



**Assessing the impact of overtourism on tourism destinations' sustainability. A case study of
Thamel- Kathmandu.**

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Abstract

This dissertation investigates the impact of over-tourism on tourism destinations' sustainability, Using the Thamel—Kathmandu region as a case study. A quantitative research method was adopted for this dissertation based on the positivist research philosophy and deductive research approach. This dissertation has adopted the “Carrying Capacity” and “Doxey irritation index” as a base for its theoretical foundation, through which six hypotheses were postulated. An online survey questionnaire was applied in which snowball sampling was used to draw local Thamel people as a survey participant for this study. A total of 152 responses were collected. A multivariate regression analysis was adopted to assess the impact of over-tourism on six key factors: “environmental strain, socio-cultural strain, economic strain, infrastructural strain, housing affordability, and sense of estrangement.”

The findings demonstrate that over-tourism in the Thamel region has a significant adverse impact on all these six categories. However, the impact on housing affordability ($B=0.766$ & $P.value <.001$) and sense of estrangement ($B=0.774$ & $P.value <.001$) were found to be more significant and adverse. In the context of barriers to overcoming over-tourism in the Thamel region, it was found that unsystematic enforcement of tourism-related plans was the significant barrier, followed by overdependence on tourism revenue. Meanwhile, encouraging locals and tourists to adopt sustainable tourism practices in the Thamel region was a solution to overcome over-tourism in the Thamel region.

1. Introduction

This introduction chapter will provide a brief introduction to over-tourism and its adverse impact on the host destination's sustainability will be provided. This chapter will focus on the origin of over-tourism, its recent consequences, and the significance of researching this dissertation topic will be highlighted. This dissertation is focused on "Assessing the impact of over-tourism on tourism destinations' sustainability, using the Thamel area of Nepal as a case study"; therefore, this chapter will provide in-depth information about the Thamel region and its recent situation due to over-tourism. Lastly, this chapter will provide its research aim and goals along with the significance of the study.

The notion of over-tourism refers to tourism's related detrimental impact on local inhabitants' quality of life and tourist experiences in a host region (Santos-Rojo et al., 2023). When creating it in Nepal, the widespread issue of an overflow of tourists, most notably in the densely packed region of Kathmandu, "i.e., Thamel," indicates a need for research to address this over-tourism problem. The Thamel region has become an over-tourism hub due to the rapid number of international tourists and the increasing congestion caused by domestic tourists in this region, making it even more unbearable (Phuyal, 2020). Therefore, the impact of overtourism on the Thamel region's socio-cultural settings, economic, environmental, and other living standards, such as infrastructural strain and housing affordability, need to be assessed. The conceptualization of over-tourism is considered a relatively novel topic in the scientific research world (Santos-Rojo et al., 2023). More importantly, any debate on over-tourism

becomes worthless unless it considers sustainability factors (Santos-Rojo et al., 2023). When the entire cost surpasses the perceived benefits, tourism development in any destination becomes unsustainable and urges some measures to combat it (Santos-Rojo et al., 2023). Meanwhile, Mihalic (2020) contends that though overtourism has been a buzzword in recent times, especially in urban cities, its origins have been broadly conferred in travel and tourism literature since the 1960s. Over the span of 60 years before recent times academia, the sociopolitical alarm on the extensive growth of travel and tourism and its detrimental impact on natural assets and socio-environmental aftermaths had tempted academic arguments on travel and tourism impacts (Mahilic, 2020).

During the mid-1980s, Brundtland's tale of "Our Common Future" accelerated the debate on socio-environmental sustainability to the vanguard of socio-political agendas (Mahilic, 2020). Tourism-related scholars and rules and policy makers acted in tandem by spreading the notion of sustainable tourism (Mahilic, 2020). Sustainable tourism has now become a mainstream travel and tourism model that principally emerged to counterbalance economic, social, environmental, and cultural integrity and sustainability (Mahilic, 2020). These three aspects are the sole ones that govern sustainability and are fused in tourism destination plans (Dodds & Butler, 2019). In actuality, destinations continued to motivate economic perks and actively indulged in a capitalistic socio-political scheme (Mihalic, 2020). According to Sharpley (2020), tourism in the past has been sluggish in adopting sustainable strategies, resulting in a gap between its actual application and theoretic-based sustainability. The emerging gap between its actual application and theoretic-based sustainability is due to ineffective actions and plans from destination management organizations and policymakers, which has caused the excess flow of tourists to make the host region highly intolerant (Sharpley, 2020). The excess flow of tourists as 'overtourism' has caused a rapid increase in tourist and tourism-related demand and supply, exploitation of natural assets in host regions, damper its cultural settings, and adverse socio-

economic situations (Mihalic, 2020). These actions have led to over-tourism and have made tourism reckless, instigating a change toward prioritizing the notion of responsible tourism and travel (Mihalic, 2020). However, overtourism still persists in several locations, which is probably one of the major compelling reasons to date for the challenge of achieving a sustainable and responsible tourism approach (Mihalic, 2020). Particularly, after 2017, the world has seen numerous media headlines on the increase of tourism-related issues in the forms of “over-tourism,” “antitourism,” and “tourism phobia,” particularly from various tourism destinations worldwide (Mihalic, 2020).

Overtourism emerged because of the confluence of numerous conditions, culminating in a rapid increase in visitors to tourist destinations (Butler & Dodds, 2019). While some of the over-tourism factors have been under supervision for some period, the problem faced by destinations has surpassed its bearing point, and it is now no longer limited to metropolitan areas only (Butler & Dodds, 2019). Over several years, tourist destinations have gotten wider recognition and have been perceived as appealing to travelers who want to experience (Butler & Dodds, 2019). In response, the travel and tourism industry has made it more feasible for travelers to experience such destinations; however, the industry fails to adherently manage tourist size, leading to unsustainable travel destinations (Butler & Dodds, 2019). In the contemporary period, numerous reasons have worked to bring the number of tourists to over a billion each year (UNWTO, 2018). Firstly, the global population is expanding, leading to an upsurge in visitors. This trend has intensified many factors that have simplified the process of referring as a tourist. According to the UNWTO (2018) report, out of 1.4 billion international tourists who visited travel destinations in 2018, nearly 50% accounted for city breaks. Over 80% of the fastest-growing visitors are anticipated in Asia and Middle-Eastern Asian countries, such as Istanbul, New Delhi, Manila, Shanghai, Moscow, Manila, etc. (UNWTO, 2018). In 2018, Thailand became the most visited country, with over 22 million tourists, and it has easily

crossed several countries' population sizes (UNWTO, 2018). Secondly, the rise in affordable flights and accommodation has made traveling more accessible and more convenient, increasing tourist flow, especially in metropolitan areas (Żemła, 2020). From that perspective, the capital region of Nepal, especially the Thamel region of Kathmandu, has sense signs of over-tourism in recent times (Phuyal, 2020). Therefore, the impact of over-tourism on Thamel areas' socio-cultural, economic, and environmental, along with other living standard measures, needs to be assessed.

1.1 A case study of Kathmandu- Thamel

Recently, there has been a rapid increase in the number of tourists visiting the Kathmandu region, particularly in the Thamel region (NepalDesk, 2024). Thamel has become a mainstay for tourists from around the globe and is considered a bedrock place for international tourism (NepalDesk, 2024). Concurrently, the Thamel region has become an over-tourism hub due to the increasing number of international tourists and the increasing congestion caused by domestic tourists in this region, making it even more unbearable (Phuyal, 2020). On the other hand, Thamel is a traditional center of starting point for mountaineering expedition to Mount. Everest and other Himalayas. Along with that, Thamel is a heavily congested city and has frequently been cited as a major case-study location for metropolitan planners in Nepal in recent times (NepalDesk, 2024). The major travel and trekking operators, hotels, restaurants, accommodations, and catering to travelers are mainly centered in Nepal's Thamel region (NepalDesk, 2024).

Figure 1: Study of the area



Source: (Mool et al., 2019)

Nepal is a nation rich in its vivid culture and loaded with raw natural beauty, with great potential for the tourism industry, although it is still counted as emerging in market growth (Phuyal, 2020). Tourism is seen as a prime source of foreign currency earnings (Phuyal, 2020). Nepal is home to eight of the ten tallest Himalayas, making it one of the prime destinations for alpinism (Phuyal, 2020). Nepal is counted as a linguistically and culturally rich country with more than 120 ethnicities, which makes tourists offer diversity in cuisines, cultural practices, and living styles (Phuyal, 2020). However, the Kathmandu region first welcomes the major flow of international tourists as all international flights are handled by Tribhuvan International Airport, which is located in the Kathmandu-Thamel region (Lieze, 2023). Because of Nepal's easily porous border sharing with India, the true number of tourists entering Nepal via roadway is challenging. However, India serves more tourists to Nepal for vacationing purposes (Phuyal, 2020). The number of tourist arrivals in Nepal, as compared to 2021, increased by 307% in 2022 (Nepal Tourism Statistics, 2022). Excluding Indian travellers via road conveyance, the top countries are India, United States, United Kingdom, and Australia accounting for 34%, 13%, 7%, and 4%, respectively (Nepal Tourism Statistics, 2022).

In this dissertation, there is a significant growth in tourism in Nepal as Nepal's foreign currency earnings are seen increasing (World Bank Data, 2022). However, its growth is majorly reliant on its natural assets and cultural settings. But, the issue of tourism is recently faced by

the Thamel-Kathmandu region because of the tourist gateway to mountaineering (NepalDesk, 2024), and this region majorly operates tourist first landing to Nepal (NepalKhabar, 2024). Therefore, to understand the situation of over-tourism and assess the impact of over-tourism on tourism destinations' sustainability, this dissertation has found studying the case study of Thamel-Kathmandu worthwhile. This dissertation will allow us to bring a more in-depth picture of the impact of over-tourism on Thamel's environmental strain, socio-cultural, economic, and other living standard measures, as well as its barriers and potential solutions to overcome. According to the World Population Review (2024), the Kathmandu metropolitan region has a population density of over 20,000 individuals per km², making it the overly populous city of Nepal. Compared to two decades earlier, it was over 12,000 individuals/km² compared to the entire country's average of just 985 individuals per Km² (Thapa et al., 2008, p. 49).

Seven UNESCO "world heritage sites" in the Kathmandu region, including major sites such as Pashupatinath, Changu Narayan temple, Bhaktapur city, Swayambhunath, and Boudhanath stupas, have made this valley a major tourist hub for both domestic and international tourists (UNESCO World Heritage, 2024). Kathmandu, a capital city and Nepal's culturally rich trade hub has made it more attractive for domestic immigrants to reside in this region, which is a UNESCO World Heritage site (Paudel & Pant, 2023). Additionally, it is considered a contemporary metropolitan region of Nepal with a blend of contemporary culture with bigger malls, night clubs, and casinos with medieval arts and settings that have made the Kathmandu region a must-visited destination of Nepal (Wandelog, 2024). According to Sharma et al. (2020, p. 92), Thamel within the Kathmandu region of Nepal is the top tourist destination owing to its abundant amenities, and most flight travelers to Nepal start and end their trip in the Thamel region. In recent times, the massive influx of tourists, especially international tourists, has made the Thamel area's safety and security grapple with substantial problems (Sharma et

al., 2020). For this reason, the overall safety and security issues have not only impeded the Thamel region but also halted the entire tourism sector of Nepal (Sharma et al., 2020, p. 94).

1.2 Research problem

There is a significant lack of empirical studies investigating the impact of over-tourism on the sustainability of host regions, the exploration of its impact and barriers are crucial for discovery of efficacious sustainability measures to lessen its adverse impacts. There has been a growing number of visitors to the Thamel-Kathmandu region because the Kathmandu region handles the major airports for domestic and international flights (Sharma et al., 2020). Additionally, travelers starting and ending their trips are incomplete without residing in the Kathmandu-Thamel region (Sharma et al., 2020). Since Kathmandu region is considered a densely populated area, according to the World Population Review (2024), the metropolitan region has a population density of over 20,000 individuals per km², making it an overly populous city of Nepal. Compared to two decades earlier, it was over 12,000 individuals/km² compared to the entire country's average of just 985 individuals per Km² (Thapa et al., 2008, p. 49). Moreover, the increasing influx of tourists to this region has made the region close to unlivable because of surging housing prices, congestion, and minimal public spaces for locals (Paudel & Pant, 2023). Despite all these visible encounters, we have found that almost no empirical research has been carried out on this issue. Therefore, this paper intends to empirically study the influence of over-tourism on the Thamel-Kathmandu region's sustainability. More importantly, this research will look extensively at how locals face issues because of the massive influx of tourists in this region; what are the challenges and sustainability measures taken by Thamel locals to confront these issues?

1.3 Research questions

- I) How does over-tourism in the Thamel area impact its environmental, socio-cultural, and economic sustainability?
- II) What are the effects of over-tourism on Thamel's infrastructure, housing affordability, and locals' sense of belonging to the community
- III) What are the major potential barriers faced by the local communities in the Thamel-Kathmandu area due to over-tourism? And what could be the potential solutions?

1.4 Research objectives

A quantitative method was used to survey true locals of the Thamel region to achieve the following research objectives. The survey will be systematically conducted, including all aspects of environmental, socio-cultural, economic, housing, infrastructure, and sense of belonging to the Thamel region. The closed questionnaire will be arranged on a Likert scale. In addition, these local people will be asked about potential barriers and solutions regarding over-tourism. The survey questionnaires will be delivered through social media platforms. Face-to-face interaction is highly impossible because the true distance between researchers and locals is too high. In the end, the gathered responses will be computed and delivered in descriptive and inferential statistics. This will enable us to know the magnitude and direction of the relationship of overtourism on the aforementioned factors.

- To analyze the impact of over-tourism on sustainability, i.e., the environment, sociocultural, and economic aspects in the Thamel region.
- To analyze the strain over-tourism has asserted on the Thamel's infrastructure, housing condition, and sense of belonging to the community

- To identify possible barriers and solutions for mitigating the adverse impact of overtourism in the Thamel area.

-

1.5 significance of the study

As mentioned earlier, the influx of tourists in the Kathmandu-Thamel region is on the rise, and no comprehensive research to date has delved into the consequences of overtourism on the Kathmandu-Thamel region's sustainability. Therefore, the deprivation of scholarly attention to this particular topic raises significant unanswered questions, and adequate strategies to address the issues posed by over-tourism in this region are completely missing. From that perspective, this dissertation is worthwhile performing. The issue of over-tourism not only dampers natural assets and local infrastructures but also affects socio-cultural and ecological threats. Comprehending local perceptions, issues, and sustainability measures is imperative to tackle overtourism systematically. Similarly, the issue of overtourism is an escalating issue that has negatively impacted travel destinations globally. So, empirical research on this topic as a case study would allow similar destinations or hotspots to overcome similar challenges. Finally, the findings from this paper would provide insights to different stakeholders and local leaders so that they can act and plan policies that mitigate the adverse impact without any level of sacrifice by the locals in a host region.

2 literature Review

This literature chapter will provide an in-depth understanding of over-tourism and under-tourism, as well as its causes and challenges. Three causes of over-tourism were identified in this literature: “low-cost flights and increased travel affordability, an increase of social media and influencer marketing, and lack of effective management of tourism.” This chapter also extensively highlights prior researchers’ findings on the possible causes of overtourism.

2.1 The concept of over-tourism

Overtourism is a new concept experienced by significant tourist destinations worldwide (Capocchi et al., 2019). The tourism business sector has experienced two types of issues due to the overgrowth of tourist activities in recent years (Capocchi et al., 2019). On the one hand, developing new technologies and creating low-cost airlines have increased tourism, leading to growth even in emerging markets (Capocchi et al., 2019). Conversely, the inability to control demand and the concentration of tourism in certain areas hurt regions and local communities (Capocchi et al., 2019). Dodds and Butler (2019a) assert that over-tourism is a new phase for an enduring problem. Simplistically, an excessive flow of visitors visiting a single destination has wider adverse repercussions on the host community (Dodds & Butler, 2019a). While the overload of tourism brings more negative externalities to the host region than positive ones, and both hosts and guests feel a loss of the destination’s authentic value, it is typically referred to as over-tourism (Jong, 2022). Though the concept is relatively new, many of its issues have a long history, especially highly prevalent in popular metropolis sites (Dodds & Butler, 2019).

According to the United Nations World Tourism Organization (UNWTO) (2018), over-tourism is “the influence of tourism and touristic activities on tourism spots that disproportionately impact local’s perceived quality of life and tourist experiences in an adverse way.” Framba (2020) acknowledges over-tourism as a neologism that refers to the overpopulation of visitors to a destination. From a neologism perspective, over-tourism is “too many touristic activities,” which was nominated as a year word added to “The Oxford Dictionary” in 2018 (Framba, 2020). Dhiraj and Kumar (2021) Dhiraj and Kumar (2021) define “over-tourism as many visitors visiting certain destinations concurrently, leading to failure to meet hosts’ quality of life.”

Damnjanović et al. (2020, p. 1) emphasize post-modernist tourism views by two polarizing aspects: sustainable attractiveness and overtourism. Damnjanović (2020) sees tourism as a multi-layered phenomenon that is devastating to tourism-related possessions and hurts to hosts’ daily living conditions due to overfilling and overuse (Damnjanović, 2020). In today’s competitive market, many tourist destinations are still underutilized; meanwhile, specific tourist destinations, because of their intrinsic attractiveness and investment to pull visitors in, have achieved “too much recognition.” With the ever-growing tourism in demand, much pressure is laid on already hackneyed resources and capital, due to which negative social externalities emerged due to excessive reliance on resources such as electricity power, waste management, basic needs, topped with natural assets, socio-cultural settings, sense of belonging, and local living standard (Damnjanović, 2020). According to a comprehensive review by Capocchi et al. (2019), overtourism does not represent a new phenomenon. Before that, it is crucial to comprehend what tourism is. "Under tourism" is a term used for places with few tourists, especially during epidemics (Leahy, 2023). Overcrowding is a problem for locals and tourists (Leahy, 2023). This situation can be harmful to those who face extended delays, cannot visit museums, theaters, and tourist attractions without making a reservation in advance,

causes increased costs for basic needs such as eating, drinking, and hotels, and cannot afford the feeling of the place (Leahy, 2023). Without actual regulations, regions have taken it upon themselves to create some form of crowd control, meaning coordination and resolution are needed (Leahy, 2023). However, the term over-tourism has been widely used in recent times, especially for less than three years. The challenges it addresses have been discussed in the scientific community for the last 40 years, and much of the tourism world is faced with this challenging problem (Capocchi et al., 2019; Leahy, 2023). Mihalic (2020, p. 6) states that over-tourism is an unsustainable form of tourism in which popular destination sites become overloaded with visitors in an unsustainable fashion and leave both hosts and guests with unpleasant experiences, especially to hosts. Meanwhile, Peeters et al. (2018, p. 19) added a socio-political standpoint to the over-tourism notion as a “state in which the influence of tourism activities surpass all aspects of environmental, socio-economic, psychological, physical, and beyond political competence limit.” Vagena (2021, p. 1) asserts that over-tourism in recent times has brought vital discussion at several tourist destinations, as “uncontrolled flow of tourists in response to destinations limited infrastructure, leading to adverse impact on destinations’ environment and host communities.” In the context of indicators for evaluating over-tourism, researchers such as (Simón et al., 2004; and Zacarias et al., 2011) implied the prevalence of over-tourism via measuring destinations' ecological and biophysical bearing threshold. Similarly, Jurado et al. (2013) implied measuring destinations' social and economic bearing threshold. However, in recent times, Peeters et al. (2018) added more factors to measure destinations' carrying threshold by assessing visitors' density and intensity (hotel bed-nights in each sq. kilometer and bed-nights/locals); sharing platforms capacity such as Airbnb and booking.com bed availability; tourism share in local gross national product; flights arrivals per locals; destination proximal to ports, airports, and heritage sites.

