Overtourism

A Review of the Phenomenon

& Examinations of Stakeholder Involvements and Perspectives

by

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A Dissertation Presented in Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy

Approved May 2023 by the
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ARIZONA STATE UNIVERSITY

August 2023

ABSTRACT

After many decades of promoting sustainable tourism and development, the world faces the pressing issue of overtourism. Overtourism is viewed as the condition where the growth of visitor volume puts destinations' capacity under pressure resulting in many negative impacts on the environment, economy, culture, and society. It causes many community residents to resent tourism development. Visitors are concerned about their travel experience in overcrowded places. Understanding overtourism is necessary for destination management.

This dissertation includes three studies to: 1) review the phenomenon of overtourism; 2) examine the perceptions of local residents and test the relationship between their satisfaction with quality of life and level of support for tourism development in overtourism context; and 3) examine the management of stakeholder involvement in an evidence-based sustainable tourism plan that aims to address overtourism. Different research methods are employed in the three studies of the dissertation: a conceptual paper based on literature review; a concurrent triangulation approach using both quantitative and qualitative data collected from a survey with host community; and a case study involving analysis of documents related to a sustainable tourism plan and in-depth interviews with key informants who were involved in developing the plan.

Several theoretical or conceptual frameworks are used to guide research, including those that consider the relationship between residents' satisfaction with QOL and their support for tourism development, crowding theory, stress coping framework, place attachment, and a multi-stakeholder involvement management framework. Sedona, a destination that is concerned about overtourism, was chosen to be the research site for two of the studies. Study 1 reveals the complexity of overtourism and pinpoints important aspects and details (e.g., causes, impacts) that need to be considered while solving overtourism. Study 2 investigates impacts of overtourism on the quality of life of the host community and identifies different ways residents cope with the crowding condition. Residents' support for tourism development is influenced by their satisfaction with quality of life and possibly by their attachment to destination. Study 3 documents a comprehensive mechanism to manage stakeholder involvement and utilization of evidence in a sustainable tourism plan. Findings are helpful for destination management.

DEDICATION

I dedicate this dissertation to my parents, sisters,

and my husband, Travis, who love and support me unconditionally.

ACKNOWLEDGEMENT

Completing this dissertation and achieving the Ph.D. degree in Community Resources and Development at Arizona State University (ASU) are the biggest challenges and highlights of my life. I will forever be grateful to have Dr. Christine Vogt and Dr. Kathleen Andereck as my academic advisors who could not be more hands-on, patient, kind, and supportive to me. Your expertise and wisdom helped me tremendously in designing and conducting my research as well as writing manuscripts for publication. I felt blessed to have two advisors so approachable with any issues and so willing to help me find solutions. You both will always be my guiding stars!

Words cannot adequately express my gratitude to Dr. Mark Morgan, my master's degree advisor at the University of Missouri, who recommended me to this Ph.D. program at ASU and continued to coach me as an external member of my committee. I would like to thank Dr. Gyan Nyaupane for being a member of my Ph.D. committee to guide me through the process from taking the comprehensive exam to defending my dissertation. Dr. Nyaupane, as a successful Asian scholar in America, is truly an inspiration for me.

I am grateful for the friendliness, inspiration, and support from all faculty at the School of Community Resources and Development (SCRD) with whom I took classes with, worked with, or interacted with throughout my program. I thank SCRD management, especially Dr. Christine Buzinde as our school Director, and all administrative staffs who helped me with many paperwork procedures and requests. I sincerely appreciate my cohorts and friends at SCRD for being in this journey together, sharing all the ups and downs of graduate study; I enjoyed our companionship.

My Ph.D. degree was accomplished through generous fundings and scholarships from SCRD, the Center for Sustainable Tourism at ASU, the Dr. Mark and Mrs. Judy Searle Graduate Scholarship at ASU, Tourism Cares, and the Travel and Tourism Research Association. Additionally, I received great cooperation from the Sedona Chamber of Commerce & Tourism Bureau and several members of the Sedona Sustainable Tourism Plan Advisory Committee to conduct my dissertation research. I couldn’t have done it without those groups and individuals!

Finally, I would like to express heartfelt thanks to my dearest friend, Ninh, for making this adventure begin by encouraging me to apply for graduate study in America and for always being by my side. I thank my husband Travis, Mom and Dad, and my Sisters for your boundless love and support throughout this long journey. I love you all!

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INTRODUCTION TO THE RESEARCH

Overview of the Dissertation

Overtourism has become a global issue in recent decades when the numbers of tourists is considered as a "too much of a good thing" (Condé Naste Traveler, 2018; Pechlaner, Innerhofer & Erschbamer, 2019). It is characterized by the increasing number of visitors as well as the exponential growth of tourism facilities and services. Tourism growth is expected to bring in many benefits such as tourist spending, employment for local workers, and improved infrastructure for public use. However, destinations where overtourism happens experience many environmental, economic, and cultural and social issues. Some examples are pollution, tourism leakage, gentrification, and loss of traditional values. Overtourism may make a destination less attractive to visitors and irritates people in local communities who can become less supportive of tourism. There are concerns that many destinations around the world are being loved to death (Wall, 2020). Governments, tourism organizations, institutions and other stakeholders have been attempting to solve overtourism through various measures, from managing tourist flow to restricting the spread of short-term rentals. Despite those efforts, into 2023, overtourism remains a threat to the tourism industry worldwide (CREST, 2023; O'Connor, 2023). The existence and persistence of overtourism prompts the necessity for more academic studies to better understand the issue.

This dissertation includes three studies, each of which has its own focus on specific topics of overtourism. Accordingly, the focus of this dissertation is threefold: 1) to review the phenomenon of overtourism and understand its complexity based on literature; 2) to examine the perceptions of local residents in an overcrowded rural destination as well as to test the relationship between their satisfaction with quality of life (QOL) and level of support for tourism development; and 3) to examine how stakeholders are involved in a sustainable tourism planning process of a popular destination to tackle overtourism as well as how they participated in developing evidence (e.g., institutionalized knowledge, big data) used the plan.

Different research methods are employed in the dissertation: a conceptual paper based on a comprehensive review of literature, a concurrent triangulation approach using both quantitative and qualitative data, and a case study involving document analysis and in-depth interviews. Several theoretical or conceptual frameworks are used to guide research, including those that consider the relationship between residents' satisfaction with QOL and their support for tourism development, crowding theory, stress coping framework, place attachment, and the multi-stakeholder involvement management framework. Sedona, a rural destination in the USA that was concerned about overtourism, was chosen to be the research site for two of the studies of the dissertation.

This dissertation makes significant academic contributions to tourism literature. It examined several theoretical frameworks in an overtourism context to expand their validity and usefulness: crowding, residents' satisfaction with QOL, residents' support for tourism development, stress coping framework, place attachment, and management of multi-stakeholder involvement in tourism. The dissertation proposes an "eco-system" of overtourism model, the first of its kind in literature, demonstrating different aspects (e.g., causes, impacts, indicators and measurements). Additionally, the dissertation fills in gaps in literature: shortages of studies using both quantitative and qualitative approaches to examine residents' quality of life and their support for tourism development; shortage of studies about evidence-based tourism planning, especially those that explore multiple types of data and stakeholders' role in developing and using evidence. The research site of the dissertation, Sedona, helps to enrich the diversity of destinations in overtourism studies which focused more on major urban or island destinations. Sedona is a small, rural destination in America with outdoor and public land setting.

Findings contribute to building knowledge about overtourism and are useful for destination management. At a general level, the "ecosystem" of overtourism model can be used by tourism practitioners as a check list about their understanding of overtourism as well as to manage overtourism strategically. At a specific level, the dissertation sheds lights on the perceptions of residents in host communities in rural destinations that face overtourism. It provides empirical evidence about the negative impacts of overtourism or crowding on residents' QOL as well as how residents' satisfaction with QOL affects their level of support for tourism. As a result, destination management is recommended to pay attention to residents' perspectives, their QOL and support for tourism to ensure long-term success of tourism. The dissertation also elaborates on how to manage stakeholders' involvement in a sustainable tourism plan to tackle overtourism as well as their role in producing and using evidence in such plan. It generates a more detailed, comprehensive, and interactive version of the MSIM frameworks comparing to the one developed by

Waligo, Clarke and Hawkins (2013). The framework can be used by destinations as a guideline to manage cooperation among stakeholders.

Rationale for the Research

The Global Tourism Industry, Pros and Cons

Tourism is the world's largest industry and has been growing strongly. According to a report of the World Tourism Organization (UNWTO), the number of international tourist arrivals increased from 2 million in 1950 to over 1.5 billion in 2019 (UNWTO, n.d.). Before the COVID-19 pandemic this sector was predicted to grow 3.3% annually until 2030 when an estimated 1.8 billion tourists would cross borders every year (UNWTO, 2011). The rapid growth of tourism was happening worldwide. Popular tourism destinations such as France, the United States, and the United Kingdom consistently attracted more tourists, however, less well-known destinations and regions in Asia, Latin America, and the Middle East were also emerging quickly.

The Coronavirus pandemic caused some disruption to the industry from the beginning of 2020 to 2021 when traveling was restricted and reduced. International tourist arrivals declined globally by 73 percent in 2020, with 1 billion fewer travelers compared to 2019 (UNWTO, 2021). However, with its high resiliency, tourism recovered strongly in 2022 with more than 900 million tourists traveling internationally (Statista, 2023). In 2023, UNWTO anticipates that international tourist arrivals could reach 80% to 95% of pre-pandemic levels (UNWTO, 2023). Figure 1 illustrates the growing trend of tourism.

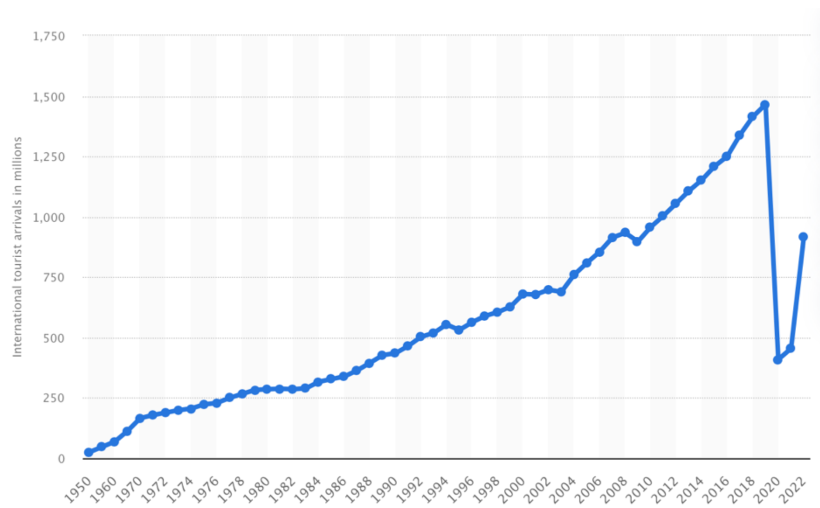


Figure 1: Number of International Tourist Arrivals Worldwide from 1950 to 2022 (Adopted from Statista, 2023)

Multiple benefits are derived from travel and tourism, especially when tourism is developed and managed sustainably. Tourism is one of the driving forces of the global economy. Statistics from the World Travel and Tourism Council (WTTC) (2022) showed that prior to the pandemic, travel and tourism had a total economic contribution (including direct, indirect and induced impacts) of US$9.6 trillion or 10.3% of global GDP. It helped to create 1 in every 10 jobs (333 million jobs or 10.3% of all jobs). In 2019, international visitors spent US$1.8 trillion on their trips (6.8% of total exports). Tourism revenue helps to pay for important public services and infrastructure, such as education, health care, and transportation. Tourism offers many less developed and poor areas opportunities to upgrade their economies. Moreover, the benefits from tourism are recognizable in aspects of environment, culture, and society. Tourism helps to promote local cultural and natural resources at different destinations, preserve traditional customs and heritages sites, and enhance tourists' living experiences (Archer, Cooper & Ruhanen, 2005). Tourism can also improve the quality of life of local populations, promote community self-esteem and identity, and encourage the consumption of local authentic products (Biosphere Tourism, 2017). At the global scale, tourism enables mutual understanding and tolerance among different cultures, facilitates socialization and globalization, hence contributes to maintaining the peace (UNWTO, n.d.)

Recognizing those potential benefits from tourism, in 2015, the United Nations integrated tourism into its 2030 Agenda for Sustainable Development (Fig. 2). The expectation is that tourism can contribute, directly and indirectly, to achieve 17 global goals such as eliminating poverty and hunger, reducing inequalities, fixing climate change, and building sustainable communities (UNWTO, n.d.).

Figure 2: Tourism and the United Nations' 2030 Agenda for Sustainable Development and the Sustainable Development Goals (Adopted from UNWTO, n.d.)

However, the positive impacts of tourism go hand in hand with the negative impacts (Archer, Cooper & Ruhanen, 2005). Improper tourism management can create pressure on infrastructure, energy consumption, increases environmental problems, and exploit natural resources (UN Environment Programme, n.d.). Tourism growth can also create leakage when most of benefits from tourism go to agencies outside of the destination rather than staying in the local economy (Anderson, 2013). Other negative impacts include increases in the price of good and services as well as real estate, crime, pollution, and deterioration of local cultures (Archer, Cooper & Ruhanen, 2005). Local residents' quality of life can decrease due to these issues. The negative impacts from tourism are more prominent when overtourism occurs in many destinations around the world where tourism grows exponentially and/or out of control (Goodwin, 2017; World Economic Forum, 2019).

Overtourism as a Global Issue

In recent decades, the extensive coverage of media on overtourism has spread the awareness about the phenomenon widely (Clark & Nyaupane, 2020). UNWTO (2018) defines overtourism as "the impact of tourism on a destination, or parts thereof, that excessively influences perceived quality of life of citizens and/or quality of visitors' experiences in a negative way." (p. 4). The term "overtourism" is linked with massive growth and was used in the early 2000s to address concerns about its effect on natural resources (Koens, Postma & Papp, 2018). In the early 2010s, overtourism started to receive attention from both the media and social media, mostly following residents' protests and resistance against tourism in many cities around the world (Goodwin, 2017). Cities such as Venice, Amsterdam, Barcelona, Berlin, Copenhagen, and Lisbon are packed with tourists to a point where either the hosts or guests, and often, both are dissatisfied. There has been a backlash against tourists because residents are afraid that their cities are being "loved to death" and quality of life is suffering because of it. In Venice, residents are concerned their city is being turned into a Disney-style theme park: "Venice now has 50,000 inhabitants, a third of what it did in the 18th century, and yet it receives 30 million tourists a year" (CNN Travel, 2017, para.1). Most of the Italy's urban population has been forced out of cities and into the countryside due to higher cost of living and congestion of tourists. The rest of the population has been making efforts to solve the problems, organizing campaigns against tourism, and creating pressure on city management for actions such as limiting the number of cruise ships entering Venice (CNN Travel, 2017).

The overtourism condition has become more common globally. Affected destinations have expanded beyond big cities to smaller destinations (e.g., national parks, heritages sites, rural areas, coastal areas and islands) (Adams & Sanchez, 2020; Alonso-Almeida, Borrajo-Millán & Yi 2019; Butler, 2020; Condé Nast Traveler, 2018;). Destinations that experience overtourism often have features that are desirable to tourists such as heritage sites, unique cultures, special natural resources (e.g., beaches, mountains, national parks), and favorable climate (Peeters et al., 2018, Mack, 2020). Other features can make those destinations more accessible to tourists such as being close to big airports, cruise ports, and urban areas (Peeters et al., 2018, Mack, 2020).

With the recovery of the tourism industry after the Coronavirus pandemic, it seems that overtourism will continue to be a threat into the future. In 2023, the Center for Responsible Tourism (CREST) identified overtourism as one of the four threats to people and planet, together with climate change, biodiversity and cultural heritage loss, inequality – poverty and wealth widening gap (CREST, 2023). Overtourism challenges the long-term development of the industry that should be compatible with the quality of life of local communities (World Economic Forum, 2019). Overtourism problems hinder the industry's contribution to achieve the United Nations' sustainable development goals. Addressing overtourism, UNWTO (2018) emphasizes that the sector "ensure sustainable policies and practices that minimize adverse effects of tourism on the use of natural resources, infrastructure, mobility and congestion, as well as its socio-cultural impact." (p.4). This should continue to be the motto for the tourism industry post pandemic.

Overtourism is a complicated issue. Solving it requires effort and cooperation from multiple stakeholders - local residents, visitors, destination managers, government officials, and scholars to name a few (Plichta, 2019). Among them, scholars play a very important role (Adams & Sanchez, 2020). Education can help to raise awareness of the general public and tourism participants about overtourism and its consequences. It equips the labor workforce with necessary knowledge about sustainability to tackle overtourism. Additionally, scholarly research is needed to understand overtourism scientifically and create data for management purposes.

Overtourism as a Research Topic for the Dissertation

During 2017 and 2018, the author joined a team of faculty from the School of Community Resources and Development at Arizona State University (ASU) to contribute to development of a sustainable tourism plan to address overtourism in Sedona, Arizona. The author worked as a Graduate Research Assistant for the project. It was during this involvement that the author became aware of overtourism and decided to choose it for a dissertation topic.

Sedona is a small destination in Arizona, USA. The population of about 10,000 makes it a rural destination following classification of the U.S. Department of Agriculture (USDA, n.d.). Tourists are attracted to Sedona to enjoy its natural red rock landscape, state parks, trails, spa and wellness tourism, and the vivid uptown area with many tourism facilities (e.g., galleries, souvenirs stores, restaurants). At the time of the research, about 3 million visitors came to Sedona annually and turned tourism into the main economic sector of the destination. However, the local community and authorities recognized negative impacts of tourism (e.g., traffic congestion, loss of community senses) due to the constant and widespread appearance of tourists. There was concern about an overtourism scenario. The Sustainable Tourism Plan was an effort of the Sedona Chamber of Commerce & Tourism Bureau cooperating with multiple stakeholders to assess the possibility and condition of overtourism and develop management strategies. It aimed to minimize the negative impacts of tourism and manage tourism practices sustainably for long-term development.

The author participated in the plan development process. Activities mainly focused on conducting research (e.g., collecting and analyzing data, and reporting findings) to explore the perspectives of stakeholders (visitors, residents, business leaders, nonprofit organization leaders, and public land managers) about tourism in Sedona and participating in strategy development meetings. The role of the ASU team and the author ended after the plan was approved and put into implementation in early 2019.

By choosing overtourism as the overarching research topic for this doctoral dissertation, the author hopes to be a part of the solution to the global issue. The author chose Sedona as the research site for two studies of this dissertation following her knowledge of the destination through working in the Sedona Sustainable Tourism Plan project as well as the support from local tourism offices and authorities for ASU team to extend research beyond the project contract. Additionally, the selection addresses the shortage in literature of studies about overtourism in rural destinations and in the USA.

Overview of The Three Studies

This dissertation follows a three-article format. Each article is an individual study focusing on a specific topic related to overtourism.

Study 1 (Chapter 2): Overtourism – A Review of The Phenomenon

Despite being a new research topic that emerged around the 2010s, the overtourism literature is rich in volume of publications as well as research content (Capocchi et al., 2019; Dodds & Butler, 2019). However, the knowledge about overtourism is scattered and unfocused. This study, following a conceptual paper format, reviews the phenomenon of overtourism based on literature. Sources of literature include journal articles, books, and reports collected in printed version or online. Online materials are obtained via Google and Google Scholar search engines and academia database systems (e.g., JSTOR, ScienceDirect, Elsevier, and Web of Science).

The study summarizes and synthesizes the most important aspects of overtourism that researchers and tourism practitioners need to be aware of and consider while doing research and developing strategies to solve overtourism. Those aspects include definitions, impacts, measurements, causes, solutions, failures and challenges in solving tourism, and related theories and concepts (e.g., carrying capacity, limits of acceptable changes, Butler's tourism area life cycle). Many themes are identified via categorization to show the dynamic and essence of each aspect. Beside narrations, visualization items (e.g., tables, charts, and diagrams) are used to support the discussion.

Findings generate an "eco-system" of overtourism showing overtourism as a complicated phenomenon that is comprised of several specific areas (e.g., impacts, solutions). The model is helpful for destination management to address overtourism systematically and strategically. It helps researchers position and evaluate the significance of their research in the overall overtourism scenario. In addition to the model, the study includes several recommendations for future research which are deemed to be necessary to address overtourism.

Study 2 (Chapter 3): Residents' Attitudes about Quality of Life and Support for Tourism Development in the Context of Overtourism

Residents are important stakeholders in tourism. Their quality of life (QOL) can be impacted by tourism development positively or negatively (Andereck & Nyaupane, 2011). Support for tourism development by the host community is critical for a destination's success since it may affect visitors' experience as well as tourism development programs and policies (Andereck & Vogt, 2000; Liang & Hui, 2016; Woo, Kim & Uysal, 2015). In the recent decade, overtourism, which is associated with visitor crowding, has emerged as a significant issue (Goodwin, 2017). It has been documented to deteriorate life quality of destinations' residents (Blázquez-Salom, Cladera & Sard, 2021; Briguglio & Avellino, 2019; Kuščer & Mihalič, 2019). Many communities in overtourism destinations have become less supportive or opposed to tourism (Clancy, 2019). However, literature shows minimal empirical research that tests the relationship between residents' satisfaction with QOL and support for tourism development in overtourism conditions. There is also limited research about overtourism in rural communities and some geographic regions. This study attempts to bridge those gaps by examining perceptions of the host community about tourism in a rural destination in the U.S. that shows symptoms of overtourism.

The study applies a concurrent triangulation approach in which quantitative and qualitative data were collected concurrently and compared to explain the complexity of the research problem (Creswell, 2014). Data were collected in 2018 via a survey with 1,000 homeowners in Sedona which received 365 usable responses. Analysis followed Structural Equation Modeling (for quantitative data) and thematic coding (for qualitative data). Quantitative findings confirmed a positive but weak relationship between residents' satisfaction with quality of life and level of support for tourism development. It also revealed crowding as a new independent construct of residents' satisfaction with their QOL. Residents' qualitative comments further confirmed that overtourism and crowding affected QOL negatively and lessened support for tourism development. Following a stress coping framework applied in previous studies (Folkman et al., 1986; Jordan, Vogt & DeShon, 2015), findings unveiled ways of coping with overtourism including problem-solving, confrontation, escape or avoidance, wishful thinking, compromise, and acceptance of reality. Some residents' comments revealed that their attachment to the destinations (e.g., love for natural beauty, community life) was one of the reasons they became unsupportive of further tourism development. This finding echoes Ramkissoon's (2023) proposition that residents' place attachment could influence their support for tourism development. The study is useful for destination management, highlighting the necessity to address the opinions of the host communities regarding tourism development.

Study 3 (Chapter 4): Evidenced-based Sustainable Tourism Planning

Sustainable tourism planning that involves multiple stakeholders is recommended for destination governance to ensure long-term development that balances the impacts of tourism on a community (Dwyer & Edwards, 2010). It is also recommended as a strategic long-term solution for overtourism (Milano, Novelli & Cheer, 2019). This research study examines the sustainable tourism plan and plan development process to tackle overtourism in Sedona, focusing specifically on stakeholder involvement. A case study approach was employed. Methods included content analysis of Sedona sustainable tourism plan documents (e.g., project contract, reports, website articles) and in-depth interviews with seven key stakeholders who were decision makers and partners in the plan.

A multi-stakeholder involvement management framework (MSIM) for sustainable tourism, developed by Waligo, Clarke and Hawkins (2013), was applied to examine its fit with a rigorous case study. The study found an enhancement of the MSIM framework, featuring three stages that each includes several components: (1) scene-setting to access destination sustainability, explore stakeholders' perspectives about overtourism and tourism development, and raise awareness of stakeholders about sustainable tourism; (2) management of stakeholders' involvement to recognize their capacity, allocate resources, build relationships, pursue goals, influence implementation capacity, and monitor their involvement; and (3) assessment/evaluation to decide the effectiveness, strengths and weaknesses of stakeholder involvement. The new framework details objectives and tools for each component, factors of successes, and challenges in managing stakeholders' involvement. A significant enhancement is the extensive incorporation of evidence (e.g., big data, expert knowledge, indicators and measurements) into the framework for different purposes (e.g., developing management policies and activities, evaluating stakeholders' involvement). Multiple stakeholders participated in producing and using evidence to conduct activities in the plan.

This study contributes to the literature of overtourism by providing an example of solving overtourism via sustainable tourism planning. It elaborates and enhances the management of stakeholders' involvement framework by Waligo, Clarke and Hawkins (2013). Additionally, it is one of the first in sustainable tourism to highlight the usefulness, position, and dynamic of evidence in destination management. Tourism practitioners can use the study's findings as a guideline checklist to manage stakeholder involvement in a sustainable tourism plan.

CHAPTER 2

OVERTOURISM – A REVIEW AND SYNTHESIS OF THE PHENOMENON IN THE LITERATURE

Introduction

Overtourism has been discussed in the media for more than a decade. In the early 2000s, the term was used to address concern about over-usage of natural resources for tourism (Koens, Postma & Papp, 2018). In the early 2010s, it started to receive attention from media and social media mostly following residents' protests and resistance against tourism in many cities around the world such as Barcelona, Venice, Amsterdam, and Dubrovnik (Colomb & Novy, 2017; Goodwin, 2017). 'Tourists go home', 'Wish you weren't here', and 'We have the right to rest' were the mottos of anti-tourism protests. In August 2017, the World Tourism Organization considered the anti-tourist movement 'a very serious situation that needs to be addressed in a serious way' (Coldwell, 2017). After decades of sustainable tourism promotion and development, the industry faced the threatening phenomenon of over- and anti-tourism (Goodwin, 2017). During the 2019 to 2021 period, tourism was in a downward spiral from the Coronavirus pandemic. According to the World Tourism Organization (UNWTO), there were one billion fewer international tourist arrivals 2020 in comparison to 2019 (UNWTO, 2021). This temporary pause cooled down discussions about overtourism. Into 2022 and 2023, the industry started to recover as the pandemic subsided. Discussion about overtourism reemerged. In 2023, the Center for Responsible Tourism (CREST) identified overtourism as one of the four threats to people and planet, together with climate change, biodiversity and cultural heritage loss, inequality – poverty and wealth widening gap (CREST, 2023).

A way to measure media and public use of the term overtourism is tracking Web searches. Figure 3 illustrates the Google trends for the key words "overtourism" (highlight in blue) and "over-tourism" (highlight in red) from 2015 to 2022. Accordingly, the interest in the phenomenon started to grow around 2015, reached momentum around 2019, then slowed down during 2020 to 2021 (in correspondence with the Coronavirus pandemic period). The trend line grew in 2022.

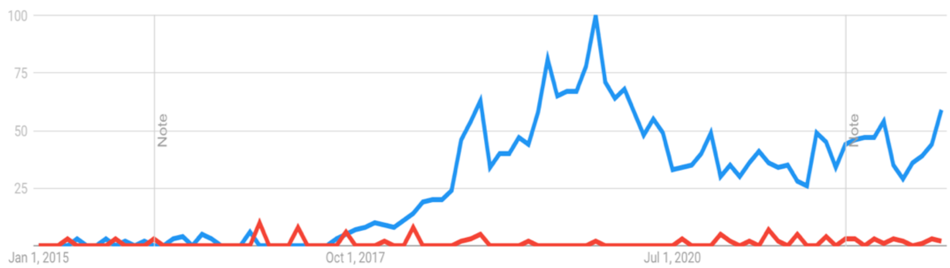


Figure 3. Google Trends of Internet Searching for "Overtourism" and "Over-tourism" (highlight in blue) from 2015 to 2022

Note by GoogleTrends: "Numbers represent search interest relative to the highest point on the chart for the given region and time. A value of 100 is the peak popularity for the term. A value of 50 means that the term is half as popular. A score of 0 means there was not enough data for this term."

The scholarly literature on overtourism has newly emerged and quickly become popularized. One of the earliest academic papers about overtourism appeared in 2015 as a dissertation by Sytnik at Universidad de Cádiz (Sytnik, 2015). The dissertation examined the impacts of overtourism in coastal dunes in the Ravenna coast of Italy. Since then, there have been many studies published in journals and books (e.g., Butler & Dodds, 2022; Cheung & Li, 2019; Goodwin, 2017; Kirilenko et. al., 2023; Martín et al., 2018; Milano, 2017; Milano, Novelli & Cheer, 2019). These studies explore different aspects of overtourism and generated an enormous amount of knowledge on the topic. However, from the author's observation and investigation into the literature, the knowledge about those aspects is rather scattered and unfocused rather than taking a comprehensive approach. One reason is that studies are mostly empirical and focus on narrow topics such as effect of social media on overtourism (Gretzel, 2019) and indicators of overtourism (Blázquez-Salom, Cladera & Sard, 2021). Books and reports about overtourism (e.g., Becker, 2016; Dodds & Butler, 2019; Honey & Frenkiel, 2021; Peeters et al., 2018) focus more on presenting cases or examples of destinations with overtourism. For example, Honey and Frenkiel (2018) discuss overcrowding conditions in many historic cities, national parks, coastal communities, while Peeters et al. (2018) present overtourism measurements metrics and impacts in 68 cities around the world.

Additionally, the number of papers reviewing current knowledge about overtourism are still limited (e.g., Dodds & Butler, 2019; Capocchi et al., 2019; Goodwin, 2017; Mihalic, 2020; Veríssimo et al., 2020) and contain some limitations: 1) the summarization and synthesis on overtourism topics (e.g., causes, solutions) simply lists items by authors or sources of information rather than identifying the themes and categorizing them; this leads to the duplication of items and fails to capture the underlying essence of the discussed topics; 2) few literature review papers were done from a research standpoint, focusing on what had been researched about overtourism and how the research was done (i.e., research topics, research sites, methodology) rather than focusing on what could be known about the overtourism phenomenon through literature; and, 3) there is a deficiency of work that summarizes and synthesizes the most important aspects of overtourism that are deemed to be necessary for tourism researchers and practitioners to consider when doing research or developing strategies to tackle the issues.

This review aims fill in those gaps. It provides a compact yet comprehensive picture of overtourism including the most important and relevant aspects: definitions, impacts, measurements, causes, solutions, failures and challenges in solving tourism, and related theories and concepts. The author attempts to understand the underlying essence of those aspects by identifying themes and categories within those aspects. The literature review and synthesis provide a roadmap for tourism practitioners who needs to consider different attributes of the overtourism phenomenon. Researchers can use the review to ground direction for their research.

This conceptual paper is developed based on the literature and the researcher's combination of previous research and associated work to help explain the phenomenon (Yadav, 2010). A conceptual paper demonstrates how moving beyond the current norm will enhance knowledge. It provides new lenses for seeing things that have not been seen before, or for seeing familiar things differently, more clearly, more simply, or more deeply. This type of article requires a diverse array of conceptual thinking skills including identifying new and interesting issues, seeing what has been known in a new or revised way, relating ideas together and summarizing them to help readers see the general picture, and delineating ideas that others might see as similar (e.g., detailing, charting) (MacInnis, 2010). The writer of a conceptual article needs to debate issues and advocate for their ideas using prior literature (MacInnis, 2010).

Steps applied in this study are as follows:

1. *Identifying key terms and topics that will be the central discussion of the paper:* overtourism, impacts, measurements, causes, solutions, failures and challenges in solving tourism, and related theories and concepts (e.g., tourism carrying capacity, Limits of Acceptable Change, crowding and overcrowding, tourism area life cycle, and Doxey's Irridex).

2. *Collecting literature:* The author utilizes different sources to locate literature using key terms as identified above for searching. Sources of literature include journal articles, books, and reports collected in printed version or online. Online materials are obtained via Google and Google Scholar search engines and academia database systems (e.g., JSTOR, ScienceDirect, Elsevier, and Web of Science).

3. *Synthesizing and analyzing the literature:* At this step, the author reviews and synthesizes several concepts and theoretical frameworks related to overtourism. The author discusses the need to update understanding, differentiate, re-conceptualize, and connect those concepts together within the umbrella of overtourism. The author points out problems and proposes suggestions to academia and practitioner audiences as well as leaves concepts open for more discussion by other authors. This step involves a range of conceptual thinking skills that have to do with envisioning (identifying and revising), explicating (delineating and summarizing), relating (differentiating and integrating), and debating (advocating and refuting) when conveying ideas. Narrations, tables, charts, and diagrams are used to support the discussion.

