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HAS OVERTOURISM REACHED THE MALTESE ISLANDS?

Lino Briguglio* and Marie Avellino§

Abstract. Tourism is often considered as a desirable activity for the visitors, in terms of recreation, adventure, cultural enhancement and other benefits of travel, and for the host community mostly in terms of the income and employment it generates. With improvements in income and decreases in the cost of travelling, tourism has increased rapidly over the past decades, and in many destinations, the host communities have started to experience the negative side of high rates of tourist inflows, mostly arising from overcrowding, traffic congestion, misbehaviour by visitors and damage to the physical environment. In 2017 and 2018 there were several reports in the media and papers in many academic journals describing the exasperation of the local residents with what became known as ‘overtourism’ – signifying that there are too many visitors to a particular destination at the same time. The objectives of this paper are two-fold, namely (a) to present a literature review on the upsides and downsides of tourism and (b) to assess, by means of a survey, the attitudes towards tourism in Malta, so as to consider whether Malta has reached the stage of ‘overtourism’. The main conclusion of the paper is that overtourism can lead to various social and environmental pitfalls which could outweigh the economic benefits of tourism for the host community. The responses to this survey would seem to indicate that this is the situation in Malta at present.

Keywords: overtourism, tourism management, sustainable tourism, Maltese Islands, carrying capacity, resident attitudes

1. Introduction

Objectives of the study

The objectives of this paper are two-fold, namely (a) to present a literature review on the upsides and downsides of tourism and (b) to assess, by means of a survey, the attitudes towards tourism in Malta, so as to consider whether Malta has reached the stage of ‘overtourism’. Overtourism in a destination is often associated with tourism carrying capacity in that location. As we shall explain in Section 2 of this paper, the exact point where carrying capacity is exceeded is difficult to measure objectively, due to various reasons including that carrying capacity is not something static, has various dimensions, depends on the good or bad behaviour of the visitors, and varies according to the social and environmental policies and practices in the host destination. For the purpose of this paper, overtourism is associated with a situation where the host community considers that it is undesirable to have more tourists.

Background

Tourism is often considered as a desirable activity for the visitors, in terms of recreation, adventure, cultural enhancement and other benefits of travel, and for the host community mostly in terms of the income and employment it generates. With improvements in income and decreases in the cost of travelling, tourism has exploded over the past decades, and in many destinations, the local communities have started to experience the negative side of high rates of tourist inflows, mostly arising from overcrowding, traffic congestion, misbehaviour by visitors and damage to the physical environment. In 2017 and 2018 there were several reports in the media and papers in many academic journals describing the exasperation of the

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local residents with what became known as ‘overtourism’ – signifying that there are too many visitors to a particular destination at the same time.

Hypotheses and methodology of the survey

The survey conducted for the purpose of this study tests two main hypotheses namely that (a) in the Maltese Islands overtourism has set in, and (b) that the attitudes towards tourism among Maltese residents depend on a number of personal attributes including the individual’s age, educational attainment, tourism-density of residence and direct dependence on the tourist industry. In order to test these two hypothesis, a survey was conducted by the present authors with Maltese residents as respondents. Further details relating to the survey methodology are given in Section 4.

Layout of the paper

The rest of the paper is organised in five sections. Section 2 presents a literature review on topics associated with the main theme of this study. A review of tourism developments in Malta between 2000 and 2018 is given in Section 3. Section 4 describes the survey methodology adopted to test the hypothesis of this study. The results of the survey and the interpretation of the results are presented in Section 5. The final section derives a number of implications from the results of the survey.

2. Literature Review

Introductory overview

This section presents a literature review on the impacts of tourism on the host country, as well as three concepts associated with such impacts, namely carrying capacity, sustainable tourism and overtourism. These three concepts are associated with the idea that the beneficial effects of tourism depend on the quantity and quality of visitors, and that beyond some point the returns of tourism turn from positive into negative ones. The concluding part of this section presents a synthesis of the main issues treated in the literature.

The upsides and downsides of tourism

The economic advantages and disadvantages of tourism have been widely documented in various studies (e.g. Bryden, 1973; Tribe, 1999; Vogel, 2001; Archer et al., 2005; Diedrich et al, 2009, Ahmad et al., 2018). The most important benefits of tourism are generally associated with its contribution to the economy. Tourism seems to be more effective than other industries in generating employment and income because of its relatively high income multiplier and inter-industry linkages (Archer, 1977; Briguglio 1992, Khan et al. 1995; Zaei & Zaei, 2013; Stephanos & Polo, 2016).

However, with the rapid growth in tourism, several writers expressed reservations about the nature and size of the benefits attributable to tourism and expressed a degree of scepticism about the potentialities of tourism as a means of maximizing the welfare of the resident population (e.g. Archer et al., 2005, Cooper et al., 1993, Bastias-Perex & Var, 1995 Andereck et al. 2007, Andereck & Vogt, 2000). There are studies that even dispute the extent or existence of net economic benefits of tourism referring mostly to the increasing demand on the scarce resources of the tourist area, particularly land, water and housing (Martin et al,

2018). Tourism may also have negative effects on employment in the sense that the sector is often characterised by very low wages and unsatisfactory working conditions (Walmsley, 2017).

The benefits of tourism have also been associated with cohesion and social harmony, with some studies considering tourism to be a force for peace and understanding between nations (e.g. Leitner, 1999). Again here the connection of tourism with peace and understanding has been questioned. In some cases, international tourism has been considered as a form of ‘neo-colonial’ type of development on emerging nations (Hall and Jenkins, 1995). Another factor relates to the resentment that may be caused by the higher paid positions in hotels held by expatriates, generating a feeling of inferiority among the locals, for whom the more menial jobs are frequently reserved (Archer et al., 2005). Tourism, even if good for economic development, can also create inequalities between regions and social classes (Tosun et al., 2003).

In a strand of the literature, tourism is described as passing through different phases. Butler (1980) considered tourism development as a series of stages through which a destination evolves, with the respective stages called exploration, involvement, development, consolidation and stagnation. Residents’ attitudes depend, in part, on these stages, breeding negative attitudes in the latter stages. Doxey (1976) had earlier argued that residents’ attitudes are positive during the initial stages of tourism development but become increasingly negative as a destination evolves towards stagnation. Increases in the cost of living, parking problems and increased crime are some of the negative impacts of high rates of tourism inflows which effect residents’ quality of life at tourist destinations with high tourism inflows (Ap & Crompton, 1993; Matthieson & Wall, 1982, Wall & Matthieson, 2006; McCool & Martin, 1994 in Andereck et al, 2005).

The debate on the pros and cons of tourism has often been conducted on three broad concepts, namely tourism carrying capacity, sustainable tourism and more recently, overtourism. What follows is a brief discussion on each concept as it was dealt with in the literature.

Tourism carrying capacity.

The term “carrying capacity” has been used to describe the possibility that tourism has its limits, generally in terms of the number of visitors, suggesting that if tourism exceeds this limit, the financial benefits of tourism would be outweighed by negative impacts, some of which may be economic, but mostly environmental and social. The concept has often been used in conjunction with sustainable tourism and overtourism.