2.2 Overtourism causes and challenges

Capocchi et al. (2019) studied over-tourism implications and future perspectives through a review of the literature and found that state that the development of tourism activities is more concentrated in certain regions only leads to congestion, carrying over capacity, and environmental sustainability problems and that emerging markets adopt the behavior of western tourists—work "Imitation effect." At the same time, negative environmental externalities can be at first when a destination is fueled with more tourists, especially increased waste production, water problems, and air pollution, which can be observed visually by both guests and hosts (Leahy, 2023). Dodds and Butler (2019) studied over-tourism phenomena via reviews of prior literature and concluded that tourism has historically been inadequately organized; therefore, more policy changes and better acknowledgment of the root causes of issues, all well as all branches of government action, are firstly required to slow down the issues caused by over-tourism.

Economic growth in the world's most populous regions may be challenged by the need to travel, while technology will spur innovation (Capocchi et al., 2019). This might be the potential reason why overtourism starts to emerge. In addition, if the number of international tourists increases, their inadequate distribution to different regions causes tourists to cluster in a single destination (Capocchi et al., 2019). Tourism's economic, social, and environmental benefits are only sometimes beyond those who can afford it. Although tourism boards are always willing to allow people to come while considering their lesser-known destination, it is a better option for residents and visitors, but the behaviors of tourists need to be considered (Leahy, 2023). For instance, Leahy (2023), while investigating the ecological impact of tourism via implying satellite data, found that 80% of visitors visit 10% of global tourist locations, which means tourists are clustered in fewer attractive spots. Similarly, UNWTO (2011) estimates that over 1.8 billion tourists will visit by 2030, "i.e., one in every five people globally"; this has already

recognized locations with more pressure and hostility to expect from local host regions. Framba (2020) asserts that increasing low-cost flights and cruise traveling has a major role in the cause of over-tourism. Francis (2018) also found low-cost airline tickets for over-tourism as, for example, airline companies advertise flights to popular destinations such as Barcelona, “which is one of the most affected destinations by over-tourism” for less than \$20 dollar, which is similar to the price of a pizza. Delving more into this, the global aviation industry in 1944 had a deal called the “Chicago Convention” that enabled tax exemption for fuel used in aviation (Francis, 2018). This tax exemption for fuel used in aviation purposes is still prevalent, which has caused the purchase of airline tickets to be too low, though other factors, such as demand, could be involved. Francis (2018) argues that the problem does not lie in tourists wanting to visit; it’s all the tourists who majorly prefer the same destination at the same time, and such a destination is not only for visit purposes, as locals live there. On the other hand, the lower cost of Cruise fuel allows cruise travelers to rise, allowing cruise companies to keep more profits by adding more passengers (Francis, 2018). In fact, due to tax-free aviation fuel, many stakeholders have alleged that the government has paid airline companies to land passengers at their closest destination in order to attract more visitors (Francis, 2018). Moreno-Gil & Coca-Stefaniak (2020) say the sharing economy platform has become an alternative source against conventional means of suppliers of services, and this platform has made tourists’ more affordable and accessible to plan their vacations, leading to the over-growth of tourism. Avond et al. (2019, p. 10) classified the cause of over-tourism from the demand and supply side. From a demand perspective, travelers' growing propensity to expend, globalization, changing people’s living style, travel and tourism-related technologies, and the liberation of women have made more attribution to over-tourism causes. Meanwhile, factors such as inadequate destination management, low sense of sustainability, unplanned supply of resources, and low technological experience were counted as supply-side causes of over-tourism (Avond et al.,

2019). Similarly, exposure to travel-related content, pictures, and narration on social media sites has allured fellow tourists to experience it, and Avond et al. (2019, p.10) assert that destination images posted via social media sites have a significant factor in over-tourism causes.

2.2.1 low-cost air-fares and increased affordability of travel

Increased tourism costs have been essential in promoting tourism; however, with the rise of competitive airfares, affordable options such as hotel and home-sharing platforms, and low fares, travel has become accessible to many people (Peterson, 2023). Peterson (2023) believes that society's trust in the tourism industry is vital to support public capacity and ensure development. Public awareness and education, civic engagement, social advocacy, and the incorporation of community values and design thinking work are vital to maintaining the community's health (Peterson, 2023). This tourism freedom has opened new markets and led to more travel, bringing more people to popular destinations (Peterson, 2023). As business travel becomes cheap, the demand for business tourism increases and often outpaces the capacity of travel destinations to accommodate the influx of tourists (Peterson, 2023).

Low-cost airline companies and financial options have gone into overdrive (Capocchi et al., 2019). According to Capocchi et al. (2019), some authors believe that the rise of anti-tourism has become a harmful problem because there is no control over the growth of tourists (Capocchi et al., 2019). In addition, three essential factors, especially in popular tourist destinations, large cruise ships, low flight prices, and new tourist rentals, especially Airbnb, are found detrimental to the overflow of tourists (Capocchi et al., 2019). These affordable options allow travelers to visit previously inaccessible places due to high costs (Capocchi et al., 2019). While low-cost companies have expanded the way to connect different cities and countries, online booking platforms have also made finding and booking cheap accommodation more accessible (Capocchi et al., 2019). As a result, visitors often significantly affect tourists past their assets,

resulting in stuffing and degradation of communities' vitality and environment (Capocchi et al., 2019).

2.2.2 Social Media and Influencer Marketing

Social media and influencer marketing within the tourism industry have significantly driven different tourism-related activity (Gatterer, 2020). The rise of social media platforms and the requirement for "Instagrammable" encounters have driven the fast popularization of certain places or attractions (Gatterer, 2020). The term Instagrammable refers to moments or experiences that are visually captivating and share-worthy on social sites- Instagram (Gatterer, 2020). Influencers and travel bloggers share beautiful pictures and positive encounters that motivate guests to do the same (Gatterer, 2020). This phenomenon can have an impact that causes a quick increase in the number of guests to a city, often past the capacity of the place to manage its visitors (Gatterer, 2020). Agreeing with this, Spiegel (2018) said, "Instagram is pulverizing the destination's space," which means people these days are traveling for Instagrammable moments, and social media sites have become closely linked to the "honeypot" problem (Gatterer, 2020). It means that social media is vital in focusing tourists on specific places and increasing the number of people (Gatterer, 2020). Due to social media travel influencers, a new youth mass tourism has evolved (Spiegel, 2018). Youths travel solely for social media content and photos to show fellow netizens that I was there in that destination, which has made different tourist destinations overly populated.

2.2.3 Lack of effective strategies

This section will discuss how the lack of effective tourism management strategies leads to a flow of tourists in a particular destination.

Many places have had difficulty implementing effective tourism management strategies, resulting in tourism problems (Drápela, 2023). Inadequate crowd control, inadequate infrastructure planning, and failure to allocate tourists to attractions and regions result in a decrease in the number of tourists in a particular area or during peak season (Drápela, 2023). Lack of visitor management can lead to overcrowding, degrade local resources, and reduce overall visitor numbers (Drápela, 2023). For instance, inadequate protection to control and disperse tourists (Drápela, 2023). In that case, popular destinations will be invaded, the environment will be damaged, local communities will be affected, and there will be a decline (Drápela, 2023). Tourists' attraction to certain areas or peak season is a combination that leads to more travel (Majdak et al., 2023). Iconic attractions, historic city centers, and natural beauties often bear the brunt of the intense onslaught of seasonal tourists, leaving them disappointed and finding it challenging to maintain their charm and attractiveness the onslaught of tourists (Majdak et al., 2023). This water bottle effect can lead to long, crowded, and overcrowded races, causing harm to spectators and chaos in venues and resources (Majdak et al., 2023). Crowd control strategies such as entry times, audience limits, and alternative promotions or breaks are critical to reducing the number of sites (Majdak et al., 2023).

However, the causes of over-tourism might differ from destination to destination and other factors, such as Jordan et al. (2018, p. 4) highlights as:

- Traveling has become more affordable and accessible, and this trend is mainly fueled by online media such as social media.
- Different types of trends and styles, such as bucket lists and group travel (for instance, business and cruise travel), lead to high visitor concentration in a single destination.
- Factors such as urbanization and gentrification have boosted housing values and modified residences to serve as tourist accommodations.

- Also, destination management organizations' prevalent tourism development strategies focus on volumes.

Similarly, Goodwin (2017, p. 5) acknowledges that the causes of the occurrence of over-tourism are hardly ever due to a single reason. So, among the possible causes, the following are the major ones:

- Greater tourist demands due to the growing outbound tourism market.
- Cost-effective way to promote and market destinations “also referred to as honeypots”.
- Low flight tickets and abundant transportation means tourists can take several mini-vacations each year.
- Easily accessible collaborative economic platforms such as Airbnb for accommodation, which is often cheaper than traditional lodging.
- Visitors use the host’s common spaces for free, while its maintenance cost is transferred to local hosting communities.
- Low-paying, frequently transient, and jobless positions associated with the tourism industry.

Furthermore, there is a growing concern that over-tourism is mainly caused due to information and communication technologies, social sites, collaborative platforms (Klijs et al., 2018). The summary of (Jordan, 2018; Klijs et al., 2018) on the unrestrained visitors’ growth categorized by over-tourism indications are presented below:

- Negative externalities seen, such as ecological degradation, waste management, and low air and water quality.
- Vandalization of cultural and world heritage sites
- Imbalance the ratio of visitors to local residents, leading to tourists overusing common spaces.

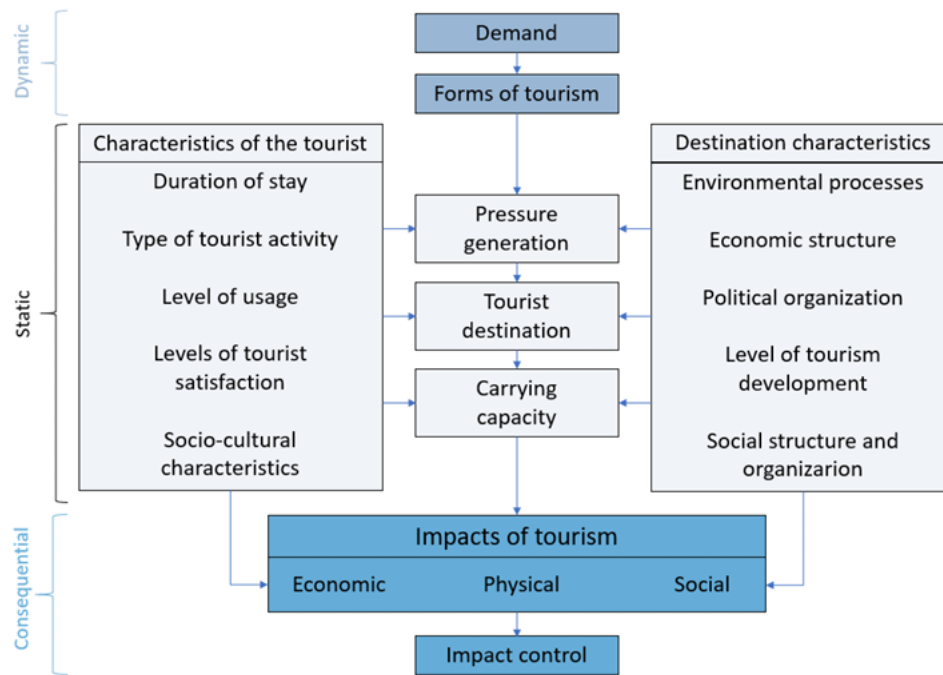
- Overpacked infrastructure and roads, leading to low safety and security.
- Gentrification and unaffordable housing
- Diminishing the purchase power of locals and inequality emerge between local communities.
- Emergence of Protests and anti-tourism activities.

3. Theoretical framework

This chapter will provide the theoretical foundation of the dissertation. Firstly, this chapter will highlight the impact of tourism on different categories that will be presented. Secondly, the carrying capacity of a destination will be highlighted by highlighting five aspects of carrying capacity: “destination physical capacity,” “ecological carrying capacity,” “behavioral carrying capacity,” “social carrying capacity,” and “economic carrying capacity.” After assessing tourism destinations’ carrying capacity, a “Doxey’s Irridex model” will be presented through which tourism’s impact on different aspects will be evaluated, such as “environmental strain, socio-cultural strain, economic strain, destination infrastructural strain, housing affordability, and sense of estrangement” will be evaluated. Through this, the hypothesis will be postulated.

This theoretical framework will provide the relationship between tourism activities and their different types of impacts. Tourism impact emerges when visitors interact with the tourist destination and host community (Mathieson & Wall, 1982). Tourism consists of multilayered components, and it is crucial to comprehend the relationship between different components and its impact on tourism within its wider environment. According to Mathieson & Wall (1982), tourism impacts are a collection of several occurring factors that are rather pinpointed to singular causes and occurrences. The impacts of tourism by Mathieson and Wall (1982, p. 15) is presented below:

Fig 3.1 Impact of tourism



Source: (Mathieson & Wall, 1982)

As aforesaid, assessing the tourism concept involves many elements that cannot be excluded.

Mathieson and Wall (1982) have highlighted three basic elements:

Comprehending the impacts of tourism from a singular perspective is a complex challenge as it is interconnected with multiple components; however, three elements are considered to have a greater role in composing tourism experiences and their impact:

- “Dynamic elements” focus on aspects that are subject to change over time as they relate to tourist activities, behaviors, and trends. For instance, visitors' attitudes and preferences, such as their age and motivations, can vary and impact tourism trends.
- Static elements refer to constituents of tourism that remain stable over a period of time, such as the destinations' infrastructure and attractiveness that support the tourism sector. Some examples of static components could be the destination's natural attraction, cultural and heritage assets, human resources, etc.

- Consequential elements refer to the impact of touristic activities on travel destinations and host environments, and these elements can be favorable and unfavorable as it often stems from the interaction between “dynamic and static components”.

Mathieson and Wall (1982) assert that travelers' types and their demands come under dynamic components, and the expansion of the travel boom is primarily due to a shift in demand. Factors such as increased vacation time, purchase parity, and declining travel costs stimulate a rise in demand. Additionally, infrastructural development empowers quick and secure traveling, making the destination more reachable and convenient (Baumann, 2021). Along with that, a data-driven society and different communication channels allow for the collection of quick information about travel destinations according to travelers' interests (Brezinova, 2021). Though these factors enable travelers to get enriched travel experiences, they also could bring hosting destinations with an over-population of tourists (Brezinova, 2021).

3.1 Carrying capacity

When a tourist destination realizes unsustainable flows of travelers, it causes a detrimental impact on the destination environment, infrastructure, sociocultural settings, and local communities; such phenomenon hints at over-tourism (Yusoh et al., 2021). Carrying capacity enables accessing the number of visitors that a destination can sustainably bear without triggering any negative externalities (Yusoh et al., 2021). Carrying capacity inputs sociocultural and environmental factors in addition to tourist destination's physical constraints (Yusoh et al., 2021). Carrying capacity enables a striking balance between different stakeholders' interests and demands, such as visitors, the tourism industry, and the host region (Yusoh et al., 2021). According to Castellani & Sal (2012), Carrying capacity is viewed as a standard for measuring the linkage between the strain triggered by a destination's tourism activities and its

environmental and socio-cultural ability to endure it. The linkage between these two aspects should be balanced so that the carrying capacity of travel spots will not be exceeded (Castellani & Sal, 2012). On the contrary, Oakley (1994) asserts that carrying capacity is not precise enough as it lacks objective-based measurements. Similarly, Cooper (2016) emphasizes that when tourist numbers exceed destination carrying capacity, the destination environment and socio-cultural settings come under strain. However, carrying capacity relies on subjective measures, so various stakeholders have differing perceptions when the destination's environment is pressured by the exceeding growth of tourists (Cooper, 2016). Cooper (2016, p. 80) outlines five different categories of carrying capacity.

- **“Destination physical carrying capacity”** is measured by assessing physical space, such as parking areas, airlines, or other transport seat capacity. Though carrying capacity is more of a subjective measurement, this aspect can be calculated objectively.
- **“Ecological carrying capacity”** is rather complex to measure because it refers to the usage level of ecological assets before it starts to degrade.
- **“Behavioral aspects of carrying capacity”** entail how tourists perceive that added visitors start to diminish their travel experience. According to Cooper (2016), it is more complex to measure than it appears because vacant spaces are considered more problematic compared to densely populated destinations, and striking a balance point is a daunting challenge.
- **“Social carrying capacity”** is a newly added typology and has become a critical measure. Indeed, it is termed a crucial assessment of sustainable tourism destinations based on the level of engagement of host regions' local people in tourism-related plans and actions. It allows us to measure a destination's capacity to endure tourist activities for its local societies.