Concepts/Definitions of Overtourism

Overtourism is a complex and multi-faceted concept. Several definitions of 'overtourism' have emerged by leading international tourism organizations. UNWTO (2018) defined overtourism as "the impact of tourism on a destination, or parts thereof, that excessively influences perceived quality of life of citizens and/or quality of visitors' experiences in a negative way." (p.4) According to the Responsible Tourism Partnership (n.d.), overtourism happens at 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 is "the situation in which the impact of tourism, at certain times and in certain places, exceeds the physical, ecological, social, economic, psychological and/or political capacity thresholds of a destination." (Peeters et al., 2017, p.17).

In the literature, overtourism is defined and viewed from different angles. Generally, overtourism occurs when the quantity and type of prevailing tourism exceeds the destination's carrying capacity (Benner, 2019). It refers to the volume of tourists and physical condition of a tourism destination. Accordingly, overtourism happens when the tipping point or the carrying capacity of the tourism system has been reached (Goodwin, 2017); where hosts or guests, locals or visitors feel that there are too many visitors (Goodwin, 2017); and when the number of tourists is higher than the number of local residents (Seraphin, 2018). Examples of over-crowded cities are Venice with 50,000 residents but 30 million tourists per year or Barcelona with about 5 million residents but 11.3 million visitors per year. However, often, concern about overtourism is not about absolute visitor numbers, but about rapid relative and/or unexpected growth (Koens, Postma & Papp, 2018).

Overtourism is also viewed as an accumulation of different impacts and perceptions resulting from encounters between tourists and local residents. Accordingly, overtourism occurs at a point where either the hosts or guests, and often both, are dissatisfied because the residents' quality of life or the quality of visitors' experience has deteriorated (Perkumienė & Pranskūnienė, 2019). It occurs when residents feel irritated with tourists' behaviors such as being drunk, vandalizing heritage sites, and disrespecting local culture (Pinke-Sziva et al., 2019). On the other hand, tourists may also feel less satisfied with the destination since they have to compete with too many other tourists for places to visit or restaurants; traveling always feel hustled for them at overcrowded destinations (Alexis, 2017).

Some scholars refer to overtourism from destination management perspectives. According to them, the phenomenon is perceived when more and more tourists seek to consume a common resource (Goodwin, 2017); when destinations place tourism priorities over the interests of residents (Goodwin, 2017); or when tourism has become such a dominant sector that its negative impacts seem to increasingly overshadow its benefits (Oklevik et al. 2019). "Overtourism is a consequence of tourism using the destination rather than the destination using tourism" (Goodwin, 2017, p.10).

Capocchi and co-authors (2018) illustrated overtourism as an issue caused by the overlapping of tourism growth or the massification of tourist flows, the concentration of arrivals in the main destinations, and improper destination governance (Fig. 4).

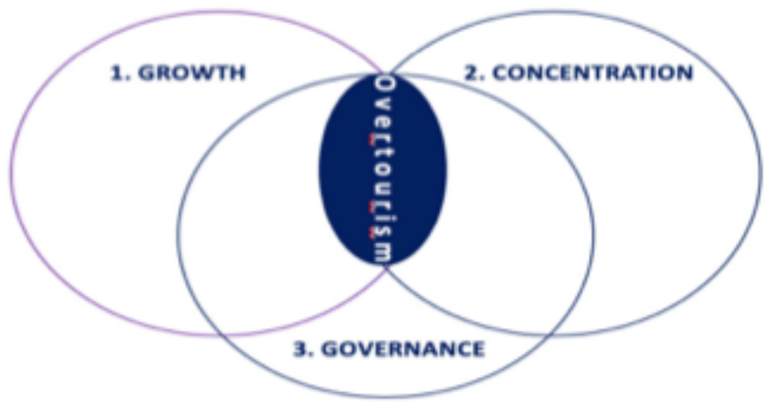


Figure 4: Overtourism Model (Adopted from Capocchi et al., 2018)

Causes of Overtourism

Overtourism is caused by various factors. To initiate analysis, they can be categorized into factors related to global trends or development, destinations, stakeholders, and media. They can also be cross-classified into those within the tourism industry versus out of the tourism industry, or within destination vs. out of destination boundary (Table 1). The categories are not mutually exclusive depending on the context of the causes.

It is important for destination managers and related agencies to identify the causes of overtourism for possible solutions. The classification of causes helps to narrow down the areas of focus (e.g., media sensation, destination infrastructure, tourists' behaviors) and decide which areas the destination and local tourism agencies can tackle on their own (i.e., within tourism industry and within destination boundary) and which areas require cooperation with stakeholders outside of the tourism industry (e.g., transportation, education) or outside of the destination (e.g., national and international tourism agencies, neighboring DMOs). Taking action with consideration to factors and actors that contribute to the problem can be efficient, saving time and resources. Additionally, the knowledge about causes can facilitate communication and understanding among stakeholders. For example, residents in an overtourism destination could be angry with and confront the local tourism office about their marketing and management activities that attract more visitors, however, the destination's DMO might not be the only organization engaged in marketing. There are many factors contributing to overtourism issues that the local DMO cannot control (e.g., global development factors such as growing economy and technology advances). Educating residents on different causes could enhance the relationship between the host community and local tourism offices and strengthen their cooperation.

Table 1. Causes of Overtourism

Causes of overtourism	Within tourism industry	Beyond tourism industry	Within destination boundary	Outside destination boundary
Global trend/development factors				
Absence of large-scale wars and military conflicts (e.g., World War,) or change in political environment/visa policy (e.g., Hong Kong returned to China) leading to more opened destinations		x		x
(Global) population growth leading to increase of potential tourists		x		x
(Global) economy growth or increase of middle class and above who can afford to travel		x		x
Change in people's lifestyle and working style enabling them to travel (e.g., value experience more than materials, working remotely, earn living by traveling)		x		x
Technology development making traveling easier, more affordable, and arranged within a short time, free from mid agent/tour operators, travel to more destinations in short time (e.g., Google Maps, peer-to-peer platforms such as Uber and Airbnb, cheap airlines)	x	x	x	x
Destination factors				
Destination governance (e.g., tourism dependency, growth vs. development, improper infrastructure, lack of strategies, insufficient coordination of stakeholders, ignorance of resident's sentiments, poor management of short-term rentals)	x	x	x	
Successful marketing and branding by DMOS, travel companies, etc.	x		x	
Destination features (e.g., iconic destinations, proximity to big ports or other popular destinations, last-chance tourism)	x	x	x	x
Mega/cultural/ political events (e.g., Olympics, movies, immigration policy)	x	x	x	
Seasonality/Peak times of tourism	x		x	

Causes of overtourism	Within tourism industry	Beyond tourism industry	Within destination boundary	Outside destination boundary
Stakeholders' factors				
Tourists' changing travel patterns (e.g., seeking authentic experiences, off-beaten-track) leading to their appearance everywhere	x		x	
Tourists' inappropriate behavior causing annoyance to local community	x		x	
Residents' lack of understanding about tourism (e.g., benefits, tourism management) or vocal about tourism issues	x		x	
Media factors				
Media and social media creating growth in visitation	x	x	x	x
Media and social media influencing public view of overtourism	x	x	x	x

Global Trend/Development Factors

Overtourism can be caused by several global situations. According to Becker (2016), the absence of large scale or world wars since the end of World War II and Vietnam War has created a relatively peaceful environment for people to travel around the world and the development of new attractive destinations which used to be in war zones (e.g., Vietnam, Bosnia and Herzegovina). According to Dodds and Butler (2019), the world's ever-increasing population is also a part of overtourism problem. The world's population was one billion in 1800 and reached eight billion in 2023 (Roser et al., 2019; Worldometer, 2023). The United Nations predict that the number would increase to 8.5 billion in 2030, and 9.7 billion in 2050 (UN News, 2022). This growth in general population could lead to an increase in potential tourists.

In recent decades, many economies around the world such as Southeast Asian countries and China are developing fast, resulting in more people entering the middle class; the rising standard of living allows people in these countries to set aside more money for traveling (Butler & Dodds, 2019; Tretheway & Mak, 2006). For example, the Chinese tourist market often ranks at the top place in term of the volume of tourists and consumption capacity in many destinations. In 2017, Spain recorded the highest growth in the number of tourists (37%) and the second in increased spending (18.1%) from the Chinese market (Alonso-Almeida, Borrajo-Millán & Yi, 2019).

Changes in economies are accompanied with changes in people's lifestyle. People are enjoying more holidays and use them for traveling more than before (Goodwin, 2017). Technological advances and changes in business environments have also created flexible working arrangements that enable more people to travel while working earning a living by traveling (Goodwin, 2017). Additionally, there has been a change in people's attitudes toward traveling, especially among young generations. Modern people put less importance on staying at one place or owning property; they value experience more than the previous generations which is often associated with traveling (Cavagnaro, Staffieri, & Postma, 2018).

Global growth of tourism is also enabled by advanced technology (e.g., communication, transportation) that makes traveling easier and more affordable than before. The industry now has large travel corporations and cruises to provide service for large groups of tourists (Alexis, 2017). Low-cost carriers allow many people to travel by air for the first time, and others to travel more regularly (Butler & Dodds, 2019). Internet enables instant access to travel information (e.g., destination attractions, accommodation, transportation). Free and convenient services to facilitate travel, such as Google Translate and Google Maps, help people travel easily (Pencarelli, 2020). Additionally, peer-to-peer platforms such as Airbnb and Uber extend tourism services to every corner of the world. All of the advances make it easy for people to arrange trips and travel independently without intermediaries (e.g., tour operators, travel agents). Travelers can arrive at more destinations within a shorter time (Butler & Dodds, 2019).

Destination Factors

Destination governance, development and management strategies can influence overtourism. Dependency of many destinations on tourism as their major economic sector coupled with a 'boosterism' approach prioritizing tourism growth and increases in tourist arrivals make those destinations likely to experience overtourism (Dwyer, Forsyth & Dwyer, 2010; Hall, 2008; Peterson & DiPietro, 2021). Examples are destinations in the Caribbean, one of the most tourism-intense regions of the world (Peterson & DiPietro, 2021). In those destinations, airlines and cruise services are constantly expanded on a large scale, and international chain resorts and other related tourism infrastructure. As a result, overtourism has become a critical issue in this region. Overtourism can result from improper development of tourism while there is a lack of facilities and infrastructure (e.g., road, transportation, hotels) at destinations, especially in those newly developing. Without sufficient preparation, growth can cause problems (Weber, 2017). Even a small increase of visitors in newly developing areas can have great negative impacts (Koens, Postma & Papp, 2018). Other ill-governance issues come into play as overtourism enablers (e.g., lack of strategic approach, insufficient coordination of stakeholders, ignorance of resident's sentiments, not managing Airbnb and short-term rentals).

Successful marketing by travel companies and destinations is another cause of overtourism. With internet and digital technology, marketing can reach more people (Milano, 2018); the popularization of Facebook, Instagram and other forms of social means that word of mouth or individual experience can be shared and spread wider and quicker (Milano, 2018). According to Seraphin (2018), destinations' branding strategy can also contribute to overtourism. Some branding strategies bring a flux of visitors to a destination, especially when they capture emotions and connections visitors may have developed with the destination (Chacko & Marcell, 2008). One example is the increase in number of visitors to New Orleans after Hurricane Katrina and related marketing activities (Chacko & Marcell, 2008).

Some destinations are more prone to overtourism compared to others due to distinguishing features. Some of them are iconic destinations that every tourist wants to visit in their lifetime thus resulting in some of the most heavily visited destinations such as Venice or Paris (Jacobsen, Iversen & Hem, 2019). Within each destination, there are also must-see sites that most first-time visitors want to experience (e.g., Eiffel Tower, Sydney Opera House) which creates a concentration of people in certain areas (Jacobsen, Iversen & Hem, 2019). There are also proximity factors that enable overtourism such as being located near big airports, big cities, and other famous destinations. For example, Sedona (Arizona, USA) is a small but overcrowded destination. While being an attractive destination itself, Sedona is located near other famous destinations in Arizona such as Grand Canyon National Park and Navajo Nation's Antelope Canyon. Tourists often visit those destinations following a geographic loop. Additionally, Sedona is located near Phoenix, one of the fastest growing cities in the USA. This increases the number of visitors, especially day-trippers, who seek a short escape from city life during weekends. Several destinations are subject to last-chance tourism, another cause of overtourism. Those destinations are at risk of vanishing or being closed to tourists due to several reasons such as climate change (e.g., the ice cap on Mt. Kilimanjaro), a new tourism policy (e.g., Australia banning climbing on Urulu rock), or damaged ecosystem (e.g., Great Barrier Reef). They attract a large number of tourists before the destination is gone or inexorably damaged and changed (Haugen, 2019; Lemelin, 2010).

Overtourism can result from a single event outside of tourism such as a country's visa policies, a famous movie related to a destination, or mega sport events. One example is the changes in politics/border policies between Hong Kong and China which has led to more Chinese tourists to Hong Kong in recent decades (Cheung & Li, 2019). The hasty and un-planned expansion of travel visa policies induced an escalation of day-trippers in the area and hence might ruin the quality of visitor–resident relations in the long run (Cheung & Li, 2019). Another example is the Croatian coastal city of Dubrovnik (Benner, 2019). The city has received an overwhelming number of tourists recently under the impact of the widely known television series *Game of Thrones* which was filmed partly in Dubrovnik. During the 2022 FIFA World Cup tournament, more than 1.4 million visitors came to Qatar, the host country (Qatar, 2022).

Seasonality (the variations in the number of visitors to a destination over a period of time) and peak times are recognized as one influential factor to overtourism (Cheer, Milano & Novelli, 2019; Cuccia & Rizzo, 2011). High seasons (e.g., spring, summer) and peak times (e.g., weekends, holidays) have increased visitation and cause seasonal or temporal crowding. For example, a study by Cheer, Milano and Novelli (2019) in

Shipwreck Coast, Australia showed that during high season from December to January, the number of people in the coastal area could grow to over 10 times compared to non-peak times due to tourist arrivals. The concentration of tourists could also occur during certain times of the day. In the case of Shipwreck Coast, about 90% of visitors came between 11:00 AM to 3:00 PM due to tour companies' schedules. The temporary surge put pressure on the local infrastructure and services as well as damaged social and ecological systems (Cheer, Milano & Novelli, 2019).

Stakeholders' Factors

Travel patterns of tourists could influence tourism growth, leading to overtourism. In recent decades, the interaction between local people and tourists increased due to development of authentic traveling ideology. Tourists' desire to seek to see 'real' and 'authentic' everyday life or 'off-the-beaten' track experiences has caused tourism activities to become further intertwined with local life, mostly outside of the main tourist areas in cities (Goodwin, 2017). The short-term rental forms of accommodation such as Airbnb enable tourists to spread out and go deeper into local communities (Plichta, 2018). These types of interactions can make residents feel that there are more and more tourists in their area and even feel suffocated by their presence. Regarding this outcome, the 'living like a local' traveling trend becomes questionable in terms of sustainability (Goodwin, 2017; Perkumienė & Pranskūnienė, 2019). Additionally, tourists' inapproriate behavior (e.g., intoxication, littering, and ignoring local culture) can also add to residents' feelings that there is too much tourism (Koens, Postma & Papp, 2018)

Overtourism can also depend on residents' awareness and perspectives about tourism (Gössling, McCabe & Chen, 2020). Overtourism often attracts attention from management and media when local community residents complain or protest (Dhiraj & Kumar, 2021). Several destinations that are well-known for overtourism (e.g., Venice or Amsterdam) have well educated residents who know how to get their voice heard (Dodds & Butler, 2019). Additionally, some residents may not be aware of tourism, especially, those who are not involved with the industry for a living. They are more likely to feel the negative impacts and become upset with tourism development (Park & Kovacs, 2020). Those who are upset are often more vocal about the issues which can be from a small group of residents.

Media and Social Media Factors

Some scholars explored and discussed the relation of media and social media with overtourism. On the one hand, media and social media encourage visitation to destinations as effects of people sharing their travel experience on Instagram, travel blogs, and travel articles (Alexis, 2017). On the other hand, they can also influence how the public views overtourism. Media coverage brings overtourism as a new phenomenon to public attention (Clark & Nyaupane, 2020). However, it can also contribute to the exaggeration of overtourism phenomenon, triggering local discontent and anti-tourist sentiments (Koens, Postma and Papp (2018).

Impacts of Overtourism

It has been known for a long time that tourism can cause negative impacts to a destination environmentally, economically, and cultural-socially (Cheer, Milano, & Novelli, 2019; Peeters et al., 2018). Impacts of overtourism are not very different from the impacts of general tourism. However, when a destination reaches overtourism status, the impacts are much more obvious and severe; it reduces residents' quality of life and deteriorates the destination even to the point of ruination. The negative impacts of overtourism are also extended to tourists. However, the feelings and reactions of residents and tourists toward overtourism can differ. Table 2 summarizes those impacts.

Table 2. Impacts of Overtourism

Domains	Impacts
Environment	Pollution (e.g., air, noise, water) Pressure on natural resources (e.g., erosion and changes in landscape, loss of habitat for local species) Pressure on public infrastructure and energy consumption (e.g., transportation, water, electricity) Damages to cultural/historic sites Touristification
Economy	Increase cost of living (e.g., goods, service, real estate) Lack of affordable housing Tourism dependency that weakens other economic sectors Tourism leakage
Culture-Society	Public safety issues (e.g., crime, accidents, fire danger in campsites, alcohol consumption, prostitution) Cultural clashes between tourists and residents/Nuisance or illegal behaviors by visitors (e.g., trespassing, drinking) Loss of community sense/identity & cohesion Degradation of local traditions and culture/Loss of authenticity Gentrification Anti-tourism or Tourismphobia sentiments/Lessened residents' support for tourism or protests against tourism Lessen quality of visitor experience and satisfaction

Environmental Impacts

Overtourism impacts destinations environmentally, mainly as the result of increased usage (e.g., of resources, infrastructure, facilities and/or touristic sites) (Peeters et al., 2018). Environmental damage includes, but is not limited to, erosion and changes in landscape, waste and litter problems, water contamination, shortage of drinking water, air pollution, and destruction of the ecosystem (Dodds & Butler, 2019). For instance, the ecosystem (e.g., coral reefs, mangrove, and the beach) at the famous Maya beach in Thailand was damaged by the over-crowding of tourists who dropped litter and tramped onto the coral reef (CNN Travel, 2018). In Venice, cruise ships cause erosion to the foundations of buildings; the carbon-dioxide emissions and waste from those ships contribute to water and air pollution (González, 2018). Erosion is also occurring on the Inca Trail at the famous Machu Pichu heritage site due to the heavy visitation (Oklevik et al., 2019). Another negative impact of overtourism is its pressure on local infrastructure and energy consumption, causing problems such as traffic congestion and shortage of energy. In many places, overtourism adds to the problems that already exist (e.g., waste and water management). For example, tourists' consumption worsens the lack of water in Barcelona during summertime (Koens, Postma & Papp, 2018). Tourism can also damage cultural and historic sites. Additionally, touristification, a process to change places into tourism destinations, involves building infrastructures (e.g., hotels, resorts, roads) could change the natural landscape of the destinations.

Economic Impacts

Economic impacts of overtourism are caused by increased demand (e.g., for goods and services or infrastructure and real estate) (Peeters et al., 2018). One of the issues is increased cost of living. Residents face inflated costs of services and products, especially in housing; many have to relocate to more affordable places. An example is Venice where housing prices were increased significantly due to overtourism, making the city the most expensive one in Italy (Capocchi, 2019). Shops and facilities that once met the needs of residents have been displaced by those that sell expensive goods or services to tourists (Goodwin, 2017). Overtourism can also lead to economic dependence on tourism, overshadowing other sectors (Goodwin, 2017). However, in many destinations, despite the exponential growth of tourism, revenue from the industry hardly stays in the local economy but goes to outsiders such as foreign investors, a phenomenon called leakage (Milano, Novelli & Cheer, 2022). For example, cruise tourists in Caribbean countries enjoy visiting communities and places of interest around the ports but have low spending capacity since most of their services come from cruises (Peterson & DiPietro, 2021).

Socio-cultural Impacts

Increased demand and visitation lead to socio-cultural impacts at overcrowded destinations (Peeters et al., 2018). Several public safety concerns are related to tourism such as crime, accidents, fire danger in campsites, alcohol consumption, and prostitution (Petroman et al., 2022). Cultural clashes often result from the different values and behavior of tourists relative to local norms (Goodwin, 2017). Following the spread of tourists into formerly residential neighborhoods to stay at short-term rental places (e.g., Airbnb), there have been concerns about nuisance behavior from tourists (e.g., partying, littering) and the loss of community identity and cohesion (Martín, Guaita & Salina, 2018). When overtourism occurs, some community residents feel that "their identity has been subverted" either by marketers or by visitors (Goodwin, 2017, p.2). Venetians think their city is being turned into a Disney-style theme park (Seraphin, Sheeran & Pilato, 2018). Gentrification adds to the severity of the issue when increased cost of living and other tourism issues push residents, especially those of lower income, out of their residential areas which are then taken over by tourism facilities or others with higher status and income (Jover & Díaz-Parra, 2020). Gradually, the destinations lose their traditions and authenticity which once charmed tourists.

In many destinations, overtourism results in discontent and decreased support of local residents toward tourism. It can even turn into protests against tourism which happened in Venice and other European cities (Coldwell, 2017). The phenomenon/movement is known as tourismphobia or anti-tourism (Milano, Novelli & Cheer, 2019). It is "the outcry among residents in response to the unfettered growth of tourism", signaling a change of paradigm when "locals are now more interested in their quality of life than income generated by the tourism industry" (Croes et al., 2017).

Those experiencing overtourism are not only local residents but also tourists. High levels of occupancy at hotels, restaurants, and other public places together with the degraded environmental quality at many destinations make tourists feel uncomfortable (Cruz & Zaragoza, 2019). Simmonds and co-authors (2018) noted dissatisfaction among visitors to several American national parks that have become overcrowded in recent years (e.g., Yellowstone, Zion, Grand Tetons). Visitors are tired of waiting in long lines to enter national parks or have difficulty in finding a parking spot.

In comparison, the effects of overtourism are felt stronger among local residents than tourists. Generally, tourists are more tolerant of the crowd when visiting a culture other than their own since they only have to deal with the situation for a short time (Li et al., 2017). Additionally, tourismphobia or anti-tourism can be formed differently in residents than in visitors. Goodwin (2017) suggests local residents tolerate, but grumble about the crowd of tourists for a long time. It is only when the visitor number becomes intolerable with significant negative impacts that anger erupts, and residents launch protests such as what happened in Barcelona, Berlin, and Venice. Goodwin (2017) suggested, however, that tourists' dissatisfaction with the destination tends to be delayed; "each generation of tourists discovers the destination afresh – they have no experience or memory of how it was before to fuel their dissatisfaction" (p.8). Therefore, it takes a long time until dissatisfaction deters tourists from visiting the destination.

Overall Impacts of Overtourism

Overall, impacts from overtourism degrades residents' quality of life, visitor experience, and place many destinations on the verge of being ruined physically and reputationally. Panayiotopoulos and Pisano (2019, p.7) called this "overtourism dystopia" or "the paradox of tourism risks destroying the very thing that tourists come to see." Maya Bay in Thailand is one example; the damage of tourism on the island's environment was so severe that it was closed to the public indefinitely for its coral reef to recover (CNN Travel, 2018). Concern about how destinations would be lost through overtourism, González (2018, p.37) wrote: "Cities can die by three different ways: when they're destructed by an enemy, when a new civilization set up by force, expelling the natives and their gods and thirdly, when the inhabitants themselves lose their memory and become foreigners in their own city." Social media recently has made several lists of places that travelers may want to avoid due to overtourism (Phi, 2019). The negative impacts of overtourism can extend beyond one destination’s limit, affecting the broad travel supply chain across destinations (Cheer, Milano & Novelli, 2019).

Indicators and Measurements of Overtourism

There are a variety of measurements and indicators of overtourism developed by tourism organizations (e.g., UNWTO), destination management, and scholars (Weber et al., 2019). The indicators can be measured quantitatively (i.e., number of tourist arrivals) and qualitatively (i.e., perspectives, behavior, development strategies). The indicators are divided into six categories: tourism growth, tourism density, tourism intensity, destination features, media sensation, and stakeholder perspectives (Table 3). These indicators can be used to evaluate the existing overtourism condition as well as to make predictions and assess the risks of overtourism at destinations.

Table 3. Overtourism Measurements/Indicators

Indicators	Measurements	Sources
Tourism growth		
Tourism shares of GDP	Tourism GPD/General GDP (%)	McKinsey & Company and the WTTC, 2017
Tourism shares of employment	Tourism employment/General employment (%)	McKinsey & Company and the WTTC, 2017
Growth in tourist arrivals	%/year	McKinsey & Company and the WTTC, 2017
Growth in overnight stays	%/year	Preveden et al., 2018
Growth in bed capacity	%	Preveden et al., 2018
Growth of air transports	%	Peeters et al., 2018
Tourism density		
Visitor density	Visitors/km^2	McKinsey & Company and the WTTC, 2017
	Travelers accommodated/ km^2	Cruz & Zaragoza, 2019
	Area of beach/tourist (m^2)	Cruz & Zaragoza, 2019
Accommodation density	Bed-nights/km^2	Peeters et al., 2018
	Beds/ km^2	Baños et al., 2019
	Area of accommodation /km^2	Cruz & Zaragoza, 2019
	Accommodation / km^2	Cruz & Zaragoza, 2019
Tourism intensity		
Visitor intensity	Visitors/ residents	McKinsey & Company and the WTTC, 2017
	Cruise passengers/residents	Martín et al., 2018
	Air passengers/bed night	Peeters et al., 2018
Accommodation intensity	Bed-nights/residents	Peeters et al., 2018
	Bed-nights/1000 residents	Šegota et al., 2017
	Beds/residents	Baños et al., 2019
	Overnight stays/residents	Preveden et al., 2018
	Airbnb prevalence/booking	Peeters et al., 2018

Indicators	Measurements	Sources
Destination features		
Arrival seasonality	Difference in arriving-flight seats between high and low month (ratio)	McKinsey & Company and the WTTC, 2017
Growth of air transports	%	Peeters et al., 2018
Airbnb average shortest distance to booking.com addresses	Km	Peeters et al., 2018
World heritage site closeness	Number within 30 km	Peeters et al., 2018
Cruise harbor closeness	Number within 10 km	Peeters et al., 2018
Airport closeness	Number of arrivals within 50 km	Peeters et al., 2018
Number of UNESCO World Heritage Sites	Number	Peeters et al., 2018
Number of conferences	Number	Preveden et al., 2018
Media sensation		
Attraction concentration	Share of reviews limited to top 5 attractions (%)	McKinsey & Company and the WTTC, 2017
Historic site prevalence	Share of top 20 TripAdvisor attractions that are historic sites (%)	McKinsey & Company and the WTTC, 2017
Negative TripAdvisor reviews	Share of "poor" or "terrible" reviews among top attractions (%)	McKinsey & Company and the WTTC, 2017
Stakeholders' perspectives		
Visitors' perspectives	Visitors' feeling toward crowding	Jacobsen et al., 2019
	Visitors' satisfaction with tourism experience in overtourism context	Dodds & Holmes, 2019; Jacobsen, 2019; Liu & Ma, 2019
	Visitor's perception about impacts of overtourism	Krajickova et al., 2022
Residents' perspectives	Residents' perceptions about impacts of overtourism	Gutiérrez-Taño et al., 2019; Kim & Kang, 2020; Muler Gonzalez et al., 2019; Szromek et al., 2019

Tourism Growth

This group of indicators focus on the growth of the general tourism industry (tourism shares of GDP, tourism shares of employment, growth in tourist arrivals contribution to GDP, tourists arrivals) or specific facilities of services (overnight stays, bed capacity, air transports) (McKinsey & Company and the WTTC, 2017; Peeters et al., 2018; Preveden et al., 2018). The indicators show how fast tourism is developing and the dominance of it in the local economy.

Tourism Density

Tourism density indicators measure the concentration of visitors or tourism facilities and services over a certain surface area. They include the number of each of these items per km^2: visitors, visitors that use accommodation services, bed-nights, beds, area of accommodation, accommodation (Baños et al., 2019; Cruz & Zaragoza, 2019; McKinsey & Company and the WTTC, 2017; Peeters et al., 2018). Additionally, there is also a density indicator to measure the average space of beach (in m^2) that one tourist occupies (Cruz & Zaragoza, 2019).

Tourism Intensity

Most of the tourism density indicators calculate the number of visitors or tourism facilities and services in relation to the local population. This calculation can generate the number of each of these items per one or 1,000 residents as well as the ratio of them over the whole population: visitors, air passengers, cruise passengers, bed-nights, beds, and overnight stays (Baños et al., 2019; McKinsey & Company and the WTTC, 2017; Martín et al., 2018; Peeters et al., 2018; Preveden et al., 2018). Some intensity indicators are not based on population. Examples are the number of passengers over the number of bed nights (Peeters et al., 2018) or the ratio between Airbnb booking over the general accommodation booking (Peeters et al., 2018). Tourism intensity indicators, together with tourism density ones, show the pressure of tourism development on the host community and destinations' capacity.

Destination Features

A number of overtourism indicators target destination features. McKinsey & Company and the WTTC (2017) measured the difference in arriving-flight seats between high and low months in destinations. Peeters et al (2018) used several measurements on the distance of the destinations to important tourism infrastructure and attractions (airport, heritage sites, cruise harbor). The numbers of UNESCO World Heritage Sites and the number of conferences organized at destinations are also considered (Peeters et al., 2018; Preveden et al., 2018). These indicators can show how much destinations are prone to overtourism.

Media Sensation

There are overtourism indicators related to media sensation. McKinsey & Company and the WTTC, 2017 created three indicators: share of reviews limited to top 5 attractions (%) to measure the attraction concentration at destinations, share of top 20 TripAdvisor attractions that are historic sites (%) to measure the prevalence of historic sites, and share of "poor" or "terrible" reviews among top attractions (%) to measure visitor experience. The reviews on media can help to explain the causes or impacts of overtourism.

Stakeholder Perspectives

Regarding stakeholder perspectives, indicators mostly focus on measuring overtourism through the perspectives of visitors and residents. Indicators related to visitors' perspectives include their feelings toward crowding (Jacobsen et al., 2019), their satisfaction with tourism experience in overtourism context (Dodds & Holmes, 2019; Jacobsen et al., 2019; Liu & Ma, 2019), and their perceptions about impacts of overtourism (Krajickova et al., 2022). Indicators related to residents' perspectives mostly measure their perceptions about impacts of overtourism (Gutiérrez-Taño et al., 2019; Kim & Kang, 2020; Muler Gonzalez et al., 2019; Szromek et al., 2019). Scale is the popular measurement for stakeholders' perspectives indicators. For example, in the study by Jacobsen, Iversen and Hem (2019), visitors to Norway were asked "Please indicate whether you find this place crowded or not" and to rate the crowding condition on a scale of 5 from 1=Very crowded to 5= Not at all crowded.

Current Solutions to Overtourism

Many strategies have been adapted around the globe to solve overtourism (Table 4). They focus on: manage tourism growth and development, manage and control the crowd of tourists, manage stakeholders' behaviors, perspectives, and involvement, manage destination capacity and tourism practices, and develop and implement strategic tourism development plans. The solutions can be applied to specific sites or large scale (a destination, nation, or at international level). Solutions can be reactive to an overtourism situation that is happening to reduce its negative impacts or proactive/preventative before it happens. They can be executed and expected to be effective in short, medium, and long terms. The categories are not mutually exclusive depending on the context of the solutions.

Awareness of the variety of solutions offers destination management the flexibility to take actions. Classifying solutions into categories (e.g., manage tourism growth, manage and control the crowd) can be helpful to allocate resources and form different taskforces that involve the relevant and specialized partners. Additionally, since overtourism is a complicated issue, solving it requires systematic efforts from different directions (e.g., managing growth, managing stakeholders' involvement) and levels (e.g., short-long term, site-destination-national level). A list and categories of solutions could be used as a checklist for destination managers to develop a comprehensive action plan.

