribeiro, Pinto, Silva, &

Woosnam, 2018; Stylidis, Biran, Sit, & Szivas, 2014). This is well reflected in the vast volume of studies assessing residents' perceptions of the impacts of tourism and their attitudes towards tourism (for a review see Hadinejad, Moyle, Scott, Kralj, & Nunkoo, 2019; Sharpley, 2014), commonly studied in line with the triple bottom line approach: economic, socio-cultural and environmental (Jurowski, Uysal, & Williams, 1997). Moving beyond the descriptive nature of the first wave of studies that confined themselves in documenting the various impacts of tourism (e.g., Haralambopoulos & Pizam, 1996), most recent research attempts to explain how/why residents' perceptions and attitudes develop within the tourism context (e.g., Ribeiro, Valle, & Silva, 2013; Ribeiro et al., 2018). Research focusing on the host-guest dyad to predict residents' attitudes towards tourism, in particular, includes Woosnam and colleagues' work (Maruyama et al., 2019; Woosnam, 2011; 2012; Woosnam, & Aleshinloye, 2015) on the degree of emotional solidarity residents develop with tourists; Aleshinloye et al.'s (2020), Joo, Tasci, Woosnam, Maruyama, Hollas and Aleshinloye's (2018) work on social distance; Cheung and Li's (2019) study on visitor-resident relations in developing resilience; and Eusebio, Vieira and Lima's (2018) research on resident-tourist interactions. Implicit or explicit in such works is that the host-guest relationship and the subsequent attitudes residents develop towards tourism seem to be also linked to their level of exposure to each other.

The level of exposure to a stimulus has been identified as instrumental in influencing individuals' attitudes and perceptions towards objects or people in studies conducted in several disciplines including marketing and advertising (Janiszewski, 1993; Ruggieri & Boca, 2013), social anthropology (Flores et al., 2018), and linguistics (D'Souza et al., 2020). Exposure is defined as the extent to which we encounter a stimulus; as the Mere Exposure Theory (MET) postulates, repeated exposure to a stimulus or people, is a condition for the

enhancement of our attitude towards it (Zajonc, 1968). Previous research supports that people or objects frequently encountered are more positively assessed (Flores et al., 2018; Tom, Nelson, Srzentic, & King, 2007). Flores et al. (2018), for example, who explored whether individuals' attitudes about transgender people are influenced by mere exposure to information and images of faces of transgender people, supported that mere exposure can be a source of prejudice reduction towards this group of people. Hekkert, Thurgood, and Whitfield (2013) also confirmed that when an individual is exposed to a stimulus, the attractiveness of an object increases with familiarity. Despite MET's merits and application in several fields, it has not been applied in the context of residents' perceptions of the impacts of tourism and attitudes towards tourism (Hadinejad et al., 2019). Exposure, engagement and interaction with visitors could result in the development of positive attitudes towards tourists and tourism, or the opposite (Eusebio et al., 2018; Raymond & Hall, 2008).

Meanwhile, new phenomena have emerged that intensify, challenge or disrupt such guest – host interactions and exposure, further determining the way the impacts of tourism are perceived, including: a) the widespread distribution of Airbnb in the accommodation sector (see Dolnicar & Talebi, 2020; Suess et al., 2020; Yeager, Boley, Woosnam, & Green, 2020); and b) the global economic crisis of 2007-2008 (considered one of the five worst financial crises) with a loss of over \$2 trillion in the global economy, which caused a decrease in international tourist arrivals by 4 percent at global level, and a 6 percent decline in tourism revenues in 2009 (UNWTO, 2013). Such crisis negatively affected tourism in many countries worldwide (see Boukas & Ziakas, 2013; Hateftabar, & Chapuis, 2020; Stylidis & Terzidou, 2014). The location of transient vacation rentals (TVRs) such as Airbnb properties in residential areas rather than commercial zones intensifies residents' exposure and interaction with tourists in both public and private spheres (Jordan & Moore, 2018). Although a recently

growing body of research is paying attention to TVRs, limited research exists on residents' perceived impacts of TVRs on neighbourhoods and communities (Heo, 2016; Tussyadiah & Sigala, 2018; Yeager et al., 2020). Economic crisis too has been reported to shape perceptions of tourism impacts in diverse manners; the economic, social and environmental costs of tourism are usually underestimated, whereas the corresponding benefits are overestimated (Garau-Vadell, Gutierrez-Taño, & Diaz-Armas, 2018). Similar to TVR research, little is also known about the impact of the economic crisis on residents' attitudes towards tourism (Hateftabar & Chapuis, 2020).

In methodological terms, the vast majority of studies conducted on residents' attitudes towards tourism and the factors determining such attitudes have been cross-sectional. Case-based cross sectional studies that focus on a single setting are typically not sufficient in explaining how/why residents arrive at certain perceptions and attitudes over time (Garau-Vadell et al., 2018; Huh & Vogt, 2008). Such studies also often focus on local (e.g., state of local economy), rather than global effects like the world-wide economic crisis or Airbnb development (Sharpely, 2014). Contrary, longitudinal or repeated cross-sectional studies, as the one proposed here, allow for a better understanding of this relationship over a period of time, unpacking various factors that need to be considered.

Kavala, a city in Greece (Appendix) (estimated population 55,325), served as the study setting for the following reasons: First, international tourists' nights in the city have quadrupled from 51,998 in 2010 to 222,383 in 2018 (Hellenic Chamber of Hotels, 2018). Second, the tourism supply side has radically changed, fully reflecting the sharing economy era (see study context section 3.1). Next, in the period 2008-2017 Greece experienced a severe economic crisis, and Kavala was not an exemption, with unemployment rate, for

example, exceeding 27 percent in 2012. Last but not least, the potentials for the city to attract larger volumes of visitors, along with the impacts that such developments invoke, have drastically increased as the historical site of Philippi, in the outskirts of Kavala, was declared an UNESCO world heritage site in 2016.

This study, therefore, aims by means of a mixed-methods approach to explore how: a) the impacts of tourism are perceived by local residents over time (2010-2019); and b) potentially shaped by the transient global and local contexts (economic crisis, growing accommodation supply via TVRs); and c) whether (and how) frequency of exposure to tourists determines locals' attitudes towards tourism. To address this aim, the objectives of this study are threefold: 1) identify how local residents' perceptions of tourism impacts have evolved over the last 10 years (2009-2019) via quantitative measurement over three points in time (2009, 2011, 2019); 2) investigate how the economic crisis and the subsequent growth of TVR (Airbnb) supply in the area shape residents' perceptions and attitudes towards tourism, via 21 in-depth qualitative interviews with local residents; and 3) explore how resident-tourist exposure and interactions further affect locals' attitudes, based on the results obtained in the qualitative study.

More specifically, repeated cross-sectional data based on questionnaire surveys that captured local residents' perceptions of tourism impacts and attitudes towards tourism were used. Data were collected at three points in time in Kavala: at the beginning of the economic crisis in 2009 (481 surveys); during the economic crisis in 2011 (317 surveys); and post-crisis in 2019 (321 surveys). To further explore the perceived impacts of tourism and investigate host-guest exposure and interactions, 21 in-depth qualitative interviews were conducted with local

residents of Kavala in August/September 2019. Thematic analysis was used to identify the key themes that emerge from the interviews.

The study contributes to a better understanding of the perceived impacts of tourism, while also applying a new theoretical framework (MET) in the study of residents' attitudes towards tourism development, and explores the broader context within which such perceptions and attitudes develop. Both Monterrubio (2016) and Garau-Vadell et al. (2018) have recently underlined this research gap, as studies trying to explain why/how certain residents' attitudes are constructed over time are rare. Such knowledge will benefit in practice destination management organizations and other stakeholders to effectively plan for sustainable tourism development (Joo et al., 2018), as residents' disagreement can set in danger such plans (see for example the riots in Hong Kong). Findings will not be limited to the strict boundaries of Kavala or Greece, as the underlying phenomena seem to be universal; economic crisis has affected a range of countries in Europe (Spain, Portugal, Ireland) and Latin America (Argentina) (Garau-Vadell et al., 2018), while Airbnb operates on a global scale transforming the hospitality market and the tourism product (Dolnicar & Talebi, 2020; Yeager et al., 2020).

2. Literature Review

2.1 Theoretical framework in studying residents' attitudes towards tourism

The vast majority of previous research has either been a-theoretical (Hadinejad et al., 2019), or applied social exchange theory (SET) to explain residents' attitudes towards tourism based on the benefits and costs incurred by the industry (Sharpley, 2014). In line with SET, residents are likely to support tourism development as long as they believe that the expected benefits exceed the anticipated costs (Ap, 1992; Nunkoo & Gursoy, 2012). In economic terms, such benefits include investment and employment, increased standard of living and

state revenues (Dillette et al., 2017; McGehee & Andereck, 2004). Among the economic costs, inflation in prices of goods/services and/or land/houses is considered the most prominent one (Cui & Ryan, 2010). As for socio-cultural benefits, tourism promotes inter-cultural understanding (Yilmaz & Tasci, 2015), fostering feelings of emotional solidarity among residents and tourists (Woosnam, Stylidis, & Ivkov, 2020), and creates opportunities for shopping and recreation (Byrd et al., 2009). On the negative side, tourism disrupts everyday life and the provision of local services, and generates social issues such as crime and alcoholism (Terzidou et al., 2008). In environmental terms, tourism is often linked to pollution, noise, overcrowding, and traffic congestion (Byrd et al., 2009; Nunkoo & Ramkissoon, 2010), or is seen as catalyst for urban regeneration and preservation of the built and natural environment (Oviedo et al., 2008).

