Strategies and measures directed towards overtourism: a perspective of European DMOs

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Abstract

Purpose – *Due to both the new quality and intensity overtourism discussions have received, it is time to examine the question concerning the consequences this development has on destination level and how destinations can adjust their strategies for future development. This is especially important to consider, since overtourism can be seen as a fundamental issue for tourism development. First measures taken within destinations show that reactions are taking place, e.g. through access restrictions of frequently visited places. The purpose of this paper is to identify future-oriented strategies and to derive concrete measures in order to deal with overtourism on a destination level.*

Design/methodology/approach – *In total, 19 qualitative interviews with European destination managers were conducted and evaluated via the qualitative analysis method GABEK® with WinRelan® software.*

Findings – *The results show that various stakeholders are involved in overtourism, with the destination management organization being the central actor to deal with issues. It is challenging to choose between different strategies and measures, which always have to be considered in relation to the specific conditions of a destination and the perception level of overtourism. In order to face current developments, the initiation of a stakeholder dialog can be seen as a promising factor, but also as a challenging task.*

Originality/value – *Currently, a "wait-and-see-attitude" exists, where well-known destinations are cited as negative examples, but a serious examination related to one's own destination has not yet been developed. This consideration should be seen as a prerequisite for future-oriented destination development, which takes the local population into account.*

Keywords Carrying capacity, Measures, Strategies, DMO, Overtourism, Destination development

Paper type Research paper

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1. Introduction

The last decades have been marked by far-reaching political, economic, ecological and social transformation processes which, due to the rapid development of information and communication (I&C) technologies and mobility behavior, can no longer be limited to isolated regional contexts (Barca *et al.*, 2012; Yeung, 2015). Tourism is a good example of this development and continuous growth rates can be stated around the globe. If destinations follow the strategy of internationalization, the tourism industry is put in the comfortable position of being able to expect and plan for an almost never-ending stream of guests from all over the world. This is especially true for urban destinations, where quantitative tourism development is becoming a matter of course (Mordue, 2017). Looking at the individual guest, a somewhat more differentiated picture emerges. Even if the international guest is hardly to be generalized due to his respective cultural background and different travel experiences, there are overarching trends already shaping tourism development today and which will continue to do so in the future. The following developments are briefly mentioned here:

■ The future guest is multioptional (Barr *et al.*, 2010) and looking for a diversity of experiences within a short period of time. At the same time, he/she is aware of the variety of possibilities. The search for orientation, meaning and uniqueness is a probable reaction to these developments.

■ A down-to-earth experience with contact with the locals and a holistic understanding of the tourist destination beyond the pure tourist products, with a consideration of local economic and community questions, is demanded more and more (Engeset and Elvekrok, 2015).

This is happening at a time when destination management organizations (DMOs) are faced with the challenge of orchestrating the interaction between guests and locals in a new way against the background of the overtourism discussion taking place at the moment (Martín *et al.*, 2018; Seraphin *et al.*, 2018). Well-known European examples of negative effects due to continued quantitative growth include cities such as Barcelona, Berlin, Lisbon and Prague (Koens *et al.*, 2018; Milano, 2017; Novy and Colomb, 2016), to name just a few destinations which seem to face issues related to overtourism. Within this, consequences on a local level are for example a lack in affordable housing due to online accommodation services, reached capacities of infrastructure and an increased immersion of tourism into the everyday life of the locals. The underlying dissatisfaction with tourism is not only felt by the locals, but increasingly also by the guests. Even though such phenomena are not basically new and negative consequences resulting from tourism have already been discussed in the past, overtourism under this term "has come to prominence as one of the most discussed issues with regards to tourism in popular media and, increasingly, academia" since 2016 (Koens *et al.*, 2018, p. 1). In this paper, overtourism is understood as follows: "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" (Goodwin, 2017). In this area of tension, DMOs are not so much lobbyists and advocates of the tourism industry, but are rather active designers and accelerators of sustainable regional development, with far-reaching consequences for their future task portfolio.

In order to depict the status quo of this discussion at the destination level and to formulate coping strategies, an empirical study with urban and rural DMOs in Europe was conducted during the course of this study. The specific research question is:

RQ1. How is the overtourism discussion currently perceived in the destinations, what needs for action should be formulated and, subsequently, what competencies should be developed?

First, the above-mentioned aspects are explained from a theoretical perspective and the current state of research is depicted. Then, in the course of the presentation of the research design, the results of the empirical study are displayed. In the concluding discussion, the implications of the results are presented and a special focus is placed on the implementation of the change process.

2. Destination development in times of overtourism

2.1 Carrying capacity of tourism destinations

Literature has been dealing with tourism flows and their impact on society and ecology for quite some time, but only recently under the term overtourism. At the start of the debate were concepts such as Soft Tourism (Krippendorf, 1982) and later Sustainable Tourism (Cooper, 1993), which have already taken up many of the theoretical, methodological as well as practical aspects currently discussed relating to the term overtourism. With an increase in the numbers of tourists and the negative effects associated with this, O'Reilly (1986, p. 254) was the first to define Tourism Capacity: "Indeed, tourism capacity can be simplistically defined as the maximum number of tourists that can be contained in a certain destination area."

The general concept of carrying capacity has its origin in the considerations of range and wildlife management and is based on the assumption that an organism can only survive under certain physical conditions. Common to the numerous definitions of tourism carrying capacity is the maximum level of use of space to a point at which conditions deteriorate (McCool and Lime, 2001). While many authors (McIntyre *et al.*, 1993; Wahab and Pigram, 1997) define this point as a singular number, McCool and Lime (2001, p. 381), however, argue that defining "carrying capacity in terms that are essentially numeric is not only unrealistic, but inappropriate. The important point [...] is that

tourism development [...] represents a set of tradeoffs." Swarbrooke (1999) subdivides the concept of tourism carrying capacity into the following components, thus dissolving the limitation to one single carrying capacity:

- physical carrying capacity describes the number of tourists a space can hold in real terms;
- ecological carrying capacity is the number of tourists a space can hold without damaging the environment or ecosystem;
- economic carrying capacity refers to a certain number of tourists, above which the economic damage (e.g. increased land and property prices) is no longer acceptable from the population's perspective;
- infrastructural carrying capacity describes the number of tourists that can be accommodated by the prevailing infrastructure;
- social carrying capacity refers to the number of tourists above which the social and cultural changes caused by tourism are no longer acceptable to the population; and
- perceptual sustainability is defined by the maximum number of tourists, above which the quality of the tourist experience suffers.