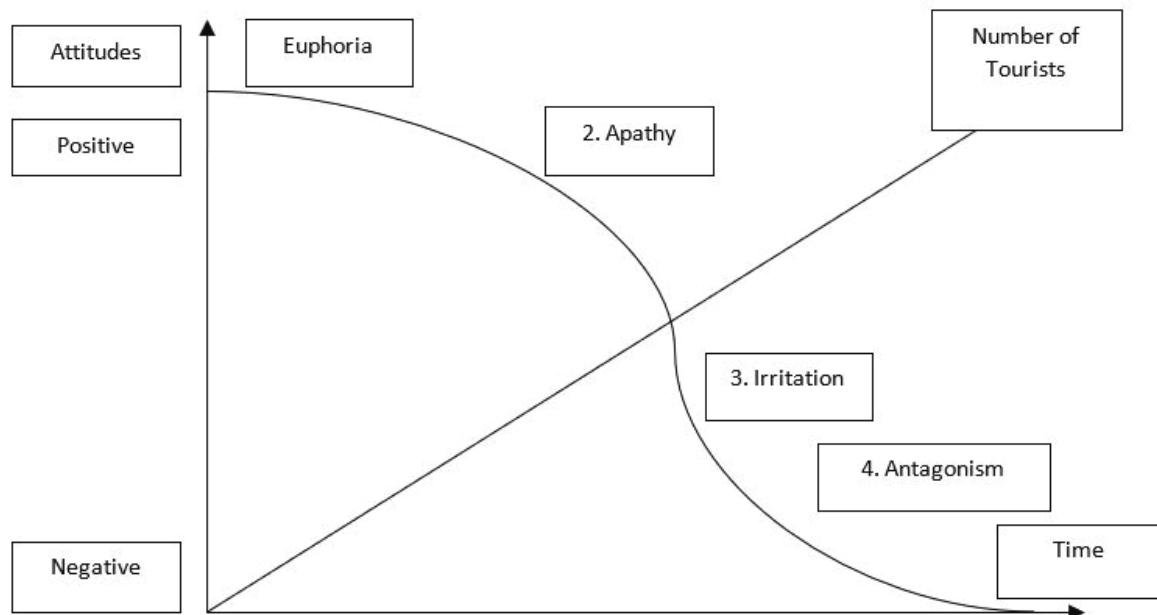
- Lastly, “**economic carrying capacity**” refers to a threshold point at which the economic reserves exceed the preservation of the ecological quality.

3.2 Doxey’s Irridex

The Tourism Irritation Index, first initiated by Doxey in 1975, outlines the evolution of local communities' sentiments towards touristic activities in a destination in four stages (Cheung & Li, 2019). In the first stage, the locals feel “euphoria” when they interact with the tourists. During this stage, the local “host” populace may experience positive sentiments as they anticipate the arrival of visitors through their region (Stainton, 2022). Since the index indicates that it is linked to the early stage of developing sites as a tourist spot, there is a feeling of excitement and optimism, especially if the local populace finds financing for their projects. As the development starts to creep in, locals start to feel apathy, “losing interest in tourists” in the second stage (Stainton, 2022). Cheung and Li (2019) find this stage as a locals’ state of emotional neutrality, with a slight leaning towards optimism. In this stage, more formal interaction between host-guest starts to appear, and the local populace starts to perceive tourists as a means of generating local revenue and capital (Stainton, 2022). Then, after, an “annoyance” starts, also called irritation, where a feeling of mild frustration starts to creep (Stainton, 2022). An increasing annoyance, “irritation,” starts to appear due to the continuous rise in tourists in the host region, which makes locals feel more concerned about securities, crime issues, waste disposal, negative tourist-local encounters, etc. (Stainton, 2022). Lastly, a persistent irritation caused by the tourists brings a high degree of annoyance to the locals, and eventually, tourists are viewed from a burden perspective and treated viciously by the locals. As the fourth stage starts, this “antagonism” situation accumulates in the host region. The tourism irritation index enables the gauge of the unfavorable sentiments or disruptions that local inhabitants experience due to excess tourist activities (Stainton, 2022). As the flow of

tourists to the destinations starts to creep up, the sentiments of locals' “host region” shift from positive to negative feelings (Stainton, 2022).

Fig 3.2.1 Doxey Irridex model



Source: (Doxey, 1975)

This conception is strongly connected to over-tourism, which happens when an excessive quantity of visitors overloads a tourist destination, detrimental to the host’s quality of life (Stainton, 2022). Prabowo & Salaj (2021) state that over-tourism irritates locals due to increased congestion, minimal public spaces, adverse ecological and socio-cultural settings, upsurging housing, and a low sense of authentic feelings. A tourist destination affected by over-tourism has complex adverse effects from multiple aspects (Prabowo & Salaj, 2021). The burden of over-tourism puts substantial demand on infrastructure, leading to major concerns about ecological worsening (Prabowo & Salaj, 2021). Nonetheless, amid such complications, there are some advantages to consider (Rasool et al., 2021). Khan et al. (2020) feel that many locals value economic perks due to rising tourist activities in the host region, such as job creation, encouragement to small companies, and entrepreneurial activities. However, as the

destination seeks an excessive rise in the tourist volume, the demand for amenities such as accommodation, transportation, groceries items, etc starts to rise. This heightened demand for amenities brings an imbalance situation between demand-supply; as a result, price starts to go up (Huseynli, 2022). Eventually, the rise in prices due to over-touristic activities brings an extra burden on locals due to rising inflation, which leads to diminishing purchasing power and economic distress in the long run (Huseynli, 2022).

The assessment of local communities' sentiments towards tourism growth's impact is better explained using the Doxey Irritation level (Stainton, 2022). Although Doxey Irridex is regarded as one of the most significant models for local inhabitants and visitors, still several downsides persist (Cheung & Li, 2019). The conception of Doxey Irridex is a unidirectional model designed to fully depict the present scenario of current local residents' sentiments towards tourist activities. This model implies homogeneity and a linearity contention, which completely lacks the occurrence of heterogeneity and multi-layered touristic activities in a host region (Cheung & Li, 2019). Zhang et al. (2006) advocate that the Doxey Irridex model lacks the incorporation of tourist management initiatives that might help lower visitor demand for a tourist destination. In comparison to the alternative models, Butler's (1980) – "Tourism life cycle theory" is implied to some context; however, it completely lacks a time dimension, which makes it highly difficult to anticipate host-guest relationships over time (Cheung & Li, 2019). The Doxey Irritation index holds flexibility as a theoretical model that needs ongoing and contextual experiential tests since it may vary depending on circumstances like geographical differences, issues, and study objectives (Cheung & Li, 2019). Similarly, Doxey's Irridex is seen as instrumental in different tourism-related research. For instance, Ryan et al. (1998) implied "Doxey's model" to understand New Zealand's resident's sentiments towards tourist activities and found that respondents were in a "Euphoria" stage and the presence of tourist activities had made a positive impact on every aspect. Similarly, Zaidan and Kovacs (2017)

studied a case study of “Dubai” residents’ sentiments towards tourism growth using the Doxy Irritation model and found that Dubai’s development, though positively affected by tourists but the city’s extensive focus on tourists, leaving locals with inferior priority has made a low sense of living satisfaction. Wong et al. (2018) studied locals’ “host” irritation level using the Doxey Irritation model on “Mainland Chinese” international travelers and found that locals had significant resentment against tourists, especially in areas such as super and hypermarkets, grocery stores, and fashion malls. Similarly, Cheung and Li (2019) adopted the Doxey Irritation model to comprehend the tourist-resident relationship in over-tourism in Hong Kong and found that residents with a moderate level of irritation due to tourism and the major culprit behind such situation was the “multiple-visa permit” system between China and Hongkong made a hefty rise in day-trippers. Using these researchers’ adoption of the Doxey Irritation model to understand local attitudes toward tourism growth in the host region, we also found it worthwhile to adopt in this dissertation. As aforesaid, the Doxey model enables us to fully depict the present scenario of current local residents' sentiments towards tourist activities and also incorporates homogeneity and a linearity contention; therefore, a strategy such as surveying local participants (i.e., local Thamel people in this dissertation) is more applicable. Later, the collective responses could be evaluated with the linearity scale of Doxey’s four stages – Euphoria, Apathy, Irritation, and Antagonism.

3.3 Locals’ perception of over-tourism impacts

Local residents are viewed as crucial stakeholders in promoting sustainable tourism as they are considered cultural agents and social groups (Muler Gonzalez et al., 2018). For a study of the social impacts of tourism, it is crucial to grasp locals’ views towards tourism growth and involve communities in its sustainable development (Cheung & Li, 2019). In recent years,

over-tourism has turned out to be an impending hazard for local inhabitants in several prominent destinations, owing to the rapid and disproportionally growth of visitors (Cheung & Li, 2019). The continuous rapid growth in tourist arrivals in tourist locations and issues of congestion, housing affordability, and diminishing purchasing power due to high demand have sparked noticeable public debate over the viability of a growth-based tourism sector. According to Deery et al. (2012), the comprehension of the social effects of tourism growth on local residents (i.e., host-guest relationships) is highly crucial for local governance bodies so that effective plans and policies can be formulated to minimize the prospect of local community repercussions against tourism development. Researchers such as (Diedrich & García-Buades, 2009; González-Reverté, 2022; Nunkoo et al., 2013) have studied the local community's attitude toward tourism growth and its role in creating sustainable forms of tourism. Among several traditional host-guest models, the Droxey model (1975) efficiently interprets tourism's adverse socio-cultural and associated aspects, which in turn roots different levels of irritation in the host region. This model helps to gauge the effects on tourism growth as the community goes through a predicted pattern of locals' sentiments toward tourism activities. According to Elmia & Pratiwi (2023), Doxey's model enables a valuable framework for evaluating locals' shifting sentiments and developmental phases in a location, which is crucially applicable to this dissertation's empirical workout. Therefore, this section will assess the impact of over-tourism on local destinations and locals' sentiments.

3.2.1 Environmental strain

One of the initial observable impacts of over-tourism can be seen as air pollution, waste, erosion, and damage to landscapes, beaches, parks, and wild animals (Gazta, 2018). This leads to the host region with diminishing natural beauty and environmental protection (Gazta, 2018). According to (Gazta, 2018), biological and physical resources are legacies that attract tourists,

but the overload of tourists in a destination brings scarcity to both natural assets (forests, beaches, landscapes, rivers-lakes, parks, etc) and artificial assets (infrastructure, transportation, and other urban amenities). The pressure exerted by tourism activities on fragile ecosystems is accelerating, the social carrying capacity of a destination diminishes, causing them to become depleted (Gazta, 2018). Absurdly, the achievement of tourism will lead to the dilapidation of the natural setting: by reducing natural resources, tourism will reduce the pull of attractions for tourists and the products that tourism provides (Gazta, 2018; Leahy, 2023). Considering the role and diversity of tourism in the practice of natural resources, it is essential to consider all the adverse effects of tourism (Gazta, 2018). These impacts are generally divided into environmental and socioeconomic impacts, often affecting local and indigenous communities (Gazta, 2018; Leahy, 2023). Furthermore, the detrimental impact of over-tourism when it surpasses its carrying capacity, the overall image of the destinations starts to shrink and eventually brings lower customer satisfaction and tarnishes its charm. After scanning the literature, we have come up with the following hypothesis:

H1a: Overtourism adversely and significantly impacts the destination's environmental assets.

3.2.2 Overcrowding

Overtourism often leads to overcrowding in streets, entertainment venues, and public spaces, creating chaos and unhappiness (Milano et al., 2018). This crowding can spoil the ambiance and beauty of the place, reducing its appeal and attractiveness (Milano et al., 2018). There is an acceptance that tourism harms nature, destroys beaches, causes severe problems, and pushes people out of the market; however, it is difficult to measure whether the overcrowding is only because of over-tourism and addressing such issues without negatively affecting the metropolis's economy is another daunting challenge (Milano et al., 2018). The influx of visitors

beyond the area's capacity can cause wear and tear, vandalism, and damage to historic buildings, public spaces, and local transportation systems, reducing authenticity and attractiveness (Leahy et al., 2023). The neighborhood between locals is fading as tourists, and short-term tenants outnumber residents (AlMasri & Ababneh, 2021; Leahy, 2023). The study on the “dark side of collaborative economy on locals” by Buhalis (2020, p. 9) found that accommodation platforms such as Airbnb have caused a shrinking population, socio-economic issues, and low quality of life in local communities due to increased housing crises and costs. Furthermore, according to the study by Maed (2019), overly touristic activities have created substantial difficulties for Barcelonian locals as they have put hefty pressure on local infrastructure, destroying public resources and causing safety problems for both hosts and guests. In addition, rapidly increasing prices, many queues, crowded beaches, too much noise, damage to historical sites and people affecting nature, being victimized or deviating from the official path are also the reasons why the quality of tourism is negatively affected (AlMasri & Ababneh, 2021; Leahy, 2023). For instance, recent initiatives to disrupt the over-tourism loop by cutting or minimizing transportation networks are seen in some cases, like Amsterdam has started shutting its cruise port to prohibit cruising as it can hold an unbearable quantity of tourists at one take (World Economic Forum, 2023). Similarly, a Spanish island called “Lanzarote” has made some efforts to lower tourist density by encouraging its destination management organizations to focus on quality over quantity (World Economic Forum, 2023). In the realm of destination, especially its metropolis area, a systematic arrangement is made with its overall housing supply and public infrastructure that meet with its demand without oversupply or shortage (Gurran & Bramley, 2017). An equilibrium condition between supply and demand is highly critical for safeguarding effective resource allocation, static prices, and sustainable economic development to maintain a destination attractive and livable to its residents (Gurran & Bramley, 2017). But, the sudden influx or decline of visitors can bring the

destination's economy into turmoil and sometimes require strict intervention from the national level (Mikulić et al., 2021). One of the recent examples of this situation is that Venice, which is one of the popular tourist destinations in Europe, has initiated a 5-euro entrance fee for day-trippers, the “first city in the world” in order to cover the pressure of over-tourism putting on the city's infrastructure and rising housing prices (Traverso, 2023). Via scanning the literature, we have come up with the following hypothesis:

H2a: Overtourism adversely and significantly impacts local destinations' housing affordability.

H3a: Overtourism adversely and significantly impacts local destination's infrastructural development.

3.2.3 Diminishing authenticity

Excessive commercial development (such as hotels, restaurants, and food stores) can cause urban sprawl and visible pollution, affecting the beauty of the place (Baloch et al., 2023). According to Baloch et al. (2023), uncontrolled, overcrowded, and unhealthy tourist activities can significantly impact the quality of the environment. It causes excessive use of natural resources, deterioration of service excellence, and an exponential rise in waste and effluence (Baloch et al., 2023). In addition, tourists coming to the summit can create more problems than blessings, such as soil erosion, depletion of natural resources, waste accumulation and air pollution, pollution, damage to biodiversity, destruction of cultural life, and intact soils and lands, Sea (Baloch et al., 2023). As tourism increases beyond its carrying capacity, destinations will receive negative publicity and media coverage highlighting problems such as overcrowding, environmental damage, and destruction of local community socio-cultural settings (Koens et al., 2018). The overload of tourists not only effects on produce negative publicity to fellow tourists and the public, but the indigenous people find a low sense of

belonging as the authentic feelings of destinations start to shrink (Damnjanović, 2020). It will damage the site's image and reputation and may affect future visitors' intentions (Koens et al., 2018). Overtourism brings destinations' authentic charm, such as its natural beauty, cultural and social values, and practices, to deteriorate by altering their natural rhythm and character (Damnjanović, 2020).

According to Kesgin (2021), the sheer volume of visitors might overwhelm destinations' local infrastructure, disrupting indigenous people's daily lives. Crowded streets and environmental deterioration all have adverse impacts on the sense of place and community cohesiveness. As a result of these repercussions, locals start to feel alienated as their community becomes a commodified tourist spot. The loss of authenticity and quality of life due to the overload of tourists diminishes locals' incentive to reside in the place; along with that, the rising living expenses and loss of cultural heritage and identity due to standardized visitor experiences and chain eateries bring a low sense of belonging (Damnjanović, 2020). However, perceptions of authenticity could be subjected to the local community's views on authenticity, which are based on different characteristics compared to visitors' impressions (Rickly, 2019). From a local perspective, authenticity is related to criteria of agency, equality, sense of belonging, and overall community well-being, which are what hold their daily routines and sustain their long-term livelihoods (Rickly, 2019). Meanwhile, visitors might perceive a destination's authenticity from its unique and emblematic attraction, which is usually difficult to sense given the minor changes happening in the location over time. More importantly, these actions happen in a shared place, and the frequent encounters between guests will certainly affect the perceptions of one another, and the sense of authenticity might be depleted (Rickly, 2019). Ovies and Bautista (2021) assert that destinations that are over-relied on tourism focus on offering local traditions, norms, and living styles in a commodified style and in a digestible way for visitors,

which completely halts the authenticity of the destination, which indigenous locals find the place less worthy of settling.

H4a: Overtourism adversely and significantly impacts local destination's socio-cultural values and settings.

H5a: Overtourism adversely and significantly impacts local residents' sense of belonging to the destination.

3.2.4 Economic impact

Tourism and economic input are viewed from both advantages and costs to tourist spots; however, a favorable condition when benefits surpass its cost brings more sustainable economic add to the destination (Greiner, 2010). Comerio & Strozzi (2019) asserts that the analysis between tourism and economic value, especially with its benefits and adverse externalities, is often vast and complex because it incorporates different heterogeneity factors. Pablo-Romero & Molina (2013) sorted prior empirical research papers into three groups based on the types of data implied, “i.e., time series, panel, and cross-section data”. It was found that tourism and economic growth are interrelated, as out of 87 samples, 55 have found a univocal association (i.e., tourism impacts economic growth), 16 samples were found with bivocal linkages, and only 9 samples found that economic situation impacts tourism development. Meanwhile, the remaining samples were found without any linkages. Similarly, researchers such as (Ekanayake & Long, 2012; Hossain & Wadood, 2020; and Manzoor et al., 2019) have found that tourism has the potential to benefit the economy by offering more tax collection, job creation, and entrepreneurial activities. Contrarily, researchers such as (Ojaghlou, 2019; Tuncay & Özcan, 2020) have an adverse impact on the economy, especially in the long run, as the tourism-based economic boom starts to deindustrialize another important sector. Such

phenomenon is termed the “*Dutch Disease effect*”¹. From a theoretical perspective, the linkage between tourism and economic growth might arise due to the increase in tourist volume (Cárdenas-García et al., 2024). As a result of economic progress, subsequent policies, and strategies might be implemented to advance local economic livelihoods (Cárdenas-García et al., 2024). However, the economic perks of tourism are acceptable to a certain point; as tourism activities start to grow exponentially then, its economic advantages are overshadowed by the social cost (Damnjanović, 2020).

H6a: Overtourism positively and significantly impacts local destination’s economic development.