Table 4. Solutions to Overtourism

Solutions	Explanation/Tools	Types of solutions or how solutions are applied						
		Reactive	Proactive/ Preventative	Site level	Destination level	National level	Short/ Medium term	Long term
Manage tourism growth and development								
Sustainable degrowth	Reorient to a smaller economy with less production and consumption	x	x	x	x	x	x	x
Demarketing/Demotion	Reduce destination marketing activities	x	x		x	x		x
Tourist market segmentation/ Optimization of tourist market/Repositioning approach/Promote niche tourism	Target tourists with limited impacts on destinations, high spending capacity, repeat visitation (e.g., overnight vs. day visitors, luxury market vs. backpackers)	x	x	x	x	x		x
Restrict/control tourism facilities development	Limit the establishment of new facilities (e.g., hotels, short-term rentals)	x	x		x	x		x
Restrict tourism activities	Restrict harmful/unsuitable activities (e.g., beer bikes, red light districts activities)	x	x	x	x	x	x	x
Promote multi-pillar economy	Tourism is not the main or only economic sector		x		x	x		x

Solutions	Explanation/Tools	Types of solutions or how solutions are applied						
		Reactive	Proactive/ Preventative	Site level	Destination level	National level	Short/ Medium term	Long term
Manage and control the crowd of tourists								
Control/capping number of tourist arrivals	Apply reservation and ticketing, timed/limited entry; Cap number of tourist visas, cruises, or flights; Apply pricing differentiation, minimum spending, tax on services that bring large volume of tourists (e.g., cruises, short-term rentals)	x	x	x	x	x	x	x
Manage tourist flow	Navigate flow via turnstiles, timing visitation, virtual queueing, pedestrian zones	x	x	x	x	x	x	x
Zoning	Separating touristic areas from residential areas	x	x	x	x	x	x	x
Tourist distribution across seasons or destination	Promote low season or less well-known areas of the destinations, develop new routes and attractions	x	x	x	x	x		x
Monitoring crowd control	Increase presence of tourism patrols/security officers/traffic controllers/surveillance	x	x	x	x	x	x	x

Solutions	Explanation/Tools	Types of solutions or how solutions are applied						
		Reactive	Proactive/ Preventative	Site level	Destination level	National level	Short/ Medium term	Long term
Manage stakeholders' behaviors, perspectives, and involvement								
Influence and control tourists' behaviors	Soft measures: education via code for tourists, pledge, information on visitors' behavior; Hard measures: regulation, fines	x	x	x	x	x	x	x
Enhance public awareness about tourism	Communicate with the public about tourism issues and benefits, increase employment opportunities for locals		x	x	x	x		x
Ensure tourism benefit for residents	Tax incentives, employment and recreation opportunities, reduced entrance fees, community events	x	x		x	x		x
Engage residents in tourism development	Involve the public in decision making/tourism projects (e.g., community meetings and forums, volunteers)	x	x		x	x	x	x
Exchange/share information among destinations and agencies	Webinars, seminars, etc.	x	x	x	x	x	x	x

Solutions	Explanation/Tools	Types of solutions or how solutions are applied						
		Reactive	Proactive/ Preventative	Site level	Destination level	National level	Short/ Medium term	Long term
Manage destination capacity and tourism practices								
Infrastructure and facilities improvement	More parking areas or parking outside of popular areas, restrooms, road expansion, shuttle bus, public transportation, biking/walking routes	x	x	x	x	x	x	x
Promote sustainable tourism practices	No plastic policy, efficient and green energy, green/electric transportation	x	x	x	x	x	x	x
Site/destination closure	Close specific parts of or whole destination for a period of time	x		x	x		x	x
Develop and implement tourism plan								
(Sustainable) tourism plan	Research on overtourism issues, incorporate different solutions, involve variety of stakeholders, apply technology to forecast and control overtourism, sustainability assessment and certification		x		x	x		x

Manage Tourism Growth and Development

To address overtourism, there have been suggestions whether destinations should follow a “sustainable degrowth” pathway (Buscher & Fletcher, 2017; Dietz & O’Neill, 2013). The process of sustainable degrowth reorients unsustainable and inappropriate tourism practices as well as promotes less production and consumption in a smaller economy (Andriotis, 2014). Hall (2009) suggests application of the four Rs principles in tourism consumption: reduce, reuse, recycle, and regulate. According to Andriotis (2014, p.11), degrowth is revolutionary and anti-capitalist; “it is focused on sustainable change and results from an interest in locality and place, small and medium-sized enterprises, job creation and reduction of working hours, ecology and quality of life, reduction of tourism activities, carbon reduction in the transport sector, a change in production and consumption patterns, and the high priority of the travel experience”.

Efforts to address overtourism have also been made in terms of destination marketing. Some destinations apply a de-marketing (or demotion) approach which is defined as “that aspect of marketing that deals with discouraging customers in general or a certain class of customers in particular on either a temporary or permanent basis” (Kotler, 1971, p.76). The purposes are to increase financial returns from tourism while maintaining or even decreasing tourist arrival numbers. Tools for demarketing that destinations can applied are categorized into four groups (Gülşe et al., 2021): price (increasing fees, increasing entry prices), place (reducing the fields of consumption and distribution, putting restraints on sales), products (restricting the utility of the product, increasing the availability of alternatives, highlighting the damage factor of the product, reducing the attractiveness), and promotion (reducing advertisement field, adding mandatory warning labels). Amsterdam is an overtourism destination that attempted to reduce and re-orientate its marketing and promotion activities (Gerritsma, 2019). Blue Mountains National Park in Australia also applied this strategy (Kern & Armstrong, 2007). Accordingly, the park managers control the visitors' crowding through measures related to product de-marketing such as limiting recreational activities by defining specific areas where they can be conducted, limiting the duration of activities, and closures of sites or features in the park. They also apply place de-marketing such as using a booking system, limiting visitor numbers and group sizes, commercial licensing, and limiting signage. In terms of promotion, the park stresses restrictions and appropriate environmental behaviors in promotional material and also reduced promotion of certain areas or experiences in the park.

Another approach to curb tourism is optimization of markets. This strategy is opposite to the maximization strategy to attract higher numbers of tourists. Destinations identify markets that are more profitable, more economically stable, longer length of stay, incur a lower carbon cost, or visit during another season (Schiff & Becken, 2011; Weaver & Oppermann, 2000). Day-trippers are often less favored by destinations; Venice is planning to tax day-trippers as a part of this approach (Briguglio & Avellino, 2019). New Zealand is another destination to consider this strategy, aiming to move away from low-spending backpacker market and accommodating more high spending visitors (Butler & Dodds, 2019).

Repositioning approach also helps to curb overtourism. Traditional reasons for repositioning include increasingly worldwide competition for tourism, changing preferences of tourists, or a fixed image that does not promote the destination effectively (Chacko & Marcell, 2008). Repositioning allows destinations to rejuvenate themselves to focus on highlighting their current attributes and image to attract tourists in the face of strong competition (Seraphin, 2018). Destinations that are subject to overtourism can brand each region differently by focusing on a particular type of tourism products or experience (Seraphin, 2018). Repositioning would still encourage visitation to the destination, just reducing the number of visitors (Seraphin, 2018).

Related to managing tourism development, some destinations choose to restrict certain types of tourism or activities that are considered to be harmful (Goodwin, 2021). For example, in recent efforts to deal with overtourism, Amsterdam restricts guided tours and use of marijuana or alcohol in the Red Light District which is known for prostitution and is one of the main touristic areas in the city (Orie, 2023; Wong, 2023).

Another solution for overtourism that is discussed in literature is for destinations to develop a multi-pillar economy and lessen their dependence on tourism (Goodwin, 2021). Hawaii is one destination that is trying to diversify their economy since the state's tourism industry brings many tourists but not sufficient spending (Oda, 2020). Proposals consider developing alternative sectors such as astronomy, green energy, and agriculture.

Manage and Control the Crowd of Tourists

Many destinations manage the number of tourist arrivals as a way to reduce an overtourism condition. Seychelles, Bhutan, and Grand Cayman allow a limited number of travel permissions and visas for international tourists (Johnson, 2002; Nyaupane & Timothy, 2010). Alternative options may include application of air passenger duties and departure taxes which generate more revenue and limit tourism growth (Hall, 2013). Several destinations (e.g., Orkney Islands , Dubrovnik, Amsterdam) have capped the numbers of ships arriving or docking at their ports over a period of time as well as the numbers of cruise passengers (Dodds & Butler, 2019).

Some places attempt to manage the flow of tourists. Venice installed turnstiles to control the pedestrian and aquatic traffic during Carnival festival in April 2018 (González, 2018). Venice has also diverted cruise ships weighing more than 40,000 tons, preventing them from passing through St Mark's Square and Venice's historic center (González, 2018). Disney World applies virtual queuing that allows visitors to book their participation time via a mobile application (Visit Disney, n.d.). This strategy also comes with timed admissions and limits on length of stay or visitation (Butler & Dodds, 2019). Technologies (e.g., mobile apps, camera) are helpful for destinations to control tourist flows.

Zoning or territorial strategy is another recognized tactic to solve overtourism. Zoning can be applied to regulate traffic (e.g., coach free zone, pedestrian zone) (Koens, Postma & Papp, 2018). Some destinations used this tactic to contain accommodation growth (Calle-Vaquero et al., 2020). Madrid of Spain "has been divided into four areas, in the form of concentric rings, and restrictions on transforming an entire building for use as tourist accommodation become more stringent towards the centre." (Calle-Vaquero et al., 2020, p.14).

Several destinations focus on distributing or spreading tourist volume across the entire destination or seasons (Alexis, 2017; Capocchi et al., 2019). Paris Tourism office launched ‘Discover Another Paris’ campaign to promote positive geographic spread, highlighting the lesser-known districts and attractions tourists can visit rather than the most popular sites (Alexis, 2017). Santorini and the Balearic Islands reduce the crowd of tourists in high season by promoting off-season programs (Stanchev, 2018).

Monitoring the crowd and flow of tourists is also an important strategy. This can be done by increasing presence of tourism patrols, security officers, traffic controllers, and surveillance device (e.g., camera) (Goodwin, 2017; Pinke-Sziva et al., 2019; Wall, 2020). The measures can be useful for intervention to stop or reroute traffic or walking tourists, ensure the tourists follow rules and regulations at sites, and create a safe environment for both tourists and the host community.

Manage Stakeholders’ Behaviors, Perspectives, and Involvement

Besides strategies to manage the crowd of tourists, there are also strategies to improve tourist behavior since negative actions add to the problem of overtourism (Muler Gonzalez, Coromina & Galí, 2018). Policy responses aimed at controlling the volume of visitors are not adequate to address overtourism, stimulating behavioral change by visitors is necessary (Benner, 2019). The approach is mentioned in literature as “nudging approach” which aims to "to steer citizens towards making positive decisions as individuals and for society while preserving individual choice" (Hall, 2013, p. 1098). Examples of nudging include installing signs or codes of conducts to guide tourists’ behavior, creating a feedback mechanism about visitors’ behavior, and creating pledges for visitors to sign up for (Hall, 2013; Siegel, Tussyadiah & Scarles, 2023). In dealing with tourist behavior, there are "soft" measures such as promoting awareness among tourists about appropriate behaviors and creating codes of conduct to guide tourists (Benner, 2019). However, "hard" policy interventions in forms of rules and regulations are also recommended (Benner, 2019).

Overtourism risk can be managed by managing local residents' perspectives. Understanding the factors that negatively influence residents' perceptions is necessary for proper management tactics (Kuščer & Mihalič, 2019). Destination managers are encouraged to listen to residents' concerns about impacts of tourism, enhance awareness of residents about social and economic benefits of tourism, increase employment opportunities in tourism for locals, promote conservation and preservation initiatives for the community, and involve residents in tourism planning and development.

The involvement of a large network of stakeholders is recommended in dealing with overtourism (Loverio, Chen & Shen, 2021). To facilitate their involvement, it is important that data and information about overtourism are shared with relevant stakeholders (e.g., residents, visitors, institutions), among destinations, and among different levels of tourism management (e.g., local, national, international) (Adams & Sanchez, 2020; Goodwin, 2019; Jamieson & Jamieson, 2019). Public meetings, webinars, seminars, conference, publication, articles, and blogs are examples of tools that have been used by destinations and organizations to disseminate knowledge about overtourism.

Manage Destination Capacity and Tourism Practices

Many destinations attempt to improve infrastructure and facilities to accommodate the increasing volume of tourists. Using this tactic, Sedona, a destination in the USA, has implemented different development programs to solve traffic congestion such as increasing parking spots around places of interest, expanding roads, creating roundabouts, and establishing shuttle bus routes (SCC&TB, 2019). The city plans to build more houses for local workers which address the shortage of affordable housing due to increased price in real estate (SCC&TB, 2019).

Promoting sustainable tourism practices is a route for destinations to minimize the impacts of overtourism. Also in Sedona, many sustainability programs have been applied by the community, including following guidance of the Dark Sky International *Dark-Sky* Association on responsible lighting to reduce light pollution, promoting Leave No Trace principles to protect the environment, increasing usage of green energy, and supporting local businesses to prevent tourism leakage (SCC&TB, 2019).

A small number of destinations that experience severe consequences from overtourism have resorted to more extreme measures of closing some specific sites or an entire destination to tourists. The temporary closure of several island destinations (Maya Bay of Thailand, Boracay Island of the Philippines, Komondo Islands in Indonesia) due to pollution and damaged eco-systems are some examples (Clark & Nyaupane, 2020; Johnston, 2019).

Develop and Implement Strategic Tourism Plan

Overall, it is recommended that solutions for overtourism should be applied strategically via planning (e.g., sustainable tourism plan) (Milano, Novelli & Cheer, 2019). The process involves research to access and measure overtourism, cooperation among different stakeholders in and out of the destination or the tourism industry, setting short and long-term goals and objectives to manage tourism growth, and utilizing a variety of tactics to solve overtourism. Several destinations around the world have applied this approach (e.g., Sedona and Vail in USA, Barcelona in Spain).

Failures/Challenges in Solving Overtourism

Solutions to control overtourism are not always successful. Measures sometimes cause more problems. For example, destinations promote traveling in lower seasons to reduce overcrowding or to bring in more tourism revenue has prolonged the tourist season; the appearance of tourists in many destinations now is observed almost year-round (Jacobsen, Iversen & Hem, 2019). In other cases, the effect of the solution is not good for residents. For example, Bruges (a city in Belgium) raised parking fees in the downtown to generate more budget from tourists and to discourage tourists' concentration (Koens, Postma & Papp, 2018). However, in practice, the solution caused problems for local residents who had to pay for the tariffs as well. Luxury market includes many products that generate a unique experience away from mass consumption and seems to be more economically and environmentally beneficial to destinations. With the case of Venice, luxury tourism might sound a good solution to overtourism since it targets the small market of tourists with high spending capacity (González, 2018). However, luxury cruises have been causing problems in Venice and generate few benefits locally (González, 2018). Cruise passenger enjoy visiting the city for a short time, but the community experiences some severe impacts of cruise tourism for a long term such as: erosion of canals, spoiled city landscape, risk of collision, spills of hydrocarbons (big cruise vs. heritage buildings), and crowding. The approach of segmentation to select a certain type of tourist market (e.g., overnight, luxury) met with criticism of blocking travel opportunities for the general public, especially those with low income and limited access to tourism (Butler & Dodds, 2022). Measures to limit the number of tourists may also make tourists feel unwelcome and affect destination growth in the long term (Dodds & Butler, 2022). The segmentation approach is also not highly feasible because there could be insufficient volume of the targeted tourist market (e.g., luxury, overnight, MICE) for the destinations to thrive on (Butler & Dodds, 2022). Pricing policies that offer incentives for local residents (lower prices, or discount to residents) may face negative reactions from tourists (Dodds & Butler, 2019).

There are several reasons why overtourism is difficult to solve (Table 5).

Table 5. Challenges in Solving Overtourism

Challenges	Explanation
Context	Overtourism is contextual. There cannot be a one-size-fits-all strategy for destinations.
Multi-disciplines and multi-stakeholders	Tourism is multi-disciplinary and involves a large network of stakeholders who are not always on the same page, sometimes even contradicting one another. A unified collaboration is difficult to achieve.
Global issues	Overtourism is a global issue where there is no central authority
Causal chains	Many issues in tourism happen in causal chains. It is difficult to get to the root of the issue and identify responsibilities of involved parties
Boundary	Many causes of overtourism are outside the boundary of the tourism industry or destinations
Data and measurement	Lack of data about overtourism and complicated measurements/indicators
Application of solutions	Solutions are often applied reactively rather than preventatively, site specific rather than at destination or national/global level. Lacking strategic tourism plans.
Awareness	Lack of awareness and willingness to adapt sustainable practices by practitioners and governments
Iconic destinations/sites	Tourists always want to see iconic sites making it difficult to manage tourist flow
Facilities and services	Infrastructure and services for tourists are also shared by community, businesses making it difficult for zoning activities

Destinations are different in contexts, their overtourism issues can be varied in terms of causes and impacts. For example, Venice (Italy) gets overcrowded largely due to cruise tourism causing residents moving out of the city while Maya Island (Thailand) gets overcrowded after being the backdrop of the beach movie in which Leonardo DiCaprio starred and causing ruined coral reefs. The approach to limit tourists' arrivals is more feasible in small and isolated destinations such as islands. Urban destinations might find it impossible to apply the same approach since there are many routes and transportation modes coming in and out (Dodds & Butler, 2019). Therefore, there can be no one-size-fit-all measurements and solutions for overtourism, they need to be specifically designed for each destination. This requires many efforts and resources that many destinations cannot afford to do.

Tourism is a complex multi-disciplinary industry with involvement of different stakeholders making an integrated action agenda to address overtourism difficult (Butler & Dodds, 2022). These stakeholders are varied in terms of their awareness of overtourism issues or sustainability, priority missions, and capacity. They may not reach mutual agreement on overtourism solutions leading to lack of cooperation. For example, tourism is an economic activity where most participants expect and depend on economic gains for survival (e.g., hotels, airlines) (Ghoochani et al., 2020; Walmsley, 2017). It is "generally unrealistic and ineffective to expect those agencies to have much regard for anything beyond their own economic benefit" (Butler & Dodds, 2022, p. 38). The number of tourism agencies that engage in sustainability initiatives is a minority among billions (Butler & Dodds, 2022). Additionally, many DMOs still focus on destination marketing rather than management (Butler & Dodds, 2022). There can also be lack of cooperation between the national governments that continue to aim for tourist growth and local governments that actually suffer from and try to mitigate overtourism (Nepal & Nepal, 2019). Even among residents, some are involved in tourism and directly benefit economically, some do not. Therefore, when they both experienced tourism issues (e.g., crime, pollution), their tolerance and support for tourism development can vary.

In relation to the complexity of overtourism stakeholders, overtourism is a collective global issue that lacks the central authority to be in charge (Adams & Sanchez, 2020). Relation theorists describe this status as an international anarchy (Waltz, 2001). The anarchy makes it immensely challenging to solve overtourism with no agreed upon rules and enforcement mechanisms (Adams & Sanchez, 2020).

Issues in tourism often occur in causal chains making it difficult to identify the root causes as well as identifying and coordinating responsibilities of involved parties to solve the issues effectively (Butler & Dodds, 2022; Koens et al., 2018; Peeters et al., 2018). An example is technology advancement that led to the development of the airlines which in turn led to the availability of cheap flights and an increase in travelers. Another example is the combination of technology, a lack of housing market regulations, and residents/entrepreneurs seeking income which led to the exponential growth of peer-to-peer platforms such as Uber and Airbnb which in turn increased the arrival of tourists in communities.

Many causes of overtourism are out of tourism or destination boundaries where local tourism agencies and governments have little or no control (Butler & Dodds, 2022). Examples are the increase of the world's population and growing of world's economy leading to an increase in potential tourists. Other examples include air travel and cruise travel that are often controlled by air/cruise companies and national governments rather than local ownership. Airports can be located outside of the destination, such as the case in Venice. The port of Barcelona is privately owned so the local municipality cannot limit cruise ship numbers (Goodwin, 2019).

Solving overtourism is challenging with the lack of data and complicated indicators and/or measurements leading to dubious assumptions and management. Collecting data (e.g., visitor volume and characteristics, impacts of tourism) can be costly and many DMOs do not have sufficient research budgets (Butler & Dodds, 2022). Regarding measurements/indicators, many are difficult to calculate. For example, the numbers of accommodations or bed nights can be tricky to count/estimate since many are not registered with local government or tourism agencies, especially short-term rentals. Measurements that are related to carrying capacity are even more complicated due to: circumstances constantly changing making calculations out of date in a short time; difficulty in estimating human attitudes and preferences, especially when there are many stakeholders involved; and difficulty in predicting the number of tourist arrivals (Shelby, Vaske & Heberlein, 1986; Wall, 2020).

The ineffectiveness of prospective overtourism solutions is partly because those solutions are often reactive rather than proactive, or applied at small scale rather than large (Ivars-Baidal et al., 2019). Measures to tackle overtourism are often applied when the destinations are already overcrowded. Many measures are applied individually at specific attraction sites (e.g., museum, parks) rather than whole destinations or as a part of a strategic plan (Butler & Dodds, 2022). Few destinations have a long-term sustainable tourism plan to prevent and solve overtourism.

Even though sustainable development has been widely supported by international organizations (e.g., UNWTO) and politicians across the globe, the practice of it is still questionable (Dodds & Butler, 2019). While more and more private businesses have adopted sustainability initiatives, the management authorities of many destinations, especially in the public sectors, do not recognize the existence of overtourism and are unwilling to address the issue. For many destinations and leading tourism agencies at international and national levels (e.g., UNWTO), growth in tourism is still the desired goal (Wall, 2020) and they focus more on managing the tourist volume rather than reducing it. Destinations can worry more about their reputation being damaged and decrease in tourist arrivals than suffering from too much success while businesses such as Airbnb operators or hotels are unlikely to cease advertising the destinations (Dodds & Butler, 2019).

An approach to promote less popular sites and attractions in the destination is difficult because tourists, especially first-time visitors, always want to see iconic places such as Buckingham Palace and the Sydney Opera House (Butler & Dodds, 2022). Finally, the zoning approach is not always feasible because it is difficult or sometimes impossible to separate services and facilities for tourists from those for residents because they are often shared.

Theoretical Frameworks and Concepts Related to Overtourism

Academic discussions about overtourism appeared around the same time as the topic drew attention in the media in the early 2010s. Hence, overtourism is quite a new research topic. However, the problem itself is not new and has been discussed as early as in the 1960s when scholars already wrote about how tourism could negatively affect destinations (Perkumienė & Pranskūnienė, 2019). Noticeable related works were Pizam's description of the social costs to destination communities, Doxey's Irridex model, and Butler's tourism life cycle (Butler, 1980; Doxey, 1975; Pizam, 1978). According to these authors, excessive tourism development can harm the local environment and stimulate negative attitudes among residents in urban and rural areas. In 1980, the magazine GEO put forth a critical question: "How many tourists per hectare of beach?" calling for efforts to set an appropriate number of tourists at a certain destination (Erschbamer et al., 2018). Since then, different tourism researchers have established and discussed the frameworks and concepts of carrying capacity, limits of acceptable change, crowding, residents' quality of life, residents' support for tourism, mass tourism, sustainable tourism, and touristification. Understanding those theories and concepts is important for overtourism management (Table 6).

Table 6. Overtourism-related Theoretical Frameworks and Concepts

Theories/Concepts	Implications for overtourism
Crowding/Overcrowding (Tourism) Carrying capacity Limits of acceptable change	Consider the physical, social, and environmental limits in tourism development
Tourism Area Life Cycle	Assess status of tourism development. Diagnose and prevent overtourism before it happens.
Doxey's Irridex Residents' quality of life Resident's support for tourism development	Understand and consider residents' perspectives and sentiments about tourism. Involve residents in tourism planning and development decisions. Maximize benefits from tourism for residents.
Stakeholder theories	Involve stakeholders in tourism planning and development
Mass tourism	Consider the impacts of different types of tourism on the destinations
Sustainable tourism	Implement sustainable/responsible tourism practices
Touristification	Tourism development to consider its impacts on the physical and social environment.

Crowding and Overcrowding

Crowding or overcrowding are often used interchangeable to indicate the most prominent symptom and main cause of overtourism. Crowding "implies exceeding the maximum number of people that can visit a destination simultaneously" and "refers to a certain level of destination saturation" (Sanz-Blas, Buzova & Schlesinger, 2019, p.3). It is the actual or perceived levels of use which, if exceeded, an individual might consider unacceptable (Manning, 2022; Schmidt & Keating, 1979). Crowding can be perceived differently depending on factors such as density of visitors, types of tourism activities, physical characteristics of the sites or facilities, and demographics of perceivers (Gramann & Burdge, 1984; Lee, Morgan & Shim, 2019; Ryan & Cessford, 2003). Crowding in overtourism can also refer to the spatial concentration of infrastructure, facilities, and equipment for tourism (Alonso-Almeida, Borrajo-Millán & Yi 2019). Related to this territorial dimension, several concepts were coined such as accommodation saturation, accommodation overtourism or accommodation overcrowding.

Crowding in an overtourism context has been measured both objectively (e.g., density, intensity) and subjectively (e.g., perceptions). For example, Peeters et al. (2018) used a tourism density indicator (number of tourists per km^2) and tourism intensity (number of tourists per capita). Jacobsen, Iversen and Hem (2019) asked visitors to Norway "Please indicate whether you find this place crowded or not" and to rate the crowding condition on a 5-point scale from 1=Very crowded to 5=Not at all crowded.

Several theories are subsumed within crowding theory that can be used to understand overtourism. Expectancy theory suggests that individuals' expectations can influence how they evaluate the crowd (Andereck & Becker, 1993; Schreyer & Roggenbuck, 1978). For example, tourists who plan for social activities such as participating in concerts and festivals tend to expect or prefer crowding more than those who seek for solitary activities (Wickham and Kerstetter, 2000). Social interference theory connects crowding to people's feelings of spatial restriction (Li et al., 2017; Schmidt & Keating, 1979). Stimulus overload theory emphasizes the psychic stress of people experiencing crowding (Lee & Graefe, 2003; Milgram, 1970). Therefore, crowding can be negative or positive depending on the perceiver (Manning et al., 1996).

Tourism Carrying Capacity

Tourism carrying capacity is defined as the maximum number of visitors at a destination, "the critical range of elements of capacity" that represents "the peak number of visitors" as "capacity levels for many variables have been reached or exceeded with attendant environmental, social, and economic problems" (Butler, 1980, p.8). According to Shelby and Heberlein (1987), carrying capacity is the level of use beyond which impacts exceed levels specified by evaluative standards.

Carrying capacity is composed of several dimensions (Zelenka & Kacetl, 2014). Physical carrying capacity (also referred to as environmental or ecological carrying capacity) reflects the impacts on ecosystems, the built cultural environment, and the infrastructure (Coccossis & Mexa, 2004). This dimension emphasizes the actual physical limitations of a space that can accommodate a certain number of persons without causing deterioration to the environment. The physical set is comprised of fixed components (i.e., the capacity of a natural system that cannot be manipulated easily by human action) and flexible components (i.e.., the infrastructure systems such as the water supply, sewerage, electricity) (Coccossis & Mexa, 2004). Social or psychological carrying capacity (also referred to as psychological carrying capacity) refers to both the quality of the experience of visitors to the area and the levels of tolerance of the host population. It is the level beyond which the negative impacts of tourism make tourists feel uncomfortable and less attracted to the destination while residents become less welcoming to tourists (Mathieson & Wall, 1982; O'Reilly, 1986). In overtourism "the upper limit is both the maximum levels of overcrowding that visitors are willing to accept and the maximum levels of tourism and its (negative) impacts that local residents are willing to accept" (Mihalic, 2020, p.4). Social capacity thresholds are difficult to evaluate since they rely entirely on subjective judgments by visitors and residents.

Limits of Acceptable Change (LAC)

Associated with carrying capacity is the concept of Limits of Acceptable Change (LAC). While carrying capacity focuses on the question of 'how much is too much', LAC concerns 'how much change is acceptable' (Weaver, 2006). The LAC was initially designed to address visitor management issues in the U.S.'s National Wilderness Preservation System. Accordingly, nature-based tourism is controlled by anticipating over-usage and proper planning (Stankey et al., 1985). LAC emphasizes relationships between existing and desired or ''acceptable'' conditions, targets for the amount of change allowed in particular settings. It requires management to identify problems and determine suitable solutions. Defining the amount of change that is acceptable to stakeholders as well as some compromise among differing needs is at the heart of the LAC (Ahn, Lee & Shafer, 2002). The extent of tourism impacts that may remain acceptable to local stakeholders could be influenced by different social and economic factors. When residents are under financial difficulty or crisis, for instance, they may be more tolerant of tourists and negative impacts caused by tourism development (Frauman & Banks, 2011).

The LAC process involves nine steps as illustrated in Figure 5. The model helps to guide management of a resource from determining desired baseline conditions to setting up indicators and standards to decide when degradation or too much change has occurred.

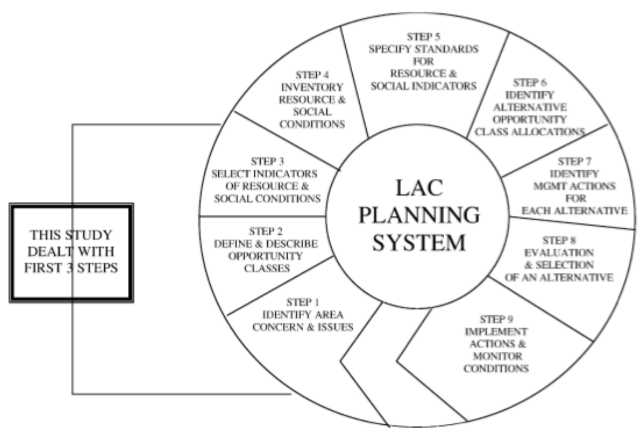


Figure 5. The LAC Planning System (Stankey et al., 1985)

Tourism Area Life Cycle (TALC)

Tourist destinations tend to follow development patterns. The Tourism Area Life Cycle (TALC) by Butler (1980) demonstrates six-stages in a destination life cycle (Fig. 6). In the exploration stage, a destination receives a small number of visitors attracted by its pure natural resources, authentic culture, and by the lack of tourism institutionalization. The presence of tourists does not disturb the local community and the natural environment; hence the relationship between tourists and inhabitants is usually friendly. After that, in the involvement stage, more tourists arrive resulting in the establishment of more businesses and facilities to accommodate the growth. In the development stage, destination awareness increases and more tourists come in large groups. New infrastructures and facilities are developed (e.g., roads, hotels, restaurants). With a well-defined tourism market, a destination attracts more outside investments. In the consolidation (or maturity) stage, tourism become the major economy sector of the destination. There may be more visitors than local residents. Lastly, the stagnation stage is characterized by the negative impacts of tourism on the destination's society, economy and environment. A destination can decline with less visitors, shrinking revenues, and recession of the tourism industry begins. It can also survive and rejuvenate intentionally through innovative management strategies. Overtourism is often associated with the mature stage of destinations. A downturn future caused by overtourism can be avoided by anticipating and embracing sustainability from the early stages of the life cycle.

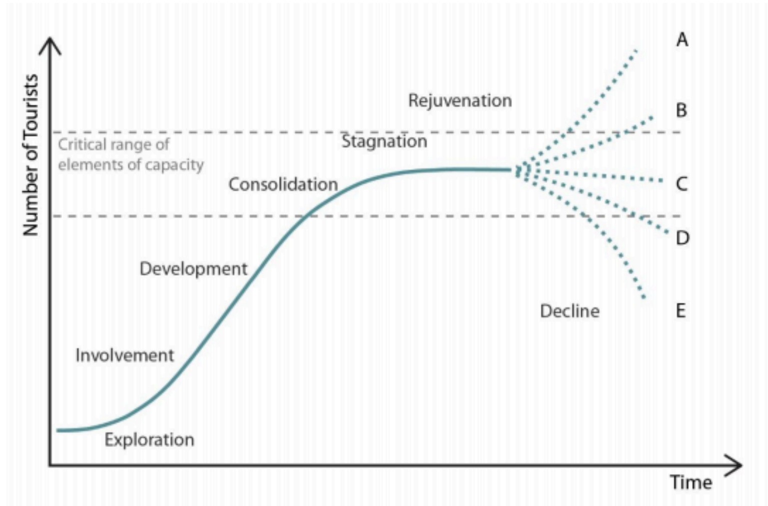


Figure 6. The Tourism Area Life Cycle Model (Butler, 1980)

Doxey's Irridex

Doxey (1975) proposed an index based on residents' irritation levels to explain the attitudes of local people towards tourist inflow (Figure 7). According to his theory, modification of behavior takes place in local residents towards tourists with the levels of tourism growth in the given destination. When tourists arrive in the destination for the first time, local people will greet them with positive feeling and with no irritation towards the tourist activities—the *Euphoria* stage. Here there is little planning and formalized control as there is greater potential for influence to be exerted by locals. In the second stage, this attitude of local people changes to *Apathy* when visitors are seen to be taken for granted and there are more formal relationships between hosts and guests. Then there is *Annoyance* or *Irritation* with the inconvenience of the increased numbers of visitors such as limited parking spaces and crowding. Residents exhibit their misgivings about tourism since tourists sometimes portray negative behaviors like alcoholism, prostitution, gambling, drug abuse, vandalism, local language suppression, littering and pollution. At the final stage, *Antagonism*, local people no longer perceive tourism as good to their society. Many residents resent tourism development and develop different ways to cope with the situation including avowing tourists; they may even express it in a violent way.