Although study results support SET - as the more positive the impacts of tourism are perceived, the more residents are willing to support tourism development (Gursoy et al., 2010; Stylidis et al., 2014) - such an approach portrays the human decision making process as being too systematic and rational (Nunkoo & Ramkissoon, 2009); often perceived as a monetary, transactional exchange, ignoring the social nature of guest-host interactions (Woosnam & Norman, 2010). It is, therefore, concluded that SET alone is not capable of explaining such complex human phenomena (Yeager et al., 2020). Other theoretical frameworks used to enlighten residents' attitudes include, among others, community attachment theory (McCool & Martin, 1994), emotional solidarity theory (Woosnam, 2012; Woosnam & Aleshinloye, 2015), and social representations theory (Fredline & Faulkner, 2000). Empirical evidence, however, on the application of these theories in tourism remain rather sporadic (Hadinejad et al., 2019).

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A large volume of researchers have further argued that tourism development and residents' perceptions and attitudes are not stable, as exemplified in Doxey's (1975) Irredex and Butler's (1980) Tourism Area Life-Cycle frameworks. These models suggest that as tourism development expands, residents' attitudes will go through several stages, ranging from positive like euphoria (early stages), to apathy or antagonism (later stages). Such linear progression from positive to negative reactions is vulnerable to criticism though, as it seems to be deterministic, largely attributing change in attitudes to the increased volume of tourists.

Researchers have classified the range of factors with an effect on the formation of residents' attitudes towards tourism development as intrinsic and extrinsic (Fredline & Faulkner, 2000; Sharpley, 2014). Despite the range of potential determinants explored, some factors have received far less attention including the economic crisis (Hateftabar, & Chapuis, 2020; Stylidis & Terzidou, 2014), the TVRs - best reflected in the expansion of the Airbnb (Suess et al., 2020; Yeager et al., 2020) - and guest-host interactions (Aleshinloye et al., 2020; Eusebio et al., 2018; Joo et al., 2018). Aside, past studies are largely homogenous regarding the methodological approach used. The vast majority has followed a quantitative data collection and analysis (Sharpley, 2014), varying from descriptive statistics and regression to structural equation modelling (e.g., Nunkoo & Gursoy, 2012; Ribeiro et al., 2018). As destinations are rather diverse depending on their distinctive characteristics (formed by geographic, socio-economic or tourism elements), different results are often obtained, highlighting the complexity attached to studying phenomena within the context of destinations. Sharpley (2014), Monterrubio (2016), and Jordan and Moore (2018) have criticised the overdependence on quantitative tools, as there are only few studies exploring how/why impacts are perceived by residents using qualitative or mixed methods approaches. Another methodological drawback observed is that most of previous research was cross-sectional,

offering snapshots of perceptions of impacts captured on a specific timeframe (Garau-Vadell et al., 2018; Getz, 1994; Huh & Vogt, 2008). There is thus a need for new theories to supplement SET, along with greater attention to how attitudes evolve over time, and the factors that determine such attitudes including the economic crisis and Airbnb, explored using quantitative and qualitative tools. The paper now shifts its attention in presenting the application of a new theoretical framework - MET – which is capable of explaining residents' attitudes towards tourism.

2.2 Mere Exposure Theory

Responding to recent calls for additional theoretical frameworks to assist in explaining residents' attitudes towards tourism, this study applies the Mere Exposure Theory (MET) initially developed by Zajonc (1968). In his seminal work, Zajonc (1968) documented that exposure to an increasing stimulus led people to rate this stimulus more favourably, suggesting that such exposure is a condition for the enhancement of our attitude towards it. By "mere" exposure Zajonc (1968) defined a condition making the stimulus accessible to perception. What is implied is that repeat exposure enhances our learning about the stimulus, which in turn increases favourability towards it; this favourability or liking as such seems to be a result of recognition and familiarity (Montoya et al., 2017). In Zajonc's (1968) point of view, mere exposure diminishes people's uncertainty with a novel stimulus, an instinctive fear response. Overexposure, however, may also generate a negative effect and evaluation of the stimulus under consideration (Miller, 1976). Several researchers explored whether liking of a stimulus decreases after a certain number of exposures, with Bornstein's (1989) and Montoya et al.'s (2017) meta-analyses concluding that there is an inverted-U shaped relation for the mere exposure effect.

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Studies in various fields have offered empirical support to MET. Mrkva and Boven (2020), for example, reported that repeated exposure to stimuli increased liking and salience, making evaluations not only stronger, but also more emotionally intense. In the context of education, Nunez (2018) examined the application of the MET on behaviour among college students, reporting that students who are exposed to higher amounts of fictional college media are more likely to have positive attitudes towards partying and socializing in college. Similar findings were reported in fields such as consumer research (Tom et al., 2007) and tourism (Iordanova & Stylidis, 2019; Kim et al., 2019). Kim et al. (2019), for instance, concluded that mere exposure to agritourism leads tourists to change their agriproduct purchasing patterns after the experience. Similarly, frequent exposure to a brand's advertisement, was found to increase consumers' favourable perceptions/preference of it (Tom et al., 2007). Tom et al. (2007) though concluded that the mere exposure effect increased object preference but not necessarily object valuation.

Within the destination marketing context, Iordanova and Stylidis (2019) reported that the 'intensity of the visit' - measured as the volume and frequency of attractions and events visited or attended - had a positive effect on international tourists' image of Linz, Austria. However, Iordanova and Stylidis' (2019) study did not consider tourists' interaction with local residents, but only with tangible assets of the destination, thereby neglecting the vital role of human interaction in shaping attitudes. Altogether, previous studies, as summarised in Bornstein's (1989) and Montoya et al.'s (2017) meta-analysis of 134 and 81 studies respectively, identified a reliable effect of exposure on liking, with moderators including exposure duration, stimulus type, etc.

MET, therefore, offers new opportunities for understanding how residents' attitudes are shaped as a result of increasing exposure and interactions with tourists on a personal basis.

Tourists and residents do not only co-exist in or even compete for public places (as Doxey's irridex framework advocate), such as beaches, but may also develop quality relationships through such repeated interaction and exposure. Although cross-cultural understanding is an important outcome of such interactions, it is still unclear as to whether or not such exposure and interactions lead to understanding or misunderstanding among the two parties (Raymond & Hall, 2008; Simpson, 2004).

2.3 Mere exposure and guest-host interactions

The current study proposes that resident-tourist interactions can influence residents' attitudes towards tourism via two mechanisms: contact and mere exposure, which supplement well each other. Exposure, at first, does not presuppose contact, but can gradually lead to it, which is considered more deep and meaningful. The inverted-U shaped relation of the mere exposure effect identified in previous meta-analysis, in fact, suggests that after repeated exposure, favourability of the stimuli becomes more stable, while over-exposure produces a decline in its assessment (Montoya et al., 2017), which is a key difference from the principles of the contact theory.

Tourism is largely about human relationships and interactions; following Reisinger and Turner (2003, p.37) interaction is defined as "the personal encounter that takes place between a tourist and a host." Such interactions commonly are short, superficial and non-repetitive (Eusebio & Carneiro, 2012; Kastenholtz et al., 2015). The nature and quality of interaction are known to determine the experience of both parties (Bimonte & Punzo, 2016). In line with Luo et al. (2015), encounters between residents and tourists are a central component of the

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tourism experience, further determining tourists' and residents' satisfaction (Kastenholz, Carneiro, & Eusebio, 2018), and often evolving into something less superficial and temporary.

Previous work suggests that the host-guest relationship and the subsequent attitudes residents develop towards tourism seem to be also related to their level of exposure to and contact with tourists, including the quality of time spent together (Cheung & Li, 2019; Joo et al., 2018). This can be interpreted through the Contact Theory used to understand phenomena like social distance. As this sociological framework suggests, meaningful interactions can improve intergroup relations (Allport, 1954). The Contact theory has been recently applied to explain host-guest relations in the tourism context (Aleshinloye et al., 2020; Joo et al., 2018). Yilmaz and Tasci (2015), for example, reported that perceived social distance between hosts and guests decreased due to contact and bonds with local service operators, and close friendships developed between the two parties. Similarly, exposure and interaction between residents and tourists was found in the context of volunteer tourism to be the most significant antecedent of change in cross-cultural appreciation (Kirillova et al., 2015).

Although interaction between residents and tourists has been recently reported to determine social distance (e.g., Joo et al. 2018), emotional solidarity (e.g., Joo et al. 2018) and/or place attachment (e.g., Aleshinloye et al. 2020), its role in shaping residents' perceptions of tourism impacts is thus far little understood. The few studies available include those conducted by Weaver and Lawton (2001) and Andereck et al. (2005), both reporting that residents with higher levels of contact are more likely to express supportive attitudes. Luo et al. (2015) also confirmed that the level of contact between hosts and guests influences host perceptions of backpackers' impacts. Recently, Eusebio et al. (2018) reported the positive effect of

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interaction on perceived benefits of tourism and attitudes towards the industry. However, these researchers operationalised interaction via three items (e.g., My interaction with tourists is positive; I make friends with tourists), predominantly focusing on interaction as an outcome. Furthermore, exposure does not necessarily presuppose any level of contact, and provides new opportunities in explaining cases where residents and tourists do not interact. There is, therefore, scope to further explore, in line with the Contact and the Mere Exposure Theories, whether increased exposure to and interaction with tourists also generates positive or negative perceptions and attitudes among residents towards tourists and tourism.