3.3 Sustainable strategies to overcome over-tourism

Overtourism, a phenomenon in which many tourists invade popular destinations, has become an urgent problem that many cities, wonders, and cultural centers face international law (Capocchi et al., 2019). As the job market continues to grow and more and more people seek specializations, it is essential to implement sustainable strategies that balance business with environment and socio-cultural aspects (Capocchi et al., 2019). When mitigating the negative impacts of tourism, three main methods stand out: visitor management and evacuation strategies, security policies and regulations, and community business plans (Bui & da Silva, 2021; Seeler et al., 2021; Slocum et al., 2022). Visitor management and departure strategies aim to manage visitor numbers and distribute visitors evenly among different tourist attractions and areas (Bui & da Silva, 2021). According to Ding et al. (2023), aggregation results from the accumulation of a large number of tourists at a particular spatiotemporal scale, so the

¹ DDE effect is viewed as an economic phenomenon that happens when a destination or a country encounters an unsustainable increase in revenue collection from its natural resources export. This phenomenon may be seen as positive in the short run but hampers its long-term economy as it starts to deindustrialize other sectors, fails to diversify the economy, over-rely on natural assets, and eventually produces more negative externalities to the society (Moyle et al., 2021).

distribution of tourism can be directly affected by the degree of spatial congestion of the tourist station over time. For example, Tratalos et al. (2013) used aerial photography data to estimate the distribution of tourists on beaches. They found a negative relationship between the number of tourists and the distance from the beach entrance (Tratalos et al., 2013). Pettenbone (2013) tracked the spatial distribution of crowds in Yosemite National Park along local lines to determine the number of local visitors to the Half Dome attraction. These efforts can help to allocate or transfer visitors to less populated spots without negatively affecting the economic benefits (Pettebone et al., 2013). However, time variation and distance between the two destinations are important to address (Ding et al., 2023). Also, temporal variation in population density has yet to be widely reported (Ding et al., 2023). The spatiotemporal distribution of tourists can be used to investigate the spatiotemporal patterns, causes, and management of local crowding in world heritage sites (Huang et al., 2020). A check-in time or reservation requirement is an excellent measure to limit the number of visitors at any given time for the most popular venues and prevent overcrowding (Ding et al., 2023). Promoting lesser-known destinations through marketing can help attract tourists and reduce clusters of visitors in a single spot (Ding et al., 2023). Additionally, visitor restrictions or quotas for areas of great value or cultural sites can prevent damage to the environment and preserve the authenticity of these valuable areas (Ding et al., 2023). Encouraging visits during off-peak periods through price subsidies or incentives can also help to lower the congestion problem (Ding et al., 2023).

Tourism policies and sustainable management from various stakeholders such as government DMOs, and locals, play an important role in tourism longevity (Trišić et al., 2023). Trišić et al. (2023) argue that sustainable economic growth of a destination also cares about ecological and sociocultural aspects, in which the ecological dimension of tourism development refers to tourism's impact on nature, and socio-cultural means how the destination's authenticity is preserved (Trišić et al., 2023). Sustainable tourism practices benefit local residents from all

aspects of economic perks, such as better employment, income from ticket sales, and entrepreneurial activities (Trišić et al., 2023). Additionally, it also strengthens the role of local people in the planning and organization of tourism, controlling the use of resources and other benefits (Trišić et al., 2023).

Also, establishing zoning laws and urban planning measures can regulate the development of the tourism industry and prevent excessive commercialization or promotion of local communities (Trišić et al., 2023). Similarly, scientific way of destination management practices such as assessing destination carrying capacity and awareness programs can preserve natural assets, environments, and cultural legacy from the negative impacts of tourism (González-Reverté & Soliguer Guix, 2024; Trišić et al., 2023). If well overseen, presenting tourism charges or expenses can contribute to foundation improvement, vitality savings, and returns on speculation in sustainable tourism measures (Trišić et al., 2023). Additionally, promoting and encouraging business involvement, such as environmentally friendly services, good transportation options, and more use of local products and services, can help reduce the negative impacts of tourism on the environment (Rahman et al., 2024; Trišić et al., 2023).

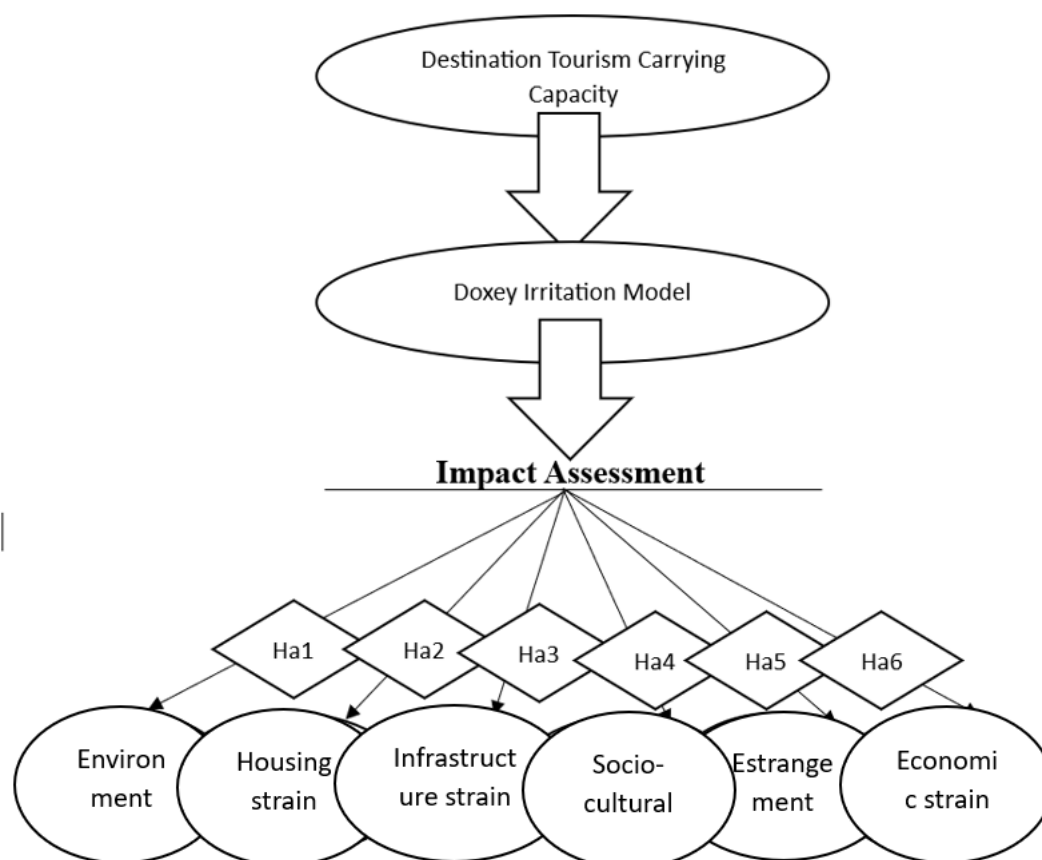
Similarly, community participation forms the basis for reducing adverse tourism activities while supporting local communities' authenticity and lowering negative externalities (Nurhasanah et al., 2024). According to Nurhasanah et al. (2024), political support and encouragement are essential to prevent communities from being isolated from tourism. Applying local laws in planning helps reduce the occurrence of conflicts in local communities and facilitates sustainable initiatives (Nurhasanah et al., 2024). Sustainable tourism practices enable tourism-related practices that emphasize long-term economic success, and a good assessment of the positive and negative impacts of each initiative from the local level helps minimize the adverse effect of tourism growth (Rahman et al., 2024). For instance, an early prediction of tourism growth with adequate rules and regulations is imperative to minimize

tourism's antagonistic impacts (Trišić et al., 2023; Rahman et al., 2024). These measures include environmental, financial, and sociocultural measurements of maintainability (Trišić et al., 2023; Rahman et al., 2024). Establishing zoning laws, urban measures, natural security, and charges can offer some assistance in managing destinations to bear tourists within their capacity limit (Rahman et al., 2024). Additionally, good management practices and minimal political interference in the local destinations are essential to the success of community tourism projects, as poor management can affect economic growth and prosperity (Ding et al., 2023).

3.4 Conceptual framework

After assessing the literature section, this dissertation will follow this path as a conceptual framework.

Fig 3.4.1 Conceptual framework



4. Methodology

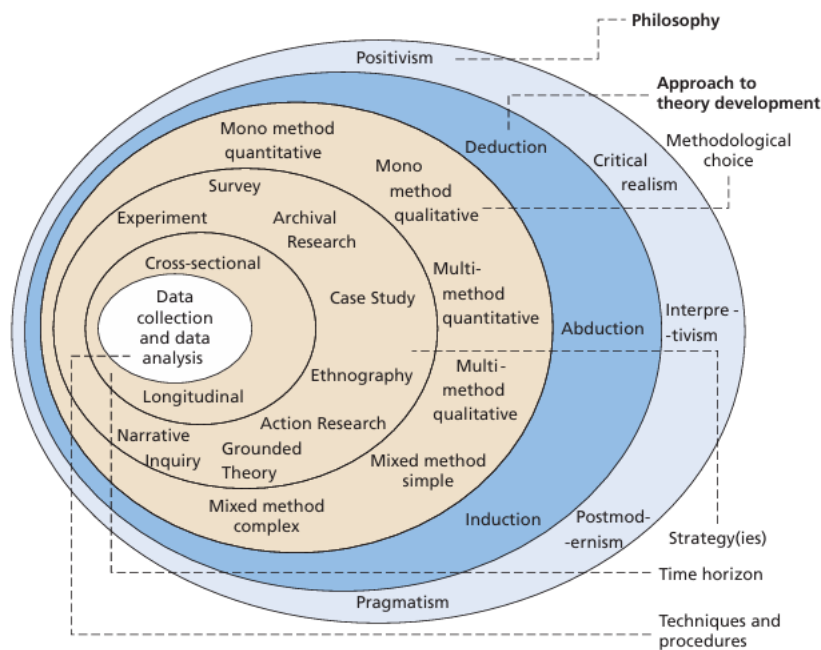
This chapter will explain the relevance of selecting suitable methodologies for the dissertation's empirical part. First, it will justify the selection of research philosophy and approach. Second, it will provide the appropriate selection of data collection method, research strategy, and sampling method. Lastly, it will present the overall design of the questionnaire.

Research methodology is like a map that leads a researcher through a complex journey. It also allows the researcher to overcome the study's difficulties, ensuring that the research process remains on track to reach significant results within the allocated time (Saunders et al., 2019).

4.1 Introduction

Research is viewed as a systematic expedition to discover unexplored or underexplored knowledge (Goddard & Melville, 2004, p. 1). Therefore, research is not seen only as a way of collecting information but rather as exploring something that is still non-existent (Goddard & Melville, 2004). According to Nicolas (2024) Research methodology refers to a systematic framework that enables the author to articulate and analyze the investigation. It encompasses a diverse range of methods designed to meet specific research goals and questions (Nicolas, 2024) Prior to selecting different methods, it is crucial to understand the nature of the research philosophy “ontology and epistemology” and the approach to theory development (Saunders et al., 2019). This dissertation will adopt “Research Onion” initiated by Saunders et al. (2019) to render a comprehensive spectrum of methodologies and justify the selected method.

Fig 4.1.1 Research Onion



Source: (Saunders et al., 2019)

4.2 Research philosophy

Research philosophy is a set of assumptions and ideas through which information is accumulated (Saunders et al., 2019). Although research philosophy might seem profound, it is simply what a researcher does when developing knowledge in a certain research field or subject (Saunders et al., 2019). Simplistically, research philosophy is the idea that researchers have about the reality that is being studied (ontology) and how the knowledge of reality is developed and acceptable (epistemology) (Saunders et al., 2019). From that perspective, *“Assessing the impact of over-tourism on tourism destinations’ sustainability. A case study of Thamel- Kathmandu”*, ontology refers to the impact of over-tourism, its influence on different aspects such as environmental, socio-cultural, economic, and living standards of local Thamel people. Meanwhile, epistemology focuses on how the researcher came up with this study and phenomena, including methods, data sources, and framework adopted to produce the reality. Since the aim of this dissertation is to assess the impact of over-tourism, realities that are objective in nature (quantifiable-based answers) are worthwhile compared to

subjective in nature (qualitative-based answers). Adopting positivism² enables one to take an objective approach in which quantitative-based research is best suited for this paper, which helps to find a relationship between variables through a theory-testing approach instead of a theory-building approach (Saunders et al., 2019). Positivism is associated with the quantitative method, “i.e., data-driven approach,” which enables the reliance on a hypothetic-deductive technique that originates from an existing theory or concept. Since this dissertation has adopted two existing theories, “Tourism carrying capacity and Doxey Irritation model”, through which hypotheses have been postulated; in that case, positivism philosophy enables to take an objective stance, where quantitative based data can be gathered in order to test the postulated hypothesis.

4.3 Research Approach

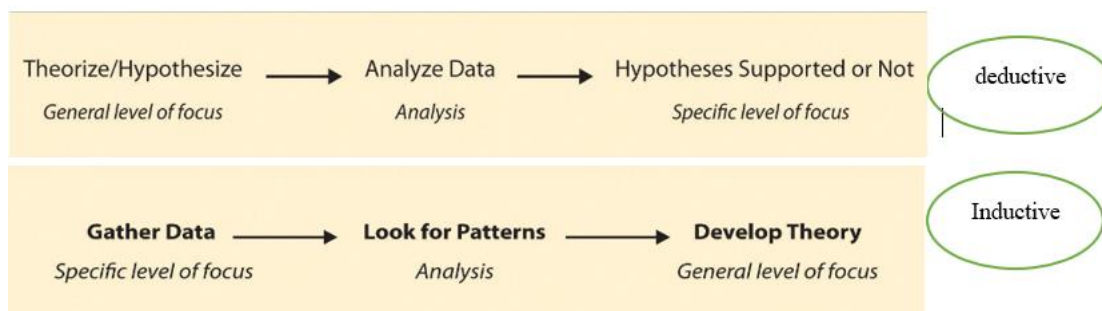
According to Sirisilla (2023), the research approach refers to a procedure adopted by the investigator to gather, examine, and interpret the findings based on the nature of the research questions and goals. This dissertation will adopt a deductive-based approach because the test of the adopted hypothesis is possible through a deductive approach. According to Saunders et al. (2019), the deductive approach opens with a hypothesis postulation, and the investigator tests the hypothesis via quantitative data collection and analysis. Based on the adopted theory, the researcher develops a research design and data collection techniques, in which if the pre-stated claims are met, then the hypothesis is accepted (Saunders et al., 2019). As aforesaid, the aim is to assess the “*impact of over-tourism on the Thamel-Kathmandu region*”; in that case, one can presume several impacting factors, but to diagnose high-impactful factors, it is crucial to grasp statistical measures, which is only possible via deductive approach. In that

². Positivist philosophy believes that the reality of the social world is viewed objectively using the scientific method, in which the investigators dissociate themselves from their personal interpretation.

sense, the deductive method is worthwhile compared to the inductive method, which follows the development of a theory instead of challenging an existing one (Blackstone, 2012).

Thusly, this dissertation will adopt the following pattern, i.e., “hypothesis postulation – collecting & analyzing data – and testing hypothesis” – see Fig. 4.3.1. According to Saunders et al. (2019, p. 176), the deductive approach usually aligns with the quantitative method, which is crucial because outcomes can be proven as acceptable or not, for which numerical forms of data are imperative.

Fig. 4.3.1 Comparisons between deductive and inductive approach



Source: (Blackstone, 2012)

4.4 Research method

This dissertation will adopt a quantitative research method because the adopted hypothesis test requires quantifiable data. This method measures variables quantitatively and examines them using statistical approaches (Saunders et al., 2019). The objective of the quantitative method is to gain an objective-based reality by using quantified data to discover trends, test hypotheses, and make predictions (Saunders et al., 2019). In a situation where the researcher follows a positivist philosophy and deductive approach, the quantitative method of data collection is more suitable (Saunders et al., 2019). Since the researcher aims to measure the impact of over-tourism on different aspect of socio-cultural and economic aspects of the

Thamel-Kathmandu region, the quantitative method is well suited as it allows to predict the magnitude of over-tourism and its effects against different postulated hypotheses in section 3.4.

Additionally, the researcher's physical detachment from the targeted study region impedes the feasibility of a quality research method, especially via interview. Though the availability of the internet and smartphones have made the research process easier in post-modern society, interviewing the different demographic profiles of participants is necessary to bring a deep, nuanced qualitative finding. Moreover, it might be difficult as every social member within the targeted region may not have access to the digital world. Aligning with this presumption, according to Kemp (2023) Nepal's internet penetration rate in 2023 is only 51.6%, which suggests that potential interviewees without internet access are at risk of being overlooked. This will not only make the researcher compromise but also cause selection bias.

4.5 Research Strategy

This dissertation will adopt a survey research strategy. The survey strategy will enable us to comprehend how the residents of the Thamel-Kathmandu region perceive the impact of over-tourism on their socio-cultural, economic, and authenticity aspects. Since the dissertation already leans towards an objective-based method, “i.e., positivism-deductive-quantitative,” the survey method is ideal for understanding their sentiments. Additionally, by aligning with Doxey’s Irritation model, which is frequently applied to measure local sentiments towards tourism growth, the adoption of the survey benefits as it will pinpoint whether Thamel-Kathmandu locals are feeling “euphoric, apathy, irritation, or antagonistic” behavior about tourism in their local area. According to Saunders et al. (2019, p. 178), a quantitative method of data collection is usually associated with a survey research strategy. Additionally, a

questionnaire survey are widely popular because it efficiently helps to collect standardized responses from large pools of participants, making comparisons easier (Saunders et al., 2019).

This dissertation will precisely adopt an online questionnaire survey using social media sites as a delivery channel. The questionnaires will be constructed on a Likert scale, precisely a 5-Likert Scale questionnaire in which the options will be formulated in a linear scale in which strongly disagree will be denoted by one and strongly agree will be denoted by five.

According to Joshi et al. (2015) the Likert scale is one of the most popular methods used in social science to measure respondents' sentiments and opinions (Joshi et al., 2015). The Likert scale allows the incorporation of statements with a level of agreement or disagreement, typically a scale from "strongly disagree to strongly agree" (Joshi et al., 2015).