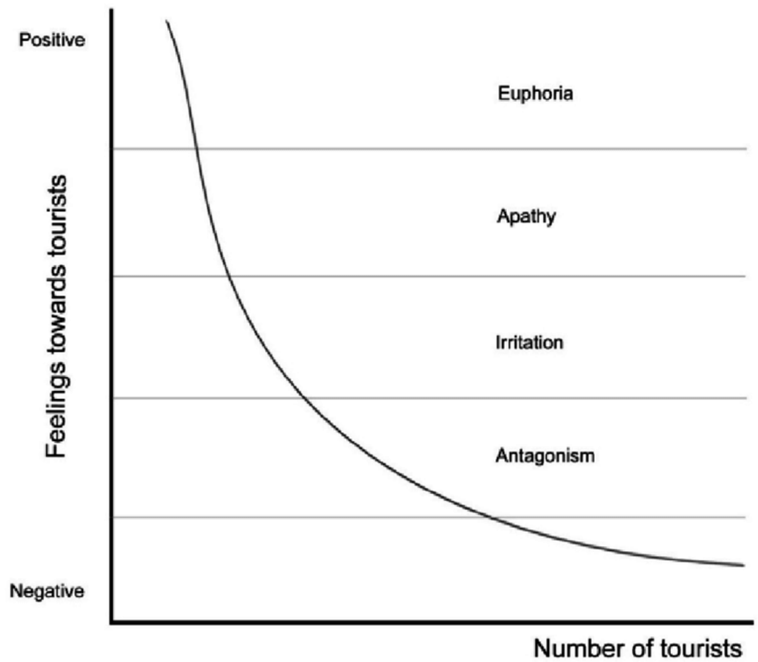


Figure 7. Doxey's Irridex (Doxey, 1975)

Residents’ Quality of Life

Spradley (1976) defines Quality of Life (QOL) as “an overall state of affairs in a particular society that people evaluate positively.” The overall purpose of tourism is (should be) to enhance the quality of local residents' lives (McCool & Martin, 1994). Residents’ QOL includes economic domain (e.g., income, tax, prices), environmental domain (e.g., cleanliness, peace and quietness, safety), or social-cultural domain (e.g., community identity, recreational opportunities) (Andereck & Nyaupane, 2011; Uysal, Sirgy, Woo & Kim, 2016). According to bottom-up spillover theory, residents’ satisfaction with QOL is mostly influenced by evaluations of tourism impacts in those domains. Meanwhile, overtourism has been noted to have significant negative impacts on residents’ QOL (Mihalic & Kuščer, 2022). It is important to ensure that tourism development should take residents’ life quality into consideration.

Residents’ Support for Tourism Development

Residents’ support of tourism in their community is essential for the development, competitiveness, and sustainability of destinations (Bimonte & Punzo, 2016). The goodwill and cooperation of the local community is critical for meaningful and memorable experiences for tourists. Negative attitudes or hostility towards tourists can make them feel unwelcome or intimidated and undercut any value that the tourism industry attempts to create. Residents can affect tourism development by providing support for or oppose politicians and public policy initiatives (Woo, Uysal, & Sirgy, 2018). Residents’ levels of support for tourism development can depend on their levels of satisfaction with the QOL in the destination under the impacts of tourism (Andereck &

Nyaupane, 2011; Rivera, Croes & Lee, 2016; Woo, Kim & Uysal, 2015). In overtourism destinations, residents' QOL is often degraded due to tourism growth leading to their resentment, anger and even backlash against tourism. Securing residents' support is important in addressing overtourism.

Stakeholder Theories

Stakeholders in tourism are "any entity that is influenced by, or that may influence, the achievement of the destination management activities" (Sheehan & Ritchie, 2005, p. 9). Main groups of stakeholders include tourists, businesses, local community, government, special interest groups, and educational institutions (Butler, 1999; Markwick, 2000). Stakeholders influence different aspects of the industry including tourism supply and demand, regulation, management, human resources, and research (Hieu & Rašovská, 2017). Sustainable tourism development cannot be separated from stakeholders' participation (Liu & Ma, 2017). Studies have attempted to identify the responsibilities of stakeholders in causing overtourism and their perspectives about it (Atzori, 2020; Dodds & Butler, 2019; Eckert et al., 2019). There have been suggestions that a strong cooperation among stakeholders is essential in solving overtourism (Loverio, Chen & Shen 2021; Plichta, 2019; Yrigoy et al., 2023).

Mass Tourism

Mass tourism has been a part of academic discussions for decades (Vainikka, 2013). According to Hillali (2003), mass tourism is an offspring of industrialization and democracy, consumption, and globalization. It was enabled with economic enrichment of societies, social progress, the reduction of working time, and the development of transportation and technology (Theng, Qiong & Tatar, 2015). The popular understanding is that it is a form of collective tourism linking to mass production, mass consumption and mass destinations (Vainikka, 2013). Many consider mass tourism as all-inclusive tours that include a range of services such as transportation, lodging, and meals within a standardized and often cheap package that allows vast numbers of travelers to descend on a given destination in a relatively short time (Belias et al., 2019). Mass tourists can be seen on bus and beach, enjoying the pleasures of the three Ss tourism (sea, sun, and sand) (Shaw & Williams, 2004). Mass tourism is associated with little consideration of local norms or culture. The quality of mass tourism is poor and often placed opposite to other forms of tourism that are considered to be more positive such as eco-tourism, nature-based tourism, heritage tourism, and rural tourism (Poon, 1993; Vainikka, 2013). Mass tourism brings in a huge number of tourists to destinations and contributes significantly to the establishment of overtourism (Milano, Novelli & Cheer, 2019).

Sustainable Tourism

Butler (1993) defines sustainable tourism as "tourism which is in a form which can maintain its viability in an area for an indefinite period of time" (p. 29). The UN World Tourism Organization defines it as "tourism that takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities (GSTC, n.d.). Sustainable tourism has been adopted as a desirable objective for tourism development in many destinations and has become a key competitiveness variable (Jurado-Rivas & Sánchez-Rivero, 2019; Sharpley, 2000). This paradigm calls for attention to the impacts of tourism to a local destination; it aims to lessen conflicts among stakeholders and ensure long-term existence of resources (Eagles, McCool, Haynes & Phillips, 2002). Therefore, sustainable tourism is considered a pathway to prevent and overcome overtourism issues (Cheung & Li, 2019; Maingi, 2019).

Touristification

Accompanying the growth of the tourism industry is touristification. Overwhelming touristification leads to overtourism (Koens, Postma & Papp, 2018). Touristification could be defined as a relatively spontaneous and unplanned process to transform a space into tourism commodity; it is often related to the massive tourism development (Koens, Postma & Papp, 2018). An example of physical touristification is the changing of retail landscape, which increasingly address tourists' demand instead of local people. Another example is the transformation of private residential houses into accommodation for tourists through platforms such as Airbnb or CouchSurfing.

An "Eco-system" of Overtourism

Overtourism is a complicated phenomenon with many aspects that are interrelated. It is important for tourism researchers and practitioners to be aware of this complexity for effective study and management strategies. There can be many benefits from this awareness. For example, it has been recommended in literature that a development plan should start with a mutual agreement among stakeholders on the definitions or concept of the targeted topic (e.g., overtourism, sustainable tourism). Additionally, a thorough understanding of the causes and impacts of overtourism could lead to better solutions that address the right issues and involve the right decision makers as well as implementers. A good strategy can also benefit from awareness of the potential failures and challenges that may come along. The aspects of related theories and concepts are helpful for researchers to identify topics of literature review and for practitioners to understand the underlying causes of overtourism issues (e.g., overtourism is a symptom of carrying capacity, that it has exceeded its limits). It can also enable academics and practitioners work more effectively with each other in development projects since they can share and use/talk in the same language.

Based on findings, the author recommends an "eco-system" model of overtourism that can be used as a general guideline for researchers and practitioners to consider while studying and solving overtourism (Fig. 8). This "eco-system" shows overtourism as a broad subject composed of several specific areas (e.g., impacts, causes). Solving overtourism could be effective if each area is well understood and addressed. By segmenting the big problem of overtourism into smaller parts following the suggested model, destination managers might find the problem less overwhelming or vague. The model could be helpful for them to manage overtourism systematically and strategically. For researchers, the model is useful for them to position and estimate the significance of their research in the overall overtourism scenario.

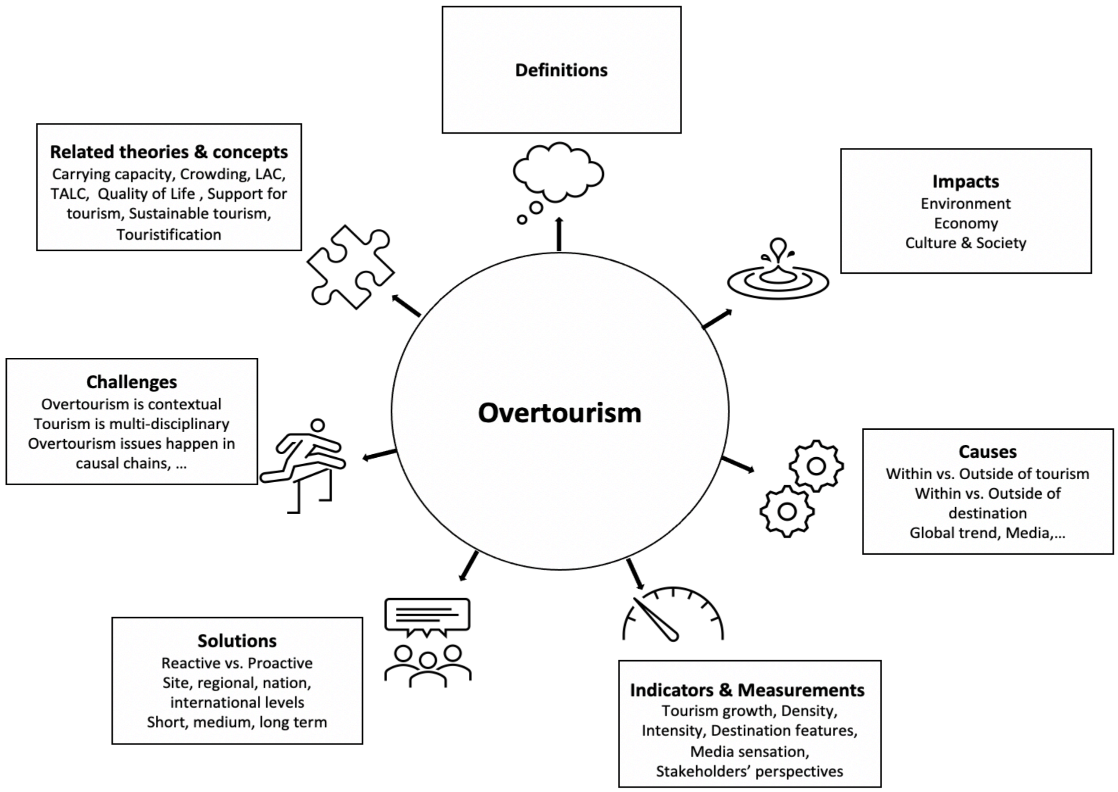


Figure 8. An "Eco-system" of Overtourism

Limitations of the Study

Tourism practitioners and researchers referring to this study should consider its limitations. This conceptual research depends on the literature review. It has the potential limitation that the researcher may not be able to identify all related literature considering the enormous amount of literature on different databases. Therefore, it may not fully cover different perspectives on the research problem. Additionally, tourism constantly changes and so do overtourism issues; the findings from this study are relevant as this point in time. For example, current research has not explored and shown the influence of some of the latest technology development (e.g., ChatGPT) on forming and solving overtourism; however, travelers have started to use ChatGPT to plan vacations (Weed, 2023). Weed (2023) predicts ChatGPT will create many changes to the travel and tourism industry. Destination marketing and management might soon catch on to the trend which could affect how overtourism is dealt with. It is important to look for new updates in research and literature beside using information from this study. Another limitation of the study is that it presents findings at an overview level; it does not go into details and remark on the significance or effectiveness of each item (e.g., causes and solutions of overtourism). Destinations and researchers are recommended to extend their own research for details and appropriate applications. Finally, since overtourism is contextual, it should be noted that the findings of this study cannot represent all possible contexts. Researchers and practitioners need to pay attention to destinations' circumstance to identify distinguishing factors that have not been mentioned in the study or in the general literature.

Recommendations for Future Research

Following this study, the author recommends several directions for future research. Future studies can update findings from this study due to fast changes in tourism. Additionally, this study aims to provide a general picture, researchers of future studies can delve deeper into specific aspects of the overtourism phenomenon. Future study can also expand or modify the overtourism "eco-system" model of the study. Prospective directions for research corresponding to the ecosystem of overtourism developed in this study include:

1) *Causes of overtourism:* study each group of causes (e.g., global trends, media, within tourism industry, and within destination boundary); identify and study related actors or stakeholders that are responsible for the causes; compare individual or groups of causes; and identify new or distinguished causes of overtourism based on destination's context;

2) *Impacts of overtourism:* investigate each group of impacts (environment, economic, and cultural/social); and identify and study related actors or stakeholders that are impacted; compare the severity of individual or groups of impacts; and identify new or distinguished causes of overtourism based on individual destination's contexts;

3) *Indicators and measurements of overtourism:* examine the application of the indicators and measurements in different types of destinations (e.g., city, island); examine how indicators and measurements can predict overtourism; establish thresholds for indicators and measurements that indicate level/severity of overtourism condition; identify new or distinguished indicators and measurements of overtourism based on individual destination's context;

4) *Solutions to overtourism:* investigate each group of solutions (e.g., manage tourism growth, control the crowd, reactive vs. proactive solutions); evaluate the effectiveness of solutions; examine how the solutions are implemented; examine the application of overtourism solutions in different types of destinations (e.g., city, island); identify new or distinguished solutions of overtourism based on individual destination's context;

5) *Failures and challenges in solving overtourism:* identify new or distinguished challenges of overtourism based on individual destination's context; and

6) *Related theories and concepts:* study dimensions of carrying capacity (e.g., physical, social) in overtourism destinations; examine stakeholders' perspectives about changes and development in tourism that can be acceptable for the destinations to avoid or minimize impacts of overtourism (i.e., limits of acceptable change); explore residents' sentiments about crowding and overtourism; apply Doxey's Irridex to overtourism destinations; examine residents' QOL and their support for tourism development in overtourism destinations; study stakeholders' involvement in solving overtourism; examine how overtourism corresponds to Butler's Tourism Area Life Cycle and how destinations facing overtourism could rejuvenate or continue to thrive; explore how a sustainable tourism approach could help to prevent and mitigate the issues of overtourism; study how mass tourism and touristification contribute to causing overtourism.

The suggestions above show that there are many research prospects related to overtourism. Ongoing study will improve understanding of the phenomenon for better management. The following two studies of this dissertation stem from the literature review and attempt to contribute to building knowledge about overtourism in several areas: impacts, indicators and measurements, solutions, and related theories. More specifically, study one tests the relationship between residents' satisfaction with their quality of life and support for tourism development in a destination experiencing overtourism. It explores residents' perspectives about the crowding condition, including its impacts on local community residents, as well as their ways of dealing with the situation. Findings confirm the negative impacts of overtourism on residents' quality of life which in turn decays their support for tourism development. The study also highlights crowding and residents' sentiments about crowding as necessary indictors in the study of overtourism. Study two explores the management of stakeholders' involvement in a sustainable tourism plan to solve overtourism: how their involvement is managed and how they participate in developing and using evidence (e.g., data, indicators, and measurements) in the plan. Findings result in a framework which involves several components of attracting, managing, and monitoring stakeholders which could be helpful for destination management.

Conclusion

Overtourism is an ongoing global issue. Crowded destinations face damaging impacts on the environment, economy, culture, and society. Due to its complexity, solving overtourism is challenging and requires understanding the phenomenon from different perspectives. The study aims to create an overall review of the phenomenon with the most important points that destination management should consider while addressing overtourism. Using a conceptual approach, it summarizes and synthesizes literature about the essential aspects of overtourism: definitions, impacts, measurements, causes, current solutions, failures and challenges in solving overtourism, and related theories and concepts. Themes are identified via categorization for better understanding of those aspects. Based on findings, it proposes an "eco-system" of overtourism model which specifies several components overtourism issue. The model seems to be the first of its kind in overtourism literature. The study is helpful for destination management to look at the overall picture of overtourism and understand the dynamic and interconnection of relevant factors (e.g., what the causes are, who is responsible for solutions, why solving overtourism is difficult). The knowledge could be significant to develop a more thorough strategic plan to prevent and solve overtourism which is lacking in tourism practice. Researchers will also benefit from the study since it offers a variety of recommendations for future research. Additionally, with the identification of specific aspects of overtourism, identifying themes within those aspects, and presenting results with tables and diagrams in addition to narration, researchers might find it easier to identify topics for research, literature review, and see how studies can contribute to better understanding overtourism.

CHAPTER 3

RESIDENTS' ATTITUDES ABOUT QUALITY OF LIFE AND SUPPORT FOR TOURISM DEVELOPMENT IN THE CONTEXT OF OVERTOURISM

Introduction

Residents are important actors in tourism development. On the one hand, this stakeholder group is heavily influenced by tourism and its impacts. On the other hand, residents can play an influential role in the success and sustainability of tourism development. Residents' quality of life (QOL) should be considered while destinations manage to satisfy tourists and earn benefits from tourism (Woo, Kim & Uysal, 2015). Scholars have developed indicators of residents' QOL and support for tourism (Andereck & Nyaupane, 2011; Andereck & Vogt, 2000; Liang & Hui, 2016; Woo et al., 2015; Yoon, Gursoy & Chen, 2001). Recent studies provide evidence that residents' satisfaction with QOL is related to their level of support for tourism (Andereck & Nyaupane, 2011; Liang & Hui, 2016; Woo et al., 2015).

Empirical studies suggest residents' concerns with tourism and reduced support for tourism in their home communities have often been associated with too many tourists and the resulting negative impacts; a situation now termed "overtourism" (Goodwin, 2017; Latkova & Vogt, 2012; Uysal et al., 2016). The literature lacks evidence of the presence of overtourism conditions and solutions to overcoming or managing, and instead focuses on residents' sentiment about tourism in their communities and the types and development stages of destinations.

In recent decades and before the coronavirus pandemic in 2020, the tourism industry was one of the world's largest industries. The number of international tourist arrivals increased from 25 million in 1950 to over 1.4 billion in 2018 (UNWTO, 2018). This sector was predicted to grow 3.3% annually until 2030 when an estimated 1.8 billion tourists would cross borders annually (UNWTO, 2018). Though the coronavirus pandemic brought the international tourism industry to almost a standstill, overtourism remains a concern since tourism is historically a resilient industry and is expected to thrive strongly again post-pandemic (Prayag, 2020). Understanding and addressing overtourism remains necessary as a critical issue in tourism scholarship and practice.

Both scientific research and tourism industry statistics highlight the recent emergence of overtourism as a critical concern for quality of life and experiences for community residents and tourists, respectively. The term overtourism was created in the early 2000s and became popularized in the mid-2010s following the exponential growth of global tourism (Goodwin, 2017). It captures "the impact of tourism on a destination, or parts thereof, that excessively influences perceived quality of life of citizens and/or quality of visitors' experiences in a negative way" (UNWTO, 2018, p.4). Overtourism is mostly perceived as a crowding condition when there are more visitors at a destination than its capacity can handle, resulting in negative outcomes for residents and tourists. It is a subjective concept and varies according to the destination's carrying capacity, management strategies, tourists' behaviors, and residents' perceptions of tourism (Milano, 2017). Scholars (e.g., Dodds & Butler, 2019; Goodwin, 2017; Honey & Frenkiel, 2021) and nonprofit organizations such as the Center for Responsible Tourism

(CREST), Sustainable Travel International (STI), and others, are amassing evidence that too much tourism can generate undesirable outcomes for communities generally decreasing residents' QOL. Negative impacts from overtourism can be severe to the point that some destinations, such as Maya Beach in Thailand and Bocay Island in the Philippines, have closed temporarily or indefinitely to save them from being destroyed (Koh & Fakfare, 2019; Reyes et al., 2018). Overtourism has led to protests by residents against tourism in popular destinations such as Venice, Barcelona, and Amsterdam (Goodwin, 2017).

The recent emergence of overtourism as a significant issue creates new settings and circumstances to extend literature themes of residents' satisfaction with QOL and support for tourism development in new contexts. In the context of overtourism, a number of studies have documented and discussed impacts of overtourism on residents' QOL and their negative reaction to tourism development (e.g., protests, disapproval) (e.g., Blázquez-Salom et al., 2021; Briguglio & Avellino, 2019; González-Reverté, 2022; Hughes, 2018; Koens, Postma & Papp, 2018; Mihalic & Kuščer, 2022). However, there has been minimal empirical research that tests the relationship between residents' satisfaction with QOL and support for tourism development in relation to overtourism. Additionally, overtourism research in rural communities and some geographic regions is limited; most studies have been done in large, urban, or iconic destinations. This study aims to address that deficiency by testing the relationship between residents' satisfaction with community QOL and support for tourism in the context of a rural destination experiencing overtourism to expand scientific evidence for tourism theories.

Several theories and conceptual frameworks have been used to explain the relationship between perceptions of QOL or attitudes toward tourism and support for tourism including: Butler's Tourism Area Life Cycle model (Butler, 1980; Latkova & Vogt, 2012; Nunkoo, Smith & Ramkissoon, 2013; Su, Yang & Swanson, 2022; Uysal et al., 2016); place attachment (Nunkoo et al., 2013; Ramkissoon, 2023); QOL indicators (Nyaupane & Andereck, 2011; Uysal et al., 2016); bottom-up spillover theory (Kim, Uysal & Sirgy, 2013); and, most commonly, social exchange theory (Andereck & Vogt, 2000; Latkova & Vogt, 2012; Nunkoo et al., 2013; Nunkoo & Ramkissoon, 2012; Woo et al., 2015). All these frameworks suggest that residents' more positive evaluations of attitudes toward tourism or QOL result in higher levels of support for tourism. This study also generates several management implications for destinations and coping strategies employed by residents to create solutions to aid destinations experiencing or anticipating overtourism challenges.

Literature Review

Residents' Quality of Life

Tourism development can affect quality of life (QOL) of a host community (Liburd, Benckendorff & Carlsen, 2012). QOL is a multi-dimensional and interactive construct involving many aspects of people's lives and environments (Schalock & Siperstein, 1996). QOL refers to people's feelings of satisfaction or fulfillment with their living experience (Meeberg, 1993). In tourism destinations, "residents' life satisfaction is mostly influenced indirectly by evaluations of tourism impact in specific life domains"

(Kim et al., 2013, p.529), a relationship suggested by bottom-up spillover theory. Kim et al. (2013) found support for this relationship and noted that perceptions of tourism impacts had more influence on residents' QOL than actual impacts.

QOL indicators can be objective or subjective. Objective indicators can be quantified (e.g., income, crime rate); while subjective indicators rely on perceptions (e.g., life satisfaction) (Allen et al., 1993; Uysal & Sirgy, 2019). Several studies created indicators to measure tourism-related QOL of residents. Andereck and Nyaupane (2011) collected tourism-specific indicators from the literature and synthesized them into 37 items which were placed into eight domains (e.g., community economic strength, family and personal well-being). QOL indicators have also been divided into broader material and non-material domains (Woo et al., 2015) and more specific life domains (Kim et al., 2013). Overall, the indicators of QOL correspond to positive or negative impacts of tourism.

Residents' Support for Tourism Development

Support from residents is vital for tourism development (Nunkoo & Ramkissoon, 2012). A welcoming and friendly host community can contribute to memorable experiences for visitors which enhances the attractiveness and competitiveness of the destination (Chancellor, Yu & Cole, 2011). In contrast, negative and hostile residents can intimidate visitors and create obstacles for tourism management (Lin, Chen & Filieri, 2017). Numerous variables influencing residents' support for tourism development have been reported in the literature such as place attachment, destination development stage, QOL indicators, and attitudes toward tourism (e.g., Andereck & Nyaupane, 2011;

Andereck & Vogt, 2000; Butler, 1980; Liang & Hui, 2016; Nunkoo & Ramkissoon, 2012; Ramkissoon, 2023; Woo et al., 2015; Yoon et al., 2001).

Ramkissoon (2023) proposed that residents' support for tourism development could be related to their place attachment which is the emotional bonds that residents develop as within place settings. Those bonds can be interpersonal relationships, sense of identity, or affective connection with natural environment. According to Ramkissoon (2023), place attachment could "exert a direct influence on residents' pro-social and pro-environmental behavioral intentions" which in turn "influence their support for tourism development" (p. 442).

Residents' support can also fluctuate following different stages of tourism development. Many empirical studies apply Butler's Tourism Area Life Cycle (TALC) to explain residents' attitudes toward tourism and their support for tourism in their communities (Butler, 1980; Latkova & Vogt, 2012; Su et al., 2022). According to Butler's TALC, the relationship between tourists and residents is fluid at the exploration stage when tourists newly arrive at the destination. It develops positively through the involvement and growth stage when tourism thrives with more services and facilities in the locality for all to use and enjoy. Residents and tourists start to develop negative attitudes during the consolidation stage when tourism reaches maturity. At the stagnation stage, the relationship may cease permanently or rejuvenate following management strategies to revive the destination. This theoretical framework by Butler (1980) reflects a theoretical development trend of destinations.

There are different indicators of residents' support for tourism development in the literature. Several studies examined residents' level of support for the general tourism development (Andereck & Nyaupane, 2011; Liang and Hui, 2016; Woo, Kim & Uysal, 2015). Others focused on residents' level of support for specific tourism products combined into multi-item measures. Yoon, Gursoy, and Chen (2001) looked into groups of products (e.g., cultural attractions, outdoor attractions) using a five-point scale (oppose to support). Similarly, Andereck and Vogt (2000) used more specific indicators which included 14 development options (e.g., parks, festivals/fair/events, restaurants, retail stores, museums, hotels/motels ...) using a five-point acceptability scale.

Conceptual and Empirical Models

Several studies have investigated the relationship between residents' levels of satisfaction with QOL as impacted by tourism and their level of support for tourism using conceptual or theoretical causal models. Andereck and Nyaupane (2011) examined perspectives of residents in a statewide study in Arizona, USA. Using a QOL indicators conceptual approach, this study tested the relationship between residents' perceptions about their QOL, demographics and level of involvement in tourism, and preferences for the role of tourism in their community economy mediated by perceptions of their personal benefit from tourism. They found that for all QOL domains used in their study (i.e., urban issues, community economic strength, family and personal well-being, community well-being, way of life, community awareness and facilities), only the community economic domain was significant in predicting residents' support for tourism.

Andereck and Nyaupane (2011) concluded “those who feel tourism affects their QOL from an economic perspective are more likely to be supportive of existing and additional tourism development than those who do not feel it is an economic contributor” (p. 258).

Following Andereck and Nyaupane (2011), Liang and Hui (2016) used an indicators approach to study a destination at a mature stage of tourism development in Shenzhen, China. The researchers added residential status (e.g., rent, own) as another factor that contributed to residents’ satisfaction with QOL. Support for tourism development indicators included three statements for residents to rank: tourism is important for community, encourage tourism development, and hope to attract more visitors to the community. They found four domains of satisfaction with QOL to be significant predictors: community economic strength, family and personal well-being, community well-being, and way of life. Homeowners had fewer positive attitudes about future tourism development.

Taking a broader perspective using social exchange theory as a foundation, Woo et al. (2015) used structural equation modeling to examine opinions of residents in several popular and mature U.S. destinations. They found residents’ perceptions about QOL stood out as one whole construct, comprised of non-material and material domains, that related to residents’ support for tourism development. Accordingly, residents’ perceptions about their overall QOL related to tourism impact had a positive relationship ($\beta = 0.177$) with their level of support for tourism, which suggests that residents who were satisfied with their QOL tended to support tourism.

Recently, media as well as tourism scholars and practitioners have documented the negative impacts of overtourism on residents' QOL (e.g., Capocchi et al., 2019; Goodwin, 2017; Peeters et al., 2018). Community residents in overtourism destinations such as Barcelona and Venice showed concern and resentment toward tourism development, which cause challenges for the tourism industry (Hughes, 2018). Since Woo et al. (2015), no study has retested the relationship between residents' satisfaction with QOL and their support for tourism development in an overtourism setting. As suggested by previous QOL research and theories such as social exchange theory and bottom-up spillover theory, to address this shortcoming, this study proposes:

Hypotheses 1: Residents' level of satisfaction with quality of life in a rural overtourism destination will have a relationship to their level of support for tourism development.

Overtourism and Crowding

Generally, overtourism is characterized by a situation where the number of visitors exceeds the carrying capacity of a given site (Benner, 2019; Goodwin, 2017). Overtourism is also viewed as an accumulation of different impacts and perceptions resulting from encounters between tourists and residents (Perkumienė & Pranskūnienė, 2019). Accordingly, overtourism occurs at a point where either the hosts or guests, and often both, are dissatisfied because QOL or the quality of the experience has deteriorated due to tourism growth. Some scholars refer to overtourism as a destination management problem. It occurs when a destination prioritizes tourism growth over residents' interests. (Goodwin, 2017); or when tourism has become such a dominant sector that it results in more problems than benefits (Oklevik et al., 2019). Overtourism could be a sign that the destination has reached the last two mature stages of the life cycle based on Butler's model (Alexis, 2017).

Crowding is likely the most prominent symptom and main cause of overtourism suggesting that crowding theory is an appropriate way to study it. In general, crowding in tourism "implies exceeding the maximum number of people that can visit a destination simultaneously" and "refers to a certain level of destination saturation" (Sanz-Blas, Buzova & Schlesinger, 2019, p.3). Crowding is the level of use that an individual perceives as unacceptable (Manning, 2022; Schmidt & Keating, 1979). As a normative concept, crowding can be perceived in different ways depending on factors such as density of visitors, types of tourism activities, physical characteristics of the visited sites or facilities, demographics of perceivers, and characteristics of perceivers (Gramann & Burdge, 1984; Manning, 2022; Ryan & Cessford, 2003). Crowds can be perceived negatively or positively depending on characteristics of perceivers (e.g., age, personality) and the density of people in the environment (Manning, 2022).

Several theories are subsumed within crowding theory. Expectancy theory suggests that individuals' expectations can influence how they evaluate the crowd (Andereck & Becker, 1993; Schreyer & Roggenbuck, 1978). For example, tourists who plan for social activities such as participating in concerts and festivals tend to expect or prefer crowding while those engaging in wilderness experiences are seeking solitary activities (Wickham & Kerstetter, 2000). Social interference theory connects crowding to people's feelings of spatial restriction (Li et al., 2017; Schmidt & Keating, 1979). A person may acknowledge crowding when the presence of others interferes with or creates restrictions on their activities and goals in a particular setting. Stimulus overload theory emphasizes the psychic stress of people experiencing crowding (Lee & Graefe, 2003; Milgram, 1970). People feel crowded when the density stimuli (i.e., unwanted, uncontrolled, unfamiliar, or inappropriate interactions and contact with others) overwhelm their senses and exceed their ability to cope with the number of people.

Crowding in an overtourism context has been measured both objectively (e.g., density, intensity) and subjectively (e.g., perceptions). For example, the World Travel and Tourism Council (WTTC) (2017) and Peeters et al. (2018) developed objective indicators of tourism density (annual number of tourists per km^2, annual number of bed nights per km^2) and tourism intensity (annual number of tourists per capita, annual number of bed nights per capita). They studied 41 destinations around the world and estimated averages of 4,150 bed nights/km^2 and 11.04 bed nights/capital. The most crowded destinations based on these objective indicators included Prague Czech Republic, Berlin Germany, and Southern Aegean area of Greece.