There are various definitions of tourism carrying capacity. The World Tourism Organization (WTO, 1981) defined it as “the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic, socio-cultural environment and an unacceptable decrease in the quality of visitors' satisfaction”. Other definitions also refer to some form of maximum or limit. For example, Chamberlain (1997) defined it as the level of human activity an area can accommodate without the area deteriorating, the resident community being adversely affected or the quality of the visitors’ experience declining. Middleton and Hawkins (1998) define carrying capacity more simply as a measure of the limit beyond which an area may suffer from the adverse impacts of tourism. Similar definitions were proposed by Getz (1983), O’Reilly (1986). Coccossis et al,

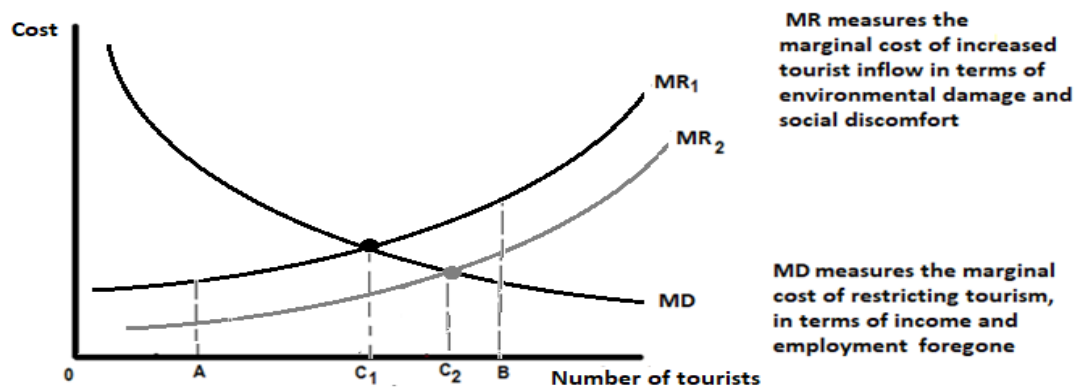
2001 and Nghi et al. (2007).

These definitions demonstrate that carrying capacity has various dimensions. Wagar (1964), often considered as a seminal work on this subject, focusses on ecological carrying capacity. The concept was subsequently developed into different forms such as ‘social carrying capacity’ (Daily & Ehrlich, 1996; Muler Gonzalez et al., 2018)), ‘cultural carrying capacity’ (Seidl & Tisdell, 1999; Cocassis et al., 2001), ‘environmental carrying capacity’ Wagar (1964) and economic carrying capacity (Wetzel & Wetzel, 1995).

The carrying capacity concept has often been applied to small islands (Briguglio & Briguglio, 1996; McElroy & de Albuquerque, 2002; Hampton & Hampton, 2009; Marsiglio, 2017). Tourism can be a major contributor to economic development of small islands, in view of their natural attractions and limited diversification possibilities, however small islands have limited territory and often a fragile ecosystem. For this reason, in research relating to island tourism considerable emphasis is placed the issue of carrying capacity of the tourist destination.

The limit or maximum capacity is difficult to calculate in practice. However, there are two opposing views on this matter. One is that carrying capacity is infinitely expandable, a view associated with those who promote mainstream tourism as if this can be absorbed indefinitely by the host destination. As Rees (1996) argues, mainstream tourism models tend to disregard ecological degradation and social discomfort on the host community. On the other extreme there are those that argue that too much importance is assigned to the ecological and social deficits of tourism as if the economic aspect does not matter.

Briguglio (2018) depicted these two extremes by comparing the cost of tourism control with the cost of tourism increases, as shown in the figure below.¹



In the diagram, the MR curve measures the marginal cost of restricting tourism. As explained above, tourism generates income and employment and usually has a relatively high income multiplier effects, as well as relatively high inter-industry linkages. This suggests that the higher the tourist inflows, the better it is for the economy. It follows that there is an economic cost of restricting tourist inflows, in the sense of lost employment opportunities, lost income

¹ This explanation is similar to the analysis relating to optimal pollution control.

to employees and entrepreneurs as well as to business in general. The MD curve measures the marginal cost of increased tourist inflow in terms of environmental damage and social discomfort. As explained above, as the tourist inflow increase, one should expect an increase in traffic congestion, overcrowding, environmental degradation and other undesirables.

A callous businessman or an excessively business oriented tourism authority, would opt for a large number of incoming tourists (for example at point B on the horizontal axis), assigning priority to business interests, and downplaying or even disregarding social and environmental concerns. At the other extreme a person or a tourism authority with fundamentalist views regarding environmental degradation and social wellbeing would opt for a very limited number of tourists (for example at point A on the horizontal axis), downplaying and even disregarding the economic benefits of tourism.

A person or a tourism authority with a balanced view in this regard would give due importance to economic, environmental and social concerns, taken together, arguing that an inflow of tourists near point C₁ would optimize welfare. The optimal number of tourists in terms of carrying capacity can be moved outwards towards C₂ (i.e. a higher tourist inflow) with better management of the destination, resulting in the lowering of the MR curve, as shown in the diagram.

The tourism carrying capacity argument has important practical implications for tourism management, especially for spatial planning and standards for sustainable tourism (Mexa and Coccossis, 2004; Zelenka, 2014; Jovicic and Dragin, 2008). Such management is fraught with difficulties (Papageorgiou and Brotherton, 1999), one of which is that carrying capacity is not something static and can differ from destination to destination (Jovicic and Dragin, 2008). In addition, carrying capacity is very difficult to measure (Kennel, 2016; Manning, 2002; Liu & Borthwick, 2011) given that it has various dimensions. One approach is to measure it in terms of numbers of tourists (López-Bonilla et al., 2008), alternatively the focus can be on the limitations of resources (Castellani et al., 2007).

Sustainable Tourism

The concept of carrying capacity is often associated with sustainable tourism, but there are important conceptual differences between the two concepts. Sustainable tourism is a process with connotations relating to the welfare of future generations, with long run and enduring implications, and active involvement of stakeholders, including the host community (Hardy et al., 2002).² In addition, it generally has global implications. On the other hand, carrying capacity has a more local orientation and generally refers to the current community in the host destination. Carrying capacity is sometimes interpreted as a form of application of sustainable tourism, in that both relate to the impacts and limits of development (Butler 1996; 1999). Both concepts are based on similar principles associated with the downsides of excessiveness and overuse (Tribe et al 2000:44-45).

Butler (1999) writes that the topic of sustainable tourism was relatively new when he wrote that article, a concept influenced by the Brundtland report *Our Common Future*.³ Butler explains how the concept had developed until then, arguing that it was imprecise and leading

² See Simmons (1994) on community participation in tourism planning

³ <http://www.un-documents.net/our-common-future.pdf> . However, Hunter, C. (1997) states that Despite owing its origins to the general concept of sustainable development, the subject of sustainable tourism appears to have evolved largely in isolation from the continuing debate on the meaning of the former.

to conflicting interpretations. He states that in sustainable development discourse the physical environmental aspect was assigned central stage and the author recommended that the social environment be given its due importance in such discourse. In an earlier study, Pigram (1990) contended that the difficulty with sustainable tourism in the longer term arises because of the conflicting objectives and priorities among resource management agencies, tourist developers and the communities affected.