2.4 Economic crisis and residents' attitudes towards tourism

The socio-economic context in which residents' attitudes towards tourism occur is considered pivotal in understanding this complex phenomenon. Economic crisis determines people's life, often characterized by loss of income, high unemployment and reductions in investments, followed by lower standard of living and migration (Voon & Voon, 2012). Studies in various fields suggest that the economic crisis negatively affects people's mood (Graham, Chattopadhyay, & Picon, 2010) among others. Crisis is also known to decrease tourism demand as it reduces the available income, leading to sudden cuts in reservations and bookings from key tourist markets, thereby negatively affecting hotel occupancy (Song, Lin, Witt, & Zhang, 2011) and the local economy (Henderson, 2007). Boukas and Ziakas (2013), for example, explored the impact of the economic crisis on Cyprus and its tourism industry, highlighting a decrease in visitation and revenues, among other aspects. As a result, the communities experiencing recession undergo radical changes, which are also highly affecting residents' quality of life.

This dependability on tourism among such communities is reported to affect residents' attitudes towards tourism (Gursoy & Rutherford, 2004; McGehee & Andereck, 2004). But most of past research has adopted a micro approach focusing on the current state of the local economy (e.g., Gursoy, Chi, & Dyer, 2010; Nunkoo & Ramkissoon, 2010), rather than looking also at the broader effects of the global economic crisis, a practice criticised by Sharpley (2014). Only a few studies have explicitly focused on understanding the effects of the global economic crisis on residents' attitudes towards tourism (Garau-Vadell, et al., 2018; Hateftabar, & Chapuis, 2020; Stylidis & Terzidou, 2014). Stylidis and Terzidou (2014), for example, have documented that the more concerned local residents are with the state of the economy resulting from the global economic crisis, the more positively they will evaluate the economic impacts and the less negatively they will assess the environmental impacts of tourism. Garau-Vadell, et al. (2018) further acknowledged that there is lack of empirical evidence in relation to how residents' perceptions of and attitudes towards tourism evolve over time, especially in a period of recession. To address this oversight, they compared data obtained in 2006 and in 2014 from two Spanish destinations (Mallorca and Tenerife), reporting that the economic downturn substantially favoured the development of positive attitudes towards tourism, while also called for further research on this direction. In response to these calls, the multiple cross-sectional design adopted here examines data obtained across three points in time, supplemented also with in-depth interviews, assisting in a greater understanding of how the broader economic environment determines perceptions of tourism impacts and attitudes towards tourism.

2.5 Airbnb and residents' attitudes towards tourism

The evolvement of the sharing accommodation sector including short vacation rentals, as envisaged mainly through Airbnb and residents' involvement in this economic activity,

provides an additional angle to explore residents' attitudes and support for tourism, especially as this phenomenon intensifies over periods of economic recession (Papatheodorou et al., 2010; Smeral, 2010). Airbnb has been selected as it is the dominant sharing accommodation platform not only in Kavala (covering 93% of TVRs available in the city) but also worldwide, while it has also received the lion's share of attention in academia (Yeager et al., 2020). Notable are the changes that Airbnb generates in residents' life as a result of the increase in visitors staying in residential areas (Suess et al., 2020), including the loss of affordable housing (Lee, 2016). Such interactions can also be positive though; Farmaki and Stergiou (2019) concluded that interactions between co-habiting hosts and guests often contribute towards the alleviation of hosts' feelings of loneliness. In a recent study, Dolnicar and Talebi (2020) further highlighted some of the benefits to hosts, including the opportunity to enjoy benefits tourists themselves enjoy, an experience akin to travel itself.

In the context of residents' attitudes towards tourism, and using predominantly quantitative tools (Mody, Suess, & Dogru, 2018; Yeager et al., 2020) - with only a few exemptions of qualitative studies (Jordan & Moore, 2018) - researchers concluded that residents' perceptions of the positive and negative impacts of STVRs significantly influence their support for STVRs. Jordan and Moore (2018), for example, explored how residents of Oahu, Hawaii, perceive the economic, environmental, and social impacts of TVRs, reporting that the balance between positive and negative impacts is skewed towards the negative. Despite these notable developments, several researchers including Heo (2016), Suess et al. (2020), and Yeager et al. (2020) recently called for additional resident attitude research in the context of STVRs using a blended theoretical perspective, expanded qualitative approaches or longitudinal studies.

Overall, by exploring how perceptions change over time, along with the effect of TVRs, economic crisis and resident-tourist interactions on residents' attitudes towards tourism, under the prism of the MET, this study responds to recent calls for further research "in terms of how they [attitudes] are constructed- in specific contexts and within new theoretical frameworks" (Monterrubio, 2016, p. 425).

3. Methodology

Unlike the 80 to 90 percent of previous research on residents' attitudes that has followed a quantitative approach (Hadinejad et al., 2019), this study is using mixed-methods to address the complexity of the research objectives. The predominantly quantitative focus of past studies does not allow for a broader, in-depth understanding of residents' attitudes and community perceptions (Deery et al., 2012), and new approaches are needed to move the field forward (Campo & Turbay, 2015). Even the few studies available that have used mixed methods (Dillette et al., 2017; Lawton & Weaver, 2015) did not use a concurrent research design - as this study did in the 2019 research where questionnaires and interviews were simultaneously conducted - but the one approach commonly followed the other (i.e., qualitative followed quantitative). To allow for a better understanding of residents' fluctuating perceptions of tourism impacts, a repeated cross-sectional study was applied allowing alternative patterns to evolve over time. Data were collected at three points in time in Kavala, Greece: shortly before the economic crisis in 2009 ($n = 481$), during the crisis in 2011 ($n = 317$) and post-crisis in 2019 ($n = 321$). A series of One-Way ANOVAs with post-hoc test (Tukey) were conducted to explore for potential differences between responses across the years. The quantitative results obtained in the last data collection were supplemented by 21 in-depth interviews with local residents conducted in 2019.

3.1 Study context

The Greek economy entered a ten year recession in 2008 with the cumulative decline of the GDP for the period 2008-2017 estimated at 26.2% (World Bank Report, 2019). The unemployment rate at the national level stood at an alarming level of 27.5% in late 2013, compared to a 7.8% in 2008, and a 17.2% in 2019 (Hellenic Statistical Authority, 2020). Kavala, the setting under study, is located in the Eastern Macedonia and Thrace region. The GDP of the region decreased (in million Euro) from 9,306 in 2009, to 7,579 in 2012, to 6,838 in 2015, before slightly reverting to 7,165 in 2018 (Eurostat Regional Statistics, 2020a). Household income in Eastern Macedonia and Thrace decreased by 29% in the period 2008–2017, reported to be the second lowest in Greece. In 2012, unemployment rate in the area reached 52.6% for those aged between 15 and 24 years. Kavala's economy suffered as many manufacturing industries migrated in neighbouring countries (Bulgaria, Serbia and Romania) due to lower labour cost and taxation. As a result, one out of five people lost their jobs in the region between 2009 and 2017 (Eurostat Regional Statistics, 2020b), while one out of ten commercial businesses in Kavala closed down in 2010.

Although the hotel and rent rooms capacity in the city of Kavala has been virtually unchanged over the 2010-2018 period, the properties available at the same time in the Booking.com platform skyrocketed from 10 licensed hotel units in 2010 to 650 properties on offer in summer 2019 (as a matter of comparison, Bournemouth offers 393 properties and Munich 422). Similarly, in the Airbnb platform the number of available properties stood to 744 in the third quarter of 2019 (in Stuttgart there were 306 available), whereas two years ago the properties available were 326 and in 2011 there were none (airdna, n.d.).

3.2 Survey design

The survey used across the three data collection stages over three points in time comprised several sections, but only the one relevant to this study is presented here. The main section focused on residents' perceived economic, socio-cultural and environmental impacts related to tourism, as well as on their level of support for tourism development. Following previous research, each impact dimension (economic, socio-cultural, environmental) was measured using between four to six items (see Table 2) (Byrd et al., 2009; McDowall & Choi, 2010; Nunkoo & Ramkissoon, 2010) on a 5-point Likert scale (Andereck, Valentine, Knopf & Vogt, 2005). Residents' support for tourism development was measured with three attributes (i.e., general support for tourism development, support for public funding of tourism development, increase in the volume of tourists to the city) on a five-point agreement scale (1= strongly disagree to 5= strongly agree) (McGehee & Andereck, 2004). The last section of the survey covered the demographic characteristics (gender, age, income) of Kavala residents. Prior to the 2009 study, a pilot test was conducted with 65 randomly selected Kavala residents to check the suitability of the research instrument. Only a few minor wording issues were identified and subsequently corrected. Given that all questions worked well in the 2009 study, no further revisions were required in the subsequent data collection stages in 2011 and in 2019.