Although objective indicators are used to measure overtourism, scholars identified destinations where such indicators failed to fully characterize this condition. Venice and Catalonia, most well-known for anti-tourism sentiments from residents, are not among the most compact destinations. For Venice, the ratio of bed nights is 3,437 per km^2 and 13.8 per resident; and for Catalonia, it is 2,253 and 10.2, respectively (Alexis, 2017). This makes a case for overtourism measurement to consider social science factors such as stakeholders’ opinions, attitudes and perceptions regarding physical and social conditions, and destination management strategies (Benner, 2019; Simancas Cruz & Peñarrubia Zaragoza, 2019).

Several recent studies examined residents' opinions and perceptions about overtourism, much of which is related to high numbers of tourists or crowding. The studies documented residents' opinions about negative impacts of tourism in crowded destinations: pressure on environment and natural resources, traffic congestion, excessive construction of tourism facilities and infrastructure, cultural clashes between tourists and residents, increased prices, tourist shops and facilities replacing amenities for residents, loss of traditional stores, less availability of housing, residents pushed out of residential areas, loss of local identity, lost sense of security, and unbalanced economy that depends too much on tourism (Blázquez-Salom, Cladera & Sard, 2021; Briguglio & Avellino, 2019; Koens, Postma & Papp, 2018, Kuščer & Mihalič, 2019, Pinke-Sziva et al., 2019). However, high numbers of tourists also result in positive aspects of tourism as experienced by residents including: availability of bars and restaurants, unique atmosphere, public transportation, income and employment generation, intercultural exchanges, provisions of services (e.g., bars, restaurants) and infrastructural improvement (e.g., transportation) for tourism which benefits residents, and honor and pride that their destination attract tourists (Briguglio & Avellino, 2019; Mihalic & Kuščer, 2022; Pinke-Sziva et al., 2019).

From residents' perspective, overtourism is characterized by crowding that impacts their QOL (Martín Martín, Guaita Martínez & Salinas Fernández, 2018). These findings prompt the necessity for empirical research to test whether perceived tourism-related crowding is an indicator of residents' satisfaction with QOL, an under-researched topic in literature. This study, therefore, adds specific crowding measures into the construct of residents' satisfaction with QOL to test the hypothesis:

Hypotheses 2: Residents' level of satisfaction with crowding in a highly visited rural destination has a relationship with their satisfaction with quality of life.

Contribution of the Research

Scholars have been researching the topic of residents' perspectives about tourism for decades (Sharpley, 2014). In general, this study makes the following theoretical, empirical, and measurement contributions: 1) explores the use of crowding theory as a framework for viewing resident QOL satisfaction and support for tourism in an overtourism context; 2) develops a model to retest the relationship between residents' satisfaction with their tourism-related QOL with their level of support for tourism in the context of overtourism in a rural community in the USA; 3) adapts the set of QOL indicators by Andereck and Nyaupane (2011) and adds more measures regarding residents' satisfaction about crowding in their community than has been the case with other studies; and 4) adopts the set of indicators by Andereck and Vogt (2000) which includes specific tourism development options providing a more robust measure of support for tourism.

Additionally, this study enhances quantitative findings with qualitative data to better explain the hypothesized relationships. Sharpley's (2014) comprehensive literature review of 1,070 journal articles from leading journals concluded that, despite being a heavily researched topic, most studies addressing residents' perspectives in tourism usually followed a quantitative approach. Sharpley commented that the literature seemed to be simplistic and tended to explain “what” residents perceived rather than “how” or “why.” This study addresses the lack of qualitative data in the literature on residents’ perspectives in tourism and enriches the literature by using qualitative data to answer this research question: “How is tourism experienced in a community with overtourism?”

Study Site

To test crowding theory and improve overtourism measures, an appropriate research site was used for the study. Sedona in the state of Arizona USA is well known for stunning red rock scenery, pristine national forests, trails, cultural resources, and unique spiritual energy sites called vortexes. Sedona offers a variety of tourism products and services for different types of travelers. Geographically, Sedona is located near Grand Canyon National Park and is close to Phoenix which is one of the fastest growing metropolitan areas in the country. At the time this research began in 2017, Sedona welcomed three million visitors annually and this demand volume has remained strong. Tourism is critically important to the local and regional economy. Tourism contributed $1 billion to Sedona’s annual economy supporting approximately 10,000 jobs, and generated 66% of the city tax’s sales tax revenues (SCC&TB, 2019). During the Coronavirus pandemic, Sedona continued to be a popular destination which experienced a brief sharp decline in visitation in early 2020 then quickly rebounded (Newcomb, 2020).

There have been concerns among residents and local authorities that Sedona has been experiencing overtourism. With a population of 10,000 people, Sedona is defined as rural (USDA, 2019) but had a ratio of roughly 300 tourists per resident in 2017 which met the overtourism benchmark set by the WTTC (2017) and was even higher than the ratio of Venice or Amsterdam (Oklevik et al., 2019). In 2017, the overall room nights demand by visitors in Sedona was nearly 623,000 (SCC&TB, 2019). The ratio of room nights per 1,000 residents was 62,300:1,000 which places Sedona in the highest percentile of overtourism compared to the destinations studied by Peeters et al., (2018). Sedona has an area of approximately 50 km^2; making the ratio of room nights per km^2 in 2017 at 12,460:1, which also belongs to the highest overtourism level (Peeters et al., 2018). The tourism growth pushed infrastructure capacity and sustainability issues (e.g., traffic jams, increased cost of living) to a tipping point. Evidence in the local newspaper and city council meetings suggested that residents' quality of life was negatively impacted. The community started to question tourism's value.

The Sedona Chamber of Commerce & Tourism Bureau (SCC&TB) recognized that the Sedona tourism industry was displaying signs of classic later stages of the Butler's Tourism Area Life Cycle before reaching a point of stagnation followed by decline or rejuvenation. They envisioned a multi-pronged research-based approach to ensure sustainable development of Sedona tourism (SCC&TB, 2019). A sustainable tourism plan was developed and completed in 2018 with input from different stakeholders.

The inclusion of Sedona as a research site enriches the type of destinations in overtourism literature. Current studies addressing residents' perspectives in overtourism contexts have been done in large and well-known cities such as Amsterdam, Barcelona, and Venice (Cheung & Li, 2019; Koens et al., 2018; Martín Martín et al., 2018; Pinke-Sziva et al., 2019). Studies have also been conducted in smaller cities or islands that have risks of overtourism: Ljubljana, Majorca, and Malta (Briguglio & Avellino, 2019; Gutiérrez-Taño et al., 2019; Kuščer & Mihalič, 2019). European destinations are well represented in literature but there needs to be more representation from different countries and continents to generate an overall perspective contributing to theory development about overtourism. This study adds a small U.S. city to the mix of overtourism studies. Considering the top position of the U.S. in global tourism, it is important to study perspectives in American communities.

Methods

Research Approach

This study applied a concurrent triangulation approach in which quantitative and qualitative data were collected concurrently and compared to explain the complexity of the research problem (Creswell, 2014). Results showed a combination of convergence and divergence in the findings using both types of data. Data were collected via a survey to reach a large sample and draw inferences to the population (Creswell, 2014) and included open-ended questions for a qualitative assessment.

Questionnaire Development

Residents' satisfaction with QOL was measured using 23 indicators. Nineteen indicators were adopted from Andereck and Nyaupane (2011). Four indicators related to crowding were newly developed given the context of the research site and overtourism. Residents were asked to rate their level of satisfaction with those indicators on a five-point scale from "1 = not at all satisfied" to "5 = extremely satisfied."

Residents' support for tourism development was measured by 18 indicators specific to tourism development options. Ten were adopted from literature (Andereck &Vogt, 2000; Yoon et al., 2001) such as public transportation, retail stores and shopping, and festivals. Eight new indicators were developed because Sedona has services and facilities that are not typical such as spiritual/metaphysical activities, and motorized and nonmotorized multi-use trails. Residents were asked to rate their opinions regarding acceptability of these tourism development options in Sedona from "1 = not acceptable" to "5 = very acceptable."

The questionnaire included one nonspecific open-ended question: "If you have any comments, please share them here or include a separate sheet of paper." The aim was to give respondents the freedom and space to elaborate on their answers in previous questions and express their opinions about tourism in the community where they live (Appendix A).

Data Collection

The survey was conducted from March to July 2018. Mail surveys were sent to a sample of 1,000 randomly selected full-time and part-time homeowners obtained from the tax assessor's list. The survey generated 376 responses for a 37 percent response rate. For this study, 365 responses were used, and 11 responses were eliminated due to incompleteness of relevant questions. Demographically, respondents were slightly more likely to be female (52%), older (mean = 67 years old), highly educated (76% college degree and above), full-time residents (74%), have high incomes (52% over $100,000 annually), and not employed in tourism (82%) (Table 7). The open-ended question received 13 letters and 80 comments directly written on the questionnaire, making a total of 93 comments (25% out of 376 survey responses or 9% out of 1,000 sampled homeowners).

Table 7. Demographics of Respondents*

Demographics	Percentages
Gender	48% male, 52% female
Age	Mean: 67 years old
Education	45% advanced degree, 31% college degree, 26% below college or technical school
Residency	74% full-time, 26% part-time
	Average: 15 years of residency
Household annual income	52% over $100,000, 13% below $50,000, and 35% in between
Involvement in tourism	18% employed in tourism

**Residents studied were homeowners*

Data Analysis

Quantitative data

Using the quantitative data to address Hypotheses 1 and 2, a structural equation model (SEM) was developed to test the relationship between domains of residents' satisfaction with QOL and their support for tourism development as a key tenant of bottom-up spillover, social exchange, and crowding theories for overtourism conditions.

The procedure of SEM included five steps using SPSS and MPlus software:

Step 1: Normality test on the whole data set.

Step 2: Randomly split data into halves.

Step 3: Exploratory factor analysis (EFA) on the first half of data to identify the underlying relationships between measured indicators given the addition of new indicators.

Step 4: Confirmatory factor analysis (CFA) on the second half of data to test if the relationship between observed variables and their underlying latent constructs exists.

Step 5: SEM was applied on the second half of data to test the relationship between latent variables or constructs. At this step, based on hierarchy latent variable models, residents' satisfaction with their overall QOL and their level of support for tourism development were estimated by their sub-constructs resulting from EFA and CFA analyses.

Qualitative data

Following quantitative analysis, qualitative data were analyzed applying emergent thematic coding (Creswell, 2014) which is an inductive approach to identify common themes – topics, ideas, and patterns of meaning that come up repeatedly from the data (Bernard, Wutich & Ryan, 2016). The development of the themes involved several steps. To start, the researcher read all respondents' comments to have a sense of the data, then identified significant statements in each comment and aggregated them into themes by coding. The most relevant themes were identified and connected the most relevant themes for interpretation. Finally, inter-rater validity was achieved by having two other researchers review coding as recommended by Creswell (2014).

During the process, the researcher identified a prominent and emerging theme of residents' coping with stress from tourism which corresponds with crowding theory as well as the stress frameworks developed by Folkman et. al (1986) in psychology and applied by Jordan, Vogt and DeShon (2015) in a tourism setting. The frameworks included eight coping tactics: confrontative coping, planful problem-solving, distancing, escape and avoidance, wishful thinking, seeking social support, accepting responsibility, and positive appraisal. Comments belonging to this theme were then coded deductively to identify sub-themes that matched and did not match with those stress coping frameworks in the literature.

Results

SEM Model Results

Normality test on the whole data set (n=365) showed a normal distribution (Tables 8 and 9). Relevant values of all items were within acceptable range: skewness was between -2 and + 2 and kurtosis was between -7 and +7 (Curran, West & Finch, 1996).

Table 8. Indicators of Residents' Quality of Life

Items	Mean**	Standard deviation	Skewness	Kurtosis
Public safety (police, fire, etc.)	4.1	4.08	0.83	-0.60
Safety/lack of crime	4.0	4.02	0.83	-0.61
Limited litter and vandalism	3.7	3.70	0.91	-0.42
Attractiveness/cleanliness	3.7	3.67	0.89	-0.35
Preservation of cultural/historic sites	3.6	3.62	0.83	-0.14
Quality recreation opportunities	3.6	3.55	0.88	-0.25
High standard of living	3.5	3.54	0.83	-0.07
Clean air and water	3.5	3.50	1.05	-0.47
Community identity	3.4	3.45	0.91	-0.01
Conservation of natural areas	3.4	3.34	1.04	-0.28
Adequate tax revenues to support city services	3.3	3.33	0.91	-0.17
Authentic culture	3.3	3.26	0.81	0.50
Tourist spending	3.2	3.18	0.96	-0.30
Cultural activities for residents	3.2	3.17	0.98	-0.16
Peace and quiet	3.2	3.15	1.19	-0.22
Reasonable real estate costs	3.1	3.11	0.89	-0.24
Fair prices of goods and services	3.0	3.01	1.03	1.73
Diverse economy	2.8	2.81	0.91	-0.03
Diversity and quality of employment	2.8	2.81	0.92	0.19
Crowding of trails*	2.5	2.53	1.01	0.18
Crowding in other areas of Sedona*	2.3	2.29	0.93	0.09
Crowding in Uptown*	2.1	2.10	0.95	0.41
Crowding of roads*	1.7	1.72	0.86	1.15

** These indicators are newly created for the research site context; other indicators are from Andereck and Nyaupane (2011)*

*** Measurement scale was from 1 (not at all satisfied) to 5 (extremely satisfied)*

Table 9. Indicators of Residents' Support for Specific Tourism Development Options

Items	Mean**	Standard deviation	Skewness	Kurtosis
State/National Parks & Heritage Sites	4.30	0.97	-1.55	2.23
Trails-nonmotorized*	4.21	1.10	-1.46	1.41
Archeological sites*	4.01	1.22	-1.11	0.27
Outdoor recreation opportunities	4.01	1.17	-1.08	0.32
Public transportation	3.95	1.14	-0.85	-0.17
Museums/Galleries	3.90	1.07	-0.87	0.25
Festivals/events	3.78	1.17	-0.76	-0.19
Wineries/craft brewers*	3.73	1.13	-0.52	-0.56
Entertainment (theaters, etc.) *	3.73	1.10	-0.52	-0.56
Scenic drives*	3.62	1.35	-0.68	-0.69
Retail stores/Shopping	3.52	1.14	-0.34	-0.56
Tour services	3.24	1.32	-0.29	-0.97
Bed and Breakfasts/ Inns	3.13	1.35	-0.15	-1.07
Spiritual/metaphysical activities*	3.06	1.26	-0.03	-0.88
Resorts	2.86	1.44	0.10	-1.28
Hotels/Motels	2.76	1.40	0.16	-1.19
Airbnb*	2.41	1.42	0.54	-1.03
Trails-motorized*	2.23	1.38	0.80	-0.65

** These indicators are newly created; other indicators used Andereck and Vogt (2000)*
*** Measurement scale was from 1 (not acceptable) to 5 (very acceptable)*

After the data set was split into halves, EFA with varimax rotation was applied on the first set of data (Table 10). Results showed the data were meritoriously suitable for factor analysis. For both constructs of QOL and support for tourism development, the values of Kaiser-Meyer-Olkin Measure of Sampling Adequacy were within acceptable range from 0.8 to 1.0 and p-values < 0.001. Cut-off values for factor loadings was set at 0.40 (Hair et al., 2006). Accordingly, 15 out of 23 indicators of the QOL constructs factored together to create three sub-constructs or domains (latent variables) of environment, crowding, and culture/society. Twelve out of 18 indicators of the Support for Tourism construct were factored together into two sub-constructs of lodging and commercial attractions, and outdoor attraction. All these sub-constructs have Cronbach's Alpha values of more than 0.70 and Eigenvalues of more than 1.0.

Table 10. EFA Results

Items	Factor loadings	Eigenvalue	Cronbach's Alpha
Satisfaction with Quality of Life *			
Environment		8.26	0.86
EN1. Safety/lack of crime	0.78		
EN2. Attractiveness/cleanliness	0.75		
EN3. Limited litter and vandalism	0.73		
EN4. Clean air and water	0.69		
EN5. Conservation of natural areas	0.59		
EN6. Peace and quiet	0.59		
EN7. Preservation of cultural/historic sites	0.54		
Culture and Society		2.01	0.73
CSE1. Cultural activities for residents	0.69		
CSE2. Authentic culture	0.55		
CSE3. Quality recreation opportunities	0.50		
CSE4. Community identity	0.46		
Crowding		1.87	0.82
CR1. Crowding of roads	0.81		
CR2. Crowding in other areas	0.79		
CR3. Crowding in Uptown	0.79		
CR4. Crowding of trails	0.62		
Support for Tourism Development **			
Lodging and Commercial Attractions		8.90	0.91
LC1. Hotels/Motels	0.86		
LC2. Bed and Breakfasts/ Inns	0.86		
LC3. Resorts	0.83		
LC4.Tour services	0.68		
LC5. Retail stores/Shopping	0.59		
LC6. Festivals/Events	0.58		
LC7. Spiritual/metaphysical activities	0.56		
Outdoor Attractions		1.62	0.88
OA1. Archeological sites	0.81		
OA2. Trails-Nonmotorized	0.76		
OA3. Scenic drives	0.73		
OA4. Outdoor recreation opportunities	0.65		
OA5. State/National Parks, Heritage sites	0.62		

* *Kaiser-Meyer-Olkin Measure of Sampling Adequacy value at 0.879 and $p < 0.001$*

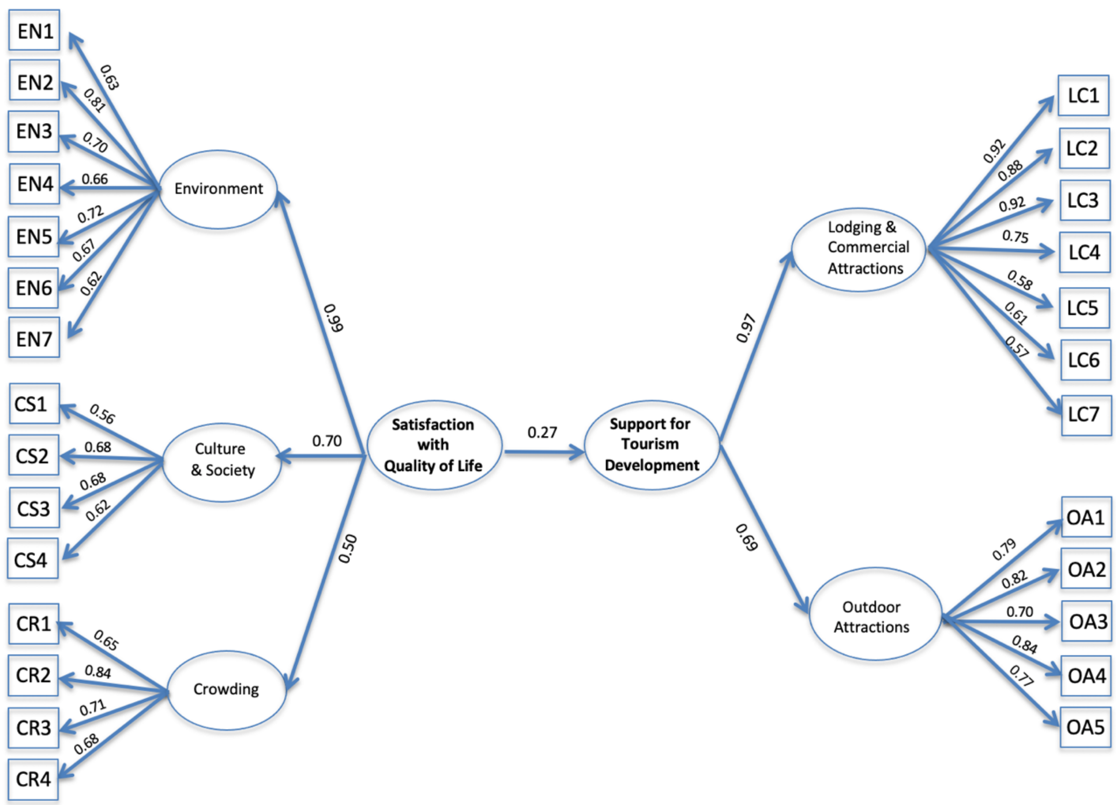
** *Kaiser-Meyer-Olkin Measure of Sampling Adequacy value at 0.917 and p-value < 0.00*

CFA results (Table 11) on the second half of data found the overall measurement model demonstrated an acceptable degree of goodness of fit to the data: χ^2 = 546.74, df = 314, ratio χ^2/df = 1.74, CFI = .90, TLI = .89, RMSEA = .06, SRMR = .07. Factor loadings of all items ranged from 0.56 to 0.92. The AVE values of three constructs (crowding, lodging and commercial attractions, outdoor attractions) were above 0.50. The AVE values of two constructs (environment, culture/society) were less than 0.50 but were accompanied with composite reliability values of greater than 0.70. Therefore, the requirements for convergent validity were met following recommendation by Fornell and Larcker (1981) and Lam (2012).

Table 11. CFA Results

Items	Factor loadings	Composite reliability	AVE
Satisfaction with Quality of Life			
Environment		0.87	0.49
EN1. Safety/lack of crime	0.63		
EN2. Attractiveness/cleanliness	0.81		
EN3. Limited litter and vandalism	0.70		
EN4. Clean air and water	0.66		
EN5. Conservation of natural areas	0.77		
EN6. Peace and quiet	0.67		
EN7. Preservation of cultural/historic sites	0.62		
Culture and Society		0.73	0.40
CSE1. Cultural activities for residents	0.56		
CSE2. Authentic culture	0.68		
CSE3. Quality recreation opportunities	0.67		
CSE4. Community identity	0.60		
Crowding		0.81	0.53
CR1. Crowding of roads	0.66		
CR2. Crowding in other areas	0.84		
CR3. Crowding in Uptown	0.71		
CR4. Crowding of trails	0.68		
Support for Tourism Development			
Lodging and Commercial Attractions		0.90	0.58
LC1. Hotels/Motels	0.92		
LC2. Bed and Breakfasts/ Inns	0.89		
LC3. Resorts	0.92		
LC4.Tour services	0.74		
LC5. Retail stores/Shopping	0.58		
LC6. Festivals/Events	0.61		
LC7. Spiritual/metaphysical activities	0.56		
Outdoor Attractions		0.89	0.62
OA1. Archeological sites	0.79		
OA2. Trails-Nonmotorized	0.82		
OA3. Scenic drives	0.70		
OA4. Outdoor recreation opportunities	0.84		
OA5. State/National Parks, Heritage sites	0.77		

Finally, SEM results provided a moderate fit to the data: χ^2 = 568.79, df= 318, ratio χ^2/df=1.79, CFI = 0.90, TLI = 0.89, RMSEA = 0.07, SRMR = 0.08. Factors loadings from all indicators to construct and sub-constructs were above 0.50 and p-values < 0.001, supporting significance of the indicators to the overall model (Figure 9 and Table 12).



χ^2 = 568.79, df= 318, ratio χ^2/df=1.79, RMSEA = 0.07, CFI = 0.90, TLI = 0.89, SRMR = 0.08

Figure 9. Results of Structural Equation Modeling

Table 12. SEM Results

Path	Path coefficients	S.E	P-value
Satisfaction with Environment → QOL Satisfaction	0.99	0.09	**
Satisfaction with Culture/Society → QOL Satisfaction	0.70	0.08	**
Satisfaction with Crowding → QOL Satisfaction	0.50	0.08	**
Acceptance of Lodging and Commercial Attractions Development → Support for Tourism Development	0.97	0.18	**
Acceptance of Outdoor Attractions Development → Support for Tourism Development	0.69	0.13	**
QOL Satisfaction → Support for Tourism Development	0.27	0.10	**

*Note: ** $p < 0.001$*

SEM results supported a positive relationship between residents' satisfaction with QOL and their level of support for tourism development, with a path coefficient (β) of 0.27. Hypothesis one is supported by the data. On the QOL construct, environment domain has the most influence on residents' perception about their QOL, with a β of 0.99, followed by culture and society domain with a β of 0.70 and crowding domain with β of 0.50. With the emergence of crowding as a singular construct, hypothesis two is also supported by the data: level of satisfaction with crowding is related to resident's perception about QOL. On the support for tourism development construct, β values for lodging and commercial attractions (0.97) and outdoor attractions (0.69) were significant.

Qualitative Results

Among the 93 tourism-related responses to the open-ended question, 85 were about overtourism in Sedona including how it affected respondents' QOL and their support for tourism development. In total, six themes were identified, including: descriptions about crowding, emotions about crowding, problems or impacts of crowding, causes of crowding, ways to cope with the crowding, and support for further tourism development (Table 13).

Table 13. Qualitative Results on Crowding, Coping, and Tourism Development

Themes	No. of responses*	Details/Sub-themes
Descriptions about crowding	25	Overcrowded, overrun by tourists, tourist trap/overload, influxes/mobs of people, people flock here, inundated with tourists, (crowded) all day and night most of the year
Emotions about crowding	13	Dismayed, shocked, disappointed, saddened, annoyed, stressed, ridiculous, awful, intolerable, regretful, and hateful
Problems or impacts of crowding	58	Traffic congestion, loss of community sense, pollution (e.g., noise, littering), disturbed natural environment, lack of support to local economy, low quality of tourism services, and high price of real estate
Causes of crowding	35	Over promotion by local tourism office, unselective tourist market (day trippers), exploded development of hotel and short-term rental accommodation, lack of public transportation, and insufficient infrastructure (e.g., parking space, roads)
Ways to cope with the crowding	87	Planful problem-solving (38), confrontative coping (20), escape or avoidance (17), willing to compromise (5), wishful thinking (4), and accepting the reality (3)
Support for further tourism development	14	Opposed to further tourism development completely (10), support tourism development if the overcrowding situation is improved (4)

** The responses are not mutually exclusive since one respondent could include different themes in their comment*

Respondents described the crowding of the destination and expressed some level of stress. Some comments suggested that crowding happened all times of the year, not only in high seasons or weekends:

> Over the last few years, we are feeling more and more overrun by the sheer number of cars and people and vehicles on the trails.
>
> This isn't even a seasonal problem anymore. There is very little down time between Thanksgiving/Christmas/Yoga festival/Film festival/Spring break (more than one) summer vacation.
>
> In 1955, Sedona was a jewel, but the crowding is becoming intolerable.
>
> I am disappointed and saddened by what has happened to Sedona just in the 8 years I have lived here.

Respondents complained about the negative impacts of overtourism on themselves and the community including traffic congestion, loss of sense of community, noise pollution, disturbed natural environment, lack of support to local economy, low quality of tourism services, and high price of real estate. Traffic congestion was the single issue that residents were most concerned about. Some respondents specifically complained about motorized recreational vehicles (e.g., ATV, UTV, Jeeps, helicopters) due to their excessive noise and disruption to the environment. The growth of short-term rental accommodations in Sedona was described as a concern since it provided more accommodations capacity for more tourists, broke the cohesion in neighborhoods, and made affordable houses less available for permanent residents. Overall, respondents mentioned that overtourism degraded their QOL:

Temporary influxes of people are expected but to have so many all the time is not satisfactory for a good quality of life.

We are glad people can experience Sedona's beauty, but crowds and traffic are not conducive to that. We cannot drive anywhere without allowing 2 or 3 times the amount of time.

I noticed significantly higher noise levels due to ATVs, Jeep, helicopters.

The homes around me are rented out on a nightly basis. It undermines the quality of life and cohesive feel of our neighborhood.

Respondents shared their opinions about causes of crowding. On a management level, residents related overtourism to a perception of overpromotion by the local tourism office and unselective tourist market which includes many day trippers who add to the crowd volume but do not contribute much to the economy. They mentioned insufficient transportation infrastructure and overdevelopment of hotels or short-term rentals. As a few residents noted:

Too much emphasis is placed on increasing tourism.

The problem is the targeted tourist market. Aiming at day trippers looking for an inexpensive outing for the family just clogs our streets but doesn't bring [Sedona] that much return dollar-wise.

Sedona does not have the infrastructure to handle the amounts of tourism we have now.

Everyone is fussing about the existing traffic, but the city keeps allowing new hotels and resorts to come into town.

The respondents wrote about how they coped with the problems of overtourism. Six coping tactics were identified: planful problem-solving (suggestions to solve current issues), confrontative coping (show anger and threat to the local tourism office and city management), escape or avoidance (plan to leave/think about leaving to live somewhere else, avoid the crowded areas/time in town), wishful thinking (wish that the problem would be improved), willing to compromise some benefits (e.g., less income from tourism, paying more taxes), and accepting the reality that they live in a popular destination. Among the coping tactics, the most common was planful problem solving (38 responses) in which residents offered suggestions to solve the overtourism issue such as to improve/expand transportation infrastructure, limit development of hotels and short-term rental accommodations, reduce tourism marketing activities, and select a better market of tourists (i.e., overnight tourists). Confrontative coping (20 responses) was the second popular tactic. Respondents commented:

> I deplore a lack of continual vision by leaders. I want the money that [local tourism office] receive from the city to be cut off and will vote so in the upcoming city council elections.
>
> I am evaluating my options and beginning to look elsewhere to relocate.
>
> Even though my own income depends on tourism, I would be happy to have less income and see fewer people here with greater respect for the environment.
>
> This is a tourist mecca and that’s not going to go away, nor do we want it to.

Several respondents (14) expressed their opinions toward further tourism development in Sedona. Most opposed further tourism development completely, while others would support tourism development if the overcrowding situation was improved. None of them mentioned supporting further tourism development with current conditions. A couple of respondents mentioned their attachment to Sedona (e.g., appreciation of the natural beauty, community sense, and friendship) and pro-environmental intentions as reasons to object to further tourism development:

> Sustainable tourism needs to start with defining what that means, my definition - target high end tourists that can afford to stay and shop. Quality over quantity.
>
> I paid hard earned money to live in Sedona. It took me many years to do so. I DO NOT want any more growth. Period.
>
> I moved to Sedona to appreciate the beauty here and do not want more expansion.
>
> To me, then sustainable tourism means ZERO "development" and ZERO advertising. Our focus needs now to be on keeping the environment, the creek, the view, the trails as unharmed as possible
>
> The main issue is not tourism, it is traffic flow. I believe that if traffic issue was resolved [Sedona] residents would welcome even more tourists.

Discussion

Implications from Quantitative Findings

Quantitative analysis supports hypothesis one that there is a relationship between residents' satisfaction with their QOL and support for tourism development when applied in a rural overtourism context. This is in congruence with previous research based on the TALC (Butler, 1980; Latkova & Vogt, 2012; Nunkoo et al., 2013; Su et al., 2022; Uysal et al., 2016), QOL or attitudes concepts and indicators (Andereck & Nyaupane, 2011; Liang & Hui, 2016; Nunkoo et al., 2013; Uysal et al., 2016; Woo et al., 2015), bottom-up spillover theory (Kim et al., 2013); and social exchange theory (Andereck & Vogt, 2000; Latkova & Vogt, 2012; Nunkoo et al., 2013; Nunkoo & Ramkissoon, 2012; Woo et al.,2015). Residents who are more satisfied with their tourism-related QOL tend to be more supportive of tourism development and vice versa, a finding similar to previous studies that tested the relationship in a general tourism setting (Andereck & Nyaupane, 2011; Liang & Hui, 2016; Woo et al., 2015). In comparison, the path from the QOL construct to the support for tourism development construct in this study ($\beta = 0.27$) is slightly higher than found by Woo et al. (2015) which also applied SEM ($\beta = 0.18$); the relationship seems to be stronger in destinations with persistent crowding. However, the coefficients in both studies are low which means that the relationship is somewhat weak. Even though the positive relationship between the two constructs has been mentioned by previous studies, this study seems to be the first that pointed out the weakness. A possible explanation is that residents' QOL can be affected by many sectors including tourism (e.g., education, health care). Residents may not strongly relate tourism development to their QOL but view it as one of many influential factors, or view added tourism development as generally undesirable. Still, destination managers, especially at overly visited destinations, need to find a balance between satisfying tourists, gaining economic benefits, and facilitating residents' QOL to gain their support for development and city services. Destinations should look beyond the tourism sector and cooperate with other sectors (e.g., education, healthcare) to enhance residents' overall QOL.