In addition to the importance of carrying capacity analyses, Swarbrooke (1999) also concedes a high degree of subjectivity in practical implementation. In terms of time, it seems crucial to consider the tourist carrying capacity against the background of the destination's position in its life cycle. The conceptual interaction of tourism carrying capacity and destination life cycle "is dynamic, with the idea of change implicit in both concepts" (Martin and Uysal, 1990, p. 329). Spatially, carrying capacity analyses are not limited to urban or regional destinations, but can also be applied to whole countries, even though this makes it imperative to adapt the survey instruments (McCool and Lime, 2001). In addition to scale, the issues with regard to carrying capacity differ between different types of destinations, which can be seen in carrying capacity analyses of islands (Bera *et al.*, 2015), cities (Rahmani *et al.*, 2015; Seraphin *et al.*, 2018) or rural destinations (Ezeuduji, 2015).

In the end – and above all – it seems essential to find compromises in the calculation of the tourism carrying capacity. The well-known example of an economic upswing (e.g. positive employment and income effects) coinciding with ecological pollution (e.g. air and water pollution) indicates the complexity of tourism development. Weighing and adjusting competing influencing factors ultimately only happens up to the point at which those affected and/or the decision makers do not (want to) find further compromises or accept any further negative influences (Cole and Stankey, 1997). Against this background, the qualitative assessment of the socio-cultural carrying capacity seems promising, as long as it is preceded by a well-balanced selection procedure of all those affected by tourism.

Particularly against the background of sustainable development, the methodology of the socio-cultural carrying capacity value stretch (CCVS) model according to Mansfeld and Jonas (2006) and its further development according to Namberger (2010) seems – from a scientific point of view – promising. Mansfeld and Jonas (2006) calculate the socio-cultural carrying capacity of rural tourist communities using the example of the Kibbutz Yiron in northern Israel with their model of a (socio-cultural) CCVS. Against the background of further tourism development in the destination, the model examines the perception of various influencing variables from the perspective of all actors in the destination, i.e. actors who profit from tourism – directly or indirectly – and also the population that at first glance has nothing to do with tourism. In a workshop, the individual views of all people (a selection of about ten people representing different interests as well as varying degrees of dependency on tourism) will first of all be determined with regard to the following three situation complexes: future fears, status quo (negative and positive aspects) and future hopes.

The results allow for a first qualitative insight regarding the participants' ideas of the (further) development of tourism. Subsequently, individual views are discussed within the group – in order to prevent possible misunderstandings – and, in a further step, summarized before each of the participants weighs these summarized statements according to a given point system. As such,

the participants' specific fears or hopes of high importance in general are revealed. On the other hand, an analysis of the differences between fears, hopes and the status quo (positive as well as negative aspects) reveals possible discrepancies with regard to future tourism development.

Namberger's (2010) further development of the CCVS model of Mansfeld and Jonas (2006) can be seen – among others – in the spatial comparison of two research areas (the municipalities of Deshaies and Sainte-Anne, both located on the island of Guadeloupe, which differ greatly in their tourist development and structure) and the respective selection of the actors involved, the practical implementation of the survey by e-mail and the modified analysis of the results: e.g. absolute scoring is "translated" into relative scoring and the variation coefficient is introduced for the valid measurement of the participants' agreement on certain aspects of content.

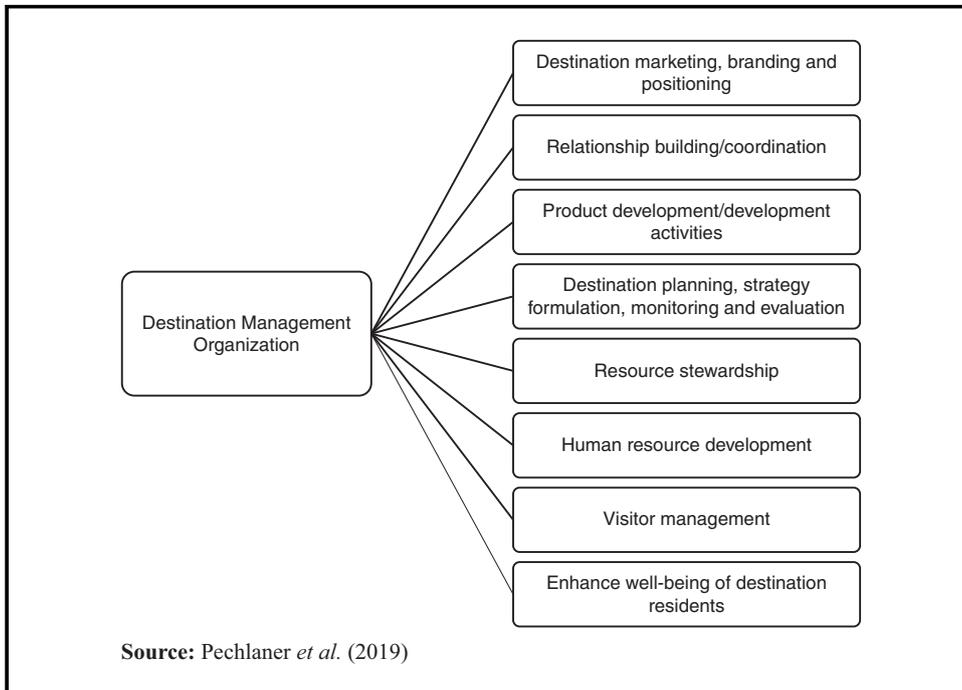### 2.2 The role of destination management organizations

The issue of carrying capacity has always remained relevant, most recently in the context of sustainable tourism (Coccossis and Mexa, 2017), and, as mentioned before, can also be seen in relation to overtourism – and vice versa (Seraphin *et al.*, 2018, p. 375). Generally, carrying capacity analyses are to be seen as negotiation processes in which all interests within the destination are to be taken into account. Even though other actors are important as well, DMOs can be regarded as the crucial actor in this field, since they have not only to identify, but also to bring together all actors affected by tourism within a destination in a harmonious way (Atorough and Martin, 2012; Flagestad and Hope, 2001; Holešinská, 2013; Paraskevas and Arendell, 2007). Generally speaking, "a DMO is responsible for strategic leadership as well as for the task of ensuring collective agency toward shared goals among the various service providers and stakeholders" (Pechlaner *et al.*, 2019, p. 5) within a destination (Bornhorst *et al.*, 2010; Flagestad and Hope, 2001; Sainaghi, 2006).