3.3 Sampling and data collection

The study population was permanent residents (living over a year in Kavala) aged 18 years or over. A multi-stage cluster sampling strategy was used in all three data collection stages in 2009, 2011 and 2019. Following Woosnam and Norman (2010), the sampling strategy involved four stages: first, Kavala was clustered into five major districts based on postcodes; next, ten random streets from each of the five major districts were selected, generating a total

of fifty (5 x 10) street names; and, finally, researchers systematically approached every fifth household from the pre-selected streets to complete the survey. The questionnaire survey was administered and collected over a two-month period each time alternating between weekdays and weekends to reduce sampling bias. In the 2009 study, a total of 481 usable surveys out of 650 distributed were collected with a response rate of 77 percent. Similar procedures were followed in the studies conducted in 2011 and in 2019. In the second study, which took place in November and December 2011, 317 surveys were collected and the response rate stood to 65 percent. The last study was conducted in August and September 2019, whereby 321 completed surveys were gathered and analysed with a response rate of 69 percent. Along with the distribution of the questionnaire surveys in 2019, 21 in-depth interviews were conducted with local residents of Kavala, further discussed below.

3.4 In-depth interviews

To further unpack the impacts of tourism and supplement the quantitative data, qualitative in-depth interviews were conducted with 21 local residents of Kavala in August/September 2019. The interviews aimed to further explore and understand residents' perceptions of tourism impacts through the lens/prism of the economic crisis, Airbnb development, and via locals' exposure, contact and relationship to tourists visiting the area. Participants were recruited through a combination of purposive and snowball sampling, aiming to collect insights from residents of different ages who reside in the five districts of Kavala. In the first stage, five interviewees (one from each district) were purposefully selected from researchers' acquaintances, based on their interaction with tourists using screening questions such as: "*Do you have any personal exposure to / interaction with tourists?*" Only those who responded positively were invited to take part in the interview process. After the completion of these five initial interviews, participants subsequently recommended other residents relevant to the

aim of the research (e.g., coverage of the five districts, interactions with tourists, demographic characteristics), who were subsequently invited by the researchers to participate in the study. Recruitment of participants continued until the saturation point was reached.

After participants' consent was granted, interviews were conducted in public spaces and cafes, lasting on average 45-55 minutes. The interviews were digitally recorded (after permission was obtained) and were transcribed and translated (from Greek to English) retrospectively by both researchers to ensure accuracy of the data. The interview guide comprised questions related to three main areas, including participants' views on: 1) the impacts of tourism in their area; 2) the economic crisis and Airbnb development; and 3) the nature of exposure, contact and interaction to tourists experienced in their everyday life; aiming to decipher how such exposure might have overtly or covertly affected local residents. While the same backbone of questions was used in every interview, however, the two experienced interviewers followed a flexible course of questioning, allowing the research to immerse into personal experiences and views. Thematic analysis was used to identify the key themes that emerged from the interviews, while pseudonyms were used to safeguard the anonymity of the respondents.

4. Findings

The rich empirical data collected throughout the timespan of ten years is now used to decipher residents' perceptions of tourism impacts in Kavala. In doing this, the findings section starts with a brief presentation of respondents' profile followed by the results of the One-Way ANOVA comparing perceptions of impacts across three points in time. The quantitative results are supplemented by qualitative data obtained via 21 in-depth interviews with residents conducted in 2019 and organised under three themes: economic crisis;

resident-tourist exposure and interaction; and Airbnb development, which were found to exercise an effect on residents' perceptions.

4.1 Respondents' profile

Male and female were almost equally represented in all three samples (Table 1). Residents aged over 55 years were the largest group in the 2009 sample, followed by the age group of 25-34. In the 2011 and 2019 studies, the 35-44 age group was the largest one, while the 18-24 the smallest one. In terms of income, roughly three out of four respondents across all three studies reported earning less than 30,000€. As the latest census data available are from 2011, comparisons between respondents' profile and the actual population's demographic characteristics should be conducted with caution. The chi-square test conducted did not report any significant difference in terms of respondents' gender, with its distribution being roughly equal across the three studies. Statistically significant differences were observed in age and income, similar to the study of Huh and Vogt (2008). Nevertheless, the median of income was reported to be '10,000-19,999' in all samples, while mode was '10,000-19,999' in 2009, and '0-9,9999' in 2011 and 2019, reflecting the sharp decrease in the net national disposable income (in Euro) from 17,409 in 2009, to 14,459 in 2011, to 14,490 in 2019, as a result of the economic crisis (Hellenic Statistical Authority, 2019). Despite some differences, the clustering sampling procedure ensured a good representation of households from the five main districts of Kavala. As for the interview participants, those were roughly equally balanced between female (52%) male (48%), mainly aged between 25 - 34 years old (24%), 35 - 44 years old (24%), and 55 years old or over (28%). The question about income was considered a sensitive one and was not asked at the interview stage.

Table 1. About Here

4.2 Perceptions of tourism impacts: A transformative process over time

Overall, local residents tend to positively (mean scores exceeding 3) evaluate the economic and socio-cultural impacts of tourism in Kavala (Table 2). They also seem to acknowledge its negative impact on the environment, especially on traffic congestion and pollution. As the series of One-Way ANOVAs with post-hoc tests (Tukey) indicated, significant fluctuations are observed throughout the past decade among peoples' perceptions in ten out of fifteen impacts of tourism studied (Table 2).

Table 2. About Here

In economic terms, residents' agreement with increased investment decreased in 2011 (as compared to 2009) during the recession period and increased again in 2019, which is marked by economic rejuvenation (Figure 1). Agreement with employment opportunities, and with inflation in the price of land/housing, significantly increased among the different points of measurement. Perceptions about the standard of living were rather stable in between 2009 and 2011, but agreement with this impact statement decreased in 2019 as compared to 2009. Lastly, infrastructure development remained virtually unchanged across the years. Inevitably, a sharp decrease in GDP and a loss of eleven thousand jobs in the region over a four year period (2009-2013) as evidenced in Figure 1, along with the immigration of several businesses to neighbouring countries, justifies why residents' perceptions on investment and standard of living decreased, inflation increased, and residents increasingly perceive tourism as an opportunity for employment.

Figure 1. About Here

In socio-cultural terms, opportunities to meet new people, and entertainment opportunities decreased in 2011 (as compared to 2009) over the recession period and increased again in 2019 (Table 2 and Figure 2). This trend seems to follow the fluctuations in visitor numbers observed in domestic and international tourists evidenced in Figure 3. More precisely, international and domestic tourist overnight stays experienced a downturn in 2011 and 2012 before recovering in 2013 and increasing thereof, although the domestic ones never surpassed the pre-2011 levels (Figure 3). With respect to the number of TVRs in the region (Figure 2), this skyrocketed from literally one in 2010 to 88 in 2014, to 2738 in 2018 (Athanasidou & Kotsi, 2018). The volume of Airbnb properties in Kavala also follows this trend from 326 in the third quarter of 2017 to 744 in the third quarter of 2019 (Figure 2) (airdna, n.d.). Such increase in tourist numbers and TVRs multiplies the opportunities for interaction and exposure between hosts and guests, offering a tenable explanation to the fluctuations observed in some positive socio-cultural impacts (e.g., opportunities to meet new people). Perceptions about the recreational facilities were rather stable in between 2009 and 2011, but agreement decreased in 2019 as compared to 2009 (Figure 2). Quality of public services and community spirit were both stable over the 10 year period of measurement.

Figure 2. About here

With regards to the environmental impacts, traffic congestion and noise became more prominent in 2019 as compared to 2009 and 2011, while perceptions of crowding decreased over the same period (Table 2 and Figure 3). It is likely that the exponential increase in tourist overnight stays noticed particularly after 2012, from 51,998 international nights in 2010 to 222,383 in 2018 (Figure 3), increased the stress on the transportation system and

parking availability, leading to increased traffic congestion and noise. Kavala respondents also appear generally supportive of tourism development, with their responses being rather stable across the past 10 years (Table 2). The only notable fluctuation observed was in the level of agreement for public funding invested in promoting tourism, which decreased significantly between 2009 and 2011 and started reaching the pre-crisis agreement levels in 2019.

Figure 3. About here

4.3 The role of economic crisis, guest-host exposure and Airbnb on residents' attitudes

Beyond the results of the quantitative studies, the in-depth interviews conducted with local residents in 2019 assisted in further understanding the role of the wider context in which tourism operates, especially focusing on the economic crisis, resident-tourist interaction and exposure, and Airbnb development.

4.3.1 Living in the era of economic crisis

The interviews with local residents further verified the results of the repeated cross sectional study. Local residents seem to hold an even more favourable perception nowadays, as compared to the past 10 years, with regards to economic impacts, such as employment opportunities and additional investment provided; the same applies to some socio-cultural ones including the increased opportunities for entertainment, and the possibility to meet people from other cultures (Dillette et al., 2017). Especially young residents seem to appreciate the employment opportunities offered as a result of the economic boost attributed to tourism development in the area, as further evidenced in the interview data; as Alex, a 25-year old male, stated, for example, *“In the last couple of years you can see a big change in*

the local economy... fortunately! It seems that the economy kind of restarted. We now have far more opportunities to find a job, as new restaurants, cafes, hotel establishments and shops are opening every year, both inside the city and in its suburbs.” This was also empirically supported by the results of an independent samples t-test conducted between those aged 18-24 against the rest of the sample population, which disclosed that younger residents perceive more positively the employment opportunities ($M = 4.11$ vs. $M = 3.63$), and investment ($M = 3.88$ vs. $M = 3.65$), than those aged over 25 years old.