The imprecise definition of sustainable tourism was also referred to in Murphy (1998) arguing that while it is relatively easy to theorize about sustainable tourism, it is far more challenging to develop an effective, yet practical, measurement process. This view is shared by McCool *et al.* (2001), who stated that there was still disagreement on what should be sustained and on the appropriate indicators for measuring sustainability.

Liu, Z. (2003) also argues that the concept of sustainable tourism remained unclear leading to patchy and disjointed debate. The author stated that the discussion on this concept tended to neglect tourism demand and dealt mainly the conditions in the supplying destination. This, according to Liu called for a more scientific approach built on an inter-disciplinary perspective.

Higgins-Desbiolles, F. (2018), refers to the difference between theory and practice with regard to sustainable tourism, and contends that tourism is often considered as a means for economic growth, a pursuit which can be incompatible with sustainability goals. The author refers to the lip service paid to sustainable tourism by policy makers, when in reality these care more about numbers of incoming tourists, ignoring the requirements of sustainability.

In spite of the problems with definition and measurement of sustainable tourism, the subject attracted a large number of studies. Ruhanen *et al.* (2015) conducted a literature review on the subject over a 25-year span, based on studies in four highest ranked journals in the tourism field. The authors found that that the term has been very extensively used and that., while the theoretical and methodological approaches matured over time, there was a move away from definitional and conceptual studies to papers focusing on testing and applying theory through empirical research.

Associated with carrying capacity is the concept of Limits of Acceptable change (LAC) (Goodwin, 2018; Stankey *et al.*, 1985; Roman *et al.*, 2007). Originally developed and more often used for managing protected areas however it could be useful to apply the method to heritage sites or even walled cities such as Mdina, the old capital city in Malta. Whereas carrying capacity may be considered “too difficult and subjective to identify, too negative and constraining, or too deterministic” (Weaver, 2006:156), the LAC model places the emphasis on the values which are identified as being worthy of protection. McCool and Moisey (2001) contend that then such a strategy would involve focussing on ways of protecting these identified values. Whilst in carrying capacity discourse the main question is that of asking ‘how much is too much’, in the case of the LAC one would ask ‘how much change is acceptable’ (Weaver, 2006:156). Once this is identified, then one can establish how much is acceptable within the existing and extrapolated parameters and a number of assumptions, such as that of choosing for a strong or weak sustainability approach and where regulations can be established, monitored and enforced. Weaver, 2000 (217-24) proposes at least seven one-step destination development scenarios which range from Circumstantial Alternative Tourism (CAT) to Unsustainable Mass Tourism (UMT) which call for diverse carrying capacity management-frameworks.

Overtourism

Disregard for carrying capacity and sustainable tourism could lead to a situation of overtourism. This term is generally associated with the downsides of tourism including overcrowding, traffic congestion, excessive development and takeover of facilities by tourists. These negative impacts were identified before the term “overtourism” started to be used frequently in the literature (see for example, Archer et al. 2005), but with the increased occurrence of these tourism disadvantages in various tourist destinations, notably Barcelona and Venice, the term has evolved to illustrate the manifestations and dangers of uncontrolled tourism.

According to Goodwin (2017) overtourism describes 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. It contrasts with the concept of “responsible tourism” which is about using tourism to make better places to live in and better places to visit.”, which, in other words, is associated with creating shared values for host communities, for business and for tourists. According to the same author the term was coined in 2012, although the challenge of managing tourism sustainably for residents, had been recognised decades earlier. However, after 2012, there has been a radical change in the perceptions of local residents in many countries regarding tourism, possibly, according to Goodwin, because in many destinations a tipping point had been reached.

According to McKinsey & Company (2017) the major challenges relating to overtourism include social discomfort for local residents, undesirable experiences by visitors, overloaded infrastructure, environmental degradation and threats to culture and heritage.

The meaning of the term is also discussed in Koens et al. (2018), which, the authors argue, is not clearly defined, although it is being increasingly used in academic work. Its meaning therefore needs to be clarified, avoiding preconceived myths that may inhibit a well-rounded understanding of the concept.

One factor that may have led to overtourism is the decreasing cost of travel including the low-cost carriers and low-cost accommodation, such as Airbnb (Stanchev, 2018; Silver, 2018). This is an argument put forward by Martín Martín et al. (2018) when discussing overtourism in Barcelona. They consider supply and demand in this regard as having responded to each other, with the increased tourist flows finding a response in an increase in hotel rooms and rooms outside of hotels. This resulted in negative attitudes towards tourism. According to these authors, as a result of overtourism, the positive economic impact often associated with this industry is counteracted by increases in the cost of living and an increase in rental prices for the local community.

A term that gained currency as a result of the occurrence of overtourism is tourismphobia. Milano et al (2018) refer to this term, when discussing the host country antagonism and social unrest as a result of the social discomfort ushered in by excessive tourism. As stated these problems had been identified decades earlier in Doxey, (1975), Plog (1977) and Butler (1980) in the context of the tourism life cycle. The terms tourismphobia⁴ has its genesis in the rapid increase of mass tourism, accompanied by unsustainable practices in urban, rural and coastal

⁴ According to Milano (2017), tourismphobia appeared for the first time in “El País” newspaper in 2008 in an article titled “Turistofobia”, written by the Catalan anthropologist Manuel Delgado.

spaces (Goodwin, 2017; Dredge, 2017; Milano, 2017) and the responses that this has generated amongst members of the host communities, a reality which captured the attention of the academia and the press. The presence of too many tourists, accompanied by badly planned spatial development measures are therefore considered as the main causes of tourismophobia. Milano gives examples of prominent cases in this regard referring to Hong Kong, Rio de Janeiro, Malta, Barcelona, Dubrovnik and Venice.

Venice is often mentioned as one of the place where overtourism has brought about a backlash from the local community and where in 2018 the city mayor Luigi Brugnaro proposed a cap on day-trippers. According to Seraphin, et al., (2018) ecology, in this tourist destination, economics and culture are inextricably linked with human and natural capital. The authors however argue that the reality of overtourism should not result in anti-tourism sentiments, but calls for a better management approach.

Alexis (2017) refers to the different sources of negative tourism externalities, leading to anti-tourism demonstrations in popular destinations including Venice, Dubrovnik, Santorini, Barcelona and Amsterdam, resulting in calls for controlling tourism development and restricting incoming tourism. The author states, however, that each case has different root causes, with, for example high tourism density relevant for Dubrovnik, socio-economic aspects for Barcelona and tourist misbehaviour for Amsterdam. Measures that are often proposed in the literature to reduce the downsides of overtourism include behavioural guidelines/regulation for tourists, limiting licences for tourism accommodation and other service providers are considered useful, but according to Alexis, major importance should be assigned to the management of the destination's carrying capacity, arguing that the root problem of overtourism is really under-management.

This line of reasoning is also taken by Milano (2017) and Milano et al. (2018), who argue that better spatial planning of tourism is required to take account of the carrying capacity of destination. The authors maintain that a policy of "laissez-faire", which still prevails in many destinations, is never a good solution for overtourism, and that tourist activity should be regulated.