4.6 Sampling technique

This dissertation will adopt the snowball sampling method. According to Handcock and Gile (2011) the snowball sampling technique is implied in situations where the investigator finds it difficult to penetrate the target audience. Given that the researchers and the targeted study area are physically distant, snowball sampling facilitates better by allowing a chain referral process in which initial respondents refer other potential participants to participate in the survey project. Furthermore, snowball sampling enables research of stigmatized issues as respondents feel more motivated to indulge and share responses with a researcher who has been referred by fellow friends or colleagues whom they trust the most (Aglipay et al., 2015). In this method, the researcher identifies initial respondents who fulfill the criteria of the research and requests other potential participants (Aglipay et al., 2015). Moreover, it creates a "snowball effect", where the sample size increases as the referrals increase. However, it also

comes with a high chance of bias as it heavily relies on existing social connections, which sometimes may overlook participants beyond their circles (Handcock & Gile, 2011).

However, in some situations where conventional sampling techniques are seen as impractical due to geographical constraints, they provide a valuable contribution despite their intrinsic limitations (Aglipay et al., 2015). To minimize the bias factor, the researcher will employ two strategies. First, clear inclusion criteria should be provided so that the referrals go to a diversified segment of the population. Second, the researcher will begin the sampling process from various starting points so that the research captures the diverse backgrounds of respondents.

4.7 Questionnaire design

A total of 35 questionnaires were adopted in an online survey questionnaire, in which nine questionnaires were designed to extract participants' demographic information, and the rest were about the impact of over-tourism on different categories, such as "environmental strain, socio-cultural strain, economic strain, infrastructural strain, housing affordability, sense of estrangement." To assess the impact of over-tourism on these aspects, a 5-Likert scale was measured, due to which participants' perceptions or views on each questionnaire can be gathered in a numerical scale form. Which can be later used to find over-tourism impacts on each respondent variable, "i.e., aforementioned categories."

Researcher's Position: The researchers' position was critically evaluated while making these survey questionnaires. Since researchers are from the same region, "Thamel," therefore, high chances of violating participants' cultural beliefs and norms by the survey questionnaires could be high. Therefore, questionnaires were made in rather than asking questionnaires in what, how, and which perspective, we used a self-report type of questionnaire where questions are articulated in "first-person narrative". This also helps to relate participants to

their actual experiences about the asked questions instead of asking questions in an “interrogative manner.”

Ethical consideration: During the whole journey of this dissertation, researchers were fully alert to the fact that they were not violating any ethics or morality of any participants who were either part of this dissertation or were influenced by this dissertation. However, in quantitative research, the role of the researcher remains external to the findings because of its objective nature. Still, there could be many ways the ethics of the participants or studied population get offended or violated. For instance, during the approach to reach the potential participants. Therefore, the researchers invited participants to participate in the research project after they were fully aware of the purpose of this research.

5. Results and Findings

This chapter will provide the results and findings of the participants' overall responses. Firstly, the overall information about the demographic profile of the participants. Secondly, participants' engagement in local activities and perceived change in Thamel as a tourist destination will be provided. Thirdly, questionnaires asked in each category of “environmental strain, socio-cultural strain, environmental strain, infrastructure strain, housing affordability, and sense of estrangement” in relation to over-tourism will be discussed. Lastly, correlation analysis and multivariate regression analysis will be provided to find the possible linear impact of overtourism on aforesaid respondent variables.

5.1 Introduction

This dissertation, using an online survey questionnaire delivered to local people of the Thamel region of Nepal through snowball sampling, has been able to collect 152 participants' responses. Firstly, participants demographic related questions such as "age, gender, marital status, educational background, income status, and perception of over-tourism in their local community "Thamel" were asked. In the second phase, six predictor variables were used which were arranged through twenty-one survey, and lastly, the respondent variable "overall perceptiveness of over-tourism was arranged by asking three related survey questionnaires. Along with that two questionnaires related to barriers and solutions to overtourism were asked.

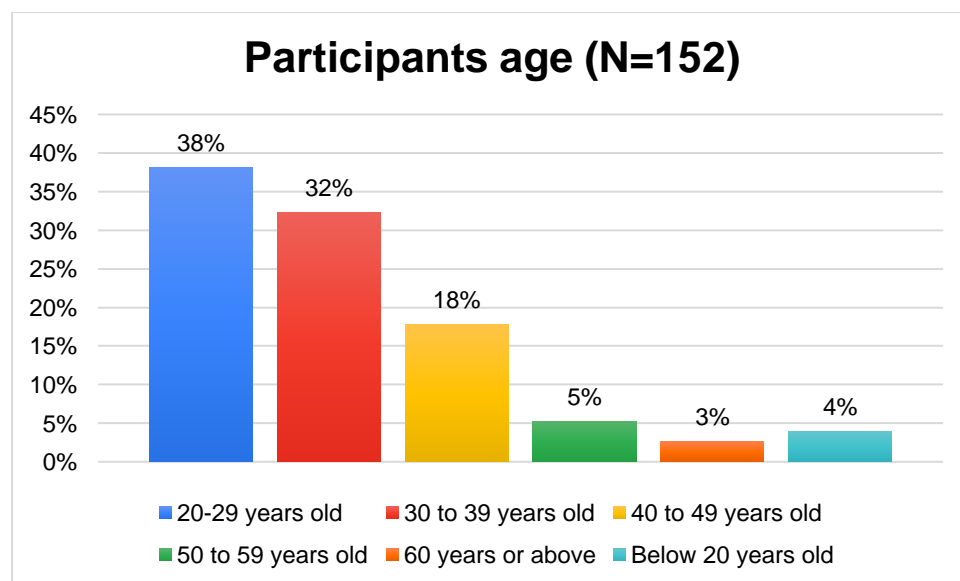
These questionnaires were delivered via the social media channel Facebook Messenger during weeks 20 and 21. Out of 177 responses, only 152 were found complete; therefore, 25

participants' responses were discarded during the data filtration process. In the first section of this chapter, participants' demographic profiles will be presented. Meanwhile, in the second section, core findings related to overtourism in the Thamel region will be presented.

5.2 Participants' Age profile

Out of the 152 responses collected, the majority of the participants were young. 38% were between 20 and 29, followed by 32% between 30 and 39. In aggregate, participants between 20 and 39 were 70%. Similarly, participants between 40 and 49 were 18%. Only 3% were above 60 years old. Meanwhile, 4% were below 20.

Bar diagram 5.2.1: Participants Age

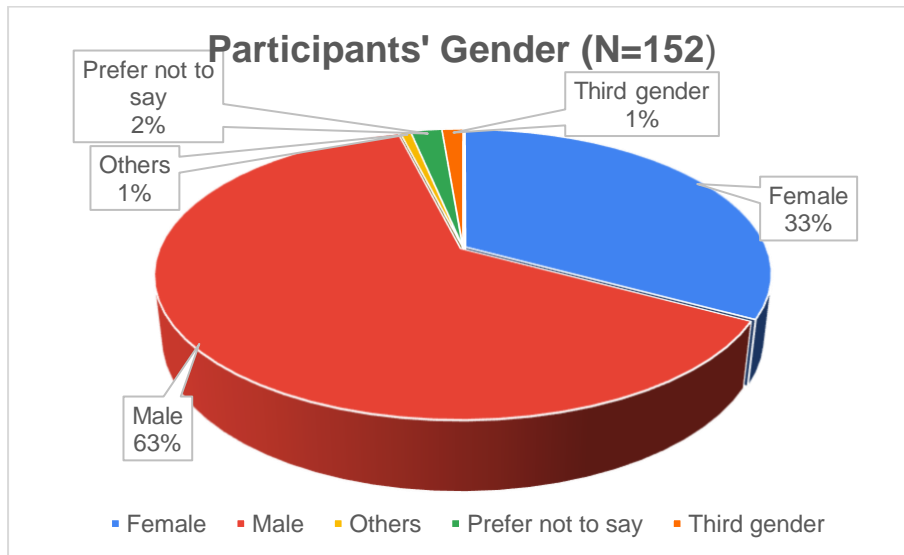


5.3 Participants' gender profile

Out of 152 participants, male participation was almost 2/3rd (precisely 63%), which is almost double female participation, 33%. Only 1% identified themselves as third gender, and 2% preferred not to disclose their gender identity with us. The remaining 1% identified

themselves as other than mentioned in the options. This survey shows a male-dominated response.

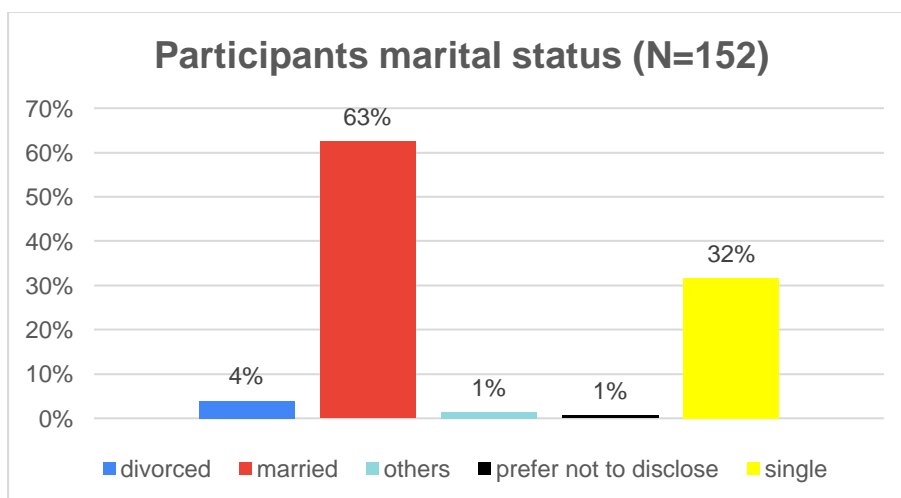
Pie chart 5.3.1: Participants gender



5.4 Participants marital status

The online survey result shows that married participants dominated the project. 63% out of 152 participants were married, while 32% were single. Similarly, 4% were found to be divorced. A marginal 1% preferred not to disclose their marital status with us.

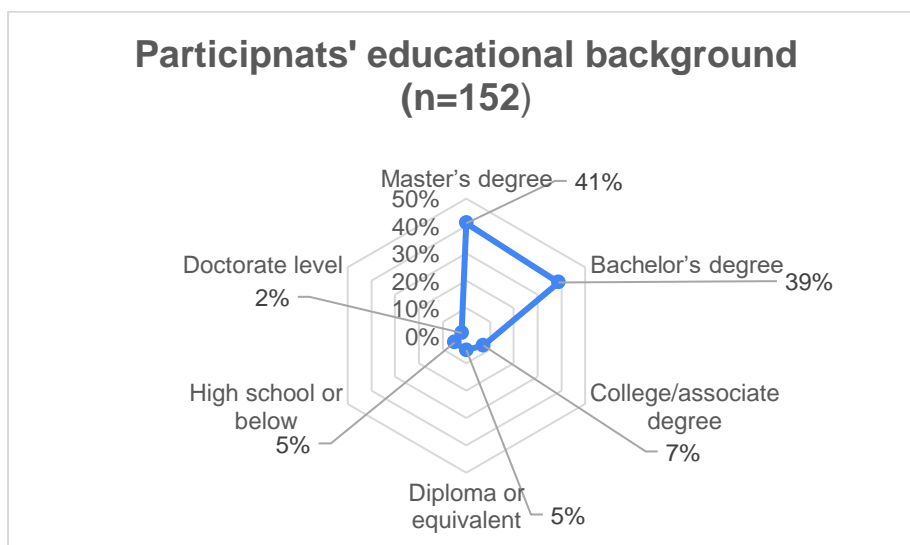
Bar diagram 5.4.1: Participants marital status



5.5 Participants' educational background

Out of 152 surveyed participants, the majority of the participants had at least a bachelor's or master's passed; 39% passed their bachelor's degree, and 41% passed their master's degree. Meanwhile 5% had only cleared their high school or school level. 2% of participants had a doctorate degree.

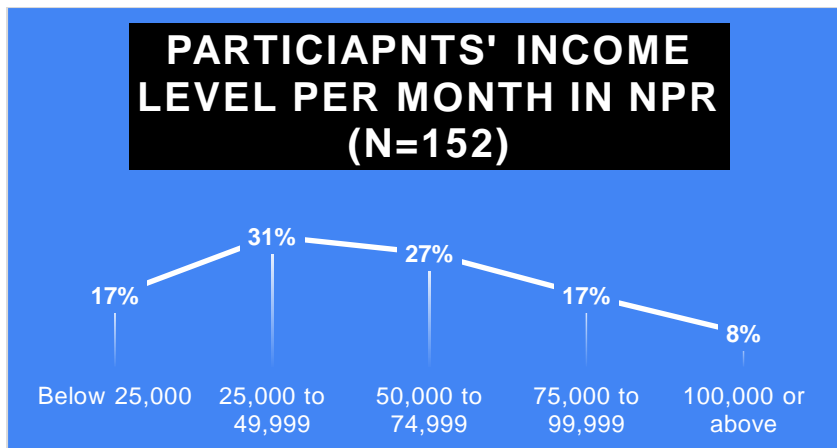
Chart 5.5.1: Participants educational background



5.6 Participants income level

Out of 152 surveyed participants, we found the majority of the participants had a monthly income of 25,000 to 49,000 Nepalese Rupee. Similarly, 27% of participants had an income between 50,000 to 74,999 per month. only 8% were found to have income earning more than 100,000 per month, meanwhile, 17% were found to have an income below 25,000 per month. Despite participants mostly being young adults, their income earnings suggest a high possibility of income inequality in the surveyed participants.

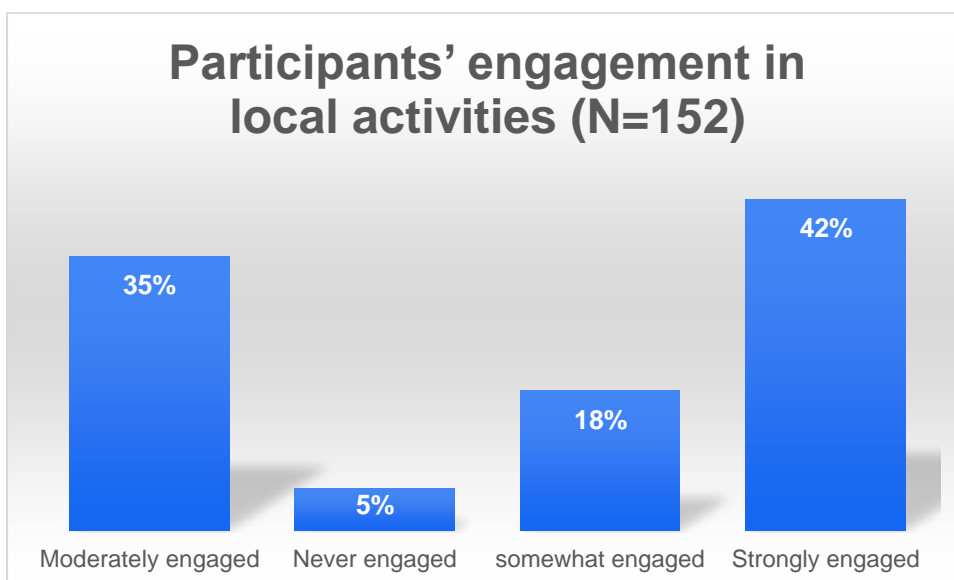
Chart 5.6.1: Participants income Comparison



5.7 Participants' engagement in local activities

A survey questionnaire of “Based on your perspective, how involved are you in local community activities and tourism development in the Thamel-Kathmandu region?” was asked to anticipate Thamel locals' people engagement in community participation. Based on the 152 participants responses, we found 42% were strongly engaged and 35% moderately engaged. This suggests that participants' engagement in local community activities was satisfactory. Only 5% were found never engaged in Thamel's local activities and tourism initiatives.

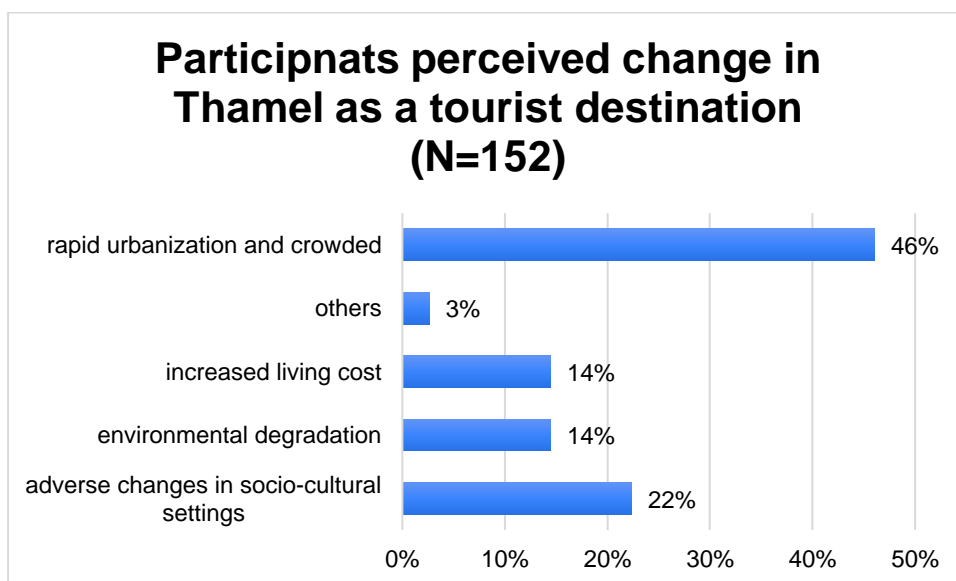
Bar diagram 5.7.1: Participants' engagement in local activities



5.8 Perceived change in Thamel as a tourist destination

Similarly, a survey questionnaire, “Based on your experience, how would you label the changes in the Thamel region as a tourist destination over the last decade?” was asked of 157 participants about their perceived change in Thamel as a tourist destination. We found that 46% perceived rapid urbanization and crowding in the Thamel region. Similarly, 22% found adverse changes in sociocultural settings. Likewise, 14% felt adverse environmental situations, and 14% found high living costs. This perception as compared to earlier decades suggests that Thamel’s has witnessed severe negative externalities by their locals.

Bar diagram 5.8.1: Perceived change in Thamel as a tourist destination



5.9 Locals’ views on over-tourism effect on Thamel’s environment

A total of three survey questionnaires were asked to find their views of overtourism effect on Thamel’s environment. The observed mean value on three different items clearly indicates that over-tourism has made Thamel’s local environment more degraded. Using 152

participants' responses on average, the observed mean value suggests between “agree and strongly agree” on a 5- Likert Scale; which indicates that over-tourism has made Thamel's local environment more polluted and degraded. The median value of 5 indicates that out of 152 responses, 50% ticked to strongly agree on a 5-Likert scale. The observed standard deviation shows that 152 participants responded closer to the mean value. Similarly, the observed Cronbach's alpha of “0.837” indicates that questionnaires related to environmental impact have a high internal consistency.