Quantitative findings also support hypothesis two that residents' level of satisfaction with crowding in a highly visited rural destination is related to their satisfaction with QOL ($\beta = 0.50$). This is one of few studies that shows clear evidence of that relationship, implying destination managers must pay attention to and monitor crowding. By using crowding indicators in SEM, this study expanded measures to include additional indicators of crowding as part of residents' QOL. While current indicators tend to be either positive or negative impacts of tourism (Andereck & Nyaupane, 2011), crowding can be considered neutral, either negative or positive depending on a variety of factors such as the number of visitors, characteristics and demographics of residents, and physical environment (Manning, 2022; Shelby & Heberlein, 1987).

In addition to the empirical outcome of the two hypotheses tested, evidence from this study suggests that residents' perceptions about QOL and support for tourism is contextual, similar to findings from previous studies (Andereck & Vogt, 2000; Liang & Hui, 2016; Woo et al., 2015). Sedona is a heavily visited destination; it is understandable that crowding becomes a salient component of QOL for residents. Demographically, many Sedona residents are in their retirement stage of life and financially well-off, suggesting why they do not place as much importance on economic aspects of QOL. In the SEM, all economic indicators were not present, which is a primary difference between findings of this study and other studies (Andereck & Nyaupane, 2011; Liang & Hui, 2016). Residents appear to be most concerned about environment, perhaps because a clean, safe, environment is good for them to relax and enjoy their retirement. That may be why environment stands out as a whole construct contributing to residents' QOL in Sedona with the highest coefficient of 0.99. The crowding domain has a coefficient of 0.50 which is less than the other two domains (environment of 0.99, culture and society of 0.70) though still significant. This might be because the residents in Sedona have noticed crowding becoming a part of their lives, however, the effect of crowding on QOL is still less important than the more positive characteristics of their community. Importantly, however, crowding emerged as its own construct rather than being a part of other constructs indicating that it is viewed as a QOL concern in and of itself. It seems solving overtourism could start with addressing crowding issues, which is to control and manage the number of visitors and congestion. Managing the visitor and traffic flow, parking provisions, zoning, regulation of short-term rentals, or even capping the visitor volume where feasible are examples of possible solutions.

For the support for tourism development construct, the new indicators (spiritual activities, trails, archeological sites) specific to Sedona, are reflected well in the model. The indicators of short-term rentals and motorized vehicle tours (e.g., jeep, ATV, OTV) were removed during the analysis procedure. This is explained by the general negative attitudes of many residents toward short-term rental accommodations similar to the findings of Gutiérrez-Taño et al. (2019), as well as objections to motorized recreation. While day visitors and short-term rentals are a concern found in previous studies, this is the first published study focused on overtourism that residents specifically noted a negative QOL impact attributed to motorized recreation. Destination management should consider promoting the types of tourism products that are acceptable and supported by residents and managing or controlling those that are not supported.

Implications from Qualitative Findings

Regarding the qualitative research question “How is tourism experienced in a community with overtourism?”, many respondents described tourism in a negative manner with a very strong emphasis on crowding’s negative QOL impacts, and resulting lack of support for tourism. There is evidence of convergence and divergence between the qualitative and quantitative results. Related to hypothesis one, findings showed that there was a positive relationship between residents’ satisfaction with QOL and their support for tourism; dissatisfied residents did not support further tourism development. Both relationships were supported by qualitative results. Related to hypothesis two, qualitative results support the finding that crowding is an important factor that affects residents’ satisfaction with their overall QOL. Residents who provided comments seemed to present crowding as the overarching factor that influenced all aspects of their QOL. This finding is different from the quantitative finding that crowding is one of the three factors of QOL, though not the most influential. Quantitatively, the study found economic indicators did not contribute to Sedona residents’ satisfaction with QOL.

Additional details of the qualitative results offer some explanations and further insights into the quantitative results. The majority of respondents (85 out of 93) to the open-ended question were concerned about crowding in Sedona indicating that a portion of residents had felt the impacts of tourism growth for quite some time. Perhaps among tourism stakeholders, residents would be the group that notices the impacts of overtourism earliest. Therefore, studying residents' opinions could help to diagnose early signs of overtourism for effective management. The residents' levels of stress and emotion could be used as one indicator or measurement of the severity of overtourism, together with both the QOL indictors and more objective indicators that are currently used by destinations. Residents' stress levels and emotions, if mostly negative, could be a warning sign that destination management needs to act quickly to address residents' concerns before negative emotions are built up and erupt. This is the first study in overtourism that included a qualitative component demonstrating residents' descriptions and emotions toward crowding highlighting the theoretical importance of crowding in overtourism research.

Through the descriptions of crowding in Sedona and expressions of stress, residents held negative feelings toward tourist-generated crowding. The findings are consistent with crowding theory and its related theories including expectancy theory, social interference theory, and stimulus overload theory (Andereck & Becker, 1993; Lee & Graefe, 2003; Li et al., 2017; Schmidt & Keating, 1979). There were residents who moved to Sedona thinking they could enjoy peace and quiet surrounded by mountains and parks. They unexpectedly encountered the reality of living in a popular tourist attraction as tourism grew which led to disappointment and regret. Additionally, it seems clear that the presence of tourists interfered with residents' daily lives and recreational activities and some residents were simply overwhelmed. The relevance of these theories implies that solving overtourism should consider different factors that affect residents' perceptions about overtourism such as their expectations (e.g., socialization, solidarity), social environment (e.g., tourist activities), as well as stimulants (e.g., noise, traffic volume).

Residents described many problems and causes related to tourism growth. They specifically noted problems that are typical for the destination, including motorized off-road vehicles that create noise and tear up trails, and helicopter tours that make noise over residential areas. This is evidence that overtourism can be contextual, confirming implications from the quantitative findings. Some of the problems such as traffic are common across destinations, but each destination may face some of its own unique problems. Residents' opinions about the problems and causes of overtourism can be helpful for management not only to know what the causes of overtourism perceptions are, but also which are the most prominent. An action agenda could be set up with priorities to tackle the most pressing issues.

Literature generally acknowledges that overtourism or overcrowding results in tourismphobia which is linked with negative sentiments and reactions among residents or even anger and protests against tourism by residents in several destinations (Martín Martín et al., 2018; Milano, Novelli & Cheer, 2019). However, residents' reactions could be more complicated. This study captures a broad range of residents' coping reactions toward crowding. In the tourism literature, it is in line with Jordan et al. (2015) who investigated how residents cope with stressors from tourism. In comparison, some of the coping tactics by respondents in this study corresponded with tactics in their study, including: planful problem-solving, confrontative coping, escape or avoidance, and wishful thinking.

Many respondents offered suggestions/solutions to improve overcrowding. Management can refer to suggestions/solutions by residents to develop their action plan. Additionally, these coping tactics show that residents are capable of actively engaging in tourism management. If leaders encourage participation and cooperation, residents might not only offer suggestions/solutions but also actually carry out actions to help with the overtourism issue.

Another tactic evidenced in this study that is worth destination managers' attention is the residents' confrontative coping. The target of this tactic is mostly the local tourism office and city management. Residents expressed anger and blamed the leaders for letting the overtourism situation develop. They even made threats, for example, to vote for reducing the budget for the local tourism office or personnel in city elections. This tactic signals that local authorities should reevaluate their operations and strategies toward tourism management when there is disapproval from residents. It could also be a sign that there should be better communication or information sharing between local authorities and residents. Confrontation from residents might be due to lack of understanding about operation of destination management as well as benefits from tourism.

Regarding residents' support for tourism development, the findings show some evidence to support Ramkissoon's proposal (2023) that place attachment could influence residents' support for tourism development. More specifically, residents' love for the natural beauty of Sedona and sense of community could be a reason for residents to further object to new development. The management implication from this finding is that tourism development should be in line with the community's values and visions.

Limitations and Future Research

The study contains limitations and suggests some future research possibilities. The results of this study might not represent all residents of Sedona that could be affected by tourism. It targeted homeowners who were permanent or part-time residents due to lack of an accessible list to use for sampling broader population. Future studies could aim to capture a more comprehensive resident sample.

This study was conducted in Sedona, a destination with early signs of overtourism and an "unusual" type of population. Many residents in Sedona are retired and have high incomes. Based on Andereck and Nyaupane (2011), residents who are more dependent on tourism are also more supportive, but tourism is not the source of income for most households; many tourism industry employees live nearby in less expensive communities. Residents of Sedona likely have high expectations about QOL. More studies at destinations that experience different levels of overtourism and have different types of populations (e.g., more younger citizens with lower incomes and greater reliance on tourism for employment) will be needed to capture a variety of perspectives and further develop theoretical frameworks for the study of overtourism.

The open-ended question asking survey participants to provide comments on tourism development was voluntary most likely influencing results. The respondents likely are those who are most concerned with overtourism or those who experience impacts the most. As a result, this study might lack opinions from those who have neutral or positive opinions. Future studies could aim for more diverse qualitative comments.

Future studies that apply SEM on the same research topic could modify the model based on the findings of this study: crowding as one construct that affects residents' QOL and subsequently support for tourism. Studies could create a more detailed measure of crowding. This study used "crowding" as a general concept which might be interpreted in different ways, positive or negative, depending on participants' perspectives of visitor levels and the characteristics of those visitors (Manning et al., 1996). The analysis of open-ended comments generated two findings that have potential contribution to literature of residents' attitudes in tourism or overtourism: the new themes of coping with stress from tourism by residents and the emotions/stress toward overtourism expressed by residents. There is the need for studies to adopt measures of these coping tactics to examine if they could be added to the current stress coping framework in literature (Folkman et al., 1986; Jordan et al., 2015). More studies are needed to help develop a measurement scale of residents' emotion/stress and use it as an indicator of overtourism which is lacking in current literature or practice. Future studies should empirically test the relationship between residents' place attachment and support for tourism development following Ramkissoon's proposition (2023) and evidence from this study.

Conclusions

This study examined residents' perspectives in a rural destination experiencing overtourism. Findings from SEM analysis confirm a positive relationship between residents' satisfaction with QOL domains and level of support for further tourism development. A new crowding construct drawing out overtourism sentiments was developed and tested and is a primary methodical and theoretical implication of this study. Qualitative findings reinforce these results by showing that residents experienced a variety of problems associated with overtourism, degraded overall quality of life, negative feelings/emotions toward the crowding condition, and were not supportive of tourism. Respondents developed different tactics to cope with the situation and offered many suggestions/solutions for destination managers. Residents who responded to the survey tended to oppose or only support further tourism development if current crowding problems from overtourism are improved. The components of QOL and support for tourism development seem to be contextual depending on the characteristics of each destination and its population.

Theoretically, the study enriches the literature about residents' QOL and their support for tourism development. It is the second study, after Woo et al. (2015), that uses SEM to test the relationship between residents' satisfaction with QOL and level of support for further tourism development in an overtourism context and confirm their positive and somewhat weak relationship. Additionally, the study found that the relationship is stronger in an overtourism context. This context, along with the rural nature of the community, is new and had been lacking in the literature. Several overtourism indicators (crowding) were added into residents' satisfaction with QOL construct based on the context, enriching measurements of the construct.

A substantial number of residents in this study are not satisfied with some aspects of their QOL, primarily crowding, resulting in low levels of support for tourism. The study is the first using a conceptual model that identified crowding as a singular factor influencing residents' QOL. Crowding was found to be an issue emerging as a separate construct on its own. This points to crowding and related theories as appropriate frameworks to incorporate into studies investigating overtourism.

The study is one of the few in overtourism research that generated empirical findings about residents' emotions and coping tactics, as well as the apparent social interference and stimulus overload experienced due to tourism. Therefore, it provides more insights into the complexity of residents' reaction to overtourism. It could lay the base for future studies to develop overtourism indicators and enhance research regarding how residents of tourism destinations cope with tourism induced stress. The study with its qualitative component also fills the gap in literature proposing that there is a lack of qualitative studies about residents' perspectives about tourism.

Practically, the study's findings highlight the importance of studying, understanding, and monitoring residents' perspectives and including them in tourism development dialogues and action plans. After this research was conducted, Sedona put in place a sustainable tourism plan that addresses overtourism based on findings from this study, as well as research with other stakeholders, including tourists and business owners (SCC&TB, 2019). This is a significant aspect of this study; it was not only a research project but part of a community planning process being used to facilitate positive change for community residents.

CHAPTER 4

STAKEHOLDER INVOLVEMENT IN AN EVIDENCE-BASED SUSTAINABLE TOURISM PLAN

Introduction

Sustainable tourism planning is a tool for destinations to ensure long-term development that balances the impacts of tourism on communities and environment (Connell, Page & Bentley, 2009; Ruhanen, 2008). Planning is associated with destination governance since it aims to create policies and programs, thus making necessary changes to social, environmental, and economic structures to accomplish sustainability goals (Heslinga et al., 2019; Jordan et al., 2013). Planning based on evidence and multiple stakeholders' involvement has been encouraged in different sectors, including tourism (Hardy & Pearson, 2018).

Previous evidence-based studies related to sustainable tourism governance mostly focus on examining the development and implementation of certain and limited types of evidence, such as sustainable tourism indicators and big data (Font et al., 2021, Gallego & Font, 2021). Few studies examine how multiple types of evidence are created and utilized, especially in tourism planning and stakeholder involvement.

Tourism studies in tourism have examined stakeholder involvement in development in general, and sustainability in particular, but the literature still lacks frameworks on the topic as guidance for destinations. The multi-stakeholder involvement management framework (MSIM) for sustainable tourism (Waligo, Clarke & Hawkins, 2013) is currently one of the most well-developed. However, it has not been compared against the practices of many or varied destinations, suggesting an area for improvement.

To address this gap, a case study examined the process to develop and implement a destination sustainable tourism plan (STP), focusing specifically on utilization of evidence in planning and management of stakeholders' involvement. The research aims to elaborate on how multiple pieces of evidence are used in sustainable tourism planning and to improve the current MSIM framework to be more comprehensive. Findings generate useful implications via successes and challenges for destination management.

Literature Review

Evidence-based policy

Evidence-based policy and governance is linked to pressure for effectiveness, legitimacy, and accountability of public services, and aims to promote civic trust and democracy in planning and development (Head, 2016). There are different types of evidence that can be used for policy making. Popular types are expert knowledge or professional judgment, stakeholders and public opinions, research data, big data, review and evaluation findings, performance measurements through criteria and indicators, and practical experiences of other agencies (Cherney & Murphy, 2017; Gasparini & Mariotti, 2021; Head, 2016). Evidence is either internally produced by policy making agencies themselves or externally produced by third parties. While policy making agencies may prefer some types of evidence over others, all forms are potentially valuable (Hall & Jennings, 2010).

Diverse evidence-based policy comes with requisites: institutionalization through government support; collaboration of multiple stakeholders; adequate funding in data collection and research; skills for analyzing, interpreting, and utilizing evidence; quality of evidence; and accessibility and transparency of knowledge sharing (Head, 2016; Neumann et al., 2021; Weber & Khademian, 2008). Development of such policies requires agencies to increase trust in external sources of evidence since many may be skeptical about their relevance (Hall & Jennings, 2010). Additionally, collection of multiple types of evidence, especially scientific data, can be time-consuming and requires long-term commitment and effort (Boaz et al., 2008).

Evidence-based initiatives are fairly advanced in social policy sectors (Head, 2016). In tourism, evidence is less systematically integrated into decision making even though it has been promoted by global organizations for decades (UNWTO, 2005). The academic community supports expanded evidence-based decision-making, especially for sustainable tourism. Studies focused on the development and implementation of a particular evidence-type such as sustainable tourism indicators are important (e.g., Font et al., 2021, Gallego & Font, 2021). The systematic utilization of multiple types of evidence that require the involvement of different stakeholders is a desirable direction, particularly to advance sustainability approaches.

Sustainable tourism, governance, and planning

The concept of sustainable tourism first became evident during the 1970s and 1980s following concerns about impacts of tourism's increased growth (Gössling & Scott, 2012). Based on the principles of sustainable development, tourism should take into account current and future economic, social and environmental impacts, while addressing the needs of stakeholders (UNWTO, 2005). Accordingly, sustainable tourism should bring “long-term benefits to local residents and tourists without compromising the physical and cultural environment of destinations” (Murphy & Price, 2005). The call for sustainable tourism is even more pressing with the exponential growth in the last two decades which pushes many destinations’ capacities beyond the tipping points (a phenomenon called overtourism) resulting in adverse impacts (e.g., pollution, traffic congestion) on communities (Cheer, Milano & Novelli, 2019; Goodwin, 2017).

“Good governance” is considered a necessary condition for sustainable tourism development since it can be entangled within power and politics (Bramwell & Lane, 2011; Wesley & Pforr, 2010). Governance emphasizes cooperative planning, democratizing policymaking through multiple stakeholders’ involvement, clear procedures, and decision-making rules (Farsari, 2021; Hall, 2011). Governance mechanisms enable communities, often marginalized in tourism policy making, to become legitimate partners in the development process (Nunkoo, 2017). Destination management or marketing organizations (DMOs) play important roles in destination governance because they can manage collaboration and networking (Manente & Minghetti, 2006; Volgger & Pechlaner, 2014)

Sustainable tourism planning is a dynamic, systemic, participatory and continuous process that stresses the determination of the destination’s objectives, strategies and actions (Murphy & Price, 2005). Moreover, sustainable tourism planning and policy are created in consideration and cooperation with many fields requiring significant time and financial resources (Dredge & Jenkins, 2011). Planning involves systematic analysis of broad environmental factors affecting tourism and deals with changes in the internal and external environments. It contributes to the success of a destination by minimizing the negative impacts of tourism and optimizing its benefits to the environment and the community (Tosun & Timothy, 2001). Sustainable tourism planning seeks to provide a coordinated transition or link between the present situation at a destination and an improved future for both residents and tourists as two of the key stakeholders (Almeyda-Ibáñez & George, 2017).

Stakeholders' and sustainable tourism planning

The stakeholder concept gained widespread acceptance beginning with Freeman's (1984) book *Strategic Management: A Stakeholder Approach* (Jawahar & Mclaughlin, 2001). In tourism, stakeholders are any entities that are involved with, interested in, influenced by, or may influence tourism activities either positively or negatively (Sheehan & Ritchie, 2005). Four core groups of stakeholders are tourists, community residents, businesses, and government (Butler, 1999; Liu & Ma, 2017). Stakeholders influence all aspects of the industry including tourism regulation, management, and research (Hieu & Rašovská, 2017). Tourists visit attractions, spend money, and promote the attractions through word of mouth and social media. Residents participate in the development of tourist destinations such as employment in the tourism sector and local entrepreneurship (Ashley & Roe, 1998), but also can be affected negatively by the industry (Andereck & Nyaupane, 2011). Business entities or tourism practitioners maintain the operation of the destination tourism industry (Liu & Ma, 2017).

Governmental agencies promote local tourist attractions, provide infrastructure and services to support tourism and manage the impacts of tourism through legal tools (Bramwell & Lane, 2011). There are other stakeholders in tourism (e.g., NGOs), some of whom are more salient and powerful than others (Nicolaides, 2015).

The concept of stakeholders assumes a destination takes a central place within the relationship networks of other interested and influential groups to shape a desirable tourist destination and ensure its long-term existence (Duran, 2013; Hieu & Rašovská, 2017). Networks, collaboration and partnerships are desirable inter-organizational structures that work towards sustainability, commercial effectiveness, and profitability of a destination (Volgger & Pechlaner, 2015). Murphy (1988) contends that mutually beneficial partnerships are essential for tourism planning and that stakeholders should be active throughout the planning process. The growth in community-based tourism planning represents an important shift away from traditional "top-down" approaches to meeting broader community development goals (Mair & Reid, 2007). Values, commitment, and behavior of stakeholders are essential in planning (Jordan et al., 2013). Contributions and commitments of interested parties are considered essential to ensure that the benefits derived from the planning process are shared by residents, including the enhancement of community quality of life (Hatipoglu, Alvarez & Ertuna, 2016).

Stakeholder involvement in sustainable tourism is complicated due to the existence of many diverse stakeholders (Ladkin & Bertramini, 2002). Factors that can influence their involvement are leadership qualities, information quality and accessibility, stakeholder mindsets, contextual circumstances, and implementation priorities (Waligo, Clarke & Hawkins, 2013). There are also issues associated with a lack of shared vision and mistrust of government policy (Ladkin & Bertramini, 2002). Therefore, implementing sustainable tourism with multi-stakeholder processes requires leadership, long-term vision, and resilience (Farrell & Twining-Ward, 2005). Stakeholder participation can increase the likelihood that development decisions are more readily accepted, while the inclusion of different actors enables the accounting of differentiated values and needs (Reed, 2008).

Multi-stakeholder involvement management framework

Empirical research on stakeholder involvement in the context of sustainable tourism planning is not sufficiently documented. There is increased recommendations for stakeholder involvement within the literature, there is little guidance of how to best consider and adapt tourism planning alongside communities. Waligo, Clarke and Hawkins (2013) examined sustainable tourism development in Cornwall, UK and introduced the multi-stakeholder involvement management framework (MSIM) to guide stakeholders' involvement in this process. The framework (Figure 10) outlines a process to attract, integrate, and manage stakeholders' involvement. It includes six stages: scene-setting, recognition of stakeholder involvement capacity, stakeholder relationship management, the pursuit of achievable objectives, influencing implementation capacity, and monitoring stakeholder involvement. It highlights the importance of effective communication to raise stakeholders' awareness of sustainable tourism, identifying and accessing stakeholders' situations, interactive networking, supporting stakeholder adaptation to sustainable tourism, handholding (supporting and enhancing stakeholder capacity), reviewing implementation, and rewarding for stakeholders' effort and achievement.

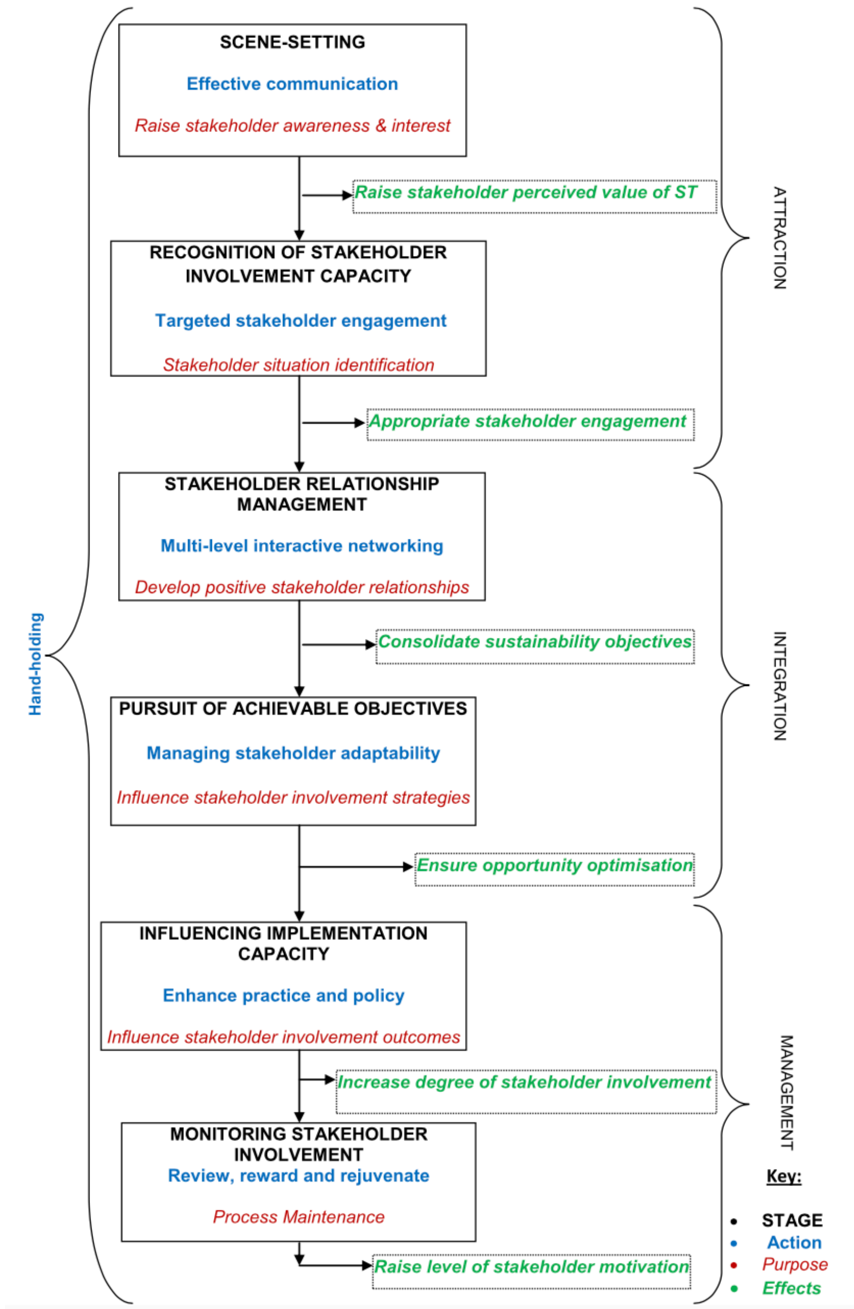


Figure 10. Original MSIM Framework

(Adopted from Waligo, Clarke & Hawkins, 2013, p. 348).

There is need for empirical testing use of evidence in sustainable tourism planning and the MSIM framework to support its generalizability and usefulness. Studies in different contexts of tourism can modify and extend the framework depending on destinations' situations. Additionally, the current framework could be more specific regarding use of evidence, how each step is done, who are the key players, which tools are used, factors that determine successes, and challenges in managing stakeholder involvement. This study examines how evidence gathering and application were used in the planning, implementing, and monitoring of the Sedona (Arizona, USA) sustainable tourism plan (SSTP) according to the MSIM framework.

Methods

Context for the study

Sedona, Arizona a destination in Arizona with red rock landscapes, parks, trails, and creeks that offer many outdoor recreation activities, spiritual and wellness tourism, and local handicrafts and arts production. Sedona tourism welcomes about 3 million visitors and generates around $1 billion revenue annually, making it the main economic sector of the city (SCC&TB, 2019). However, there were concerns that Sedona was facing overtourism with negative impacts such as traffic congestion, increased housing prices, and noise and light pollution.

Envisioning long-term management of the destination, the Sedona Chamber of Commerce & Tourism Bureau (SCC&TB) enrolled in a sustainable destination assessment program by the Global Sustainable Tourism Council (GSTC) in 2016 to gain initial insights of destination sustainability status. GSTC assessment reports indicated the need for a sustainable tourism development strategy (GSTC, 2021). In 2017, SCC&TB contracted with the Center for Sustainable Tourism (CST) at Arizona State University and travel consulting company Nichols Tourism Group (NTG) (hereby called Consultancy team) to help form the Sedona Sustainable Tourism Plan (SSTP). The plan was created based on the community's vision for tourism, the potential market, and a sustainable approach focusing on overtourism and appropriate solutions. The plan was approved by the City of Sedona in 2019 for implementation.

The SSTP focuses on four pillars of sustainability: Environment, Residents' Quality of Life, Tourism Economy, and Visitor Experience (SCC&TB, 2019). Each pillar is guided by objectives, strategies, research findings, tactics, and measurement metrics. Various stakeholders participated in the implementation and monitoring of SSTP. Figures 11 and 12 are examples of objectives and tactics for one pillar (Environment).

Figure 11. Objectives of Environment Pillar in SSTP (SCC&TB, 2019)

Environment | Objective A1
Implement new waste prevention, reduction, and diversion strategies focused on visitors and their impacts in the Sedona region

TACTIC A1.1 | Deploy wider range of recycling resources/ containers in high-visitation areas and create effective branding to enhance utilization

IMPACTED PILLARS

TIMEFRAME Short-term (12-18 months)

LEAD PARTNER City of Sedona

SUPPORTING PARTNERS Keep Sedona Beautiful, SCC&TB, Sedona Recycles, USFS, State Parks, Sustainability Alliance, Sedona Compost

ALIGNING RESEARCH Resident Survey, Visitor Survey, Nonprofit Focus Group

PROSPECTIVE METRICS
1. Number of available containers and diversity of geographic locations
2. Diversity of acceptable recycling materials
3. Recycling volumes

Surveys show visitors want to be part of a sustainability solution for Sedona. By expanding the number and locations of recycling bins and other resources, Sedona can increase visitor participation in recycling efforts.

Areas with high visitor volumes, whether in developed commercial areas, trailheads, or other natural areas, should be prioritized.

SCC&TB should develop a marketing campaign to brand containers and encourage visitor usage.

TACTIC A1.2 | Build the tourism industry's understanding of local recycling capabilities and ways to embrace

IMPACTED PILLARS

TIMEFRAME Short-term (12-18 months)

LEAD PARTNER SCC&TB

SUPPORTING PARTNERS City of Sedona, Sedona Businesses, Sedona Recycles, Sustainability Alliance

ALIGNING RESEARCH Nonprofit Focus Group, Business Survey, Public Input

PROSPECTIVE METRICS
1. Number of businesses participating in recycling programs
2. Number of sustainability certified businesses
3. Recycling volumes
4. Benchmark through business surveys
5. Percentage of waste diverted

Many tourism-related businesses in Sedona recycle plastic and paper and limit use of disposables.

There are opportunities to broaden participation and deepen understanding of recycling and recyclable materials. SCC&TB will team with Sedona Recycles and supporting partners to help businesses expand waste prevention efforts and reduce the volume of material directed to area landfills.

Figure 12. Example Tactics of Environmental Pillars in SSTP (SCC&TB, 2019)

The researcher' role

The researcher participated in the SSTP as a research assistant during the development stage in 2017 and 2018. Activities mostly focused on collecting and analyzing research data (survey, focus groups, public visioning sessions) to inform the plan and participating in strategies development meetings. This position the researcher as an insider with emic insights about the development process of the SSTP. During the implementation process, the researcher played an etic role to study the SSTP as outsider. The switch in roles helped to form both subjective and objective perspectives about the project and made the knowledge generated from this study more thoughtful, intentional, and reflective (Hoare, Buetow, Mills, & Francis, 2013).

Research approach

A community-wide sustainability plan diverse stakeholders within the context of overtourism represents a complex phenomenon. Therefore, the study employed a case study method, which is an intensive and systematic investigation of a complex phenomenon (Creswell, 2013). Case studies feature different methods of data collection, several data sources, and triangulated findings. An underlying assumption is data collected in different ways leads to similar conclusions and approaching the same issue from different angles helps develop a holistic picture of the phenomenon. This case study is considered instrumental, focusing on a phenomenon and a single-case that allows for an in-depth analysis of situations and individuals, and enables relationships to be fully explored (Stake, 2005). Data were collected using different qualitative methods including document analysis of numerous documents and in-depth interviews.

Data collection

Document analysis

Document analysis is a systematic procedure for evaluating documents. It involves skimming, reading, and interpreting to elicit meaning, gain understanding, and develop empirical knowledge of a research problem (Corbin & Strauss, 2008; Rapley, 2007). Documents used in this study are from January 2017 when the GSTC completed and published its report of Sedona's destination assessment until September 2022 when the SSTP was in its third year of implementation (Table 14).

Table 14. Documents Analyzed

Documents	Sources	Sub-types of documents or more details
SSTP Plan	Internal archive at ASU and on SCC&TB website	The SSTP plan is available in print and online
SSTP Status Update	SSTP Status Report shared by SCC&TB	This excel file is shared among implementation partners of SSTP and is updated periodically
Reports	Reports are shared by SCC&TB or published on websites of SCC&TB, and partners	GSTC assessment report, SCC&TB annual reports, and others
Consultancy documents	Internal archive at ASU	Calling for proposal by SSTB and proposal by consultancy team (ASU and Nichols Tourism Group), consultancy contract signed between the SCC&TB and consultancy team, meeting minutes, research data (e.g., surveys, focus group reports, public visioning reports)
Online articles	Websites of SSTP partners (e.g., Sedonachamber.com, Visitsedona.com, Sedona.org, Sedonaaz.gov.)	Types of articles on websites: news, blogs, announcements
Social media	Facebook page of SCC&TB	Facebook posts
Newsletters	Received via email from subscription with the SCC&TB	Newsletter are sent monthly to subscribers by the SCC&TB
Videos	Videos published on SCC&TB YouTube channels and websites of SCC&TB and City of Sedona	Types of videos: recordings of events, meetings, interviews, webinars, trainings, promotion/ campaign videos
Media broadcasts	Radio and TV (e.g., AZ PBS, KJZZ)	Types: interviews, news, documentary about SSTP

Interview

In-depth interviews are used when researchers seek to obtain detailed information such as opinions from respondents (Creswell, 2016). Interviews in this study were semi-structured using a set of core research questions applied to all interviewees but allowing for expansion of responses. This approach oriented the research to the central themes and facilitated comparisons across interviewees' responses.