More specifically, DMOs require certain tasks and functions in order to shape and manage destination development. These range from classical marketing, branding and positioning functions (Aleksandrov, 2014; Blain *et al.*, 2005) to the establishment and coordination of relationships among stakeholders in the destination (Novotna and Černíková, 2017; Waligo *et al.*, 2013), as well as the development of destination-specific products and/or activities (Bornhorst *et al.*, 2010; Volgger and Pechlaner, 2014). Against the background of mid- and long-term planning, another task is to formulate, monitor and evaluate a strategy for destination development (Haugland *et al.*, 2011). From a sustainability-oriented perspective, resource stewardship and the development of a so-called "caring mentality" (Crouch, 2007, p. 31) also has to be taken into account, in order to preserve ecological, social and cultural resources. Since knowledge is a central aspect within destination development, which therefore needs to be expanded and strengthened, human resource development can be seen as a further DMO-task (Pechlaner *et al.*, 2019). In terms of individual target groups, visitor management has also to be mentioned, as well as the goal to enhance the well-being of residents in the destination due to tourism impacts (Bornhorst *et al.*, 2010; Paskaleva-Shapira, 2007; Pearce, 2015) Figure 1.

According to the DMO-functions presented above, it subsequently seems necessary to identify, check and, if needed, weigh key performance indicators (KPIs) in order to draw the right conclusions for sound future destination development, as well as to measure a DMO's success. In addition to the numbers of visitors or overnight stays within a destination (Garcia *et al.*, 2017), established and widely accepted KPIs can also be found in the fields of advertising awareness and impact, response levels and cost per use, conversion of enquiries to customers and return on investment. Nevertheless, it must be stated that at the destination level, such traditional KPIs have been somehow called into question in the recent past (Morgan *et al.*, 2012). Rather it is argued that long-term success is based more and more on functioning partnerships and relations between tourists, the local society, politics and companies (Morgan, 2012; Sharpley, 2014). Therefore, competitiveness and success of destinations are increasingly based on inclusion and stewardship (Morgan, 2012).

In the specific context of overtourism, especially the involvement of the local society seems to play an important role, since residents, who are informed about and involved in tourism development, have a more positive perception of tourism than those who are less informed and involved

Figure 1 Functions of destination management organizations

Destination marketing, branding and positioning

Relationship building/coordination

Product development/development activities

Destination planning, strategy formulation, monitoring and evaluation

Resource stewardship

Human resource development

Visitor management

Enhance well-being of destination residents

Destination Management Organization

Source: Pechlaner *et al.* (2019)

(Šegota *et al.*, 2017). Therefore, enhancing the well-being of destination residents and – in consequence – avoiding a decline in hospitality can be seen as the most crucial task for DMOs in times of overtourism, since, in the end, the success of tourism depends on the hospitality of local residents (Almeida-García *et al.*, 2016; Bimonte and Punzo, 2016; Muler Gonzalez *et al.*, 2018).

2.3 Overtourism in relation to a destination's life cycle

As the previous remarks have already shown, tourism carrying capacity has to be considered against the background of a destination's position in its life cycle, given the dynamic interaction of the two concepts (Martin and Uysal, 1990). Taking this into account, overtourism seems to be a phenomenon in – at least quantitatively – well-developed destinations. According to the initial ideas of Butler (1980), destinations are situated in a certain life cycle (see Figure 2), whereby an initial invention and exploration stage is followed by a certain development of tourism within the destination. In the course of this development, the number of visitors increases steadily, with the destination reaching a critical range at a certain point with regard to the available capacities. Next to a stagnation in visitor numbers, further possible scenarios within this range are a decline in tourism numbers, or, in the case of a destination's rejuvenation, a further numeric growth.

A closer look at Butler's (1980) considerations reveals that destinations with successful development and high attractiveness may appeal "large numbers of tourists, giving rise to crowding phenomena" (Neuts and Nijkamp, 2012, p. 2,134). Due to the fact that increasing numbers of tourists can generate problems within local communities (Kim *et al.*, 2013; Martín *et al.*, 2018), successful destinations seem to be threatened with overtourism if they continue to grow and reach a critical capacity range (Joppe, 2018). In this field, an increasingly vocal call to deal with tourism growth (Koens *et al.*, 2018) confronts DMOs with a certain pressure to act (Keil *et al.*, 2017).

Since today's tourism KPIs are more than just a mere quantitative determination, instead of solely marketing a destination, DMOs are faced more and more with issues of managing visitor growth, thinking about paths for future development, developing suitable strategies and, as a result, expedient measures, in times when capacity limits have been reached (Cardoso and Silva, 2018; Postma and Schmuecker, 2017; UNWTO, 2018). This seems to be especially true for developed destinations that have reached a critical range of capacity elements. In consequence, relevant