Similar arguments are put forward by Stanchev (2018) who contends that tourists are not the only ones to blame, and that the authorities should take actions to control the situation. Some management ideas that are practised are listed by this author, including limiting the number of cruise ship passengers, as in the case of Santorini, limiting road access in the case of Cinque Terre in Italy and utilising technology by displaying the number of visitors in real time in order to enlighten the tourists to avoid congestion in specific sites, such as Amsterdam and Venice. Santorini and the Balearic Islands promote their off-season attractions to reduce the problems of seasonality. Barcelona, Venice and Amsterdam try to spread visitors by changing the routes of cruise ships. Airbnb is being regulated in Amsterdam, the Balearic Islands and Barcelona. Some destinations have banned public drinking, activities and business activities in certain areas to preserve the cultural heritage and local identity and to avoid public disturbance.

Overtourism, paradoxically, could even lead to economic problems, at least in the industry itself, contradicting the idea that more tourists are good for the economy. Stanchev (2018) refers to the rise in the cost of living in this regard. According to this author the negative economic aspects include loss of traditional retail, rise in property prices and land speculation and lack of housing availability for the locals, and excessive use of limited resources.

Walmsley (2017) writes about the employment effect of overtourism, particularly the poor working conditions in the tourism sector in terms of pay and working conditions.

Jet (2018) lists a number of initiatives, including taking the drastic step of limiting the number of visitors, in different tourist destinations, including, Santorini in Greece, Cinque Terre and Venice in Italy, Machu Picchu in Peru, Barcelona in Spain, Mount Everest in Nepal. The author suggests a number of methods as to how the negative impacts of overtourism can be reduced. These include respect for the local community, and visiting a location off-season.

McKinsey & Company (2017) also recommend a number of good tourism management practices, including the need to build a comprehensive fact-based knowledge of the problems, regularly updated, putting in place a sustainable growth strategy through rigorous, long-term planning and involving all sections of society—commercial, public, and social in matters relating to tourism. The same publication also proposes a number of tactics for addressing overcrowding, including smoothing the flow of visitors over time, spreading visitors across sites, adjusting pricing to balance supply and demand, regulating accommodations supply, and limiting access and activities.

However, controlling overtourism is not easy to implement. As Jet (2018) argues, the strategies proposed in McKensy & Company (2017) may find resistance from the local, state, and national government who receive tax revenue, from tourism boards and convention bureaus promoting the destination, from businesses profiting from travel, both locally and abroad, from employees in travel and related fields.

Synthesis

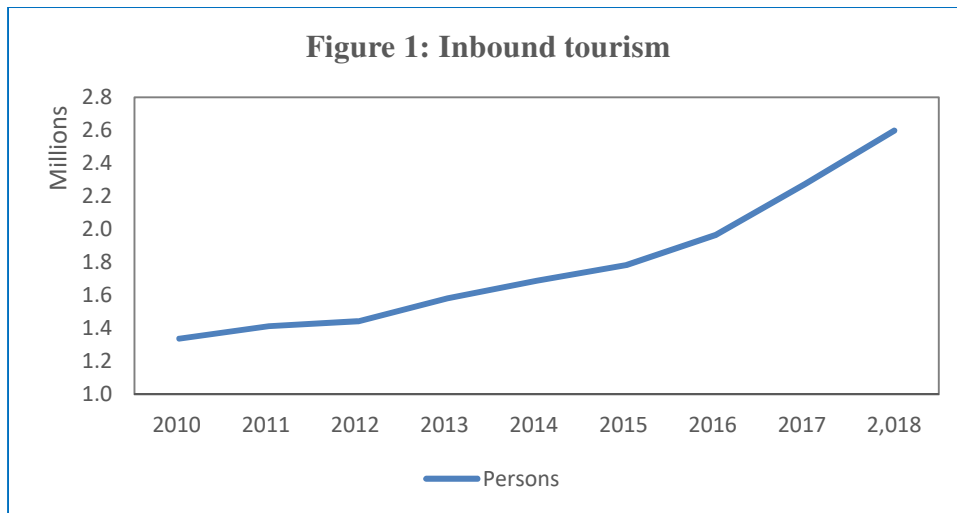
The three concepts relating to excessive tourism discussed in this literature review section are related to each other, but have distinct features. Carrying capacity suggests that there is a limit as to how many tourists can visit a given destination or how much tourist development is acceptable in that destination at a given moment in time. On the other hand, sustainable tourism relates, at least in theory, to the welfare of future generations. Overtourism refers to a situation where the objectives of both carrying capacity and sustainable development are abandoned. A common implication of these three concepts is that, if not managed properly, tourism can negatively affect the welfare of the host community, mostly as a result of the undesirable economic and environmental repercussions.

3. Recent tourism trends in Malta

Incoming tourists

The number of tourists visiting Malta has increase rapidly between 2010 and 2018 as can be seen from Figure 1, with incoming tourists almost doubling, increasing from 1.33 million to 2.59 million during that period, at an average annual rate of 8.7% per annum.⁵

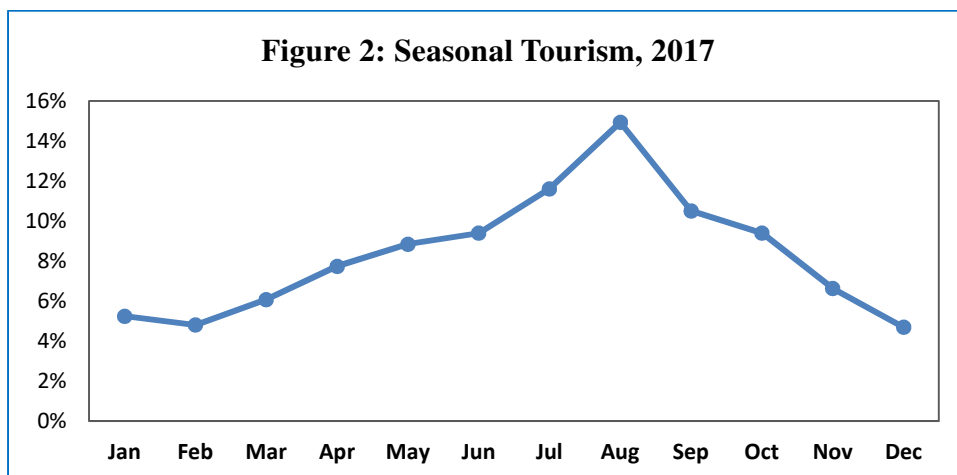
⁵ If measured in terms of nights of stay the rate of increase would be about 2 percentage points lower, as the average nights of stay tended to decrease during this period, averaging just about 7.9 days per tourist.



Receipts from tourism have also increased rapidly between 2010 and 2018, at an average annual rate of 8.1% per annum in nominal terms. Expenditure per capita, however, tended to decrease at an average annual rate of 0.6 % during this same period.

In 2018, about 90% of incoming tourist originated from the EU, mostly from the UK, Italy, Germany and France. About 35% of incoming tourists came on package tours, with the remaining 65% travelling individually. There appeared to be a tendency for incoming tourist to prefer non-package tours during the period in question. About 73% of the tourists were first time visitors with the remaining 27% being repeat visitors. Interestingly, the number of repeat visitors has tended to decrease between 2010 and 2018.

Tourism in Malta is seasonal, as shown in Figure 2. In 2017, 46% of tourists visited Malta during the summer months (June to September), mostly in August, while about 15% visited during the winter months (December, January and February). The, and the remaining 39% visited during the shoulder months (March to May, October and November).