Environmental strain				Cronbach's ³
	mean	median	St.dev	alpha
1) I feel the increase in touristic activities in Thamel has degraded the natural assets and environment.	4.13	4	1.00	0.837
2) The waste produced by tourists in the Thamel region has adversely affected the region's overall cleanliness.	4.09	4	1.02	
3) I feel that the rapid expansion of tourism infrastructure in Thamel has impaired the local ecosystem.	4.13	4	1.03	

5.10 Locals' views on over-tourism effect on Thamel socio-cultural settings

A total of six questionnaires were asked to 152 local people of Thamel region about the over-tourism effect on Thamel's socio-cultural settings. The observed average responses on a 5-

³ Cronbach's alpha is a used to examine the reliability or internal consistencies of a test and measures. Which means how internal consistent is the scale or a tests are closely associated with each other and produce similar construct (Johnson, 2021). Cronbach's value of $\geq 70\%$ indicates reliable, meanwhile $< 70\%$ indicates questionable (Johnson, 2021).

Likert scale indicate that Thamel's local people have found difficulty in maintaining their socio-cultural integrity. For instance, the responses to questionnaires 3 and 5 suggest that over-tourism has made Thamel local's culture and traditions in a Jeopardy as the overload of tourists has had adverse cross-culture effects. Similarly, participants, on average, responded that *“over-tourism in the Thamel region has led to the commodification and commercialization of local indigenous culture,”* which indicates that the overload of tourists in the Thamel region has made their local culture and traditions as a means of “Cash generation activity” rather than preserving and promoting it as a part of identity for oneself and for future generation. The observed mean and media value clearly indicate a left-skewed on 152 respondents' responses, meaning the majority of the participants agreed to this surveyed questionnaire. The observed Cronbach's alpha of 0.913 indicates that items implied in these “socio-cultural” categories have high internal consistencies.

Socio-cultural strain	Cronbach's			
	mean	median	St.dev	alpha
1) From my perspective, over-tourism in the Thamel region has led to the commodification and commercialization of local indigenous culture.	4.05	4	0.99	0.913
2) The influx of tourists in the Thamel region has adversely affected traditional practices and local traditions.	4.00	4	1.12	
3) The large number of tourists in the Thamel region has diluted the authenticity of local cultural identity and practices.	4.09	4	1.05	
4) I perceive that over-tourism in the Thamel region has led to overcapacity and congestion in public spaces and related activities.	4.14	4	1.02	
5) I think the dealings between tourists and locals in Thamel have negatively contributed to cross-cultural exchange and comprehension.	4.05	4	1.09	

6) The influx of tourists has strained Thamel's social fabric.	4.14	4	1.06
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5.11 Locals' views on over-tourism effect on Thamel's local economy

These three survey questionnaires were asked to 152 responses on their views of over-tourism effect on local economy of Thamel. The observed mean value indicates that though over-tourism has brought some perks to the local economy, the overall cost of living is inflated. Questionnaire 3: “*Based on my experience, the cost of living in Thamel has increased due to tourism growth.*” Was found with the highest mean value among all questions asked in the entire survey project, suggesting that over-tourism has created more struggle to live in the Thamel region due to the high cost of living. And, it is found that overreliance on tourism revenue was the primary reason behind such a situation: the observed mean value of “4.05” on a 5-Likert scale clearly justifies it. The observed Cronbach’s alpha of “0.848” suggests that questionnaires implied in economic categories were of high internal consistency “i.e., highly reliable”.

Economic strain	mean	median	St.dev	Cronbach's alpha
1) I believe that tourism-related activities have brought economic perks to the businesses and individuals in the Thamel region.	4.23	5	1.01	0.848
2) Thamel's overreliance on tourism revenue and entrepreneurial activities has created inequalities in wealth distribution among residents.	4.05	4	1.07	
3) Based on my experience, the cost of living in Thamel has increased due to tourism growth.	4.26	5	0.99	

5.12 Locals' views on over-tourism effect on Thamel's infrastructural burden

The questionnaires were aimed to find how tourism affects infrastructural pressure on a host region. The average response from 152 participants with a mean value of over 4 on each questionnaire indicates that over-tourism in the Thamel region has overburdened public spaces, amenities, and related services. The median value of 4 suggests that 50% “i.e., 76 participants” ticked on “strongly agree” on a 5-Likert scale, which suggests that the overload of tourists in the Thamel region has made overburden on infrastructure such as public spaces, suburban areas, and the quality of the amenities. The observed Cronbach's alpha of “0.835” indicates that questions asked within this infrastructural category have high internal consistencies.

Infrastructural strain	mean	median	St.dev	Cronbach's alpha
1) In my experience, the infrastructure in the Thamel region has struggled to cope with the demands of increasing tourist numbers.	4.12	4	1.01	0.835
2) I think developing tourism infrastructure in Thamel has lacked the overall quality of amenities and services.	4.09	4	1.07	
3) The expansion of tourism-related facilities in the Thamel region has encroached upon suburban areas and public spaces.	4.12	4	1.04	

5.13 Locals' views on over-tourism effect on Thamel's housing affordability

The responses from 152 participants from three questionnaires asked about the over-tourism effect on Thamel's housing affordability, it was found that over-tourism in the Thamel region has adversely affected housing affordability for locals in the Thamel area. The reason behind

such low affordability is due to the short-term accommodations or sharing houses as a means of collaborative economy. In addition to that participants are finding it difficult to cope because the *“noise and disturbance from tourists and tourism-related activities”* have affected the quality of life for the Thamel locals.” The observed mean, and median values of “4.16” and “4” from the 3rd questionnaire suggest that local Thamel are facing a low quality of life due to high tourist flow and their touristic activities. The Cronbach’s alpha of “0.889” suggests that questionnaires implied on housing categories were of high internal consistencies.

Housing stress	mean	median	St.dev	Cronbach's alpha
1) I believe that the rise in tourist activities has adversely affected housing affordability for local inhabitants in Thamel.	4.10	4	1.03	0.889
2) I feel the presence of short-term rental accommodations or sharing houses has altered Thamel's residential character.	4.09	4	1.08	
3) In my experience, the noise and disturbance from tourists and tourism-related activities have affected the quality of life for Thamel's locals.	4.16	4	0.99	

5.14 Locals' views on over-tourism effect on Thamel's sense of estrangement.

These questionnaires were aimed to find the level of estrangement felt by the Thamel's locals due to over-tourism. Based on the 152 participants' responses on their sense of belonging, we found locals feel a low sense of belonging because of the minimal efforts made to counter-balance between tourism development and Thamel's communities' identities; the observed mean from 152 participants on the 3rd questionnaire justifies so. Furthermore, over flow of

tourism in the Thamel region has made the authenticity and true identity fade away. The observed Cronbach's alpha of "0.852" indicates that questionnaires implied in these categories were of high internal consistencies.

Sense of estrangement				Cronbach's
	mean	median	St.dev	alpha
1) Based on my experience, over-tourism has diminished the sense of locals' authenticity and identity in the Thamel region.	4.18	4.5	1.06	0.853
2) I feel excessive tourist activities have led to the failure to preserve historical and cultural landmarks, which is essential for maintaining Thamel's unique character.	4.10	4	1.00	
3) I feel that minimal efforts are made to balance tourism development with the preservation of the local identity and heritage in the Thamel region.	4.22	5	1.00	

5.15 Locals' Overall perceptiveness of over-tourism

Lastly, three questionnaires were asked for 152 responses about the overall perceptiveness of over-tourism in the Thamel region. It was found that the local people of Thamel have an adverse impact on their overall well-being due to over-tourism. Due to the adverse effect of over-tourism in the local environment and socio-cultural settings, participants are afraid about the longevity of tourism activities in the Thamel region; the observed mean value on 2nd questionnaire identifies so. In order to minimize the adverse impact of over-tourism, participants feel efficacious measures are imperative, the observed mean value of "4.23" on 3rd questionnaire's response from 152 participants justifies that.

Overall perceptiveness of over-tourism				Cronbach's
	mean	median	St.dev	alpha

1) Overall, I perceive overtourism to have an adverse impact on the overall well-being of the Thamel region.	4.19	5	1.08	0.883
2) Given its adverse impact on the environment and socio-cultural settings, I'm afraid about the longevity of tourism activities in the Thamel region.	4.09	4	1.11	
3) I feel that efficacious measures are urgent to address the adverse impact of over-tourism in the Thamel region.	4.23	5	1.05	

5.16 Correlation

A total of 24 survey questionnaires using Likert scaling were asked to 152 participants on seven different categories: “environmental strain, economic strain, socio-cultural strain, Infrastructure strain, Residential strain, source of estrangement, and perceived over-tourism.” The transformation of these questionnaires into factors can be seen in Appendix 1.1.

Based on the Thamel locals’ views of overtourism in different aspects. Firstly, Thamel locals found overtourism has a strong and positive correlation with a sense of estrangement (0.84). It indicates that as the flow of tourists increases in the Thamel region, the sense of estrangement feelings in their in their own community becomes higher. Similarly, locals have found that over-tourism has led to an adverse impact on housing affordability, as the correlation between housing affordability and over-tourism within the Thamel region is positive and strong. Similarly, infrastructural strain has a strong and positive correlation with housing affordability; a correlation value of 0.84 was observed. It suggests that as Thamel region's infrastructure, “i.e., public spaces, transportation, and other public amenities,” gets overcrowded, the chances of housing prices upsurging due to the overflow of tourists in the Thamel region. The correlation between socio-cultural strain and housing affordability has a

strong and positive relation; which means as the socio-cultural identity of a local Thamel region starts to dilute with more tourist inflow, the purchasing power of houses starts to diminish.

Table 5.16.1 Correlation

	Env. strain	Econ. strain	Sociocul. strain	Infast. strain	Housing aff.	Estrangement	P. overtourism
Environmental strain	1						
Economic strain	0.66	1					
Sociocultural strain	0.80	0.75	1				
Infrastructural strain	0.67	0.79	0.77	1			
Housing affordability	0.67	0.73	0.74	0.84	1		
Sense of estrangement	0.65	0.68	0.74	0.76	0.80	1	
Perceived over-tourism	0.72	0.72	0.78	0.74	0.80	0.84	1

According to Akoglu (2018, p. 92) Values with “+1 –1 “ are considered perfectly correlated, values between “+0.99 or -0.99 and +0.70 or -0.70” are strongly correlated, and values with “+0.69 or -0.69 and +0.40 or -0.40” are moderately correlated. Meanwhile, values below “+0.40 or -0.40” are considered weakly correlated.

5.17 Multivariate regression analysis

This dissertation has adopted multi-variate regression analysis, which is one of the widely used statistical tools to measure the relationship when there are two or more respondent variables and one or more predictor variables. Unlike, simple or multiple linear regression analysis, which anticipates multiple predictors linear coefficients on single respondent variables, multivariate regression analysis does it in a reverse manner, “i.e. when there are multiple respondent variables”. Since this dissertation has six respondent variables, “environmental strain, socio-cultural strain, economic strain, infrastructural strain, housing

affordability, and sense of estrangement”, which will be intended to show how these factors will be impacted by the over-tourism in the Thamel region, “i.e., predictor variable.” Since multivariate regression enables more accuracy and depth of insights as it covers all the impact faced by respondent variables by its predictor variables in a single context, unlike simple linear regression which computes one predictor and respondent variables at a time.

The parameter estimates of over-tourism to each six dependent factors are presented in the table below. Firstly, the over-tourism impact on the environment in the Thamel region has a strong adverse influence on the environment, the coefficient value of ($B=0.654$ & $P.value < .001$) indicates that over-tourism significantly and adversely impacts Thamel’s ecological diversity and natural assets. Similarly, over-tourism impact on economic strain has a strong adverse impact ($B=0.664$ & $P.value < .001$), which suggests that though over-tourism has brought some sorts of economic perks the overreliance on tourism revenue has led to unequal wealth distribution among Thamel’s people, due to which cost of living has hiked-up. This is due to the overgrowth of tourists in Thamel’s local region. Among the three pillars of sustainable tourism, over-tourism was found most detrimental to socio-cultural integrity as the coefficient power of ($B=0.709$ & $P.value < .001$) indicates the most ruinous when compared to environmental and economic aspects. The impact of over-tourism in Thamel’s infrastructural strain ($B=0.689$ & $P.value < .001$) is adversely related, which indicates that the high growth of over-tourism has led to overcrowding of public places and suburban areas. Similarly, over-tourism has led to adverse effects on housing affordability; the observed coefficient value of ($B=0.766$ & $P.value < .001$) indicates a strong adverse impact. Lastly, the impact of overtourism was found highly adverse and significant impact on their sense of belonging to the community. In fact, the parameter estimates of the sense of estrangement due to over-tourism in Thamel ($B=0.774$ & $P.value < .001$), suggest that as the flow of tourists in

Thamel regions creeps up by unit, their local's sense of alienated feeling from their own community increases by 0.774 times.

Table 5.17.1 Multivariate regression analysis

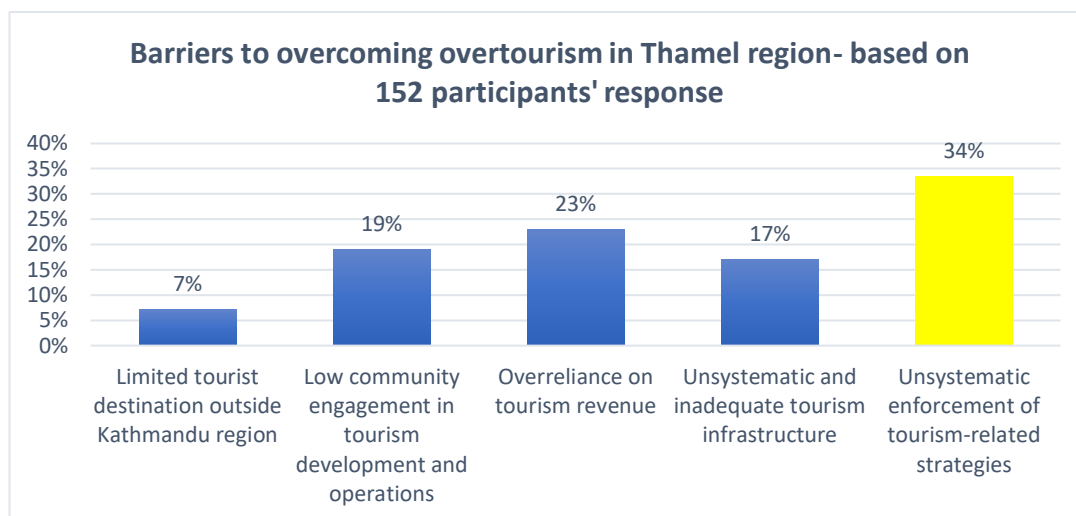
Parameter Estimates							
Dependent Variable	Parameter	B	Std. Error	t	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Environmental strain	Intercept	1.388	.220	6.307	<.001	.953	1.823
	OvertourisminThamel	.654	.051	12.719	<.001	.552	.756
Economic strain	Intercept	1.408	.224	6.277	<.001	.965	1.852
	OvertourisminThamel	.664	.052	12.673	<.001	.561	.768
Sociocultural strain	Intercept	1.123	.198	5.671	<.001	.732	1.515
	OvertourisminThamel	.709	.046	15.315	<.001	.617	.800
Infrastructure strain	Intercept	1.233	.217	5.685	<.001	.805	1.662
	OvertourisminThamel	.689	.051	13.599	<.001	.589	.790
housing strain	Intercept	.925	.204	4.535	<.001	.522	1.328
	OvertourisminThamel	.766	.048	16.078	<.001	.672	.860
Sense of estrangement	Intercept	.937	.177	5.302	<.001	.588	1.286
	OvertourisminThamel	.774	.041	18.746	<.001	.693	.856

5.18 Barriers to overcome overtourism in Thamel region

After assessing the overall impact of over-tourism in different aspects, it was felt necessary to explore its barriers. Therefore, we asked one questionnaire related to barriers: “Based on your perception, what is the prime barrier to overcoming over-tourism in the Thamel region?”

Based on the responses from 152 participants, over 1/3rd “i.e., 34%” found unsystematic enforcement of tourism-related plans was the major barrier, followed by 23% responses “i.e., from 35 participants” say overdependent on tourism revenue is the main reason behind the occurrence of over-tourism in Thamel region, followed by 19% responses “i.e., from 29 participants” found low community activities was by their locals on tourism-related activities was the main barriers for overcoming over tourism in Thamel region. Similarly, 17% (n=26 participants) found inadequate tourism-related infrastructure as a main barrier to overcoming overtourism in the Thamel region.

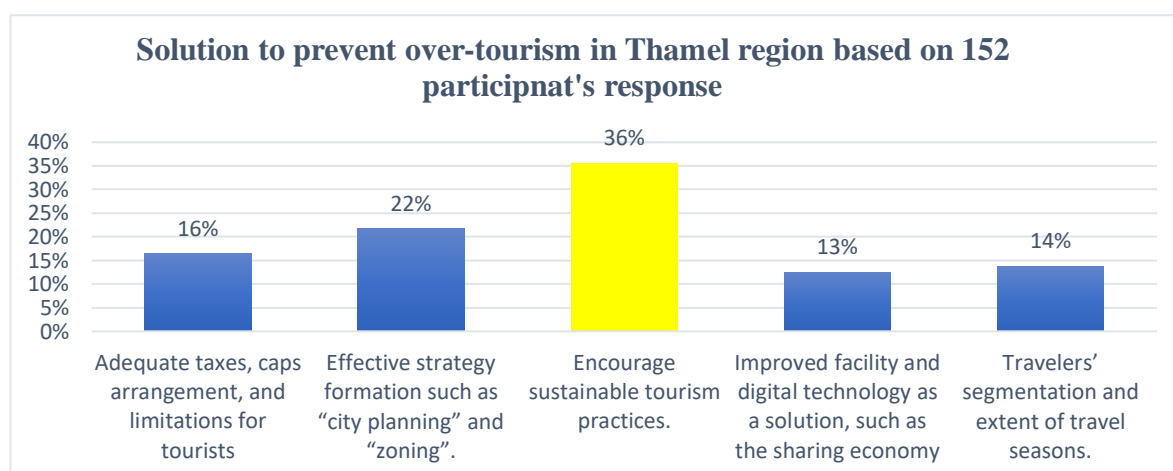
Bar diagram 5.18.1 Barriers to overcome over-tourism in Thamel Region



5.19 Solution to prevent over-tourism in the Thamel region

Similarly, a total of 152 responses from local Thamel people were collected regarding the solution to prevent over-tourism, a questionnaire of: “Based on your perception, what strategical solution is crucial to alleviate over-tourism in the Thamel region?”. We found encouraging sustainable tourism practices in the Thamel region to both locals and tourists would help to prevent it; over 1/3rd of responses were accumulated to this option. Similarly, 22% of participants' “33 responses” found effective strategies such as systematic city planning and zoning systems would prevent the prevalence of over-tourism in the Thamel region. Similarly, 16% found cap system with adequate tax for tourists would prevent the overflow of tourists to this region.