Figure 2 Tourist area life cycle

Source: Butler (1980)
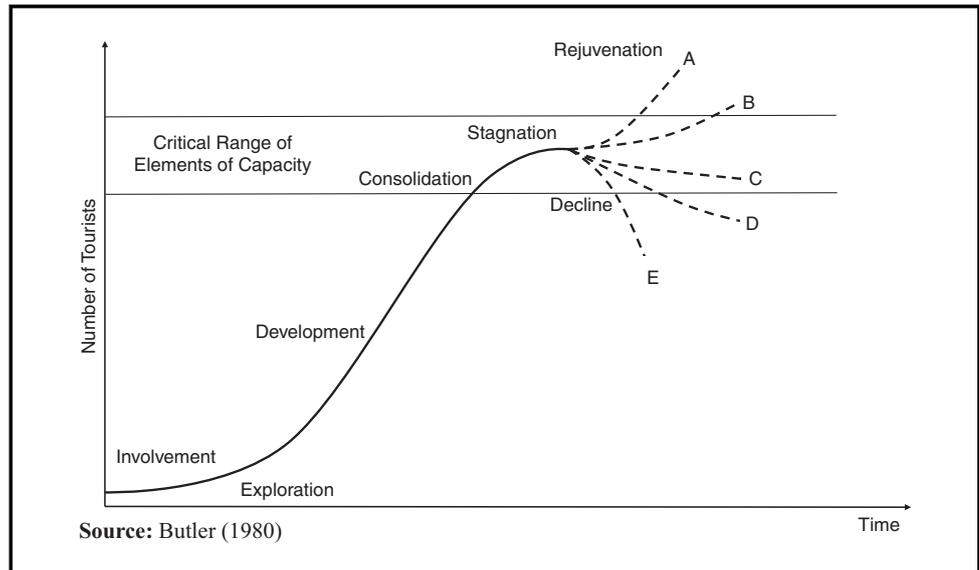
action can be seen not only as important in order to guarantee the well-being for the local population, but also with regard to the improvement of the overall tourism experience (Costa *et al.*, 2018). In order to enable an identification and deeper discussion concerning the need for action within the framework of this paper, the following chapter deals with the methodological setting of the research carried out.

3. Methodology

To reach the aim of this research and due to its rather explorative character, a qualitative approach consisting of a total number of 19 guided and deliberately open interviews was chosen (see Figure 3). With regard to the selection of the interview partners, care was taken to conduct interviews with both urban and rural destination managers within Europe, in whose areas of responsibility a high level of tourism intensity can be identified. Although a tendency can be recognized that overtourism seems to be present especially in destinations with a particularly high tourism concentration, it must nevertheless be stated that universal and reliable indicators (e.g. in terms of quantitative maximum) for the presence or absence of overtourism do not exist. Even though the media landscape repeatedly takes up common European examples, one of the aims of this study is to portray the overtourism discussion on a fundamental level and to trace its development process. Against this background, the research was carried out systematically and contained 11 conversations with destination managers from rural destinations. Hence, the selection of the interview partners was based on the number of overnight stays in NUTS-2 regions within the European Union, which is in accordance with other studies focusing on the issue within Europe (Peeters *et al.*, 2018. In order to compare this rural perspective with an urban one, eight interviews with destination managers from various cities were conducted; the selection of relevant cities was based on the total number of visitors in Europe's most visited cities in 2015. This ranking is confirmed by recent lists published subsequent to the survey (Euromonitor International, 2018). In addition, a few destinations were taken into account of which the authors are aware of strong dynamics of tourism growth and thus were considered as valuable contributors to the study. In terms of willingness to participate, not all systematically requested destinations wanted to contribute to the research, which explains that some high-ranked destinations have not been interviewed. Generally speaking, more convincing had to be done at the urban level than in rural destinations.

In addition to a destination-specific assessment of the relationship between guest and host, the interview guideline itself also addressed the role of guests and their behavior. Furthermore, the perception of tourism development in general and particularly within the interviewee's destination

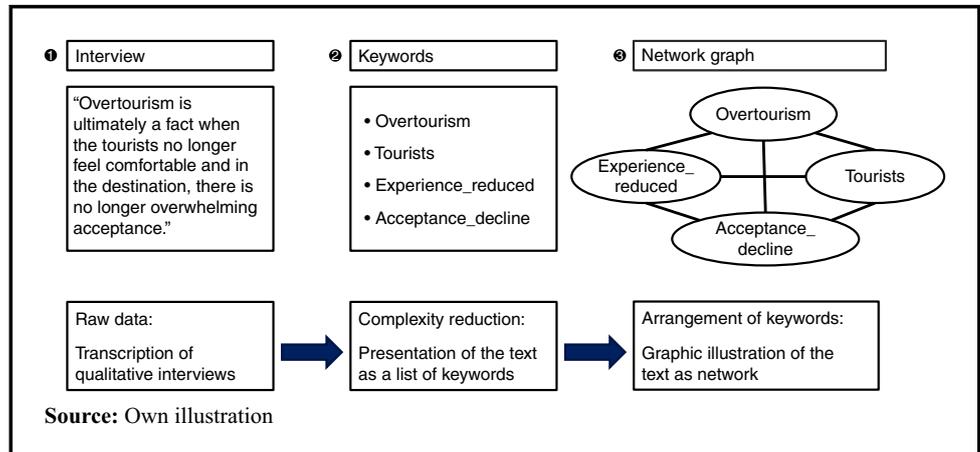**Figure 3** Overview of interviewed destinations

Source: Illustration by Alexandra Kaiser®, Catholic University of
Eichstaett-Ingolstadt

was discussed. Subsequently, the interview guideline contained questions about both solution- and
future-oriented strategies, as well as concrete measures in order to actively face overtourism. Hereby,
it is important to emphasize that conscious efforts were made not to use the term "Overtourism"
during the conversation, in order to avoid a negative attitude toward the topic in general. As far as the
interviewees did not explicitly mention the term, "Overtourism" itself was only specifically addressed at
the end of the interview by means of a concluding question on associations of the term.

The open character of the interviews mentioned above can be explained by the conduction of the
study according to the principles of the GABEK®-method (German abbreviation for "Ganzheitliche
Bewältigung von Komplexität": holistic coping of complexity): within this method, normal-language
verbal data can be transferred and visualized in the form of complex linguistic networks (Zelger and
Lösch, 2012). In this field, GABEK® can also be used for the modeling of cooperative relationships
in the context of regional and destination development, based on joint solution approaches
(Pechlaner et al., 2019; Pechlaner and Volgger, 2012). By using the accompanying WinRelan®
software and based on a lexical coding, connections can be identified in the sum of all interview
statements. In this process, the interviews can be reduced in their complexity (Zelger and Lösch,
2012), and semantic interrelations can be shown in the form of network graphs. In the course of the
study's evaluation, 1,391 keywords have been coded, with the three most frequent ones being
tourism (132 mentions), locals (127 mentions) and guests (125 mentions), highlighting the central
thematic framework of the study. After coding the single keywords, 76,760 connections between
the keywords could be determined. In this process, the thickness of the lines between the
single keywords illustrates the frequency of the connection between the respective contextual
denominations. Subsequently and based on an in-depth knowledge of the conducted interviews, a
thematic clustering can be added in form of indicated circles around thematically related keywords.
Figure 4 highlights the central steps within the work process according to GABEK® via the use of
the WinRelan® software.