Source: Malta Tourism Authority (2018). *Tourism in Malta – Facts and Figures 2017*.

Tourist Accommodation

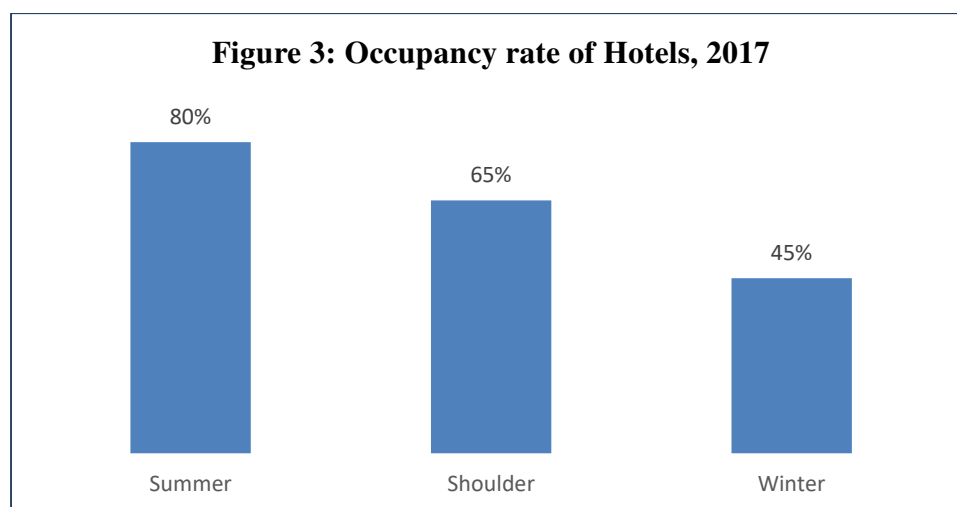
Tourist accommodation in terms of units and number of beds is shown in Table 1. It can be seen that in 2017, there were about 39 thousand beds in services accommodation and

about 12 thousand beds in licensed self-catering accommodation.

	Malta & Gozo		Malta		Gozo	
	Units	Beds	Units	Beds	Units	Beds
Hotels	138	34,714	122	33,014	16	1,700
5 Star Hotels	15	7,284	13	6,842	2	442
4 Star Hotels	41	15,318	37	14,772	4	546
3 Star Hotels	58	10,486	52	9,946	6	540
2 Star Hotels	24	1,626	20	1,454	4	172
Tourist village	1	612	1	612	0	0
Guest houses/hostels	81	3,662	70	3,368	11	294
Serviced Accommodation	220	38,988	193	36,994	27	1,994
Self-Catering Accommodation	3,078	13,092	2,005	7,384	1,073	5,708
Total Tourist Accommodation	3,298	52,080	2,198	44,378	1,100	7,702

Source: Malta Tourism Authority (2018). *Tourism in Malta – Facts and Figures 2017*.

The seasonal nature of Malta’s tourism also affects the occupancy rate of tourist accommodation, with about 80% occupancy during the summer months, 65% occupancy during the shoulder months and 45% occupancy during the winter months.



Source: Malta Tourism Authority (2018). *Tourism in Malta – Facts and Figures 2018*.

Motives for visiting Malta

About 75% of tourist visit Malta for a holiday destination as the primary reason. The remaining 25% visit mostly for business reasons and to visit their family or friends. According to the MTA (2017) survey, Malta’s main tourist attraction are considered to be its climate and surrounding sea, as well as its historical and cultural heritage.⁶ Other important

⁶ Source: 2018 (MTA,2018), and National Statistics Office (Malta) Inbound Tourism data 2017” available at https://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_C3/Tourism_Statistics/Documents/2019/News2019_017.pdf .

motives were found to be visits relatives or friends, business, scuba diving and English tuition.

Possible reasons as to why tourism increased rapidly

The reason why tourism grew at such a fast rate in recent years may be due to various factors including the increase in the operations of low-cost carriers. These carriers have probably contributed significantly to the increase in tourist inflows in terms of price,⁷ improved connectivity and publicity for Malta⁸ (Attard, 2018; Graham & Dennis, 2008; Pulina & Cortés-Jiménez, 2010). Political problems in competing destination in North Africa and the Middle East may also have contributed to the increase in Maltese tourism.⁹

Official Tourism Policy in Malta

There are various documents which delineate the Maltese government's strategies, policies and plans relating to tourism. Malta's congenial climate, its sea, its culture and its historical heritage are often mentioned as major attractions, and these documents are accompanied by pictures depicting these attractions.

Sustainability is given some prominence as well in these documents. For example, in 2007, one of the main objectives of the Nationalist Government's Tourism Policy for the Maltese Islands 2007-2011, was to "Develop tourism in a sustainable way to ensure an improved quality of life through the conservation and maintenance of environmental and socio-cultural resources" (Ministry for Tourism and Culture, 2007). In 2012, the same government issued another document (Ministry for Tourism, Culture and the Environment, 2012) updating the tourism policy for the period 2012-2016, again referring to sustainability throughout the document. With a change in government, a new tourism policy for 2015-2020 was published (Ministry for Tourism, 2015). Again the lofty objective of sustainability was mentioned in different parts of the document.

In practice however, sustainability was often only offered lip service only and the success of the industry was generally measured in terms of tourist numbers by the tourism authorities. The dependence of mass tourism continued unabated, and very little, if at all, was done to reverse this trend.

The objective of improving the quality of tourist often features in the mentioned government policy and plans but the reverse may have happened in practice. With the increasing presence

⁷ Briguglio and Vella showed that during the first half of the 1990s, in the absence of low-cost carriers, Malta was one of the most expensive tourist destinations in the Mediterranean. Paradoxically this could have possibly resulted in better quality tourists in general compared to those Malta has been received since the advent of low-cost carriers.

⁸ Low-cost carriers operate from a large number of airports and the name 'Malta' is shown on the screens showing arrivals and departure. This serves to make thousands of passengers aware of Malta as a low-cost carrier destination.

⁹ The governments that Malta had since 2010 often boasted about the increase in tourism for political mileage, as if this was mostly the result of government action. The government-financed publicity campaigns and the government's policy in letting low-cost carriers operate have definitely helped to attract tourists. However, in many aspects, if other things are kept constant, the practical policies of successive governments would have probably led to fewer tourists visiting Malta, mostly due to deficient measures relating to building permits, leading to unrelenting construction activity, inadequate traffic management, leading to a high degree of polluting traffic congestion and unsatisfactory litter control. See Mulvihill (2016) and Scicluna (2017) for a list of tourism downsides in Malta.

of low-cost carriers and cheap travel from Sicily, the dependence on low quality tourism has very probably increased.

Overtourism in Malta

There seems to be a growing awareness of the downsides of overtourism in the Maltese islands. An interesting stance was taken by the Malta Hotels and Restaurants Association (MHRA)¹⁰ when in 2014 the Association called for a tourism vision with a longer term perspective, based on sustainable development.¹¹ A similar call was made in 2018, by the same Association when it called the authorities to establish the maximum number of tourists that Malta can cope with due to its limited geographical size and high population density.¹²

Academics at the University of Malta also sounded alarm bells at the prospect of overtourism (Ebejer et al., 2018) , as evidenced during a seminar on this subject held in December 2017.¹³

A number of student dissertations also focussed on this problem...including, just to mention two, studies presented by Said (2017) and Sultana (2018) with both studies emphasising the need to reduce the social and environmental negative impacts of tourism in certain locations in the Maltese Islands.