Tourism is widely perceived nowadays as panacea helping to heal the wounds that the long-term recession has marked. As Alex further commented: *“we went through some very dark years, recession, you know... at least one third of the shops closed down... in Omonias street (High street) and elsewhere half of the shops were available for rent... wages and pensions were cut in half... Thankfully this has started to change now... tourists came like manna from heaven!”* The significant increase in the number of tourists as evidenced in Figure 3 has resulted in residents introducing new services and opening new shops to cater for contemporary tourists’ and residents’ needs:

“This place was sleepy 10-15 years ago; bars, coffee place and restaurants open up almost everywhere in these days” (Michalis, 51-years old). Another interviewee added that: *“They have started offering new activities like tours, scuba-diving lessons, boat-rent, and a lots of yachting, all these things simply didn’t exist in the past... it is to attract visitors you know... But as a Greek saying says ‘a rising tide lifts all boats!! [meaning that she gains also from it] [she blinks with one eye]”* (Athina, early 30s).

She also added: *“souvenir shops are more attractive now.. not only for tourists but also for us! They do not sell the kitsch stuff anymore, but more sophisticated items that you can buy as*

a gift.” Others, though, highlighted how expensive now everything is, which is in contradistinction with the broader economic environment in Greece: *“We have suffered a lot financially, lots of reductions, wage and pension cuts, increases in VAT and taxation...and at the same time everything became more expensive... how are we supposed to live in our hometown?”* (Giannis, 62-years old). This finding is in line with the significant change observed over the previous years in residents’ perceptions of the economic costs of tourism.

Not only locals appreciate the positive impacts of tourism on the city’s revenues and standard of living, attributed to increased tourist flows, but also acknowledge its socio-cultural benefits. Further considering the economic crisis and the impacts of tourism throughout the past 10 years, some participants stressed how the presence of tourists has positively affected their life and self-esteem: *“To be honest, we felt a bit lonely in the past... Greece, you know, is a very popular tourist destination and millions of tourists have been visiting Greece for decades.. however, we rarely met tourists in Kavala ...this has now changed, and it is very pleasant to meet people coming from abroad to visit our hometown, we feel proud of living here”* (Giotis, 35-year old). Interview results thus also support the positive change observed across time in socio-cultural impacts like entertainment opportunities. As Vicky, 47-years old, also commented: *“...especially the Cosmopolis Festival [annual summer festival] and the Air Show Festival [annual summer festival] give Kavala a cosmopolitan flair that we were not used to... Whenever they take place the city is so vivid and full of people... it is a great feeling!”*.

4.3.2 Resident–tourist interactions: Companionship vs. co-existence

Guest-host interactions and exposure, and the nature of their contact seem to play a decisive role in shaping residents’ perceptions of tourism impacts. Types of interactions mentioned

were similar to the ones reported in the study of Joo et al. (2018), including dining in restaurants, shopping in gift shops or grocery stores, swimming in the sea, walking around the city and participating in local festivals. In support of the quantitative data presented above, it is evident that interviewees with frequent exposure and personal relationships to tourists are more positively oriented towards visitors and their socio-cultural impacts (e.g., opportunities to meet new people). For example, Vaggelis, a 42-year old boutique hotel receptionist, who daily interacts with tourists and spends time with them, recognised how this interaction broadens his horizons and creates positive feelings. As he stated: *“It is always a great pleasure to meet people coming from abroad...we exchange views about different issues, you get a better understanding of how the world operates, making you a more complete person”*.

The effect repeated exposure and interactions have on shaping positive perceptions of residents is further illuminated in Maria’s words, a 37-year old waitress working in a hotel:

“When you get to know them [the tourists] better you realise how many nice people exist! But also how similar we all are! With some of them we become friends over time, as they come back again and again for several years... Now we go for swimming together and spend lots of hours every time they visit us!... But also with newcomers, you can see that after the first day of their stay, they open up to us... I mean.. they are less reserved, more relaxed and happy. It is so nice to see how happy they feel when they see us in the morning!... And I feel happy as well! Every day that passes I feel we get closer. They often seek for our advice and recommendations; where to eat, where to shop, where to go for swimming... I really enjoy talking to them and spending time even outside my working hours!”

As she further added when asked about the impacts of tourists, these contain both socio-cultural and economic benefits:

“You know, the tourists in Kavala are mainly couples or families with kids... they behave well, they do not consume lots of alcohol or partying hard like other tourists do in the Greek islands...people visiting Kavala are peaceful... it is nice to have them here. Of course, there are always some people griping about tourists, but if you look at it from the other side of the coin, these people contribute a lot to the local economy. So many locals today work in this sector! They rent out their own houses, you know! I believe that we should not be ungrateful.”

This seems to explain to a large extent why perceptions about crime and social issues remain rather stable across the studied period 2009-2019, despite the significant increase in tourist numbers documented over the same timeframe.

Similar to the Contact Theory (Joo et al., 2018) and Emotional Solidarity Theory (Woosnam, 2011; Woosnam et al., 2020), cultural differences and stereotyping seem to vanish when residents develop closer relationships to tourists due to their frequent exposure to them, resulting also in more positive perceptions of impacts. Increased familiarity as a result of increased exposure appear to serve as the intermediate link positively shaping attitudes as the MET advocates (Montoya et al., 2017; Zajonc, 1968). As Monterrubio (2016) suggests, relatively small differences between the two parties play a role in enjoying more favourable interactions. Such interactions and exposure do not only occur in residents’ working environments but also in their spare time (Dillette et al., 2017). Giorgos, for example, a single 37-year old engineer, narrated how his opinion about Bulgarian tourists changed:

“Every day, after work, I head to the beach bar ‘Friends’. EVERY [emphasis is original] day! I love this place... I know the owners and I meet my friends there in the summer... So last summer we met a couple from Bulgaria who frequented the place every day as well.. they were staying in an apartment very close by. To be honest, I could never imagine having Bulgarian friends because I didn’t fancy them! I thought they are so different from us... But when we started talking I realised that they were actually very cool! They stayed for a long time... we drunk beers together and went for clubbing at nights!.. I reconsidered my views about Bulgarians! {he laughs} Seriously, I see them very differently now...”

Interviewer: *Do you retain any contact with them?*

Giorgos: *Yes! We are friends now, I visited them in Plovdiv last winter and we chat often in Facebook. They are coming in August again with some other friends!!!”*

Not all types of exposure seem to be pleasant though; With regards to overcrowding, for example, some interviewees explained why they choose alternative supermarkets during the summer months, as they felt they had to contest their place with tourists, developing a conflict-coping strategy (Sinkovics & Penz, 2009). Christina, for example, a retired dentist, argued that:

“The place is full of tourists in the summer, full of tourists... Just imagine that I don’t like to use supermarket X anymore, [which is next to the beach] as it is packed with tourists and I know that other friends and family members also prefer other supermarkets during the summer time. You know, some tourists are really rude... they think they are superior... They do not know how to behave. And have no respect.. they do not even speak English, it is very hard to communicate with them.”

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Such an avoidance of interaction with tourists and annoyance is also noticed in Lia's, a 55-year old grocery store owner, words:

“Our place has dramatically changed because of them [the tourists]... There were beaches that only locals used to frequent, this is not the case anymore... I have stopped going there as you see masses of them [tourists], with their camping fridges, lunchboxes, they buy nothing, only leave litter behind them... terrible... They even own beach bars where they play their own music, mainly Balkan, there is one of them in Iraklitsa bay (a summer resort)...we used to visit this place in the past, but not anymore...”

High levels of interaction in some settings and mundane activities increase the risk of irritating the locals, often creating obstacles in their daily tasks (Joo et al., 2018).

Irrespective of integration seeking or avoidance, there was an unanimous agreement among locals with regards to the negative impacts of tourism on traffic congestion and limited parking availability. This is in line with survey data comparisons revealing that Kavala residents perceive an increase in traffic congestion in 2019 as compared to 2009. *“We have been facing issues with parking in Kavala for many decades, the increase in the volume of tourists the last years has intensified the problem. You can't find a place to park your car anymore..”* (Christos, mid-40s). Another relevant key issue highlighted during the interviews was the driving style of foreign tourists:

“Most of tourists in Kavala are Bulgarian, Romanian and Turkish. They reach the city by car and they often don't know the directions... they do not know where to park... how to drive here... Sometimes, they stop in the middle of the street (!), trying to locate something on their navigator/phone; sometimes they do not stop in traffic lights. And most of them drive very slowly, as they do not know the streets, causing huge traffic issues” (Andreas, 22-years old).

4.3.3 The rapid development of Airbnb

The rapid development of Airbnb (Figure 2) has created additional opportunities for exposure and interaction between the two parties and intensified some impacts, such as social alienation, business and employment opportunities, and increased cost of living. Passive interactions have been found to sustain feelings, including suspicion, annoyance and competition, which inevitably influence residents' perceptions of impacts in a negative way. For example, the radical immersion of tourists into residents' neighbourhoods through Airbnb is causing irritation to some locals who perceive a negative effect on their sense of community (Jordan & Moore, 2018; Yeager et al., 2020): As Fotini, a 72-years old lady, for example, explained: *“Our neighbourhood used to be very quiet, we all knew each other well.. nowadays, you constantly see foreign people coming and leaving, staying for one or two nights, causing trouble and then leaving... they do not show any respect...this is a residential area, you know, local people live here permanently. It affects my everyday life, you know”*.

Others underlined the positive effects of tourism development, previously documented in the repeated cross-sectional study, shedding light on the changing nature of residents' occupation. Giannis, for example, argued that due to the increasing demand for tourist accommodation and the introduced tax benefits/policies, many locals have become tourist entrepreneurs themselves: *“The town has been converted into a big hotel!! [he laughs loudly]...Seriously, they have converted old houses, mansions, flats, even basements into accommodation units and they rent them out on the Airbnb platform. In every neighbourhood, in every street, even in areas and buildings that you would NEVER [emphasis given by the interviewee] imagine that people would ever consider to stay...”* (Giannis, 62-years old).