**Figure 4** Working process of the GABEK® method by using WinRelan®

❶ Interview

"Overtourism is ultimately a fact when the tourists no longer feel comfortable and in the destination, there is no longer overwhelming acceptance."

❷ Keywords

• Overtourism
• Tourists
• Experience_reduced
• Acceptance_decline

❸ Network graph

Raw data:

Transcription of qualitative interviews

Complexity reduction:

Presentation of the text as a list of keywords

Arrangement of keywords:

Graphic illustration of the text as network

Source: Own illustration

4. Findings

The results of the interview series are presented in this section. An important aspect for the understanding of the discussion about overtourism is the interaction between the tourism organization and the local population on the one hand, and the ideas and expectations of guests on the other hand (Figure 5). Due to both a high relevance in discussion and a dynamism in development, special attention is paid to urban destinations in the study, which is why an in-depth analysis of central interview statements is given space here (Figure 6). In the course of the formulation of challenges and perspectives by the interview partners, possible strategies and concrete measures are presented (Figures 7 and 8). In this field of tension, the DMO plays a decisive role, which will also be examined more closely (Figure 9).

The definition of the attractiveness of a tourist offer is the result of a multilateral negotiation process between the supply and the demand side. Neither side speaks with a single voice when it comes to overtourism. On the supply side, a certain level of acceptance is required among the local population, which does not benefit directly from tourism in an economic way and which is

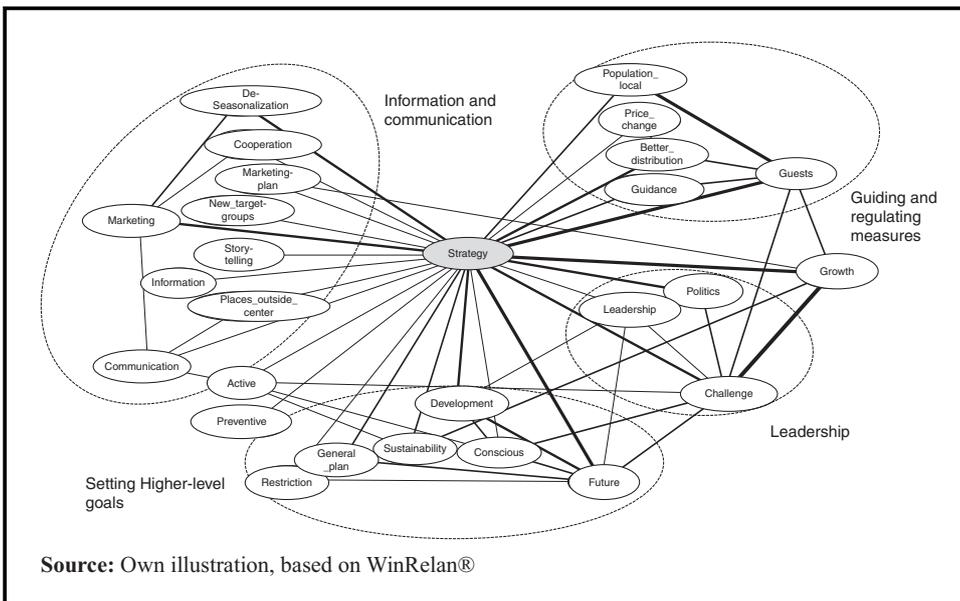**Figure 5** Perspectives on tourism development from a destination's and a guest's perspective
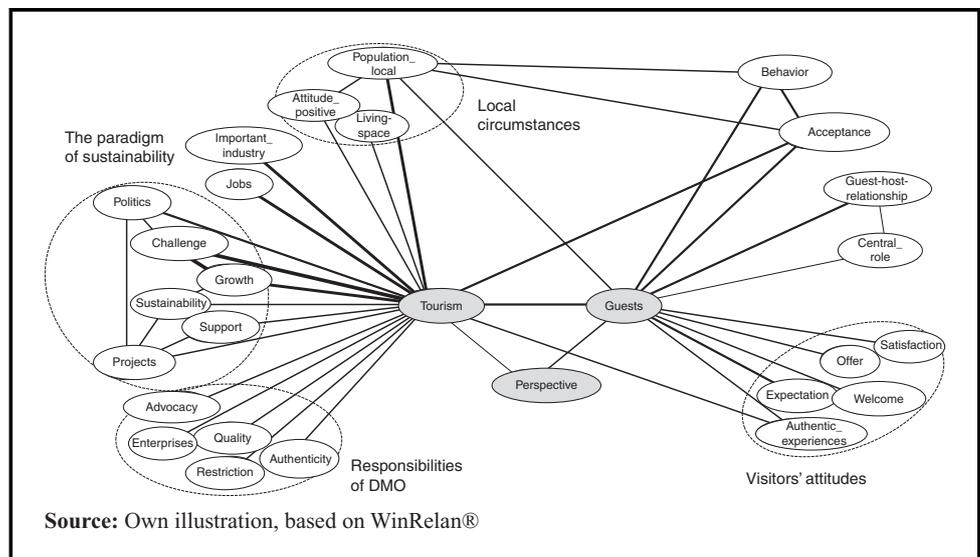
Source: Own illustration, based on WinRelan®