So far, there have not been public demonstrations in Malta against overtourism, but the awareness among local communities that too much tourism has various downsides is growing. A Southern European front against Touristification (SET) with representatives from Malta has been formed in 2018 to combat the negative effects of large influxes of visitors. A write-up by Cocks (2018) succinctly sums up such growing awareness among members of the population who live in high tourist density areas in the Maltese Islands.

4. Survey methodology

As stated in the introductory section, one objective of this paper is to assess the attitudes of Maltese residents towards tourism, by means of a survey, in order to establish whether overtourism exists in Malta. The logical underpinning the survey is that if a person states that he/she does not wish to see more tourists in the town or village where that person resides, that would be an indication that for that person the stage of overtourism may have set in.

For the purpose of this study, we define the term “overtourism” to mean that the majority of adult persons (aged 18 years and over) in a community are against receiving additional tourists. The hypotheses tested in this regard are the following:

1. The majority of Maltese adult residents do not wish to see an increase in tourists visiting the town and village where they reside.
2. The attitudes of Maltese adult residents towards tourism depend on a number of personal attributes, including the individual’s age, educational attainment, tourism-density of residence and direct dependence on the tourist industry.

¹⁰ The MHRA is an association representing the owners of tourism business establishments. More information is available at <http://mhra.org.mt/sample-page/about-the-mhra/> .

¹¹ <https://www.timesofmalta.com/articles/view/20140617/local/mhra-suggests-setting-maximum-carrying-capacity-for-malta-as-it-calls.523836>

¹² <https://www.timesofmalta.com/articles/view/20180518/local/mhra-tourism-warning.679389>

¹³ <https://www.um.edu.mt/newspoint/events/umevents/2017/12/tourismcarrying-capacityinmalta>

The survey was conducted in early 2019 by means of a questionnaire, administered on line, using the Qualtrics software. The first part of the questionnaire dealt with information about the respondent regarding various categories including age, education, residence and connection with tourism business.

The second part consisted of a number of statements and the respondents were expected to state whether he/she agreed, disagreed or neither agreed nor disagreed.

The respondents were asked to agree or disagree with the following statements:

1. I wish to see more tourists residing in the town/village where I reside.
2. I think that too many tourists create social discomfort in the town/village where I reside.
3. I think that too many tourists degrade the physical environment of the town/village where I reside.
4. I wish to see more hotels built and restaurants and other shops opened in the town/village where I reside to cater for tourists.

The responses to the six statements were cross-correlated with the following 4 different categories and sub-categories of respondents classified as follows:

Category	Sub-categories	
1. Age	18-59	60+
2. Educational attainment	Graduate	Other
3. Tourism-density localities residents ¹⁴	High	Other
4. Works directly in the tourist industry	Yes	No

It is assumed that older persons, persons with high levels of education, persons living in high tourism-density localities, and persons not working directly in the tourist sector tend to be less welcoming of high tourism influx than the other corresponding sub-categories.

Two additional questions related to the respondents' perceptions regarding the advantages and disadvantages of tourism and the reasons for and rapid increase in tourist inflows into Malta.

The survey was distributed through Facebook, using a number of popular Facebook Group sites in the Maltese Islands. A target of 400 responses by Maltese residents aged 18 and over was set in line with accepted statistical procedure relating to the size of the sample¹⁵ and once this number of respondents was reached, no further responses were considered.

The major weakness of this survey was that the sample of respondents was not representative of the Maltese residents in terms of the categories specified, notably gender, age, educational attainment and occupation. An attempt was made to assess the possible bias created by such non-representativeness, as shown in Appendix 2.

It should be noted here that using Facebook in order to administer a questionnaire has a cost

¹⁴ The following localities were considered as high tourism density locations: Sliema, St Julians, Swieqi, Gzira, St Paul's Bay (including Qawra and Bugibba), Victoria, Xlendi and Marsalforn.

¹⁵ This sample size assumes a 5% margin of error and 95% confidence level. Examples of sample size calculators are given in <https://www.checkmarket.com/blog/how-to-estimate-your-population-and-survey-sample-size/>.

and time advantage particularly in reaching a relatively large number of respondents, but it also has a number of disadvantages including that it is likely to attract a relatively larger proportion of respondents who are women, younger adults, and those with a relatively higher level education (Stern et al., 2016).¹⁶ The results derived from the survey should therefore be interpreted with caution.

5. Results of the Survey

The survey responses contained a wealth of information, as indicated in the results sheet presented as Annex 1. In what follows we summarise the results by referring to what we consider to be the most pertinent responses relating to the hypotheses presented above.

I wish to see more tourists in my town/village

In response to the statement “I wish to see more tourists in the town/village where I reside” only 18.3% of the respondents agreed that they wished to see more tourists in their town or village (Table 1 or Appendix 1), while 51% of the respondents disagreed.¹⁷ The remaining 30.7% were undecided. Only a small minority wanted to see more tourists visiting the islands. As explained above, we consider such a result as indicating that overtourism exists in the Maltese Islands.

The different sub-categories generally differed in their attitudes, as indicated in Appendix 1. As expected, respondents who live in high high-tourist-density localities expressed a lower degree of agreement than the average in their wish to see more tourists in their location. This was also the case of respondents aged 60 years or older. Conversely, respondents who work directly in tourism-related jobs showed a significantly higher degree of agreement with the statement than the average.

Social discomfort caused by tourists

In response to the statement “I think that too many tourists create social discomfort in the town/village where I reside”, 44% agreed, while 39% disagreed. The remaining 17% were undecided (Table 2 of appendix 1).

As expected, respondents living in high-tourist-density locations expressed a higher degree of agreement than their counterparts in associating tourism with social discomfort.

Degradation of the environment caused by tourists

In response to the statement “I think that too many tourists degrade the physical environment of the town/village where I reside”, 45.8% agreed, while 37.8% disagreed. The remaining

¹⁶ On social media survey biases see Kuru et al. (2016).

[https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&as_ylo=2015&q=using+facebook+for+surveys&btnG=stern+et+al+\(2016\)](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&as_ylo=2015&q=using+facebook+for+surveys&btnG=stern+et+al+(2016)) <https://journals.sagepub.com/doi/full/10.1177/0894439316683344>

¹⁷ In all categories the difference between the proportion of those who agreed and those who disagreed was statistically significant at the 5% level, using the statistical procedure relating to difference of proportions. This also applies to the difference in proportions between one sub-category and another as indicated in the text. In the case of Table 1 of Appendix 1, which we consider to be the most important table, the statistically significant difference occurred in the case of the age, residence in high-density tourism location, and employed in the tourism industry, but not with regard to educational attainment.

16.4% were undecided. (Table 3 of appendix 1).

Again, as expected, respondents living in high-tourist-density locations expressed a significantly higher degree of agreement than the average in associating tourism with environmental degradation.