Bar diagram 5.19.1 Solution to prevent over-tourism in the Thamel region



6. Discussion

This chapter will provide the results and findings of the participants' overall responses. Firstly, the overall information about the demographic profile of the participants. Secondly, participants' engagement in local activities and perceived change in Thamel as a tourist destination will be provided. Thirdly, questionnaires asked in each category of “environmental strain, socio-cultural strain, environmental strain, infrastructure strain, housing affordability, and sense of estrangement” in relation to over-tourism will be discussed. Lastly, correlation analysis and multivariate regression analysis will be provided to find the possible linear impact of over-tourism on aforesaid respondent variables.

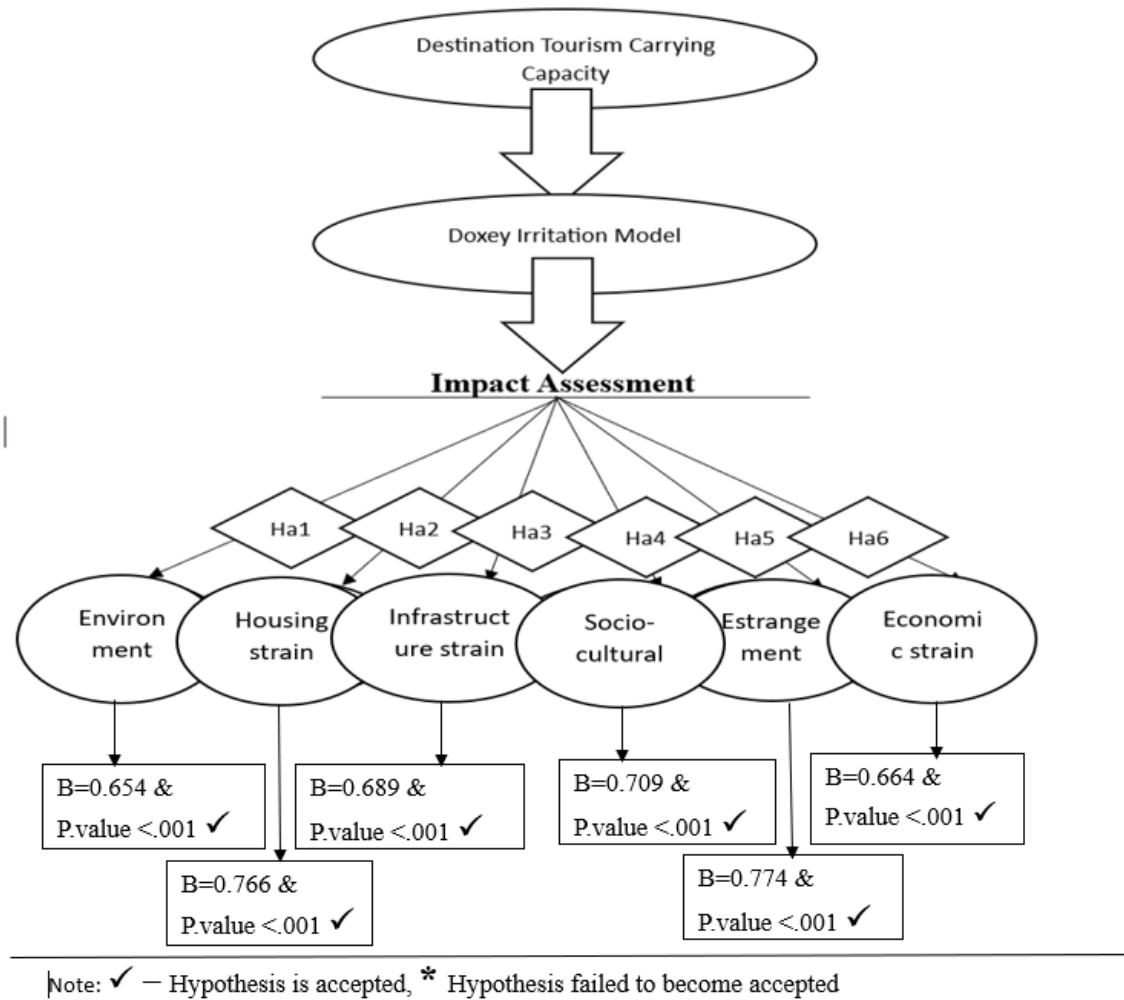
6.1 Overall Discussion of the Findings

The study outcomes show how over-tourism affects different dimensions of the Thamel-Kathmandu area. The multivariate regression analysis proves the hypothesis significantly as it reveals the increased intensity of negative effects of over-tourism on the environment, economy, sociocultural aspects, infrastructure, and housing. This research paper aimed to explore "assessing the impact of over-tourism on tourism destinations' sustainability. A case study of Thamel-Kathmandu". Which was carried out quantitatively using an online survey questionnaire. In this dissertation, via carrying capacity and the Doxey Irridex model, necessary hypotheses were postulated to find the impact of over-tourism on six different categories in the Thamel region: "environmental strain, sociocultural strain, economic strain, infrastructural strain, housing affordability, and sense of estrangement." A total of 152 local people were surveyed using an online survey using a 5-point Likert scale. In the demographic insights, most locals were young adults, and the participants' gender profiles were dominated

by males, which was around 2/3rd of the total responses. Due to these two factors, this dissertation's findings focus more on young adults, especially what Thamel's males perceive, than on the all-round perceptions.

The overall assessment of hypothesis testing is presented in the “Figure 6.1.1” below. In addition, it affects the feelings of community members and reduces their sense of identity. Such findings are also corroborated by the correlation analysis pointing to a high level of interdependence between perceived over-tourism and various forms of strain. It becomes evident that sustainable tourism and proper planning of cities are necessary to avoid these negative impacts. Some of the measures proposed by the respondents included adequate taxation, encouragement of sustainable tourism practices, and the integration of digital technologies to improve the structures. However, challenges persist, such as few tourist attraction centers outside the central region and poor compliance with tourism policies. Therefore, the barriers above must be addressed through effective management practices that are integrated and long-term for the sustainability of the Thamel-Kathmandu area. This is an important strategy to ensure that gains from tourism activities are not at the expense of the society's welfare and the environment. Furthermore, locals have found that over-tourism has led to a negative impact on housing affordability, as the housing affordability due to over-tourism within the Thamel region become more difficult to arrange and purchase because of sharing or a collaborative economy. Similarly, the infrastructural strain has a strong and positive correlation with housing affordability; suggesting that as Thamel region infrastructure “i.e., public spaces, transportation, and other public amenities” gets overcrowded, the true authentic identity of Thamel region has slowly faded, as a result, locals are felling a high sense of estrangement in their own community due to high flow of tourists.

Figure 6.1.1 Hypothesis test result



6.2 Discussion with Prior Researchers' Findings

The findings of the research studies on the effects of over-tourism in Thamel-Kathmandu support and build on the literature regarding the topic. Damjanovic (2020), Ojaghlou (2019), Rickly (2019), and Koens et al (2018) works help to obtain a complex view of the various outcomes of overtourism. This paper will focus on the environmental, economic, and sociocultural impacts of over-tourism and its possible solutions and issues.

A higher level of concern has been found regarding the ecological impact of tourism, which directly impacts Thamel–Kathmandu. Over-tourism, as described by Damjanovic (2020), is a situation in which tourists are able to dominate the environment in destructive ways that

cause negative impacts like pollution, resource exploitation, and destruction of habitats. The two studies focused on the functional usage of resources or, better still, the effective utilization of resources. As per its findings, the tourists were overstretching the available water, electricity, and waste disposal infrastructure. Moreover, as Damjanovic has rightly noted, the existence of an existential category is related to the additional burden created by the need to visit specific places before they are wiped out by climate change. Besides, following the increase in tourists in certain areas, Rickly (2019) pointed out that meaningful historical and ecological sites degenerate, and people lose the opportunity to have meaningful experiences as tourists. The effectiveness of these arguments can be affirmed based on the information collected from Thamel-Kathmandu because the concentration of many tourists negatively impacts the environment and cultural values. This impact extends beyond the environmental sphere and operates in every sphere of the tourist experience, which in turn contributes to a cycle of abuse and degeneration.

The occurrence of over-tourism in Thamel-Kathmandu has had profound and diverse impacts on society's socio-economic structure. As the study reveals the benefits of tourism to the local economy, it also demonstrates the harms and its role in deepening social inequalities, which coincides with Ojaghlou's (2019) previous discussion of the economic burden of tourism, such as the Dutch Disease, where excessive dependence on tourism revenue distorts the economy and makes it vulnerable to various threats. Koens et al. (2018) expanded on the economic consequences by shedding more light on how over-tourism contributed to an increase in housing and other basic amenities' costs to the extent that they became unaffordable to the natives, a discovery that was also made in this study where there was a high indication of reduction of housing affordability in Thamel- Kathmandu due to the presence of tourists. This is due to the emergence of platforms like Airbnb that have enhanced

the conversion of residential premises into tourist facilities, reducing the number of cheap houses available in the market that the locals can afford. Furthermore, Damjanovic (2020) described unequal economic impacts, raising concerns over the increased social inequality among residents. This is true according to our study, where we found out that while some firms reap good profits, other firms, especially non-tourism-related firms, face challenges such as escalating costs and competition for resources.

Over-tourism's effects are significant and are exerted in sociocultural aspects of the impacted destinations. Thamel-Kathmandu shows how the originality of the culture is being sold off and the implications of following the trend of over-tourism. Rickly (2019) addressed similar problems, pointing to the question of what makes tourism authentic and how it has been threatened by over-tourism. Thus, tourists searching for the 'real' get involved in activities that erode the cultural fabric of the places they visit. Damjanovic (2020) also discussed the negative impacts of over-tourism on social aspects, specifically, the social exclusion of the residents and social change in community life. This was seen in the research study whereby the Thamel-Kathmandu residents described feelings of placelessness and stress due to increased tourism. Koens et al. (2018) made a similar observation about over-tourism, which results in social pressure since locals are forced to change their way of living. Further, the study also revealed that the issue of over-tourism poses a danger to residents' attachment to the place. Damjanovic (2020) and Rickly (2019) indicate that losing local character is similarly horrendous to actual environmental factors. It has enduring negative results on the personal satisfaction of individuals inside a regional area, including social cohesiveness.

The problem can only be solved with the help of complex and diverse measures, as the key focus is reducing tourist flow. Thus, the solutions that can be provided based on the study's

findings are adequate taxes, sustainable tourism practices, better infrastructure, and digital technologies. Koens et al. (2018) concurred with these recommendations. They were concerned with space organization in cities and employment of available means to moderate the density of tourists and, potentially, the negative impact of the latter. Furthermore, Damjanovic (2020) supported sustainable tourism approaches by stating that responsible tourism can mitigate the advantages and disadvantages of the tourism business. This involves the participation of all stakeholders, namely the tourists, commerce, and the local people, in establishing and maintaining a sustainable tourism framework.

However, significant barriers exist. Our study identified potential problem areas, including a shortage of tourist attractions beyond the Kathmandu Valley, a lack of community participation, and weak implementation of tourism policies. Similarly, Ojaghlou (2019) identified the same challenges, pointing to limited infrastructure and policy environments hamper tourism management. Rickly (2019) and Koens et al. (2018) also looked into the constraints of practicing sustainable tourism, especially in areas with many visitors. They emphasized the principle of participation of local people and the need to enforce policies to prevent the loss of local people's rights and the destruction of their environment due to the development of tourism.

7. Conclusion

This chapter will be the last part of this dissertation; therefore, it will provide an overall quick summary of the dissertation. This chapter will provide the most awaited answers to the research questions mentioned during the first session of this dissertation. Along with that, this chapter will also provide the limitations of the dissertation and possible room for further exploration. Lastly this dissertation will end by providing managerial implications.

The first research question of “*What do the Thamel-Kathmandu area's local communities face the major sociocultural, environmental, and economic effects due to over-tourism?*”

Based on the study's findings, the sociocultural, environmental, and economic effects of over-tourism are evident within the Thamel-Kathmandu area among the local communities. On the sociocultural aspect, over-tourism contributes to eradicating the local culture and converting it into a market product and a mere business venture. This is because the locals feel like strangers in their land as their ways of living and traditions become tourist attractions. This deconstruction of culture undermines the foundation of the community and its members' identity. Tourism, especially the increasing influx of tourists, contributes to pollution, the use of natural resources, and the loss of habitats. For instance, local water, energy, and waste management systems are under pressure, which detracts the ecosystems in the area. From an economic point of view, it opens the avenue for additional revenues and employment for locals, but it also fuels inequality. While these tourists bring in revenue for the country, they increase the cost of houses and other basic amenities to the extent that they become unaffordable to the country's people. This economic disparity is further compounded by the increase in short-term rentals, which impacts the provision of long-term housing for citizens. Similarly, the second research question's answer has been produced in this way: “*How do the local residents of the Thamel-Kathmandu region experience and retaliate to the issues*

brought up by over-tourism, particularly in public spaces (infrastructure), and housing affordability? Based on the study, the locals of the Thamel-Kathmandu region are heavily affected by the consequences of over-tourism, especially in public spaces and housing sectors. There is severe congestion in several areas, such as roads, transport means, and other recreational facilities in regions popular with tourists. This congestion results in many cars crowding the streets, leading to traffic jams. Thus, increasing noise and pollution levels affect residents' quality of life. In response, locals either avoid such places or change their actions to avoid these areas with many tourist attractions. Another issue that cannot be ignored is the poor affordability of housing. The expansion of short-term letting through online services like Airbnb leads to increased rent charges for residents, forcing them to be locked out of the market when it comes to renting. This results in many residents moving into less favored areas and losing their feeling of togetherness even more. In response, some local people have formed protest groups and advocacy groups that campaign and raise awareness of these issues and call for regulators to intervene and limit the effects of tourism on their lives.

Lastly, for the 3rd research question of *“What are the major potential barriers faced by the local communities in the Thamel-Kathmandu area due to over-tourism? And what could be the potential solutions?”* We found there are several challenges that the Thamel-Kathmandu area experiences in controlling over-tourism, but there are solutions as well. One of the major challenges is the lack of options for tourists to visit other parts of Nepal apart from the central area, Kathmandu. This focus of the tourist activity increases pressure on Thamel, and as a result, congestion and depletion of resources are felt. The last one is the poor involvement of the local people in tourism development and management. This implies that many times, the various strategies that have been developed for tourism have not been effective in capturing the concerns of the local people in the area. Moreover, breakdowns in implementing tourism

policies and poor development of some infrastructures also pose challenges in managing over-tourism. Still, the opportunities to avoid or mitigate these challenges are the proper taxation and the limitation of the number of tourists, the advanced eco-tourism, and the improvement of infrastructures with the help of digital technologies. Promoting other tourist sites can also be useful in preventing overcrowding in specific areas like Kathmandu. Involving the local people in the decision-making and planning processes of tourism increases their chances of being understood and their needs met. Therefore, increasing effectiveness and compliance with the existing policies and enhancing infrastructure quality can help reduce the negative impacts of over-tourism and foster sustainable tourism. In conclusion, it is vital to state that combating the consequences of over-tourism in Thamel-Kathmandu should involve various levels of intervention. Sociocultural, environmental, and economic impacts of tourism, awareness of residents' stimuli and attitudes, and the challenges faced in proper tourism management all help stakeholders develop sustainable tourism strategies that can synchronize the need for tourism with the overall welfare of residents. Measures such as applying sustainable tourism principles, improving physical facilities and structures, and local people's involvement in managing tourism resources can help balance this conflict. These measures will not only help to retain the cultural and environmental value of Thamel-Kathmandu but also to maintain tourist attraction intact, thus making tourism a sustainable and positive undertaking for the inhabitants and tourists.

6.2 Dissertation limitations

According to Abbadia (2022) it is highly unusual for any researcher to stumble into the limitations while working on the paper. And limitations within research mainly originate owing to the constraints of research designing, methods selection, and strategies. These factors affect the generalisability and usability of the research findings. Likewise, this

dissertation has produced some flaws. Firstly, this dissertation was carried out quantitatively as this research could be done using qualitative as well. However, the researchers failed to find adequate participants for the interview because of two reasons. Firstly, researchers currently studying in Denmark, due to which only online mediums were possible to reach the locals of Thamel, and secondly, Indigenous Thamel people find it difficult to get access via online mediums as they rarely use smartphones or any means of online connecting platforms. Due to this researchers thought that it would be biased to choose participants based on convenience sampling for the interview in this dissertation. The topic is sensitive and it could quickly hinder the true meaning of the dissertation findings when interviewing the random participants that are closer to the researcher's friend list from the Thamel region. However, this dissertation has chosen a quantitative research method and has used snowball sampling. Yes, it is understood in snowball sampling the likelihood of selection bias is possible; therefore, to reduce this, we encouraged each participant to refer to only two to three potential participants. Doing this will help reduce selection bias and responses can be gathered from diversified participants from Thamel. Lastly, the overall sample size was only 152, which is still perceived as low when it comes to generalizing a city with an immense population.

6.3 Recommendation for further study

The findings from this dissertation, though, found several insights using quantitative primary data to assess the impact of over-tourism on the Thamel region. However, secondary data such as tourist arrival-departure to Nepal, the recent price of groceries and dining, housing prices, environmental indicator data such as air quality, clean water, etc, along with primary data, would have made the findings more robust. However, not each and every data was

readily available in any kind of database. Therefore, it would be best possible to research this topic by aligning with any local authorities of Thamel region. This also makes it easier to collect qualitative data by doing either focus groups or interviews. Furthermore, this dissertation is about the perception of locals towards overtourism in the Thamel region, which might be different from the views of tourists. Therefore, researching about Thamel region as a tourist destination from a tourist perspective would allow us to compare and contrast the reality of overtourism in the Thamel region.