**Figure 6** Overtourism: a perspective from urban destinations

Source: Own illustration, based on WinRelan®
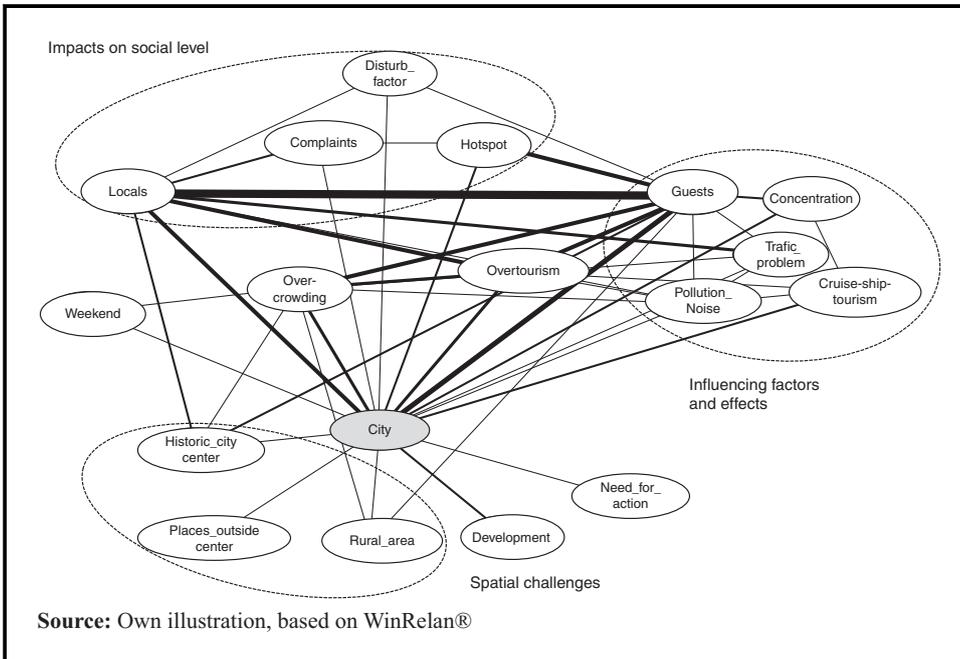
Figure 7 Strategies to deal with overtourism

**Source:** Own illustration, based on WinRelan®

positively associated with the tourism attitude. The tolerance threshold also depends on the role tourism plays in the economic sector of a region. These considerations show a cross-link to the concept of Tourist Area Life Cycle. The following statements of various interviewees, which are handled anonymous here, even though the destinations were named before, illustrate that by way of example:

> I think the majority of the population is still positively disposed towards tourism, because, as mentioned at the beginning, it simply brings a very large part of the population their wages and bread.

Figure 8 Measures to deal with overtourism

Source: Own illustration, based on WinRelan®
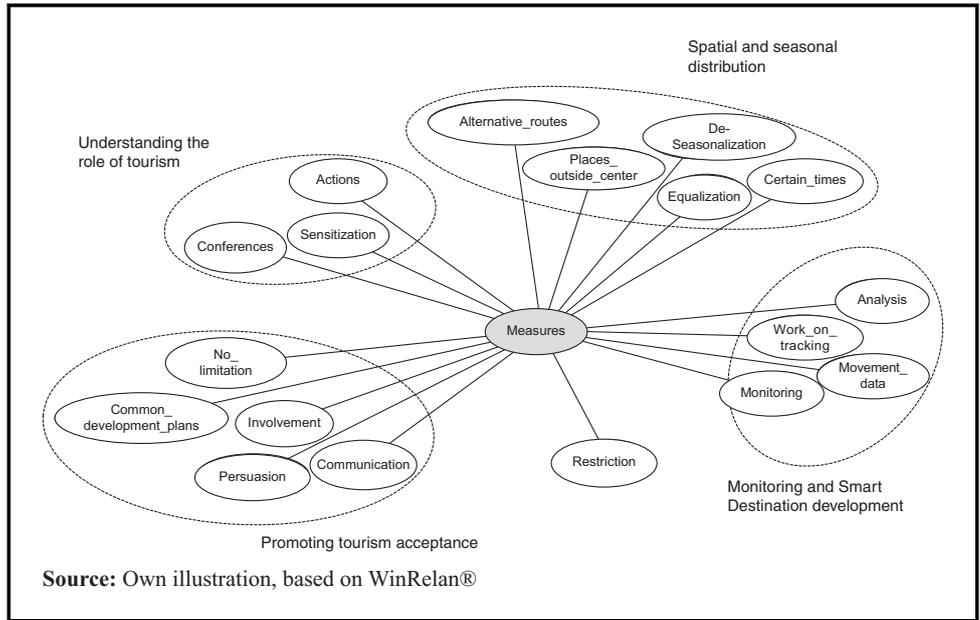
Figure 9 Competences toward excellence in destination management

Source: Own illustration, based on WinRelan®
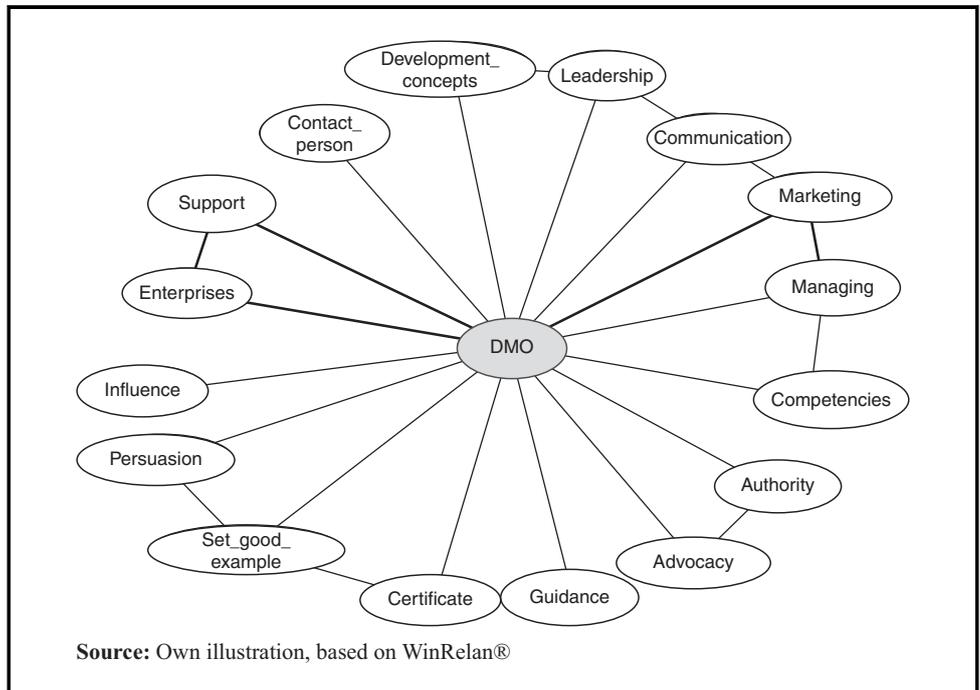
> I also believe that the integration of the population is important in the discussion about tourism: How can I deal with tourists, what can evolve positively for me?