More hotels in your location

In response to the statement “I wish to see more hotels built, and restaurants and other shops opened in the town/village where I reside to cater for tourists.” only 16.5% agreed, while 75.5% disagreed and 8% were undecided. (Table 4 of appendix 1).

As expected, respondents living in high-tourism-density localities showed a lower tendency to agree, when compared to the average. This was also the case of persons aged 60 years and over and non-graduates.

The downsides and upsides of tourism

The respondents were asked to mention up to two important advantages and up to two important disadvantages of tourism. This question did not contain any prompted advantages or disadvantages.¹⁸

The main advantages of tourism identified by the respondents were the following (percentages in bracket refer to the number of mentions in the responses)¹⁹:

1. Economic benefits, including income and employment generation (68.9% of responses).
2. Socio-cultural benefits, including intercultural exchanges (22.5%).
3. Infrastructural improvements mainly in the interests of tourists from which the residents also benefit (3.4%)
4. Honour and pride in seeing that so many tourists visit Malta (3.2%)
5. Improvement in services mainly in the interest of tourists from which the residents benefit (1.3%)
6. Provision of entertainment in order to attract tourists from which the residents also benefit (0.8%)

The main downsides of tourism identified by the respondents were the following:

1. Environmental degradation, including generation of waste and excessive construction activity, partly due to the large tourist inflow (44.0%)
2. Overcrowding, traffic congestion and noise (33.3%)
3. Loss of cultural identity and socio-cultural clashes, including bad behaviour by tourists (15.1%)
4. Prices increases, including rent, partly due to demand by tourists (4.9%).
5. Unbalanced economy due to excessive dependence on tourism (2.3%)
6. Various others (0.4%)

Perceptions as to why tourist inflows increased in Malta.

¹⁸ Given that the possible responses were not prompted, the wording used by respondents relating to the advantages and disadvantages listed differed.

¹⁹ Since each respondent was requested to mention two advantages in order of importance, the first advantage mentioned was given a 60% weight and the second a 40% weight. The same procedure was applied to the two disadvantages mentioned.

Respondents were asked to attribute the rapid increase in tourism during the past decade or so to three changes marking the most important item as 1, the second-most important at 2 and the third-most importance as 3. The results as the following (percentages in bracket refer to the number of mentions in the responses)²⁰:

1. Low-cost carriers (39.9%)
2. Low-cost accommodation in Malta (14.1%)
3. Publicity by Malta Tourism Authority (13.7%)
4. Better quality services and better quality hotels (10.3%)
5. Festivals organised in Malta (9.9%)
6. Cheap connection with Sicily (4.6%)
7. Political strife in competing destinations (1.7%).
8. English language schools (0.4%)
9. Various others (3.4%).

It should be noted that the first six reasons mentioned were prompted in the questionnaire without any score attached to them, whereas political strife in competing destinations and English language schools were not. If these two possibilities were prompted they might have received a higher score.

Other comments

The respondents were asked to add comments if they so wished. Sixty-eight respondents did so. Most comments were elaborations on earlier replies to the questionnaire. However, the fact that some respondents found it useful to add such comments can be taken as an indication that the issues mentioned required further emphasis. Many of those who added comments referred to more than one issue.

Most comments started with the admission that tourism generates economic benefits, but then went on to mention a number of tourism-related problems. A common problem that was identified related to the environment, mostly due to the rapid and seemingly badly planned construction of hotels and other tourist related buildings, the strain on resources, and the generation of waste and litter caused by the large number of tourists.

Other frequent comments referred to overcrowding, traffic congestion and noise pollution in certain areas caused by the high number of tourists. A number of respondents commented on the difficulty of boarding buses due to the use of public transport by tourists.

Much reference was made to the fact that low cost carriers and cheap accommodation was attracting low-spending tourists. One respondent stated that Malta would seem to be attracting tourists looking for a cheap getaway.

Some comments related to sleaze associated with tourism, particularly those who visit night spots, encouraging prostitution, theft and drug abuse. One respondent stated that he/she does not like the fact that young people abroad get to know Malta as the “party island where sex and drugs are easy to find”.

²⁰ Since each respondent was requested to mention three reasons in order of importance, the first reason given was given a 50% weight, the second a 30% weight and the third a 10% weight. The order of importance of the reasons given would still be the same if no weights were used.

Some respondents suggested that in order to attract higher quality tourist, the government should assign more importance to the upgrading and maintenance of heritage sites, sites of natural beauty, and to the infrastructure in general.

Other suggestions related to the need to spread the tourist inflow over time and spatially over Malta and Gozo, although others thought that doing so would spread the problems to otherwise unspoilt areas of Malta, and extend the problems associated with summer tourism into the winter period.

Some respondents referred to the unsustainability of the tourist industry, referring to the possibility that the unplanned manner in which the tourist sector is expanding would lead to the discouragement of good quality tourists.

Some comments related to the need to introduce an environmental tax, the need increase the funding to Local Councils in areas with high tourist density so as to generate funds for upgrading these areas, the need to oversee businesses catering for tourists so as to control underpayment to foreign workers, and the need to involve the local community in decision making relating to tourism.

Out of the 68 responses, only 8 focussed on the positive aspects of tourism namely generation of income and employment and better possibilities for intercultural exchange.

6. Implications and conclusion

The literature review presented in this paper indicates that economic factors are generally perceived to be the main benefits that can be derived by a destination from tourism. Other benefits include possibilities for intercultural exchange and opportunities for outdoor recreation as well as the provision of amenities and infrastructure provided mostly for tourists which can also be accessed and enjoyed by residents. However, the same review indicated that if not managed properly, tourism can negatively affect the welfare of the host community, mostly as a result of the undesirable social and environmental repercussions. The literature generally associates bad management of tourism development with unsustainability, overburdening of the destination's carrying and overtourism.

The survey results described in this chapter, would seem to support the hypothesis, set in the introductory section of this study, that in the Maltese Islands overtourism has set in, given that a clear-cut minority of respondents indicated that they wished to see more tourists in their location. In addition, a majority of respondents stated that they thought that too many tourists usher in social discomfort and environmental degradation.

The results of the survey also confirm the hypothesis that the attitudes towards tourism depend on a number of personal attributes. It emerged that persons who live in high-tourist-density localities, are not employed directly in the tourist industry and are aged 60 years or over tend to be more wary than other categories of individuals about high rates of tourism inflows. The hypotheses that were tested also included education as a factor affecting attitudes towards tourism, but the results do not support this hypothesis.

The responses to the questionnaire also indicate that the main reasons for the rapid increase in tourism in the past decade or so are cheap flights and cheap accommodation. This could have

possibly lead to an increase in the share of low-spending tourists and could be one reason for the decrease in tourists' per capita expenditure in Malta at the same time as the influx of tourists was increasing.

An important implication of the survey is that it appears that most respondents harbour the wish that the volume of tourists should decrease and that Malta should aim for better quality tourists. This requires that the Maltese Islands become a better quality destination. However, as things have developed in recent years, the authorities would seem to disregard the necessity of upgrading the tourist product in practice, although a lot of lip service is paid to this requirement.