During 2020 and 2021, seven 45-to-60-minute interviews were conducted following participants' verbal informed consent, audio recorded, and transcribed with seven key informants and primary decision makers of the SSTP project. Interviewees were purposefully selected based on their significant roles in the tourism plan. They were asked their perspectives about overtourism, sustainable tourism, current conditions in Sedona, importance of stakeholders' involvement, how stakeholders' involvement fit with the MSIM framework, utilization of evidence in SSTP, and challenges in sustainable tourism planning and implementation.

Data analysis

Data were analyzed, compared, and integrated through triangulation. Documents were collected and archived in an Excel file or in their original forms. Interview transcripts were imported into MAXQDA software for analysis. Thematic coding was applied following a recommended procedure by Creswell (2013). Codes were based on the MSIM framework with others emerging during the analysis process. One researcher coded content and then identified themes corresponding to MSIM framework components. Themes that did not fit in the framework were identified to show how activities or strategies in SSTP differed from the framework.

Data validity was ensured by triangulation among the different data sources. The researcher spent extensive time in the field with deep immersion in the entire planning process. During the SSTP development stage, the researcher directly participated in project activities such as collecting data and participating in advisory committee meetings. This observation provided the researcher deep understanding of plan development. Results were shared with key informants of this study for member checking and confirmation.

Results and Discussion

Sedona MSIM Framework

All MSIM framework components were evident in the development and implementation of the SSTP, but a re-ordering of the framework's components and appearance evolved during the planning process. A new MSIM framework diagram is drawn to illustrate the case of SSTP which is hereby referred to as Sedona MSIM framework (SMSIM) (Figure 13).

The SMSIM framework include three stages: scene setting, managing stakeholders' involvement, and evaluation. Managing stakeholder involvement is comprised of five components: recognition of stakeholders' involvement capacity, stakeholder relationship management, pursuit of achievable objectives, influences on implementation capacity, and monitor of stakeholder involvement. These components occurred simultaneously in SSTP, with their importance and rank in priority increasing or decreasing throughout the stakeholder involvement management process. The stages and components of SMSIM framework influence one another.

A variety of objectives and tools (e.g., meetings, research) are utilized in SSTP. Most tools serve multiple purposes corresponding with stages and elements of the MSIM framework. Analysis reveals several lessons learned or important factors that contribute to the successes of stakeholder management in SSTP.

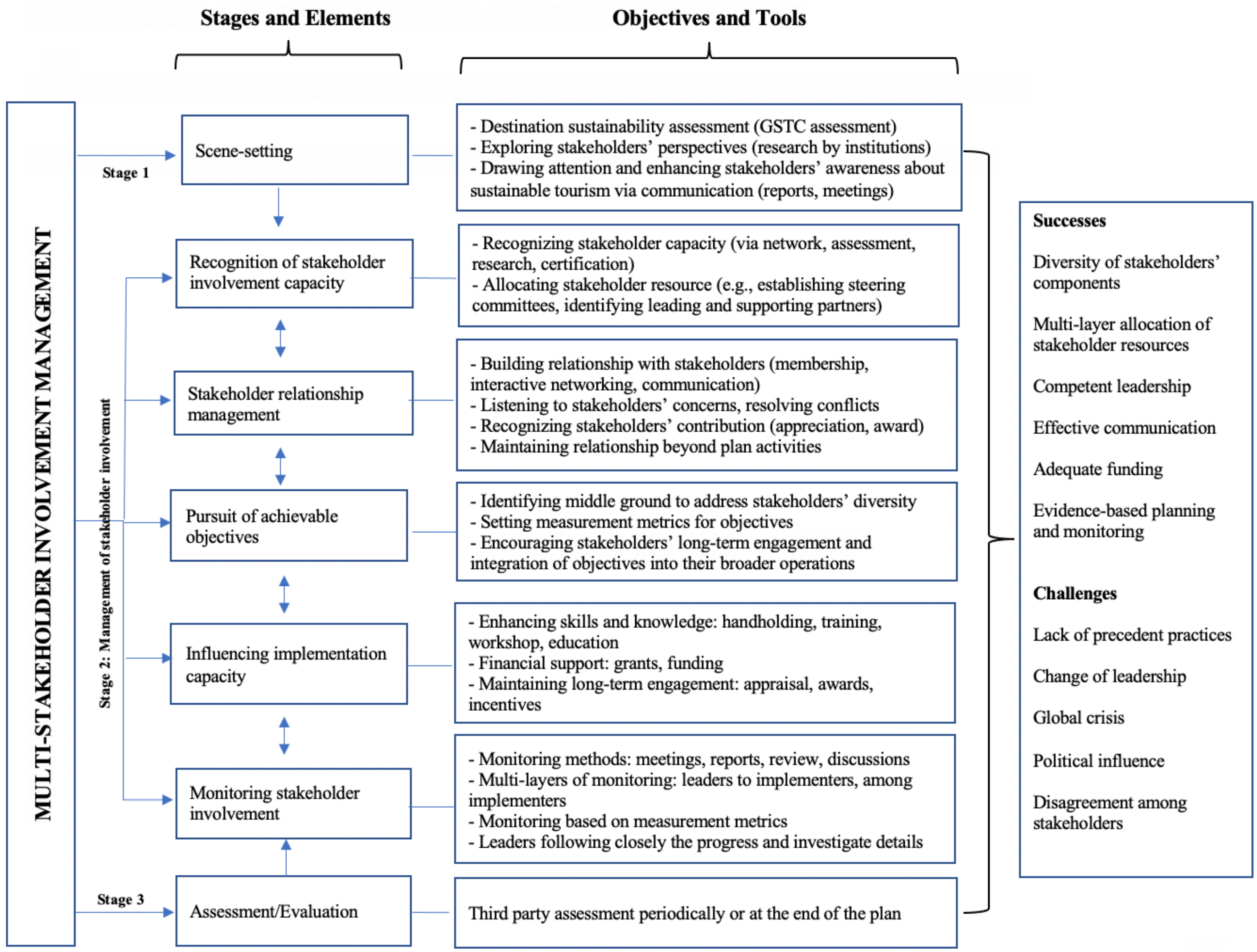


Figure 13. The Improved MSIM Framework based on Sedona Sustainable Tourism Plan Case Study (SMSIM)
(Adapted from Waligo, Clarke & Hawkins, 2013)

Stage 1. Scene-setting

The scene-setting stage served multiple objectives for sustainable tourism in Sedona: understand its context, explore perspectives of core stakeholders, and draw attention of it to destination managers and the public. This stage started with the GSTC's assessment of Sedona. It allowed leaders to know where the destination was with respect to sustainability and raised the necessity of developing a tourism plan with community engagement. Consulting team research identified specific tourism-related sustainability issues and gathered opinions of important stakeholders. Communication about sustainable tourism occurred among leaders through meetings and reports. Leaders started to raise public awareness about sustainable tourism through publishing the GSTC assessment and research reports on its website and in public meetings.

Stage 2. Management of stakeholder involvement

Recognition of stakeholder involvement capacity. At this stage, stakeholders were involved and allocated responsibilities that corresponded to their capacity. Recognition of stakeholders' capacity resulted partly from activities in scene setting stage and partly from activities conducted later. SSTP leaders invited suitable stakeholders in development and implementation of the plan. Stakeholders' capacity was recognized based on their social role, legal status, and functions that corresponded to focused sustainability areas. In comparison to the original MSIM, the SMSIM is more proactive in the sense that stakeholders are targeted and involved purposefully. As described by a key informant:

"It seemed like the framework [MSIM] was really more focused on anyone who

> had an interest in participating could participate. I think, just because a stakeholder wants to participate doesn't necessarily make that the best participant.… It seemed the attraction stage [scene setting and recognition of stakeholders' capacity] as a little bit more reactive in the [MSIM] framework than our process was in terms of being proactive. Our process started with let us understand the data and what our audiences are saying, let's collect this data first and then engage the stakeholders through a data centric focus."

Some stakeholders' capacity was identified directly from the GSTC destination assessment and consultant team research. The GSTC reported there were already groups in Sedona doing great sustainability initiatives. SSTP leaders needed to work with these groups to unify their efforts, as evident by one interviewee:

> "The GSTC assessment that we took in 2015-2016 said that a lot of organizations in Sedona were doing really great work but they're not collaborating on goals and benchmarks. Through the sustainable tourism plan, we always intended to try to get all of the different organizations who are doing great things to collaborate better."

Upon recognition of their capacity, core stakeholders were allocated to different groups to develop and implement the SSTP (e.g., Sustainable Tourism Advisory Committee, Sustainable Tourism Action Team). Recognition of stakeholders' capacity helped utilize a large network of volunteers from the community who contributed significantly to SSTP activities. Stakeholders' capacity (mostly local businesses) was also identified through a sustainability certification process via the Sustainability Alliance, a nonprofit organization, that was in charge of assessing and certifying businesses including identification of strengths and weaknesses for further improvement.

Recognizing stakeholder's capacity and empowering them by giving them roles in SSTP is a strategy to enable the community to own the plan and ensure the plan's success, as noted by an interviewee:

> "We feel like it's a good solution to address some of the complexities, with so many leaders of different tactics. The benefit of that is it becomes a community wide plan, not just the chamber's plan. When other people are taking leadership roles, more engagement and more buy in into the overall success of the plan occurs."

Stakeholder relationship management. Building close and strong relationships with stakeholders is a focus of SSTP. There are a variety of interactive networking programs, official and unofficial, such as coffee chats, happy hours, nonprofits roundtables, and virtual networking. An innovative way to connect with stakeholders is "walk and talk" events led by the CEO and/or leaders of SCC&TB where anyone from the community is invited to hike and talk about a specific selected topic. Other forms of stakeholder relationship building are through SCC&TB membership programs and events. Community Pulse events are organized biannually to provide a forum for the community to share factual information of current issues and initiatives, which can enhance sense of community. Listening to concerns from stakeholders, showing support to them during difficult times, and recognizing their contribution through appreciation or awards helps to strengthen stakeholder relationships. Stakeholder networking and relationship-building is not only focused on current or individual stakeholders but is extended to groups with potential participants as noted by an interviewee:

> "[The SSTP] engages nonprofit groups who might have a mission that's in alignment with some of the tactics of the plan and then engages their groups. For example, nonprofits are often members of other groups."

Pursuit of achievable goals. Interviewees noted the first step to achieve goals in SSTP is to set goals acceptable to stakeholders. It is important to identify a "sweet spot" that stakeholders from different or highly conflicting backgrounds can agree upon. Additionally, the goals of SSTP have measurement metrics making it easier for participants to evaluate progress of their own and others' goals to identify room for improvement.

SSTP is a long and ongoing process. To achieve expected goals, leaders aim to engage and keep stakeholder's interest and participation for the long-term. They encourage stakeholders to integrate SSTP goals and activities into their broader operations, for example local businesses to incorporate sustainability goals into their mission statements and budget. Closely monitoring and creating pressure on stakeholders to form sustainability habits are necessary to keep stakeholders on track toward the final goal as shared by an interviewee:

> "I would say … just move faster and leverage more resources early on, until you establish the habit because otherwise it's also really easy for something like this to just dissipate. They're (businesses) only allocating 5% of their time to thinking about sustainable tourism and 95% of the time thinking about how to grow their

business. You really need to push hard early. Until it's a habit... Once it is there, focus on it then it takes on a life of its own and perpetuates itself. But until then, it takes people… like the city manager, the Mayor, the Chamber (SCC&TB) pushing and pulling."

Influencing implementation capacity. A variety of activities and initiatives in the SSTP influence stakeholders' implementation capacity.

Handholding. Handholding is important to influence stakeholders' capacity. Handholding can be done in forms of one-on-one meetings, group meetings, forums, sharing information about the SSTP, and leaders being available to support participants. According to interviewees and as conceptualized in the MSIM framework, handholding is an innate, continual part of SSTP and is done throughout implementation of the plan to current and new stakeholders:

"[Due to] the transitional nature of the tourism industry it is a challenge. You have new GM or teams coming in all the time. New people who want to engage or don't want to engage. It's just a continual handholding of getting the right people involved and engaged, reeducating about what we're doing why we're doing it."

Trainings and workshops. Many trainings and workshops, both in-person and virtual, have been organized for stakeholders of SSTP to enhance knowledge and skills in different topics/areas to facilitate implementation capacity. Examples are training on wildfire control, recycling, and "Leave No Trace."

Educational activities. A variety of programs were implemented to educate stakeholders about sustainability and influence stakeholder involvement in outcomes. One example is to educate visitors on how to behave responsibly while traveling in Sedona and inviting them to sign a pledge that details appropriate behaviors. Campaigns have been launched to promote sustainability activities, such as the Bring Your Own campaign, encouraging people to reuse mugs, bottles, and bags. Other educational materials are printed flyers, posters, and guidebooks which are available at SCC&TB's Visitor Center or events.

Grants and funding. Grants and funding are utilized in SSTP to support stakeholders' implementation capacity. For example, in August 2022, the City approved a $240,000 budget to pay property owners who were renting their homes through short-term rental services in exchange for their agreement of long-term rent to local workers. This funding helps to solve the issue of affordable housing for local workers.

Awards and appreciation. Recognizing stakeholders' contribution is important to maintain engagement. For example, SCC&TB offered "Volunteer of the Year" to a volunteer who has gone above and beyond in their volunteer service within the center.

Others. Other forms of influencing stakeholders' implementation (e.g., support with promotion) depend on individual situation and demands from stakeholders.

Monitoring stakeholder involvement. Monitoring stakeholder involvement is an integral part of SSTP. It helps to keep activities on track, see progress, and make suitable adjustments for improvements. Monitoring is accomplished in different forms: meetings, reports, evaluations, reviews, and discussions. There is a clear schedule of reporting such as tactics' leaders providing quarterly updates to the SCC&TB who in turn reports to the

City Council on the same periods. Meetings on SSTP progress are also organized among partners and leading committees quarterly.

Monitoring in the SSTP is done by STTP leaders but also other stakeholders involved in implementation of sustainability tactics who monitor each other through various online systems allowing stakeholders to share reports and information. Stakeholders not only report their progress based on measurement metrics but discuss their achievements and struggles as well as identify areas where they need support.

According to an interviewee who is a leading implementation partner, measurement metrics provide effective tools for monitoring of SSTP. Close monitoring by leaders puts more pressure on stakeholders to move forward with their activities. According to another interviewee, when conducting monitoring, leaders need to look into details and know the situation behind the numbers and information on reports.

> "The people that are at a higher level, looking at the whole plan report back down to the ground level. And how do you really create accountability for implementation."

One challenge with SSTP monitoring is that the SCC&TB is a nonprofit organization with no authority over stakeholder involvement resulting in its inability to require reports from stakeholders:

> "We're not a governing body, a permitting or regulatory agency so they really have no requirement to report to us, yet they are. It is a constant reminder - remember to tell us what you're doing so, we could let people [city council, public] know about our collective progress."

Stage 3. Assessment and Evaluation

Evaluation stage is a new component of the SMSIM framework. Analysis showed recommendations and intentions of SSTP leaders to have a third-party evaluation at the end of SSTP's timeframe. In an interview with GSTC, the CEO of SCC&TB expected "a further GSTC assessment toward the end of the five-year plan, as a means to benchmark overall progress" (GSTC, 2021). Another interviewee discussed the possibility of an independent third-party evaluation or continue to involve the consultancy team for evaluation. This can be done during the implementation process periodically.

> "I think retaining a third party to help with that ongoing implementation is very dependent on the capabilities and the staffing levels of the organization itself. They'll bring in the third party once a year, once every couple of years or whatever to know where we made progress. I think most of the heavy lifting is done by the organization. The third party can continue some involvement, but at a much more moderated level to help ensure effort initiatives stay on track."

Factors contributing to successes

Factors contributing to the success of the process were identified, as were challenges, for useful modifications to the MSIM framework (Table 15).

Table 15: Success Factors for MSIM

Factors	Content	
Diversity in stakeholder components	Geography (local – regional – national – international) Economic and social sectors (profit, nonprofits, academia, practitioners, governments, residents, visitors)	Voluntary vs. contracts Tourism vs. non-tourism Individuals vs. organizations
Multi-layer allocation of stakeholder resources	Steering and advisory boards Leading vs. supporting partners Taskforces	Full time staff(s) to overview plan and stakeholder involvement
Competent leadership	Paradigm shift in mindset/ Visionary Commitment Delivering consistent messages Being able to listen and negotiate Being able to defend decisions	Recognizable in and align with community Willingness to allocate human and financial resources Follow and monitor stakeholder involvement closely Inspiring changes and pushing limit
Effective communication	Various channels (websites, email, meetings, media) Consistency of information	Regularity (spontaneously and periodically)
Adequate funding	Funding from the City, donations	
Evidence-based planning and monitoring	Involving multi stakeholders in creating and using evidence Diversity of evidence (research data, reports, evaluation, measurement metrics, feedbacks, internal – external, objective – subjective, official – unofficial)	Purposes of evidence (justify decisions, develop activities, evaluation, recognition of stakeholder involvement) Accessibility, transparency, consistency, user-friendliness of evidence

Diversity of stakeholders. The SSTP involves an extensive network of diverse stakeholders (Fig.14). Thousands of community members were involved over 18 months in planning, and several organizations continue to lead or support current tactics. Local stakeholders are located or operate in Sedona. State stakeholders are based and operate beyond Sedona, but within Arizona. Regional stakeholders are from neighboring destinations adjacent to Sedona. National stakeholders come from other states or have their operation spread widely across the U.S. International stakeholders were present. Visitors are a diverse geographic segment.

SSTP stakeholders represent a diversity of economic and social sectors: governmental and municipal agencies, Native American tribes, DMOs, nonprofit organizations, academic and research institutions, businesses, attractions, tourism management experts and associations, public sevices, public land management agencies, and media. The community and visitors are important stakeholders. Among the stakeholders nonprofit organizations play active roles.

The network of stakeholders across different geographical areas and sectors helps SSTP address the nature of tourism: tourism destinations are linked with each other, the effect of tourism expands beyond a destination's border, and tourism is a multi-disciplinary industry. Tourism development in one destination can affect others and tourism is formed by different social and economic sectors; tourism planning requires collaborative efforts and resources (Dredge & Jenkins, 2011).

Figure 14: Stakeholders Network in SSTP

Multi-layer allocation of stakeholder resources. With a large network of stakeholders, SSTP applies a multi-layered allocation of resources. The SCC&TB and City of Sedona are the leading executor and sponsor of SSTP. These two agencies are in charge of setting an agenda of actions and budget for activities. The City sets priorities, SCC&TB then drafts its plan to be approved by its own board and presents back to the

City, which approves funding for tourism management and promotion. With its leading role in SSTP, SCC&TB transformed from a marketing organization to a Destination Management Organization (DMO). This transformation corresponds with suggestions in tourism literature for DMOs to be a useful agent of destination governance (Manente & Minghetti, 2006; Volgger & Pechlaner, 2014).

A Sustainable Tourism Advisory Committee (STAC), composed of representatives from the City, SCC&TB, public land management, nonprofits, and residents, oversees the development, implementation, and evaluation of the SSTP. A Sustainable Tourism Action Team (STAT), 22 members representing SSTP implementation partners, guides and monitors implementation of specific tactics. Each tactic has a leading partner to oversee implementation and supporting partners to implement activities.

Chamber and City staff members have SSTP sustainability tactics attached to their jobs. The City has a sustainability coordinator to monitor activities. Multi-layered allocation of stakeholders allows effective implementation and monitoring freeing leaders from being involved in too many technical activities to be focused more on management:

> "We first started out with what we thought was going to be one overarching committee (STAC). Then we realized we were too deep in the weeds with individual tactics, so we created a smaller group of representatives from one of each of the pillars. They're much bigger thinkers and they helped us develop those key performance indicators."

One recommendation from an interviewee at management level is that it is desirable to have full-time staff in charge of overseeing the SSTP rather than having SSTP responsibilities as an extension of the current staff at SCC&TB and the City of Sedona.

Competent leadership. Leadership is a critical factor that helps the effective management of stakeholders' involvement. The top leaders of SSTP, the City of Sedona, and SCC&TB have a paradigm shift mindset, not only recognizing the necessity of a sustainable tourism plan but also seeing the importance of engaging the community. The City as the primary funding source and the SCC&TB as the executor of the plan are willing to allocate financial and human resources for SSTP activities. Their mindset and commitment to sustainable tourism is aligned with the community, advantages to attract and work with stakeholders. They follow and monitor stakeholder involvement closely and play important roles in inspiring change and encouraging stakeholders to overcome limits.

> "I would say, for the most part, we [the City Council] are 100% on board with sustainability, not always 100% on how we get there. As policy makers, we decided we wanted to be a part of the sustainable tourism plan, because one of our major themes in our community plan is sustainability. Sustainable tourism is a way to make tourism more tolerable for the residents, as well as the tourists."

Effective communication. Communication is conducted extensively and regularly among SSTP stakeholders. A variety of city and partner websites are available to publish news, blogs, announcements, and reports. Additionally, websites that focus on certain aspects of SSTP were created for better communication. Other forms of communication include newsletters, social media, meetings, events, presentations, and webinars. Communication is conducted by partners who lead and implement SSTP activities and targeted to residents and visitors. For example, a newsletter was sent out by SCC&TB in 2020 to 144,000 opted-in interested visitors to promote Sedona Cares Pledge campaign.

Adequate funding. Funding is critically important in SSTP. The City allocates funding for the SSTP through two main channels. The first is to the SCC&TB itself based on the Chamber's work plan and a budget request for each fiscal year. The funding is from the city's sales and lodging tax. The Chamber directs this funding to their destination programs and initiatives in the STP. The allocation of funding for SSTP in the fiscal year 2021 was $2.3 million; divided into four pillars of the SSTP (GSTC, 2021). Some of SSTP activities can also be funded directly from the city's sustainability programs. Donations from stakeholders via nonprofits is another financial source.

Evidence-based practice. The SSTP and the planning process were heavily influenced by evidence. Analysis shows the embedding of evidence in SSTP is guided by leaders who recognize the importance of evidence. Evidence is used extensively and purposefully throughout the SSTP; created and used by a wide network of stakeholders; and designed as accessible, transparent, user-friendly, and consistent.

According to interviewees at management and advisory levels, data helped fortify communication among stakeholders, resolve conflicts, and justify decisions. Inputs from various stakeholders is important for leaders to avoid top-down policy making. Key indicators and measurements were useful to get stakeholders involved and invested. Data helped stakeholders keep track of progress within a complicated plan like SSTP with many tactics and activities:

> "It [data] creates a new mechanism to discuss the balance of tourism. Before it was just people saying that they were supportive or not supportive of tourism. Now we have a way to have a more sophisticated conversation. We've captured key indicators that really matter to people like traffic, trash, or our ability to sustain a trail. When we sit down, have a conversation, it's a more nuanced conversation about how and where and why. It's gotten a lot of rich details and context …It's [data] really important!"
>
> "You manage what you measure. As they [stakeholders] start to see data they get more and more invested in those areas because the information will be in front of them. That helps to encourage broader development people. (For example) a chamber (SCC&TB) board member who's just used to being a business owner gets on the water committee and starts to learn more about water issues because we're starting to track it and report it."

Evidence was used extensively throughout the SSTP to develop management policies and activities described in the SSTP. In the implementing and monitoring processes, evidence was used to evaluate stakeholders' capacity and the progress of activities in the SSTP. Our findings show that evidence heavily influenced the management of stakeholders.

Evidence in SSTP is diversified and required a collaborative effort from a wide network of stakeholders. Data were generated from surveys, focus groups, and public visioning sessions by academic institutions, research consultants, and the City of Sedona. Residents, visitors, and local businesses, nonprofits and public land managers participated in research. Reports and self-reports are another type of evidence in SSTP (e.g., SCC&TB's annual report, partners' feedback). Evidence in forms of practical experiences is incorporated into the plan (e.g., other destinations around the world dealing with overtourism) or statistics from different agencies. Data collected from social media and digital devices were utilized. The most extensive used types of evidence in SSTP are indicators and measurement metrics. Indicators by the GSTC to evaluate the destination, indicators in the surveys, and the sustainability indicators by the Sustainability Alliance to certified businesses are examples. Additionally, the SSTP contains rich measurement metrics for its 61 tactics; each tactic is followed by several measurement metrics for short- and long-term (SCC&TB, 2019). Many stakeholders participating in each tactic contribute to fulfill and report metrics completion. The use of a variety of evidence makes the SSTP informed, justified, and manageable. Table 16 presents types of evidence and stakeholders who collected and created evidence.

Table 16. Summary of Evidence in SSTP and Stakeholders' Roles

Types of evidence	Main conductor/collector	Methods	Providers of input
Destination sustainability assessment	GSTC	Onsite evaluation, stakeholders' meetings, review of policies and reports	Multiple stakeholders: policy makers, destination managers, city management and others
Research data by external stakeholders	Research Institutions (e.g., ASU, NAU)	Survey, focus group, public visioning sessions	Businesses, residents and homeowners, visitors, nonprofits, land management agencies, the general public
Research data by internal stakeholders	SSTP partners (e.g., leading partner of each SSTP tactics)	Survey	Multiple stakeholders. Examples: visitors, residents, businesses
Expert knowledge/ experience	SCC&TB, City of Sedona	Networking, contracting	ASU, Nichols Tourism Group, GSTC and others
Social media data	SCC&TB	Reviewing comments on SCC&TB social media and online forums	SCC&TB social media followers, forum members
Reports	Sedona City Council, SCC&TB, Partners of STPP	Periodical reports	SSTP participants
Statistics/Big data	SCC&TB, City of Sedona City, relevant stakeholders	Using third party data (purchasing or free access)	STR data, Air DNA, Key Data, Arizona Office of Tourism, and others
Practical experiences of destinations	SCC&TB, ASU, Nichol Tourism Groups	Media, social media, networking	Destinations around the world (e.g., strategies to solve overtourism, budgeting)
Measurement metrics with indicators	SCC&TB, City of Sedona, Sustainable Tourism Advisory Committee, Sustainable Tourism Action Groups	- Counting manually (e.g., volunteers) - Tracking and counting using digital device (e.g., camera, counters) - Scientific/expert measurement (e.g., water quality) - Qualitative feedbacks	Participants to implement activities of SSTP (e.g., U.S. Forest Service, Arizona Department of Transportation, and SimpleView)

Evidence in SSTP is transparent, accessible, and user-friendly. The City of Sedona and SCC&TB publishes most data and reports on their website. Many meetings and events are open to the public or recorded for public view. For implementation, participating stakeholders share a working Excel file which details the 61 tactics and their key performance indicators. The participants report progress on the same file and can see one another's reports. Those reports are summarized and posted to the public on the SCC&TB's website every three months (SCC&TB, 2022). Evidence is directly or indirectly communicated with stakeholders, including the public. Evidence is presented so that an audience of different educational and social backgrounds can understand.

Consistency is another noticeable feature of evidence that SSTP stakeholders desired. Consistency ensures that data collected by different stakeholders are cross-checked, compared, and synthesized helping maximize utility of various data and avoid redundant data collection. Consistency requires the same measurements are applied over time to record progress. For example, the City of Sedona and SCC&TB conducts annual surveys with residents and business owners to get input on tourism.

Embedding evidence in SSTP resulted in challenges. According to an interviewee, the complexity of evidence, especially measurement metrics for implementation tactics, can be a challenge to stakeholders to follow especially if they are involved in multiple tactics:

> "With so many tactics, it's really hard to know, are you making any progress, you can get lost in the plan right, you can get lost in all of those tactics."

Prioritization and close monitoring are critically important. The variety and consistency of data indicate another challenge: data collection could be done in the community longitudinally or simultaneously, which can be burdensome. Residents' expressed fatigue on the 2017 homeowner survey. Careful design, explanation of data collection purposes, showing results and application of data are needed to maintain participation. Another challenge is complexity of measurement for evaluation and reporting indicators. The level of ease, difficulty, resources, and timeframe to measure indicators varies widely. Some indicators are easier to measure than others. A final challenge is the inconsistent order from indicators/tactics to measurement. Many indicators have measurements when the plan is developed and put into implementation while others do have not. An interviewee suggested measurement go hand in hand with the plan:

> "Ultimately, we'd want to be able to measure, for example, to what degree are we zero carbon and zero waste. We should establish metrics for what are you trying to achieve and then tactics should flow from that. We're kind of circling back and go, okay, we have the plan, but how are we going to measure our progress. Might have been better done the other way around."

Challenges and Crises

Development and implementation of the SSTP encountered challenges and faced crises**.**

Lack of precedent practices. The first challenge was the lack of precedent practices from other destinations since SSTP is the first of its kind. This stimulated leaders to experiment with different stakeholder involvement models and transformations. For example, it was the plan leadership's ideas that there should be steering committees and action groups in the plan. When there is lack of precedent it is important for leaders and participants to spend time and effort to think and workout processes before developing the actual plan.

Change of leadership. Over the period of five years from development to implementation, the SSTP experienced two changes of CEO of the SCC&TB and one change of city manager. Additionally, there were changes in the steering committees. These changes required extra time and effort. According to interviewees, any new leaders must align with the community's and SSTP's missions.

Global, social, and economic crisis. Many local businesses and organizations in Sedona struggled to maintain operations during the COVID-19 pandemic. The health and economic crises made it difficult to keep stakeholders' attention on sustainability issues. The SSTP implementation experienced periods of being suspended or slowed. In early 2022, SSTP activities were resumed. During those difficult times, the leaders of SSTP showed commitment to sustainability. They tried to maintain implementation of SSTP by shifting focus to activities that required fewer resources and included sustainable tourism goals in their recovery plan. In the meantime, the leaders communicated with stakeholders through different communication channels (mostly virtually) about the destinations' protocols related to COVID-19 and assistance programs, reinforce stakeholders' trust in recovery, and keep them informed about the SSTP.

Political environment. The political environment required leaders' ability to deal with different political viewpoints. Events such as elections influenced stakeholders' mindset and involvement. An interviewee commented about the possible increase of local leaders who support sustainability initiatives following 2020 Presidential election. Another interviewee mentioned the difficulty of data collection during a city council election since there were heated debates among the community about tourism.

Disagreement among stakeholders. Stakeholders hold a variety of opinions; therefore, it can be difficult to reach consensus. According to one interviewee, disagreement was part of stakeholder involvement in SSTP. Some topics are controversial. Some stakeholders are more dogmatic than others. Additionally, stakeholders are from different backgrounds, with their own needs and demands, which makes it difficult for them establish common ground. In managing disagreement among stakeholders, interviewees placed importance on leaders' ability to listen to all opinions, identify a middle ground, defend decisions, and be persistent.

Limitations and Future Research

This study has limitations and opens potential research directions for future studies. The implementation of SSTP is on-going and this paper does not capture all activities and challenges that will happen at later stages of the process. The success of the plan cannot yet be fully evaluated, as new evidence may emerge to provide a more holistic understanding. Interviews being conducted during the Coronavirus pandemic in 2020 and 2021 could make it difficult for interviewees to fully evaluate the participation of stakeholders in SSTP due to inactivity of many project activities and a lack of in person gatherings. Additionally, the interviewees were of small number (7) and all at management level or members of the steering committees and perspectives from other stakeholders not at management level or those at the receiving end of SSTP might reveal more details to enrich the MSIM framework. Further studies at other destinations can target those stakeholders to fill in the gap.

Other research opportunities can examine each stage or component of the MSIM framework (e.g., scene setting, evaluation, stakeholders' component). Finally, studies can apply the framework in different destinations to identify contextual factors.

Conclusions

This study provides evidence of the planning process and the practice of implementing a sustainable tourism initiative using sustainable tourism and community principles and multi-stakeholder approaches. From a conceptual perspective, the case enriches the MSIM framework (Waligo, Clarke & Hawkins, 2013) by reorganizing the original stages and components, adding new elements critical for success of a destination sustainable tourism plan, and identifying challenges encountered. Accordingly, an improved framework based on the case of Sedona is recommended (SMSIM) that includes three stages: scene setting, managing stakeholders' involvement, and evaluation. Six successes are: diversity of stakeholders, multi-layer allocation of stakeholder resources, competent leadership, effective communication, adequate funding, and evidence-based planning and monitoring. Five challenges are: lack of precedent practices, change of leadership, global crisis, political influence, and disagreement among stakeholders.