This seems to have affected the price of land and houses. As the data comparisons among the three time periods suggest, Kavala residents perceive an increase in the price of land and housing in 2019 as compared to 2009. Although a number of local residents seem to benefit from renting out their homes or second-houses through Airbnb, others feel excluded: *“People who rent out their properties or who work at hotels and restaurants are those who largely benefit from tourist numbers. The rest of the population does not get anything in return”* (Elsa, 78 years old). This practice has inflated rent prices and reduced the number of properties available for long-term rent in the market. Maria (37), one of the supportive residents of tourism in Kavala also acknowledged this claim: *“It is nearly impossible to find a good place to rent on a yearly contract, we have been looking for a place over two years now and it is still challenging. When a flat in a good condition becomes available for rent, you need to book a viewing immediately and if you don’t agree to let it on the spot, it becomes unavailable after a few hours.”* Lastly, some residents highlighted how the property market in the city has attracted the interest of international buyers and an increasing tourism demand, leading to power imbalance due to foreigners’ superior purchasing capacity. Nikos, in his late 60s, for example, stated: *‘You know what? Bulgarian, Romanian and Russian millioners buy the best houses, villas, by the sea, with garden... you cannot even think to buy a house like that nowadays, they push the prices so high... everyone is trying to sell their property to them.’*

5. Discussion

This study aimed to explore whether residents’ perceptions of tourism impacts remain stable or fluctuate over a 10-year period along with understanding the role various phenomena such as guest-host exposure and interactions, Airbnb development and the long-lasting economic

crisis, play in shaping residents' perceptions and attitudes towards tourism. Results from three surveys conducted in 2009, marking the beginning of the economic crisis, in 2011, during the economic crisis, and finally in 2019, which signposted a rejuvenation of the economy in Greece, revealed that residents' perceptions of tourism impacts are very dynamic and fluid, greatly affected by the development of tourism itself but also by the broader context in which tourism operates.

The finding that perceptions of economic costs (e.g., inflation in prices) increased in Kavala, contradicts recent longitudinal research conducted in two Spanish mass tourist destinations that experienced economic crisis (Garau-Vadell et al., 2018). It also contradicts previous cross-sectional studies in rural or depressed communities (Gursoy & Rutherford, 2004; Nunkoo & Ramkissoon, 2010), which found that over periods of economic downturn, the economic costs tend to be under-estimated. This study also reported that some of the positive economic impacts increased over the years (increased investment, employment opportunities), in contrast to Huh and Vogt's (2008) longitudinal study in an Alaskan community, which found economic impacts to be rather stable across two measurements conducted in 1995 and 2001.

In socio-cultural terms, some impacts (opportunities to meet new people, and entertainment opportunities) decreased in 2011, but increased again in 2019, while others remained stable. These findings only partially confirm results generated in Tenerife where a significant increase in socio-cultural perceptions was observed over the years, but contradict those produced in Mallorca, where all impacts were stable (Garau-Vadell et al., 2018). Lastly, this study indicated an increase in some negative environmental impacts (traffic, noise), with results contradicting those produced in mass tourism destinations, whereby perceptions of

environmental costs remained stable (Huh & Vogt, 2008) or decreased (Garau-Vadell et al., 2018), indicating residents' willingness in other settings to sacrifice the environment for the financial benefit. Overall, the findings here differ also from Getz's (1994) longitudinal study results, between the years 1978 and 1992, which found that impacts were stable or decreased in Spey Valey, Scotland. Getz (1994) attributed this trend to the economic downturn, decline of resort facilities and failure of tourism to deliver the expected benefits.

The qualitative results also suggested that the global and local economic crisis has marked the way local residents approach tourism, with the vast majority of them recognizing the healing effect tourism had in economic and socio-cultural terms, without however undermining its negative effects on inflation, standard of living, traffic congestion and noise. These results contradict studies (Garau-Vadell et al., 2018; Gursoy & Rutherford, 2004; McGehee & Andereck, 2004), which found that in periods of economic recession residents tend to overestimate the benefits and pay less attention to the costs of tourism. Airbnb seems also to play a key role, as on the one hand it offers new employment opportunities and investment, but on the other hand it increases some economic (inflation) and social costs (Lee, 2016). Jordan and Moore (2018) also reported that several interviewees in their study mentioned that their feeling of neighbourhood changed due to TVRs. Recently Yeager et al. (2020) has also highlighted the importance of ensuring that TVRs do not infringe on residents' sense of community and reflect the values and norms of the host community. This study further advances our understanding as Airbnb provides unique opportunities for exposure and interaction, with most of them turning into meaningful engagement and cultural appreciation.

The interviews also revealed that increased exposure and interaction between the two parties leads to largely positive attitudes towards tourism (Eusebio et al., 2018), but there were also

cases where such interactions produced negative outcomes, as in the case of traffic congestion and parking. Such findings confirm to a large extent that mere exposure and interaction increase familiarity and reduce social bias and prejudice as reported in other disciplines and fields (Flores et al., 2018; Tom et al., 2007; Iordanova & Stylidis, 2019). Somewhat similarly, Joo et al. (2018) have reported that frequency of interaction in the tourism context created mixed feelings of emotional solidarity with tourists, with interactions during shopping in gift shops, walking around and participation in festivals having a positive effect, while co-existence in natural areas created negative feelings. The outcome of interactions appear also to be determined by tourists' behaviour; both Tasci and Severt (2017) and Monterrubio (2016) have highlighted that the sustainable behaviour of tourists is of paramount importance for developing bonds between the two parties.

Overall, a blend of challenges and opportunities over a 10 year period of economic uncertainty, marked by austerity measures, massive development of Airbnb, and rapid expansion of tourist numbers, followed by greater opportunities for interactions between residents and tourists, comprise the various pieces of the tourism development jigsaw in the city of Kavala. The theoretical and managerial implications of the study's findings are discussed below along with the limitations of this research and opportunities for future studies.

5.1 Theoretical implications

The theoretical contributions of this study are three-fold. First, it is one of the very few studies of its kind testing the stability/fluidity of residents' perceptions of tourism impacts over a rather long period of time and at three points of measurement, as previous longitudinal research covered two points in time (e.g., Garau-Vadell et al., 2018; Getz, 1994; Huh & Vogt,

2008). Unlike the deterministic progression from positive to negative attitudes over the various development stages proposed by established models (TALC, Irridex), this study's results indicate that perceptions of impacts do change over time but not always in the predicted direction. Out of 15 impacts examined across the three dimensions (economic, socio-cultural, environmental), ten impacts exhibited significant changes over time, with perceptions turning more favourable in five of them, and less favourable in the other five. These results contradict: a) Getz's (1994) study which only reported a negative change in perceptions between 1978 and 1992, attributed to unfulfilled expectations from tourism; b) Garau-Vadell et al.'s (2018) longitudinal research in Mallorca and Tenerife, which found the benefits to be over-estimated and costs to be under-estimated due to the economic crisis; and c) Huh and Vogt's (2008) longitudinal study, which reported the economic impacts to be stable over the two periods examined (1995 and 2001), reflecting the minor role of the industry in the small Alaskan island destination studied. Overall, the context of the study, the external forces into play, and the stage of destination's development seem to affect the stability/fluidity of residents' attitudes towards tourism.

Second, this study applies a rather new in tourism theory - MET - in understanding residents' attitudes towards tourism. An increase in the volume of tourists and the expansion of Airbnb has provided additional opportunities for interaction between the two parties. For most local residents, interactions assisted them in developing greater understanding and often bonds with visitors, and in better appreciating the impacts of tourism, helping to maintain a positive attitude towards tourists and the tourism industry (Eusebio et al., 2018). Such findings open new opportunities to interpret resident attitudes beyond a systematic, rational, quasi-transactional economic approach as advocated by SET (Nunkoo & Ramkissoon, 2009; Woosnam & Norman, 2010). In contrast, they lend credence to MET, postulating that

frequent exposure to people leads to more favourable evaluations of them via increased levels of familiarity (Montoya et al., 2017), thereby expanding its application to tourism. Frequency of exposure as such seems to be a necessary condition for reduction of cultural bias and stereotypes and social distance, leading to intercultural understanding and emotional solidarity as advocated by the contact and the emotional solidarity theory (Joo et al., 2018; Woosnam et al., 2020). But exposure needs to be translated into something more meaningful, such as contact and interactions, alternatively some residents who had exposure but without interaction might develop negative feelings about tourism and tourists. In fact, for a proportion of the interviewees, superficial exposure to tourists leads to greater disturbance and a diminished experience overall, causing changes to their everyday habits and creating interaction avoidance. Such findings call for additional research on hosts-guests levels and quality of exposure to each other.

Lastly, this study contributes to a better understanding of how the broader environment such as the global economic crisis and the rapid development of Airbnb shape residents' attitudes. Results presented here differ from previous studies conducted under periods of economic uncertainty (Garau-Vadell et al., 2018; McGehee & Andereck, 2004), as Kavala residents seem to recognize beyond the economic benefits also the economic and environmental costs. Airbnb too has generated new opportunities for development and economic benefit, along with a large number of interactions between local residents and their guests, while also negatively transformed perceptions of sense of community for some locals (Jordan & Moore, 2018; Yeager et al., 2020). This study is thus unique in jointly exploring the role of economic crisis and rapid Airbnb expansion in shaping residents' attitudes towards tourism.