The present study suggests that tourism policy should aim at mitigating the negative effects of tourism, not just for the well-being of the local residents but also to give a positive and memorable experience to the tourist. For this purpose, democratisation in tourism development should be encouraged, involving the active participation of the residents in the destination. This would not probably be an easy policy to carry out, as there are various conflicting interests and agendas involved in tourism. For example, business interests, often seeking short-term gains rather than social responsibility, are not likely to relish constraints on their freedom of operation. Politicians often try to gain political mileage by boasting about tourism numbers. There is therefore the ever-present tension between business and political interests as against societal, cultural and environmental costs. The latter have a long-term dimension and are hard to quantify and validate, rendering the democratisation process even more challenging. Nevertheless, instilling the active participation of the host community, leading inclusive tourism development, should lower the possibility that tourism reduces the quality of life of the local residents while giving a positive and memorable experience to the visitors.

As argued in OECD (2018) sustainable and inclusive growth in the tourism sector, requires “development of sound policies, integrated strategies, inter-ministerial structures, and mechanisms that involve the private sector and other stakeholders in tourism governance.” A recommendation in this regard would be to use a model, tailor-made for the Maltese Islands, using state-of-the-art technology to implement a strategy aimed at improving the tourism product, whilst considering aspects such as carrying capacity and the satisfaction of both residents and tourists.²¹

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²¹ A model of this type is a Smart Destinations project, called Segittur, promoted by the Spanish Ministry of Industry, Energy and Tourism, as part of the National Integrated Tourism Plan (PNIT) 2012-2015. (www.segittur.es/en/inicio/index.html).

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APPENDIX: 1

Table 1: I wish to see more tourists residing in the town/village where I reside

Percentages				
Category	Agree	Disagree	Undecided	Total
Density	18.3	51.0	30.8	100.0
High	16.0	55.3	28.7	100.0
Other	19.0	49.7	31.4	100.0
Work in TRS	18.3	51.0	30.8	100.0
No	16.2	51.7	32.1	100.0
Yes	25.9	48.2	25.9	100.0
Age	18.3	51.0	30.8	100.0
18-59 years	19.0	49.7	31.3	100.0
60 and over	13.5	59.6	26.9	100.0
Education	18.3	51.0	30.8	100.0
Graduates	18.6	50.2	31.3	100.0
Other	17.4	53.2	29.4	100.0

Table 2: I think that too many tourists create social discomfort in the town/village where I reside.

Percentages				
Category	Agree	Disagree	Undecided	Total
Density	44.0	39.0	17.0	100.0
High	66.0	24.5	9.6	100.0
Lower	37.3	43.5	19.3	100.0
Work in TRS	44.0	39.0	17.0	100.0
No	44.1	39.4	16.5	100.0
Yes	43.5	37.6	18.8	100.0
Age	44.0	39.0	17.0	100.0
18-59 years	40.8	42.0	17.2	100.0
60 and over	65.4	19.2	15.4	100.0
Education	44.0	39.0	17.0	100.0
Graduate	43.3	40.5	16.2	100.0
Others	45.9	34.9	19.3	100.0

Table 3: I think that too many tourists create environmental degradation.

Percentages				
Category	Agree	Disagree	Undecided	Total
Density	45.8	37.8	16.5	100.0
High	69.1	25.5	5.3	100.0
Other	38.6	41.5	19.9	100.0
Work in TRS	45.8	37.8	16.5	100.0
No	45.4	38.4	16.2	100.0
Yes	47.1	35.3	17.6	100.0
Age	45.8	37.8	16.5	100.0
18-59 year	42.8	39.9	17.2	100.0
60 and ov	65.4	23.1	11.5	100.0
Education	45.8	37.8	16.5	100.0
Graduate	44.3	40.2	15.5	100.0
Other	49.5	31.2	19.3	100.0

Table 4: I wish to see more hotels, restaurants and other shops in the town/village where I reside to cater for tourists

Percentages				
Category	Agree	Disagree	Undecided	Total
Density	16.5	75.5	8.0	100.0
High	14.9	78.7	6.4	100.0
Other	17.0	74.5	8.5	100.0
Work in TRS	16.5	75.5	8.0	100.0
No	17.5	76.2	6.3	100.0
Yes	12.9	72.9	14.1	100.0
Age	16.5	75.5	8.0	100.0
18-59 years	17.0	74.1	8.9	100.0
60 and over	13.5	84.6	1.9	100.0
Education	16.5	75.5	8.0	100.0
Graduate	18.2	73.5	8.2	100.0
Other	11.9	80.7	7.3	100.0

*Graduate means persons with completed tertiary education

APPENDIX 2:

Distribution of survey respondents compared to the expected distribution.

The following tables show the distribution of Maltese resident survey respondents compared to the expected distribution, as available from published data at the national level. In most cases the sample of survey respondents was significantly different from the expected distribution, on the basis of a statistical test relating to difference in proportions, at the 95% level of significance for this purpose.

We tried to render the sample more representative of the Maltese population by selecting a random sample equal to the proportion pertaining to the Maltese population from the sub-category of respondents that were over-represented, and reworked all the tables shown in Appendix 1. The results produced with the adjusted sample differed somewhat from those reported in Appendix 1, but the general tendencies remained. The smaller sample however had the disadvantage of not being large enough to satisfy the criteria mentioned in footnote 16 of this study.

Age:

Distribution	Respondents	18-29	30+	Total
Survey distribution of respondents	Actual number	177	223	400
	Actual percent	44.3%	55.8%	100%
Expected distribution of respondents*	Adjusted number	57	223	280
	Adjusted percent	20.4%	79.6%	100%

* Source: National Statistics Office, Malta. Data for 2017 accessed from: https://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_C5/Population_and_Migration_Statistics/Documents/2018/News2018_107.pdf

Educational attainment

Distribution	Respondents	Graduates*	Other	Total
Survey distribution of respondents	Actual number	291	109	400
	Actual percent	72.8%	27.3%	100%
Expected distribution of respondents*	Adjusted number	18	109	127
	Adjusted percent	14%	86%	100%

* Source: World Bank. Data for 2016 accessed from: <https://databank.worldbank.org/data/source/education-statistics-%5e-all-indicators> (Graduates refer to persons with completed tertiary education)

Gender:

Distribution	Respondents	Females	Male	Total
Survey distribution of	Actual number	261	139	400
	Actual percent	65.3%	34.8%	100.0%
Adjusted number	Adjusted number	135	139	274
	Adjusted percent	49.4%	50.6%	100%

* Source: National Statistics Office, Malta. Data for 2017 accessed from: https://nso.gov.mt/en/News_Releases/View_by_Unit/Unit_C5/Population_and_Migration_Statistics/Documents

Tourism-density localities residents

Distribution	Respondents	High density	Other	Total
Survey distribution of respondents	Actual number	94	306	400
	Actual percent	23.5%	76.5%	100%
Expected distribution of respondents*	Adjusted number	76	306	382
	Adjusted percent	20%	80%	100%

* Source: National Statistics Office, Malta, data pertaining to 2017

<https://www.citypopulation.de/Malta-Cities.html>

Data was not available at the national level for persons working directly in the tourist industry to establish the percentage of such workers. Although usually hotels and catering establishments are used to estimate the number of persons working directly with tourists, this is likely to be grossly understated as there are many others businesses, such as transport and owners of non-hotel residences used by tourists who generate income from tourism.