The study provides details on evidence-based sustainable tourism governance, policy and practice, specifically how evidence is used in in a sustainable tourism plan and its importance in success of such plans. The study found a variety of ways evidence was incorporated into the SSTP by multiple stakeholders. The use of evidence in SSTP faced challenges including difficulty in monitoring a variety of evidence, potential fatigue/annoyance for participants to provide data, difficulty in reporting and evaluating indicators measured by different methods, and the struggle of having measurement metrics in place before and/or after implementation. This study is a pioneer in sustainable tourism to examine evidence as a component of a broader framework to manage stakeholders' involvement in tourism planning. It contributes to the literature by creating a more holistic picture of the usefulness, position, and dynamic of evidence in destination planning and development.

SSTP is one of few sustainable tourism plans incorporating recommendations found in the literature. On topics such as destination governance, sustainable tourism planning, and stakeholders' involvement, SSTP demonstrates those features: collaboration of multiple stakeholders in and across destinations and disciplines, the DMO playing an important role in managing stakeholders' collaboration, the commitment by leaders, and the investment of human and financial resources (Dredge & Jenkins, 2011; Manente & Minghetti, 2006; Volgger & Pechlaner, 2014). With respect to evidence-based policy making, SSTP shows support from governments and policy making agencies, utilization of a diversity of evidence (externally and internally), and accessible and transparent knowledge sharing (Boaz et al., 2008; Hall & Jennings 2010;

Head, 2016; Weber & Khademian, 2008).

The attention to stakeholders and utilization of evidence resulted SSTP recognition. In 2019, the plan was honored with Arizona Governor's Award for Outstanding Arizona Cultural and Historic Preservation. Several overtourism issues were addressed for the better. One example is a fly friendly agreement with helicopter tour companies to eliminate flights over the city, reducing noise and disturbance to the community. Another example, to solve traffic congestion, the city of Sedona has developed roundabouts, new off-street parking, and shuttle service that connects its nearest neighbor city where many employees live. Also, around 100 local businesses have been certified as sustainable by Sustainability Alliance. Many other sustainability initiatives (e.g., recycling, affordable housing, dark sky, trailhead shuttles) are progressing (SCC&TB, 2022).

Perhaps part of the reason for the relative success of the sustainable tourism planning process is Sedona is a community with several unusual advantages: high income and education among residents, an engaged citizenry, and a small population making communication and working with stakeholders easier. Tourism is a significant revenue stream for the city and SCC&TB budgets, making funding for sustainability programs possible. Additionally, at the time of SSTP development, the tourism industry in Sedona was at a critical stage when negative impacts of tourism started to anger residents and threaten the destination's future. Sustainable tourism planning became an optimum choice and highly supported by Sedona leaders and the community; evidence of readiness and commitment to change.

Overall, the case of SSTP is evidence for tourism scholarship. Sedona is one of few destinations in the world to utilize data and evidence extensively in development of a holistic sustainable tourism plan involving a large network of stakeholders. The plan and the continuing processes of implementation are addressing the democratization of policymaking, as advocated by Farsari (2021), by empowering stakeholders as co-creators of tourism policy and planning (Hall, 2011; Nunkoo, 2017). One challenge the destination faces is the lack of precedent practices by other destinations that developed a similar plan. As one of the pioneers, SSTP is a practical example other destinations can learn from. The SMSIM framework can be used by other destinations as a general guideline and checklist for destination governance.

CHAPTER 5

CONCLUSIONS

Rationale and Dissertation Structure

Tourism is one of the worlds' largest industries. The economic benefits (e.g., revenue, employment) from tourism are enormous. Other advantages of tourism include increasing awareness and mutual understanding among people/cultures, helping to preserve natural and cultural resources, enriching life experiences, and promote peace around the world. However, tourism comes with a negative side if not controlled properly. Many environmental, economic, cultural, and social issues may emerge (e.g., crime, increased prices of goods and services, damaged heritage and tradition). The concerns about negative impacts of tourism become more serious in overtourism contexts that have been spreading across destinations in the recent decades. Overtourism is associated with the exponential growth in number of visitors as well as tourism infrastructures and services that put pressure on a destination's capacity (e.g., transportation system, accommodation, and restaurants). More than ever, destinations need to consider the question "How much is too much?" for tourism development. Host communities around the world have questioned if the growth of tourism is worth its damaging consequences. International tourism organizations (e.g., the World Travel and Tourism Council (WTTC), the Global Sustainable Tourism Council (GSTC), governments, institutions, and related stakeholders recognized the necessity for actions to prevent or minimize impacts of overtourism. Yet, the knowledge about overtourism is still limited considering that it is a new phenomenon that emerged around the 2010s.

Expanding knowledge about the issue is important to facilitate decision making in action plans. For that reason, academic and research institutions as well as scholars play a significant role in solving overtourism.

The author of this dissertation become aware of the overtourism issue while working as Graduate Research Assistant with a team from Arizona State University, in the Sedona Sustainable Tourism Plan project (SCC&TB, 2019) during 2017 to 2018. She chose overtourism as the leading topic of this doctoral dissertation with the hope that her research can lead to a better understanding of overtourism scientifically for proper destination management.

The dissertation includes three separate studies to: provide a background understanding of the overtourism phenomenon from different angles (e.g., definitions, causes, impacts, solutions); to understand how overtourism impacts residents' satisfaction with quality of life (QOL) and support for tourism development; and to examine the management of stakeholders' involvement in an evidence-based sustainable tourism plan that tackles overtourism. Table 17 provides the main points of each study.

Table 17: Summary of the Dissertation

Title/Overall topic	Overtourism: A review of the phenomenon and examinations of stakeholder perspectives and involvement		
Article/Sub-topics	Article 1 Overtourism: A review of the phenomenon	Article 2 Residents' attitudes about quality of life (QOL) and support for tourism development in the context of overtourism	Article 3 Sustainable tourism planning (STP) in the overtourism context and stakeholder involvement
Research purposes	- Summarize and synthesize academic literature discussing important aspects of overtourism: definitions, causes, impacts, measurements, solutions, failures and challenges in solving overtourism, related theoretical frameworks	- Test the relationship between residents' satisfaction with QOL and their support for tourism development - Test if crowding contributes to residents' satisfaction with QOL - Examine residents' opinions about crowding and tourism development	- Examine the management of stakeholder involvement in a STP - Examine the development and utilization of evidence in a STP
Theoretical/ conceptual frameworks	Overtourism	Residents' QOL, support for tourism development, crowding, stress coping framework, place attachment	Multi-stakeholder Involvement Management framework (MSIM) of Waligo, Clarke & Hawkins, 2013
Research site	N/A	Sedona, Arizona	Sedona, Arizona

Title/Overall topic	Overtourism: A review of the phenomenon and examinations of stakeholder perspectives and involvement		
Methodology	- Literature review - Conceptual paper	- Survey: March to July 2018 - Concurrent triangulation approach (quantitative and qualitative data were collected concurrently) - Quantitative data analysis (365 responses): structural equation modeling (SEM) - Qualitative data analysis (85 responses): deductive and inductive coding	- Case study - Document analysis of Sedona STP (e.g., news, videos, reports, contracts) - In-depth interviews with key informants (7 interviews) in 2020 - 2021
Findings	Overtourism is a complicated issue: - Multiple definitions and interpretations - Multiple causes (e.g., within vs. out of tourism, within vs. out of destination boundary) - Severe impacts on the environment, culture, and society - Multiple indicators and measurements (e.g., density, intensity) - Multiple solutions (e.g., reactive vs. proactive, site-destination-region-national-international level, short-medium-long term)	In a rural overtourism destination: - Residents were concerned and stressed about many issues resulting from the crowds of tourists (e.g., traffic jams, loss of community identity, lack of affordable housing) - Residents' coping strategies with overtourism are varied (e.g., confrontation, avoidance). - Residents' experience with crowding directly contributed to forming their satisfaction with QOL which in turn influenced their level of support for tourism development.	In the Sedona sustainable tourism plan that addressed overtourism: - The plan involved a variety of stakeholders - The management of stakeholder involvement involved multiple stages and components (e.g., scene setting, recognizing stakeholders' capacity). - Six factors contributing to success of managing stakeholder involvement (e.g., diversity of stakeholders, effective communication) and 5 challenges (e.g., lack of

Title/Overall topic	Overtourism: A review of the phenomenon and examinations of stakeholder perspectives and involvement		
	- Solutions can be ineffective (e.g., solutions cause more problems, solutions are not welcomed by tourists/residents) - Multiple challenges in solving overtourism (e.g., extensive stakeholders network, issues are out of tourism or destinations' control) - Multiple related theories and concepts (e.g., crowding, tourism carrying capacity, limits of acceptable change, Tourism Area Life Cycle) Based on the findings, an "eco-system" of overtourism model is generated.	Specifically, crowding negatively affected those two domains. - Residents' satisfaction with QOL has a positive although weak relationship with their support for tourism development - Residents' perspectives about overtourism and QOL is contextual	precedent practices, change of leadership) were identified - Stakeholders played an important role in developing and applying evidence (e.g., big data, measurements, stakeholders' opinions) into the sustainable tourism plan. Based on the findings, the MSIM framework of Waligo, Clarke & Hawkins (2013) is modified and expanded.

Overview of Findings

The studies contribute to build more knowledge about overtourism at macro and micro levels. It synthesizes information based on literature (e.g., Butler & Dodds, 2022; Capocchi et al., 2019; Dodds & Butler, 2019; Goodwin, 2017; Koens, Postma & Papp, 2018; Milano, Novelli, & Cheer, 2019; Peeters et al., 2018) to present a more holistic and cohesive overview of overtourism as well as to highlight its most important aspects (e.g., impacts, solutions). According to the findings, overtourism is a complicated issue for many reasons:

1) There are many variations in definitions and interpretations of overtourism;
2) It has multiple causes from inside and outside of the tourism industry as well as within and outside of destinations;
3) Overtourism extensively and negatively impacts the environment, economy, culture, and society of destinations;
4) Assessment of overtourism requires multiple types of indicators and measurements: tourism growth, density, intensity, media sensation, destination features, stakeholders' perceptions;
5) There are many solutions for the phenomenon which can be applied reactively or preventatively at different geographical levels (site, destination, regional, national, and international level) to achieve durable goals (short, medium, long-term);
6) Solutions sometimes can be ineffective (e.g., solutions are not welcomed by tourists/residents, solutions cause more problems). Solving overtourism can be

challenging due to several reasons (e.g., the complexity and extensive network of stakeholders, the difficulty to separate facilities for residents and tourists, many causes of tourism are out of tourism industry's control); and

7) Several theories and concepts in literature are relevant to overtourism and can be helpful for researchers and destination management to consider. They are crowding, tourism carrying capacity, limits of acceptable change, Tourism Area Life Cycle, Doxey's Irridex, residents' quality of life, residents' support for tourism development, stakeholder theory, mass tourism, sustainable tourism, and touristification.

Besides presenting an overview of overtourism, the dissertation examines its subtopics related to stakeholders' perspectives and involvement in tourism planning. One of the studies done in Sedona, applying concurrent triangulation approach, found that:

1) Residents in an overcrowded rural destination were concerned about many issues resulting from the crowds of tourists (e.g., traffic jams, loss of community identity, lack of affordable housing) and felt stressed over it;
2) Residents developed seven different ways to cope with the crowding situation: planful problem-solving, confronting the local authority and tourism offices, avoiding the crowded areas, moving out of the destination, wishing for a better situation, willing to compromise some benefits to reduce the crowding (e.g., paying more tax), and accepting the reality that they are living in a popular destination.

3) Residents' experience with crowding directly contributed to forming their satisfaction with QOL which in turn influenced their level of support for tourism development. Specifically, crowding negatively affected those two domains in an overtourism context; and
4) Residents' perspectives about overtourism and their QOL was contextual. Depending on community and destination features, the priority of factors that contribute to residents' satisfaction with QOL (i.e., economic, environmental factors) can vary.
5) Residents' attachment to the destination (e.g., love for the natural beauty, friendship, sense of community) could influence their support for tourism, specifically, be a reason for them to further object to new development in an overtourism context.

In terms of stakeholder involvement, one study in the dissertation applying a case study approach examined a sustainable tourism planning process with the goal of addressing overtourism in Sedona, USA found that:

1) The sustainable tourism plan to tackle overtourism needed to involve a variety of stakeholders coming from different backgrounds (e.g., local and outsiders, within and outside of the tourism industry);
2) The management of stakeholder involvement followed a framework of 3 stages (scene setting, management of stakeholder involvement, and evaluation) and 7 components (scene setting, recognition of stakeholder involvement capacity, stakeholder relationship management, pursuit of

achievable goals, influencing implementation capacity, monitoring stakeholder involvement, and evaluation);

3) There were six factors contributing to success of managing stakeholder involvement (diversity of stakeholders, multi-layer allocation of resources, competent leadership, effective communication, adequate funding, evidence-based planning and monitoring) and five challenges (lack of precedent practices, change of leadership, global/social/economic crisis, political environment, disagreement among stakeholders); and
4) Stakeholders played an important role in developing and applying evidence (e.g., big data, measurements, stakeholders' opinions) into the sustainable tourism plan.

Academic Contribution

With the findings generated, the dissertation enriches several theoretical and conceptual frameworks in literature: crowding, residents' satisfaction with QOL, residents' support for tourism development, stress coping framework, place attachment, and management of multi-stakeholder involvement in tourism. It examined those theoretical frameworks in an overtourism context to expand their validity and usefulness. Findings advanced those from previous studies using the same theoretical frameworks (Andereck & Nyaupane, 2011; Andereck & Vogt, 2000; Folkman et al., 1986; Jordan, Vogt & DeShon, 2015; Liang & Hui, 2016; Ramkissoon, 2023; Waligo, Clarke & Hawkins, 2013; Woo et al., 2015) in several ways:

1) *Crowding theory and indicators of residents' QOL:* The dissertation found evidence of the impacts of crowding on residents' QOL and how several relevant related theories (expectancy, social interference, and stimulus overload) could explain residents' perceptions about crowding conditions in overtourism destinations. Crowding indicators come together as an independent construct to contribute to residents' satisfaction with QOL and hence extending the measurements of QOL indicators. The dissertation pointed out that the importance of indicators of residents' satisfaction with QOL (e.g., economic, environmental, social) can vary depending on community and destination features. Economic factors such as income or employment from tourism are not always priorities for the host communities, for example in a retirement community like Sedona, Arizona;
2) *The relationship between residents' satisfaction with QOL and their level of support for tourism development:* The dissertation confirmed a positive relationship between residents' satisfaction with QOL and their level of support for tourism development. That relationship in an overtourism context is stronger than in a normal tourism context. However, with the low coefficients between the satisfaction with QOL and support for tourism development constructs found in this study and a previous study (Woo et al., 2015), the conclusion is that the relationship is somewhat weak. Even though the positive relationship between the two constructs has been mentioned in literature, this study seems to be the first that points to a possible weak tie;

3) *Stress coping framework:* This dissertation captures a broad range of residents' coping reactions toward crowding. Five coping themes are in line with those of previous studies (Folkman et al., 1986; Jordan, Vogt & DeShon, 2015) including: planful problem-solving, confrontative coping, escape or avoidance, and wishful thinking. Willing to compromise some benefits and accepting the reality are two themes that newly emerged in this dissertation. These findings prompt future research to expand the framework to include the new themes;

4) *The relationship between residents' place attachment and their support for tourism development:* The dissertation found some empirical evidence to support Ramkissoon's proposal (2023) that place attachment could influence residents' support for tourism development. This opens a possibility for future research to test that relationship; and

5) *The Multi-stakeholder Involvement Management framework in tourism*: The dissertation modified and extended the framework developed by Waligo, Clarke and Hawkins (2013). The revised framework is more comprehensive and less linear in comparison to the original. It includes three stages (scene setting, management, and evaluation) and seven components (e.g., scene setting, recognition of stakeholders' capacity, monitoring). The components are mostly implemented simultaneously and mutually influence each other.

In addition to advancing these theoretical frameworks by examining them in an overtourism context, the dissertation contributes to enrich overtourism literature in some other ways with these results and approaches:

1) It generates an “eco-system” of overtourism model which seems to be the first of its kind that can be a reference source for practitioners and researchers;
2) Study 2 of the dissertation applied a concurrent triangulation approach using both quantitative and qualitative data to examine stakeholders’ perspectives. Most studies in literature before this study employed either a quantitative or a qualitative approach but rarely both. This study generates more in-depth explanations of overtourism issues since it addresses the “what”, “how” and “why” of overtourism issues;
3) Study 3 of the dissertation examined stakeholders involvement in a sustainable tourism plan to solve overtourism. The study found an extensive cooperation of evidence in the plan. It described different types of data (e.g., research data, indicator and measurement, public input) as well as how stakeholders gathered and used evidence in the plan. The study is a necessary addition to the evidence-based tourism planning literature which is underdeveloped and mostly focus on examining a specific type of evidence (e.g., sustainability indicators); and
4) Studies 2 and 3 enrich the geography of overtourism studies by selecting Sedona as the research site. They address a shortage of studies about overtourism in small, rural destinations as well as in outdoor and public land

settings. They also address a shortage of overtourism studies in American destinations.

Practical Contribution

With respect to tourism practice, the dissertation is helpful for tourism practitioners, especially destination managers, to manage and solve overtourism. It provides necessary knowledge about overtourism, helping to increase awareness about the extensivity and complexity of the phenomenon among tourism practitioners. The dissertation generated specific implications for practice by:

1) Suggesting and summarizing the most critical aspects of overtourism that should be considered in solving overtourism (e.g., impacts, causes);
2) Emphasizing the necessity for management to investigate and understand residents' perspectives (e.g., opinions about crowding conditions, level of satisfaction with QOL under impacts of overtourism, and support for tourism development;
3) Highlighting the importance of addressing crowding conditions as a prioritized overtourism solution; and
4) Accentuating the role of an evidence-based sustainable tourism plan in tackling overtourism and how such plan should involve and manage a large network of stakeholders.

Limitations and Future Research

The dissertation contains some limitations. Residents were asked about their satisfaction with crowding conditions in different areas of the destination as crowding indicators; hence it might miss a more robust measurement that address different dimensions of crowding (e.g., visual, feelings). The participants for data collection in this dissertation were local residents and key informants of the Sedona sustainable tourism plan who are mostly at a management level. This leads to another weakness: not including some other important stakeholders in overtourism (e.g., visitors, media, tourism workers). Moreover, while examining residents' opinions about overtourism using their qualitative comments, the dissertation utilized their voluntary responses to open-ended questions in the survey; a practice that did not capture the perspectives of the non-respondents who might have a more positive view about crowding conditions and be more supportive of tourism. Future studies could address those limitations in this dissertation.

Additionally, tourism constantly changes and so do overtourism issues; the findings from this study are relevant as this point in time. It is important to look for new updates in research and literature in addition to using findings from this dissertation. Finally, since overtourism is contextual, it should be noted that the findings of this dissertation cannot represent all destinations' contexts. Researchers and practitioners need to pay attention to destinations' circumstance to identify distinguishing factors that have not been mentioned in the dissertation or in the general literature. Suggestions for destinations that could be potential research sites following their unique features include:

destinations where overtourism occurs for only a short period of time in a year (e.g., Mount Everest experiencing overtourism between April to May), remote destinations where there are few or almost no permanent residents or host community (e.g., Antarctica, some parts of Galapagos Islands), and destinations with central governments known for not encouraging mass tourism as well as tourism growth based on an increased number of visitors (e.g., Bhutan).

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APPENDIX A.

SELECT MEASURES FROM SURVEY QUESTIONNAIRE (CHAPTER 3)

Question about Quality of Life

Below is a list of factors that may contribute to the quality of life in your community. Rate how satisfied you are with each factor in the right column. (*Circle one number in each column*)

Quality of Life Factors in your Community	Your satisfaction level				
	satisfied	*Not at all Extremely*			*satisfied*
Tourist spending	1	2	3	4	5
High standard of living	1	2	3	4	5
Fair prices of goods & services	1	2	3	4	5
Adequate tax revenues to support City services	1	2	3	4	5
Reasonable real estate costs	1	2	3	4	5
Diverse economy	1	2	3	4	5
Cultural activities for residents	1	2	3	4	5
Crowding of trails	1	2	3	4	5
Crowding of roads	1	2	3	4	5
Crowding in Uptown	1	2	3	4	5
Crowding in other areas of Sedona	1	2	3	4	5
Clean air and water	1	2	3	4	5
Conservation of natural areas	1	2	3	4	5
Attractiveness/cleanliness	1	2	3	4	5
Safety/lack of crime	1	2	3	4	5
Limited litter & vandalism	1	2	3	4	5
Public safety (police, fire, etc.)	1	2	3	4	5
Community identity	1	2	3	4	5
Authentic culture	1	2	3	4	5
Diversity and quality of employment	1	2	3	4	5
Quality recreation opportunities	1	2	3	4	5
Preservation of cultural/historic sites	1	2	3	4	5
Peace and quiet	1	2	3	4	5

Question about Support for Tourism Development

The following are types of experiences or services in or near Sedona. To what extent do you feel these tourism experiences or services are not acceptable or acceptable for expanded interest and demand? (*Circle one response for each item*)

Expanded interest & demand for:	Not acceptable		Moderately acceptable		Very acceptable
Hotels/Motels	1	2	3	4	5
Bed and Breakfasts/ Inns	1	2	3	4	5
Resorts	1	2	3	4	5
Airbnb	1	2	3	4	5
Spiritual/metaphysical activities and facilities	1	2	3	4	5
Public transportation	1	2	3	4	5
Retail stores/Shopping	1	2	3	4	5
Festivals/Events	1	2	3	4	5
Wineries/Craft brewers	1	2	3	4	5
State/National Parks & Heritage Sites	1	2	3	4	5
Outdoor recreation opportunities	1	2	3	4	5
Museums/Galleries	1	2	3	4	5
Tour services	1	2	3	4	5
Entertainment (movie theaters, music, etc.)	1	2	3	4	5
Trails-nonmotorized	1	2	3	4	5
Trails-motorized	1	2	3	4	5
Scenic drives	1	2	3	4	5
Archeological sites (such as Native American ruins)	1	2	3	4	5

Demographic questions

1. How many years have you lived in Sedona? ______ years

2. Are you a part-time or full-time resident? ☐ Part-time ☐ Full-time

3. What is your age? _________ years old 4. Are you?: ☐ Female ☐ Male

5. Please indicate the highest level of education you have obtained. *(Please check one)*
☐ Less than high school ☐ Some college ☐ College degree
☐ High school graduate ☐ Technical school degree ☐ Advanced degree

6. Which statement best describes your total 2017 annual household income from all sources and before taxes? (Please check one)

☐ Less than $25,000 ☐ $50,000 - $99,999 ☐ $150,000 or more
☐ $25,000 - $49,999 ☐ $100,000 - $149,999 ☐ Not willing to provide

Open-ended question

If you have any comments, please share them here (writing on the survey) or include a separate sheet of paper.

APPENDIX B.

INTERVIEW PROTOCOL (CHAPTER 4)

Interview Protocol

Date: Interview mode: via Zoom
Interviewer: Kim Pham
Institution: School of Community Resources and Development, ASU

I. Introduction/ Recruitment script

I am Kim Pham, doctoral student under the direction of Professors Christine Vogt and Kathleen Andereck at School of Community Resources and Development, Arizona State University. I am conducting a research study to examine stakeholder involvement in developing, implementing and monitoring sustainable tourism plan with a focus to diagnose overtourism and develop solutions in Sedona, USA. The study is in partial fulfillment of the requirements for my Ph.D. program.
I am recruiting participant of 18 years old and older for in-depth interviews. Your participation in this study is voluntary. If at any time you need to stop or take a break, please let me know. You may also withdraw your participation at any time without consequence. The interview will take approximately 45 minutes.
I would like your permission to record this interview *(video recording via Zoom),* so I may accurately document the information you convey. Recordings are used internally by the researchers only. All of your responses are confidential. Transcripts will be stored in a locked cabinet at ASU. Digital data will be stored within ASU's secure ASURITE network. Transcript and digital copies of the interviews will be stored for 1 year and then destroyed or erased.
Do you wish to participate?
(If the people agree to participate): Thank you very much for your participation. Do you have any questions or concerns before we begin? Then with your permission we will begin the interview.

II. Main part

The interviews are semi-structure. The selection of questions for each interviewee is based on the interviewee' role in the Sedona Sustainable Tourism Plan (SSTP). Below is the list of questions:

1. **Questions to warm up and build rapport with the interviewee:**

- How are you doing during the pandemic? *(The interviews were conducted during the Coronavirus pandemic)*
- *If the interviewee lives in Sedona:* Do you enjoy living in Sedona? How long have you been living in Sedona? How has Sedona changed through the years you have been here?
- And/Or other questions based on the interviewee's background.

2. **Questions about the general SSTP plan**

- How do you think and feel about the SSTP? What makes you most proud of the plan?
- How has the sustainable tourism plan benefited Sedona so far? Or how important is the SSTP to Sedona?
- What do you think is unique or successful in SSTP that other destinations can learn from?
- What are the funding sources for the development and implementation of the SSTP?

3. **Questions about the interviewee's/ their organization's roles and activities in the SSTP:**

- Do you participate in the SSTP as the only representative of your organization or with a team?
- Could you please describe your role and activities as a [the interviewee's position] and/or of your organization in the Sustainable Tourism Plan? (*Alternative question:* What are you doing as a [the interviewee's position] of the SSTP on daily, weekly or monthly basis?)
- Did you volunteer to participate or were you assigned to participate in the SSTP?
- How was the SSTP idea first introduced to you? By whom? What were your thoughts or reactions at that time? Do you have any doubts or concerns, please explain? How were those doubts/concerns addressed?
- What are the motivations/reasons for you/your organization to participate in the SSTP?
- How was the decision to participate in SSTP made in your organization?
- What are the benefits for you/your organization to participate in SSTP?
- Is there any challenge for you/ your organization when participating in the project? What are they?
- How important do you think your role as a [the interviewee's position] is to the project?
- What are the changes or activities that have been applied at [the interviewee's organization) as a part of the SSTP? What are some achievements and progress so far?

4. **Questions about stakeholder involvement in SSTP:**

In this study, stakeholders in tourism are defined as any entity that is in some way involved, interested in, is influenced by, or that may influence either positively or negatively tourism activities. Examples of stakeholders are tourists, local community, businesses, tourism offices, government, educational and research institutions, non-profit and special interest groups, etc. I would like to ask:

- What do you think about the stakeholders' involvement in the SSTP so far? How important? And how is their level of participation (passive, average, fairly active, very active)?
- How is the communication among partners of the SSPT conducted?
- What is the mechanism to monitor the participation and performance of stakeholders in each tactic in the SSTP? To what extent does the project leading partners oversee and interfere in the implementation of each tactic?
- What do you think about the way the Tourism Advisory Committee has been operating? In what ways is it working very well and in what ways is it working not very well? Or what do you like or dislike about its operation?
- What do you think about the leadership of the Sedona Chamber of Commerce & Tourism Bureau and the City of Sedona in terms of involving and managing stakeholders?
- What kinds of support from the City, the Sedona Chamber of Commerce & Tourism Bureau would have been helpful for you to better your participation?
- How do public or the Sedona local residents and visitors participate in the Sedona Sustainable Tourism Plan (beside doing surveys and taking part in the Public Vision Session)?
- In this project, there was a consultancy cooperation between the Center for Sustainable Tourism at ASU, an academic unit and a consulting company. What do you think about that cooperation?
- Was there any interaction or support from the state government during the whole process of the SSTP? What kind of support is needed from the state government?
- What are the strategies to encourage stakeholders involvement in the SSTP?
- Do you observe or experience a fluctuation in participation/performance level of stakeholders? Please explain. And how did the project leaders react to those fluctuations?
- Are there any other stakeholders that you think could play a better role in the process? Are there any stakeholders that haven't been involved but you think they should have? Please explain.
- Which stakeholders do you think are most important in the SSTP? Please explain.
- Which stakeholders do you think are most difficult or easiest to work with in the SSTP? Please explain
- What are some challenges for you/ your organization when participating in/supporting the SSTP project?
- What do you like and dislike most about the project in terms of stakeholders involvement?
- How do you think the new leadership *(the changing of the CEO position at the Sedona Chamber of Commerce & Tourism Bureau)* will influence the implementation of the plan?
- How has the coronavirus pandemic affected stakeholders involvement in the SSTP? What has been done to maintain stakeholders involvement during this crisis time?

- Since the SSTP plan was implemented, have you maintained contact with the project management, and have you been updated on the progress of the project in any way? Please explain.

5. **Questions about the Multi-Stakeholder Involvement Management framework (MSIM) in SSTP:**

A group of researchers (Waligo, Clarke and Hawkins) from Oxford Brookes University examined the sustainable tourism development plan in Cornwall, England and introduced one of the most holistic frameworks to guide stakeholders' involvement in sustainable tourism. It is called the Multi-stakeholders Involvement Management framework (hereby referred to as MSIM). The framework outlines a process of 6 stages to attract, integrate, and managing the stakeholders' involvement. Perhaps you already looked at the six stages in the document I sent you *(an explanation about the framework was sent via email to the interviewee beforehand),* would you like me to explain the framework again or can we go ahead with the questions?
(If the person agrees to participate): I would like to ask:

- Do you have any thoughts or comments about the MSIM framework?
- How do you think the Sedona Plan fits the MSIM framework in term of stakeholders involvement? (yes, no, not sure). Please explain.
- What are the activities that are applied in the SSTP correspondent to each stage of the MSIM framework? (*Alternative question:* What activities do you perform at each step of the MSIM framework?)
- Are there activities or stages that the SSTP includes but are not reflected in this MSIM framework? Please explain. (*Alternative question:* Do you see any difference in the experience of Sedona in comparison to the framework?)
- About your position in the project, how do you see your role fitting into the framework?
- The MSIM framework emphasizes the importance of communication among stakeholders. Beside websites or Facebook, what are the channels that have been used for communication among stakeholders in the SSTP?
- The MISM framework mentions identifying stakeholders' situation/circumstances (for example, their finances or human resources capacity) in order to support their involvement, could you please describe how it has been done in the SSTP? Could you please give examples?
- The MSIM framework also emphasis handholding and training to build capacity for stakeholders, what are the training/handholding programs that have been applied in SSTP?
- Multi-stakeholder involvement in sustainable tourism is complex and influenced by a multitude of factors among which seven were identified in the study of Waligo, Clarke and Hawkins in 2013. They are leadership qualities, information quality and accessibility, stakeholder mindsets, stakeholder involvement capacity,

stakeholder relationships, contextual circumstances and ST implementation priorities. How do you see these factors play out in the SSTP?
- What are the challenges that you (and/or your team) have encountered at each step of the MSIM framework? How are the challenges addressed?

6. Questions about suggestions for improvements

- It has been about two years since the SSTP was put into implementation *(up to the time of interview),* what thoughts or ideas do you have today about what could have been improved in designing and implementing the plan, or managing stakeholder involvement?
- If another city or destination wants to follow Sedona to do something like the SSTP, what is your advice for them?

III. Conclusion

- Before we conclude this interview, is there anything else you would like to share or comment?
- Thank you very much for your participation. Your time is very much appreciated, and your responses have been very helpful.

IV. Follow up

- Fill in notes
- Summary of key data
- Checking if the audiotape works and checking the recording's clarity
- Writing down observations/reflections about the interview
    - Verify information given in the interview if necessary

APPENDIX C.

IRB APPROVAL LETTER

EXEMPTION GRANTED

Christine Vogt
WATTS: Community Resources and Development, School of
-
CHRISTINE.VOGT@asu.edu

Dear Christine Vogt:

On 9/9/2020 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	Developing and implementing a sustainable tourism plan - The case study of Sedona
Investigator:	Christine Vogt
IRB ID:	STUDY00012466
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• Consent form.pdf, Category: Consent Form; • Interview protocol .pdf, Category: Recruitment materials/advertisements /verbal scripts/phone scripts; • IRB Protocol.docx, Category: IRB Protocol; • Recruiment script.pdf, Category: Recruitment Materials;

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2) Tests, surveys, interviews, or observation on 9/9/2020.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

If any changes are made to the study, the IRB must be notified at research.integrity@asu.edu to determine if additional reviews/approvals are required. Changes may include but not limited to revisions to data collection, survey and/or interview questions, and vulnerable populations, etc.

Sincerely,

IRB Administrator

cc: Dung Thi Kim Pham
Dung Thi Kim Pham
Christine Vogt