5.2 Managerial implications

The findings of this study provide a number of implications for destination managers and planners. Given the dynamic nature of residents' perceptions of tourism, a systematic framework and control mechanism for capturing such attitudes is much needed among various points in time. As the results of the study suggest, perceptions of impacts can vary from positive to neutral and back to positive across time. The implementation of this framework will, therefore, provide prudent knowledge for the development of tourism plans that incorporate residents' views and sustain their support, which is a passport for the sustainable development of tourism. Such framework will also monitor the various changes that take place in the local or global environment and their impact on residents' support for tourism. Next, considering the prominent role resident-tourist interactions serve in cultivating favourable perceptions for both parties (Joo et al., 2018; Woosnam et al., 2020), destination management organizations could strategically orchestrate online and offline interactions by planning activities in which residents participate hand in hand with tourists (Woosnam & Aleshinloye, 2015). For instance, it will be a good practice for the municipality of Kavala to initiate during its annual ethnic cultural festival 'Cosmopolis' sub-events that facilitate resident-tourist interaction. If meaningful interactions are achieved, locals' attitudes towards tourism will remain favourable. To this end, events promoting cultural exchange, mutual understanding, and minimizing negative stereotypes could be used (Monterrubio, 2016).

5.4 Limitations and future research directions

Like any other study, this research is vulnerable to a number of limitations. First, results are based on three studies conducted on residents living in one destination in Greece. Perceptions of individuals and their interactions with tourists can potentially be different from those living in other places in Greece or even in other countries; future research needs to continue verifying the established relationships in different contexts including mass tourism

destinations. Second, this research used residents' interactions with tourists, excluding other key stakeholders such as tourism employees, or other potentially significant outcomes such as emotional solidarity (Woosnam et al., 2020). Future research will need to address these omissions by further studying the impact of interactions tourism employees have with tourists, along with the levels of emotional solidarity they develop. Further, perceptions of impacts can be influenced by political ideology, tourists' nationality and religion or other cultural factors (Kim et al., 2019). Future research should take such aspects into consideration. Additionally, one economic and two socio-cultural items were not included in the 2011 measurement, which restrains from fully understanding the variations of these three items across time. Next, given that this study was conducted prior to Covid-19 pandemic, it will be interesting to validate the results during and post-pandemic to determine potential changes in residents' attitudes. Last but not least, the MET offers strong potentials to explain an array of phenomena in tourism research including resident-tourist interactions in TVRs and inter-cultural understanding; exposure to various images, reviews, and promotional material shaping destination image and loyalty; and value co-creation among residents and tourists.

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Table 1. Sample Profile

Demographic		2009 (n=481)	2011 (n=317)	2019 (n=321)	Census 2011
Gender	Male	47.0%	45.0%	48.0%	48.0%
	Female	53.0%	55.0%	52.0%	52.0%
Age group	18-24	12.1%	14.0%	16.0%	16.9%
	25-34	18.5%	22.0%	21.0%	17.8%
	35-44	17.9%	23.0%	24.0%	17.3%
	45-54	16.4%	23.0%	19.0%	15.7%
	55+	34.8%	18.0%	22.0%	32.9%
Annual income (€)	Less than 9,999	18.0%	25.0%	30.0%	Average Annual 10200- 12650 Euro
	10,000-19,999	35.4%	22.0%	23.0%	
	20,000-29,999	23.4%	24.5%	22.0%	
	30,000-39,999	12.6%	12.5%	15.0%	
	40,000+	10.6%	16.0%	10.0%	

Table 2. Mean scores across three points in time

	2009		2011		2019		F ratio	Sig
	Mean	STD Deviation	Mean	STD Deviation	Mean	STD Deviation		
<i>Economic Impacts</i>								
Employment opportunities*	3.51 ^a	1.12	3.68 ^b	1.04	4.24 ^c	.89	49.82	<.000
Increase in standard of living*	3.60 ^a	.94	3.49 ^{ab}	.91	3.38 ^b	1.18	4.58	.010
Investment/revenue generated*	3.73 ^a	1.03	3.54 ^b	1.04	3.85 ^a	1.08	6.94	.001
Infrastructure development	3.51	1.09	3.50	1.03	3.60	1.07	1.00	.365
Price of land/housing*	3.33 ^a	1.13	n/a	n/a	3.56 ^b	1.06	124.6	<.000
<i>Socio-Cultural Impacts</i>								
Quality of public services	3.24	1.01	3.06	.96	3.16	1.19	2.91	.055
Community spirit	3.12	1.03	2.97	.98	3.03	1.13	2.08	.126
Opportunity to meet people*	3.74 ^a	1.09	3.56 ^b	1.09	3.98 ^c	.86	12.99	<.000
Entertainment opportunities*	3.51 ^a	1.17	3.32 ^b	1.14	3.73 ^c	.96	10.82	<.000
Aval. of recreational facilities*	3.42	1.10	n/a	n/a	3.24	1.21	64.33	<.000
Crime level	3.19	0.94	n/a	n/a	3.26	1.20	.963	.327
<i>Environmental Impacts[^]</i>								
Traffic congestion*	3.52 ^a	1.17	3.39 ^a	1.07	4.03 ^b	1.04	30.44	<.000
Crowding*	3.39 ^a	1.05	3.26 ^a	1.02	3.10 ^b	1.29	6.34	.002
Noise level*	3.18 ^a	.94	3.14 ^a	.86	3.34 ^b	1.22	3.66	.026
Environmental pollution	3.39	1.00	3.28	.91	3.35	1.06	1.22	.297
<i>Support for tourism</i>								
Increase in tourists' number	3.83	1.27	3.85	1.23	3.87	.90	.157	.855
Public funding for tourism*	3.91 ^a	1.24	3.52 ^b	1.34	3.82 ^a	1.00	10.50	<.000
Further tourism development	4.04	1.13	4.09	1.08	4.16	.84	1.24	.289

[^]non-favourable statements were reverse coded in the 2009 study, following Getz, 1994.

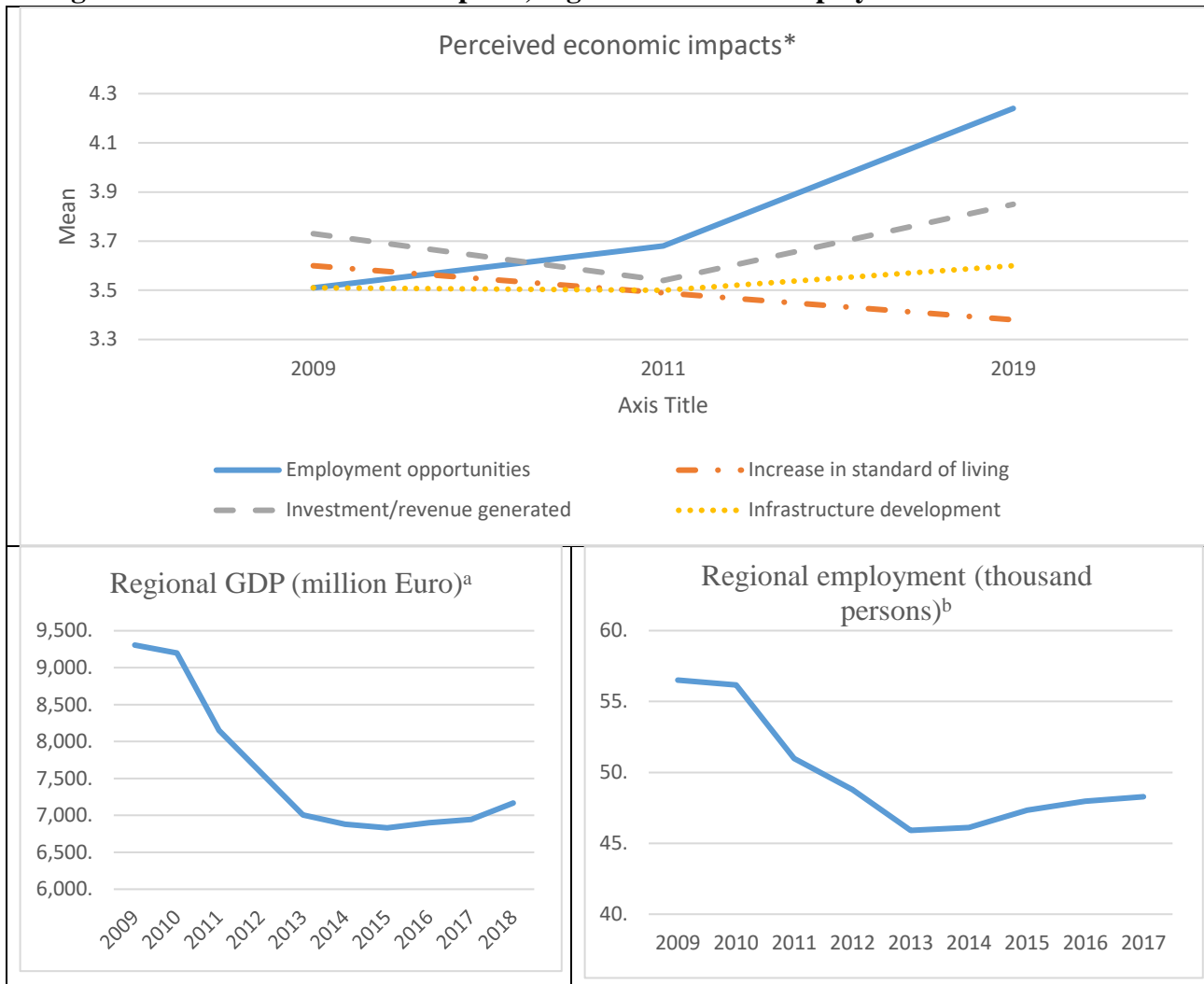
Note: F and significant level are presented for the One-Way ANOVA analysis. Significant differences in the means between pairs of the three time periods (2009, 2011, 2019) based on the Turkey test are indicated by the letters a, b or c. Pairs of means that do not have the same letter are significantly different whereas those pairs of means that have the same superscript are not significantly different.