For many respondents, the political framework is an important orientation. To understand the economic growth of tourism not only as an opportunity but also as a challenge requires courage and the support of political actors. These set the pace for the regulatory framework and can

promote projects that provide alternatives to purely quantitative growth. However, the DMO has the main responsibility in defining the right projects being pursued. It is both an advocate and a quality manager of the regional tourism industry. It must initiate promising strategies in the fields of authenticity, quality or strict limitation and contribute to their consistent pursuit.

The fact that courageous decisions have to be made here becomes clear in view of the changes on the demand side: the guests are looking for more authentic experiences and have certain expectations of their journey, which they want to be met in the end. For destinations, this means to provide the guest the most authentic experience possible, and thus to avoid a certain standardization, which can be achieved by focusing on the development of high-quality and location-specific offers. Next to this, a certain welcome culture is a fundamental criterion for success and can only be achieved if residents regard tourism positively. If there are shortcomings, corrective measures must be taken. The guest also bears responsibility for his acceptance in the destination on account of his behavior during his stay. This is why learning is required on both sides.

The need for action is first and foremost seen in urban destinations: a spatial concentration of tourism (e.g. in the form of cruise tourism) and also the issue of seasonality are seen as a particularly vivid problems, which serve as prime examples in this study, as well as in many other considerations of overtourism. It is accompanied by a mass concentration, which represents a burden for the population and therefore visualizes limits of carrying capacity in the destination. There has been an undesirable development in recent years:

> In the beginning, this was a very important and popular segment, they tried very hard to attract more cruise ships because, let me say roughly ten years ago, it was also a very wealthy tourist class that undertook cruises. […] It's a completely different clientele now, which almost exclusively spends the budget for the trip itself and no longer in the destinations.

In addition to an increase in waste caused by tourism, the traffic problem is seen as a particularly critical disturbance factor that is directly and constantly perceived by the local population. Solutions are inevitable, especially here, if the acceptance of tourism is to be promoted. The overcrowding associated with overtourism has both temporal and spatial dimensions: the classic tourist traveling during the weekend to hotspots within a city or visiting the historical center is often viewed critically:

> So you can try very hard to have those tourists being spread wider in the city, but the popular places will always be crowded.

These areas are deliberately avoided by the local population and the protest against tourism emerging in many places is ignited by them. Tourist offers outside the center and in the rural area are seen as meaningful alternatives, which, however, have to be brought in connection to the city's offers. Talking about rural destinations, the overtourism discussion can be seen at an early and fundamental stage. However, a serious debate can be stated according to the interview material, since rural destinations consider this topic as a strategic core issue for future-oriented destination development.

When the destination managers were asked about possible strategies concerning the challenges in a guest-host relationship and especially in the context of city destinations, different fields of action were summarized. A central and common point is a clever communication and marketing strategy, both toward guests and locals. This should be oriented less to unconditional growth than to its appropriate distribution.

Target-oriented strategies in this context are the promotion of the low season or the highlighting of places outside the center, as well as the attraction of new target groups, who could use the tourist offer in another way. These strategies are by no means trivial. In order to actually achieve a substantial change in marketing, authentic and interesting stories and the cooperation of broad stakeholder groups in tourism are needed, as the following quotation underlines:

> The challenge is that tourism continues to grow and that the resources, i.e. the area of a city, are limited in comparison to rural areas. We have to consider early on how we can arrange this growth in a way that is compatible with the different user groups of a city, i.e. residents and guests alike, so that we can maintain acceptance for tourism in the city and also preserve and improve the experience of the guests on site.

In addition to these rather soft and indirectly regulating factors, hard control instruments, such as price changes, a better distribution of guests through an appropriate range of infrastructure or consistent visitor guidance, were also mentioned.

The basis for such a change in marketing or in visitor guidance measures is the formulation of higher-level goals for sustainable tourism development, which are, for example, laid down in a general plan. In order to understand tourism growth as a challenge and to point out alternatives for sustainable tourism, the interviewees mentioned the leadership of individual actors, in addition to politics, as an essential factor for the formulation of strategies.

Figure 8 presents concrete measures resulting from the formulated strategies, which can be summarized as follows: the creation of awareness in different levels is summarized in the field of a societal understanding of tourism. In professional and academic circles, addressing these challenges (e.g. at conferences) is a necessary measure. In addition, the consistent sensitization of the locals about the relevance and of the tourists about the appropriate behavior is of high importance. A more direct measure is the above-mentioned spatial and seasonal distribution of guests and the promotion of tourist offers outside the center. However, tasks that do not have any immediately visible effects must not be underestimated:

> So, what we have set ourselves as a task, is to ensure better distribution throughout the year. We focus new initiatives that emerge in these times.

It was also frequently mentioned that measures should, wherever possible, avoid direct restrictions and cutbacks in supply and instead promote the acceptance of tourism by the locals. Conversely, measures to concretely limit the supply were only mentioned very hesitantly. Instead, it was pointed out that, in order to take concrete and, for some participants, painful measures, monitoring is first necessary in order to understand the actual problem, and to be able to formulate measures, more precisely:

> Fortunately, however, we now have the opportunity to see from other cities what works there and what doesn't, and we can get involved at an early stage in the planning of measures or in monitoring the sensitisation of the population.

Such an analysis could be substantially supported by the use of I&C-technologies and smart data, such as the creation of motion profiles or tracking tools.