* items where at least one significant difference was reported

n/a: questions were not included in the 2011 survey.

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Figure 1. Perceived economic impacts, regional GDP and employment



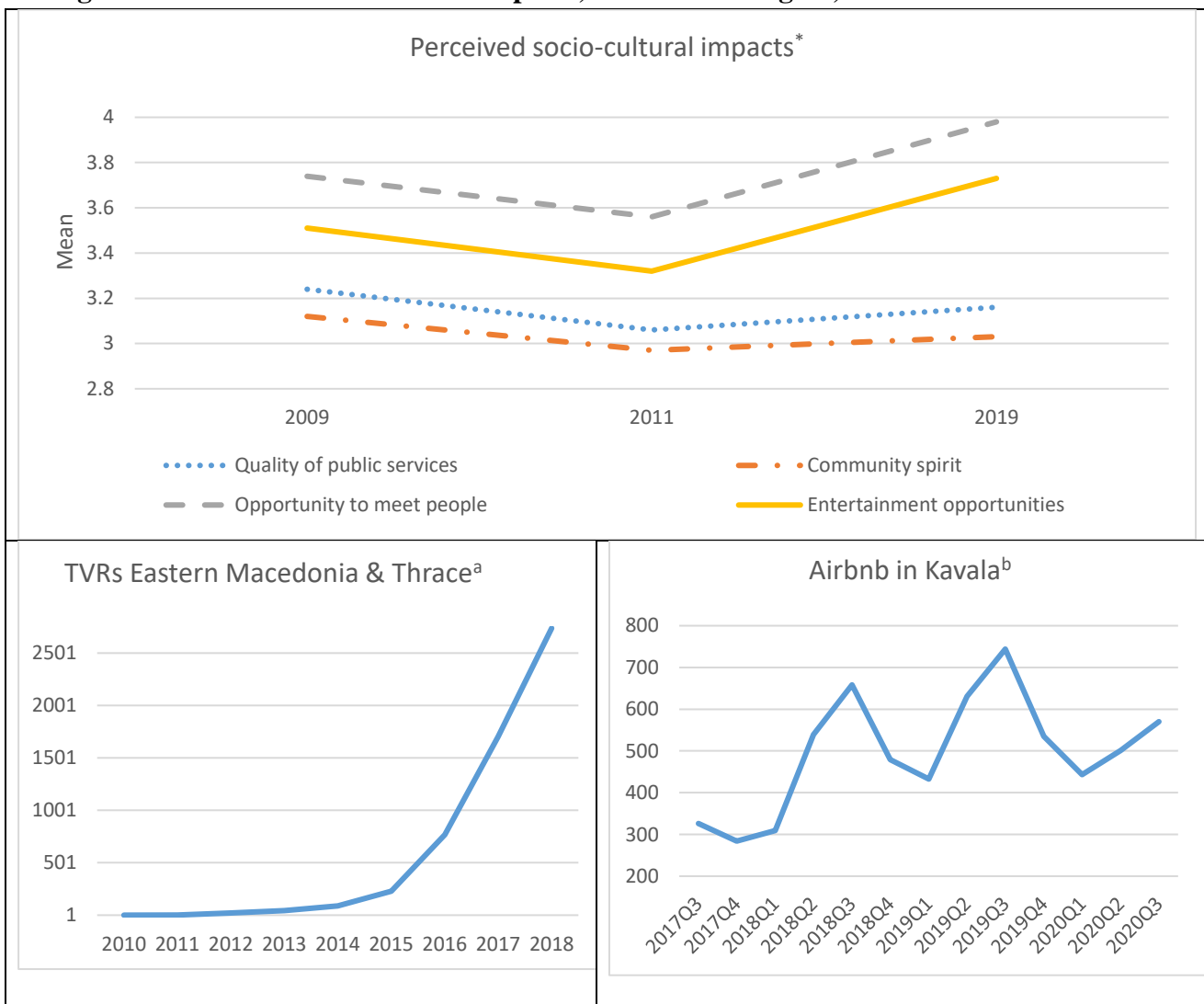
* No data available for price of land/housing in 2011

^a source: https://ec.europa.eu/eurostat/databrowser/view/nama_10r_2gdp/default/table?lang=en

^b source: https://ec.europa.eu/eurostat/databrowser/view/nama_10r_3empers/default/table?lang=en

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Figure 2. Perceived socio-cultural impacts, TVRs in the region, and Airbnb in Kavala



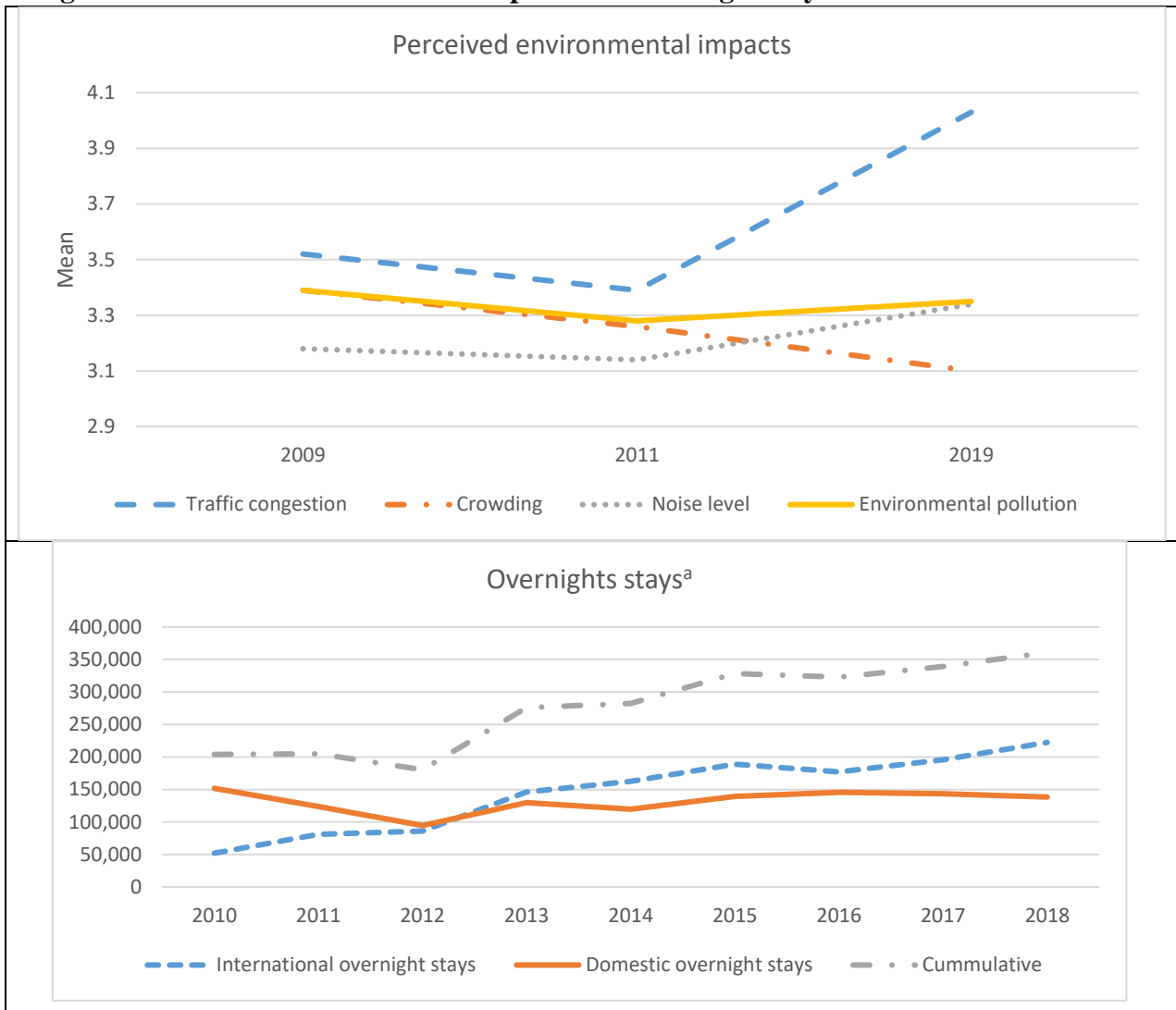
* No data available for recreational facilities and crime in 2011

^a Source: Athanasiou and Kotsi (2018)

^b Source: <https://www.airdna.co/vacation-rental-data/app/gr/default/kavala/overview>

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Figure 3. Perceived environmental impacts and overnight stays in Kavala



^a Source: Source: Hellenic Chamber of Hotels - INSETE Intelligence 2019