Even though destination managers do not always formulate immediate needs for action in their own destination, they recognize the central role of the DMO in overcoming the challenge of overtourism:

> We are in the process of introducing measures […], and we have a new destination management department to deal with these issues more effectively. How can we ensure the quality of the product, be it the experience of the guest on site, the quality of the service providers, i.e. with training courses, or even the topic of distribution?

From the interview statements, specific competencies mentioned repeatedly can be derived, which go beyond the general task portfolio and which in their entirety can provide an idea of an exemplary approach to this topic. As Figure 9 shows, a DMO simultaneously assumes several roles in this process. On the one hand, it is a contact point for perceived and expressed challenges in connection with overtourism, and on the other hand, it provides a broad range of support for the tourism enterprises. It is called upon to take on a leading role in the development of concepts. At the same time, the DMO has to successfully shape a process of change with regard to its self-understanding. Hereby, the DMO is seen more and more as a classical marketing and management organization and increasingly as the designer of a target-oriented communication process. In the entire debate, it is at the same time an authority in the formulation of sustainable tourism development and an advocate of the tourism industry. This can turn out to be a balancing act, as different expectations, such as economic success and social requirements, have to be fulfilled at the same time.

The instruments over which the DMO wishes to exert influence are mainly in the area of persuasion, for example by highlighting good examples. Hard restrictions, on the other hand, are viewed critically:

> For me it would be the last resort to make any entry restrictions at the city border that define which tourist or business traveller is allowed to enter and which is not.

The results show that in times of overtourism, hard and soft criteria are discussed. However, destination managers see soft criteria as possibilities for solutions rather than hard ones. In this field, DMOs have to define strategies within the destination's specific setting in order to derive clear measures that can contribute to future-oriented destination development.

5. Discussion and conclusion

The aim of this research was to figure out how the overtourism discussion is currently perceived on the destination level, which needs for action should be formulated and, subsequently, which competencies should be developed. Talking about the perception of overtourism on a destination level, several attitudes become clear. On a level of responsibility, destination managers in rural destinations push the issue far away and tend to see challenges in the field of overtourism mainly in cities. On the contrary, urban destination managers see the problem above all not in their own, but rather in other cities, which are mentioned in the media. In some well-known cases, first measures like entry restrictions and additional market regulation (e.g. taxation, fees and dynamic pricing) already exist. Thus, they do not see a need for acting within their own sphere of responsibility. On the level of action, it becomes clear that first measures take place. However, especially in cities where overtourism is attested, a rethinking has begun in recent months and the discussion is regarded less as taboo and rather as a topic affecting the tourism industry as a whole.

Current developments show that successful tourism development can no longer focus exclusively on numerical growth. Rather, KPI's and future success must be defined in a different way. Here it is important to identify alternatives and to communicate their linkages to the classic tourism stakeholders, especially toward individual, value-added-oriented companies. With regard to the DMO, this development underlines that organizations can no longer limit themselves exclusively to the marketing function, but rather require a holistic management as well as an intensive support of an interdisciplinary stakeholder dialog. The DMO's task is to assume leadership for a joint destination development. Within this framework, there are cross-links to the topics and responsible actors for regional and location development, as well as cross-links to the individual companies, also beyond the mere field of tourism. In addition to these stakeholders, local inhabitants have to be taken into consideration particularly, when it comes to tourism-related housing development and gentrification processes.

In general, it can be stated that the current discussion is very much in the realm of perceptions and subjective images. This is reflected in an inadequate definition of generally applicable indicators. Additional information is needed to derive concrete, target-oriented measures within the destination. In this way, a solution can lie in a stronger focus on data-supported decisions and actions. In the sense of a "smart" destination development, responsible actors can increasingly fall back on the potentials in the field of I&C-technologies in order to improve efficiency, sustainability and quality of experience (Gretzel *et al.*, 2015). For example, a real-time based, data-supported distribution of visitors on a spatial level can enable a distribution to different attraction points at different day times, in order to avoid a strong concentration of visitor numbers in a specific area (e.g. through flexible pricing).

Especially against this background, it is worth taking a closer look at previous discussions and research on "too much" tourism. The discussion about carrying capacity had several ups and downs in the past. Due to the continuous growth of tourism on a global level, no fundamental reactions have taken place so far. This makes it clear that overtourism, which is also charged with media interest, must be viewed with some skepticism regarding its scientific and practice-oriented half-life. Nevertheless, it can be observed that many destinations have reached a phase of their life cycle through constant development, in which they have to deal intensively with the question of their future development. This makes it clear that overtourism is more than just a popular "buzzword."

As it has been shown on several occasions, the DMO does not lose importance in the context of current developments, but it needs to transform its core tasks: competence building and development is a central aspect. Pioneer destinations must recognize both existing and upcoming challenges early on, actively manage them and set an example for other destinations. In addition to suitable structures and resources, the willingness for targeted changes is also required on this path.

Above all, this requires the political will and perseverance of all involved stakeholders to abandon traditional structures and to define new KPIs that are effective in the long run.

Future research may focus on the extent to which guests are willing to subordinate their travel experiences to Big Data algorithms and whether counter-trends can be expected in the future. From a critical perspective, it should be noted that situation-related, coincidental surprises can fall by the wayside due to so-called "over-management" (Siu and Huang, 2015, p. 302). Such unexpected occurrences, however, are yet one reason for traveling. In the context of these developments, the question arises concerning where the limits in the management of (Over-) tourism lie and whether the traveler wants to and will play this game at all. All in all, it can be said that the discussion about overtourism is characterized by a high degree of dynamism, where results and interpretations can change in short time intervals. This also affects the learning destination manager in a special way. It can be assumed that promising approaches will be adopted by other destinations. Further research can thus assist in an even more concrete formulation of measures and indicators and their specific transfer to other context conditions. Since this paper investigates overtourism from a DMO's point of view, future research could also highlight the topic from the perspective of tourism-related stakeholders who are supposed to benefit and partly depend from a high tourism volume in economic terms, like for example shopkeepers, tour-operators, real estate or gastronomy.

The study has shown that overtourism is to be understood as a larger component within the transformative development of tourism. In addition to the DMO and the local population, tourists themselves are also called upon to play an active role in shaping this change. New methods that can also be derived from the existing carrying capacity fieldwork have to emerge.

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