6.4 Implications

This dissertation has produced various insights about the current situation of over-tourism in the Thamel region based on 152 locals' views and perceptions. Based on these local views, the Thamel region has undergone various detrimental effects of over-tourism on its environment, sociocultural settings, economic development, infrastructural strain, housing affordability, and sense of estrangement. One of the main reasons behind the prevalence of over-tourism in this region is due to unsystematic enforcement of tourism related strategies. Therefore, tourism managers, locals, and local authorities need to plan their strategies in a systematic and scientific way that helps to create economic benefits at the same time without affecting the environment, sociocultural settings, and housing affordability. For that, encouraging sustainable tourism practices could help to overcome this situation. Overtourism was found detrimental on two aspects "locals' sense of belonging and housing affordability", therefore, policymakers should focus on such policies that help to set up caps for housing to share in collaborative economy platforms such as Airbnb or other local platforms. This would mitigate the extra burden on housing prices to the local Thamel people.

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Appendix

1.1 Survey questionnaires

Environmental strain
I feel the increase in touristic activities in Thamel has degraded the natural assets and environment.
The waste produced by tourists in the Thamel region has adversely affected the region's overall cleanliness.
I feel that the rapid expansion of tourism infrastructure in Thamel has impaired the local ecosystem.
Socio-Cultural strain
From my perspective, overtourism in the Thamel region has led to the commodification and commercialization of local indigenous culture.
The influx of tourists in the Thamel region has adversely affected traditional practices and local traditions.
The large number of tourists in the Thamel region has diluted the authenticity of local cultural identity and practices.

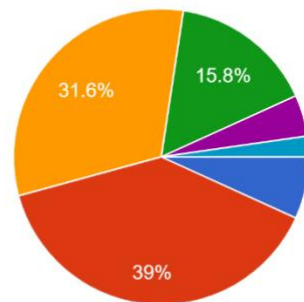
I perceive that over-tourism in the Thamel region has led to overcapacity and congestion in public spaces and related activities.
I think the dealings between tourists and locals in Thamel have negatively contributed to cross-cultural exchange and comprehension.
The influx of tourists has strained Thamel's social fabric.
Economic strain
I believe that tourism-related activities have brought economic perks to the businesses and individuals in the Thamel region.
Thamel's overreliance on tourism revenue and entrepreneurial activities has created inequalities in wealth distribution among residents.
Based on my experience, the cost of living in Thamel has increased due to tourism growth.
Infrastructure strain
In my experience, the infrastructure in the Thamel region has struggled to cope with the demands of increasing tourist numbers.
I think developing tourism infrastructure in Thamel has improved the overall quality of amenities and services.
The expansion of tourism-related facilities in the Thamel region has encroached upon suburban areas and public spaces.
Residential strain
I believe that the rise in tourist activities has adversely affected housing affordability for local inhabitants in Thamel.
I feel the presence of short-term rental accommodations or sharing houses has altered Thamel's residential character.

In my experience, the noise and disturbance from tourists and tourism-related activities have affected the quality of life for Thamel's locals.
Sense of estrangement
Based on my experience, over-tourism has diminished the sense of locals' authenticity and identity in the Thamel region.
I feel excessive tourist activities have led to the failure to preserve historical and cultural landmarks, which is essential for maintaining Thamel's unique character.
I feel that minimal efforts are made to balance tourism development with the preservation of the local identity and heritage in the Thamel region.
Perceived overtourism
Overall, I perceive overtourism to have an adverse impact on the overall well-being of the Thamel region.
Given its adverse impact on the environment and socio-cultural settings, I'm afraid about the longevity of tourism activities in the Thamel region.
I feel that efficacious measures are urgent to address the adverse impact of over-tourism in the Thamel region.

1.2 Survey response

My age range is:

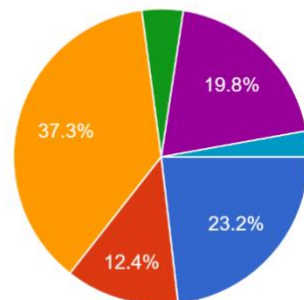
177 responses



- Below 20 years old
- 20-29 years old
- 30 to 39 years old
- 40 to 49 years old
- 50 to 59 years old
- 60 years or above

My occupation is:

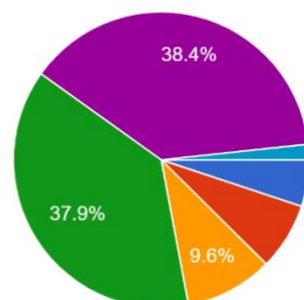
177 responses



- Student
- Part-time
- Full-time
- Unemployed
- Self-employed
- Pensioner
- Others

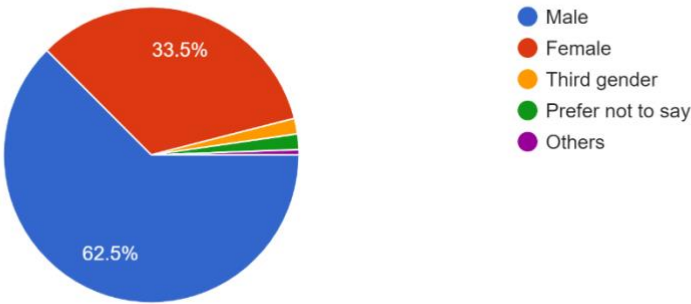
My educational qualification is:

177 responses

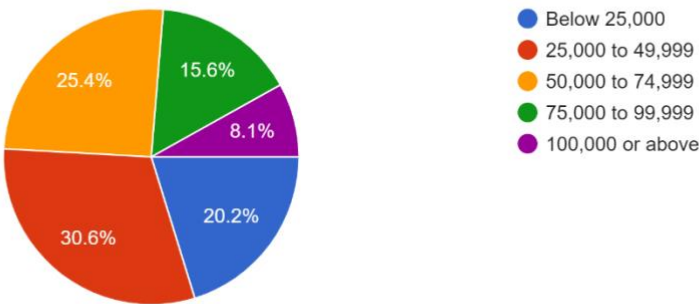


- High school or below
- Diploma or equivalent
- College/associate degree
- Bachelor's degree
- Master's degree
- Doctorate level

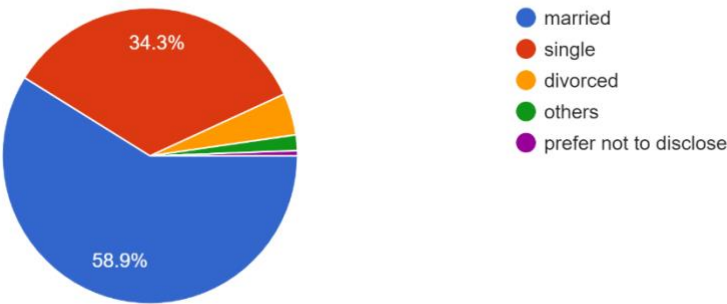
My gender identity is:
176 responses



My monthly income (after tax in Nepalese rupee) is:
173 responses

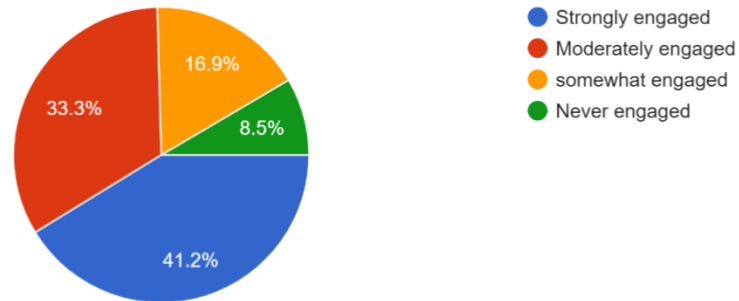


My current marital status is:
175 responses



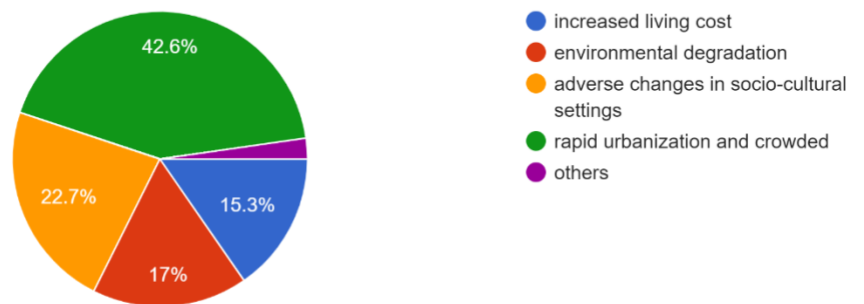
Based on your perspective, how involved are you in local community activities and tourism development in the Thamel-Kathmandu region?

177 responses



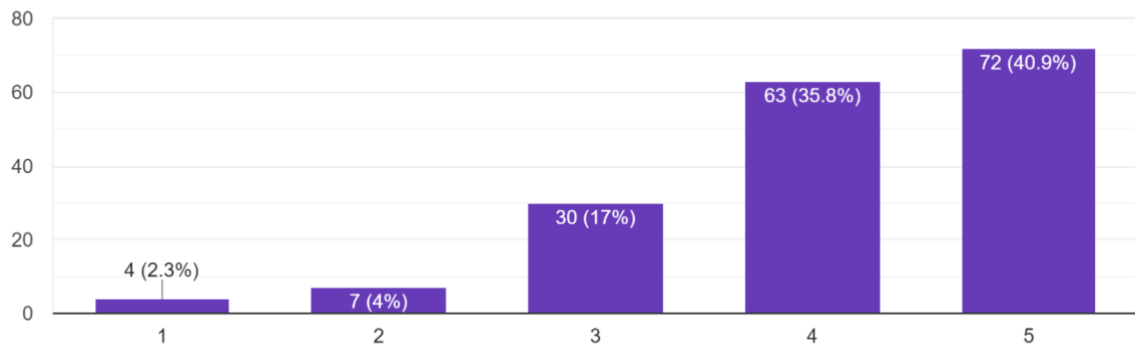
Based on your experience, how would you label the changes in the Thamel region as a tourist destination over the last decade?

176 responses



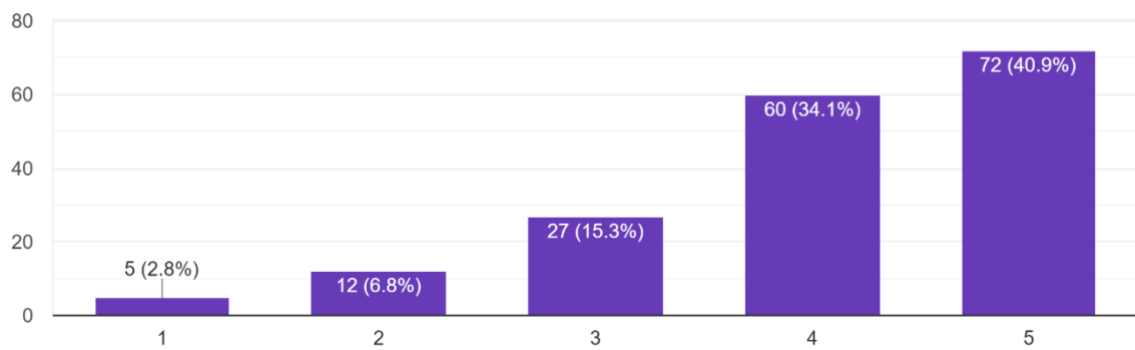
I feel the increase in touristic activities in Thamel has degraded the natural assets and environment.

176 responses



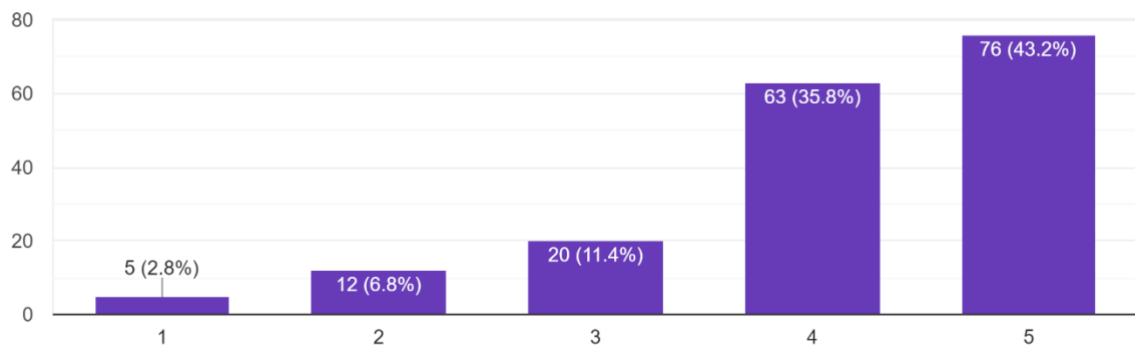
The waste produced by tourists in the Thamel region has adversely affected the region's overall cleanliness.

176 responses



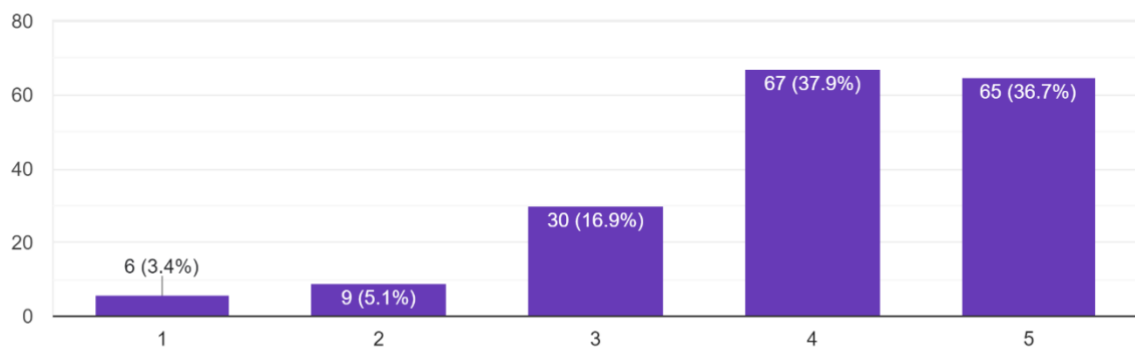
I feel that the rapid expansion of tourism infrastructure in Thamel has impaired the local ecosystem.

176 responses



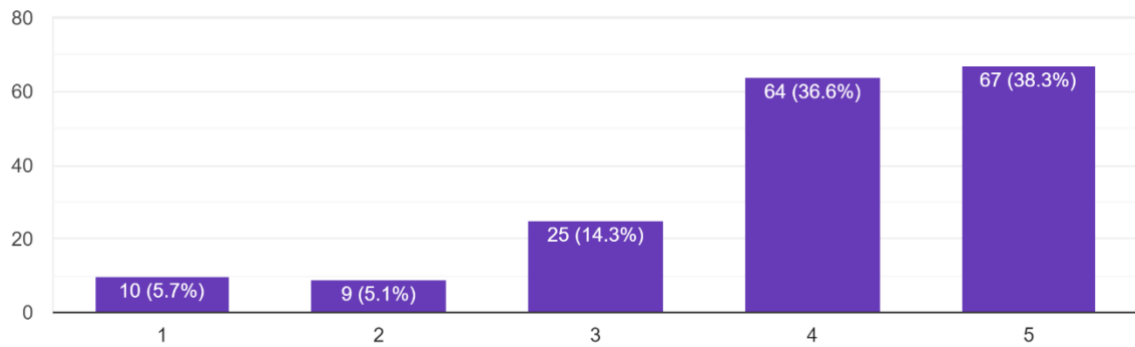
From my perspective, overtourism in the Thamel region has led to the commodification and commercialization of local indigenous culture.

177 responses



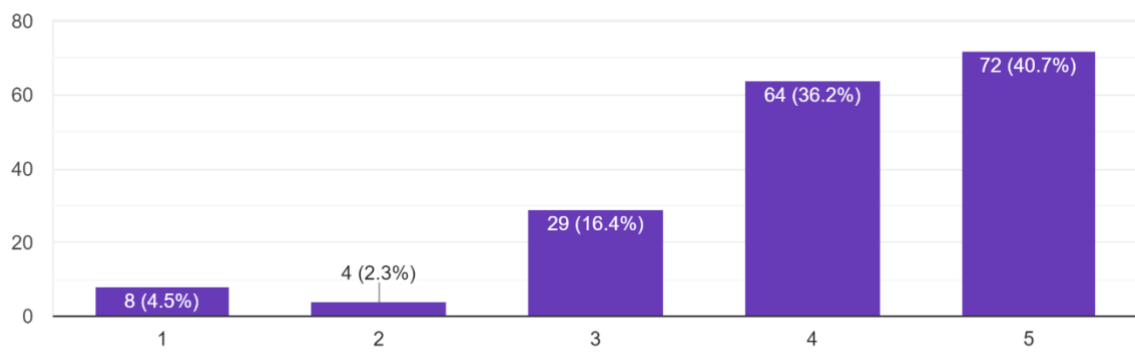
The influx of tourists in the Thamel region has adversely affected traditional practices and local traditions.

175 responses



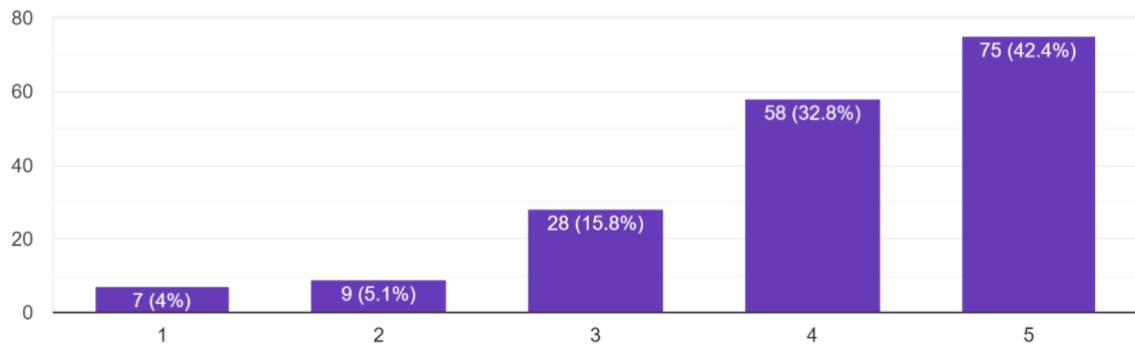
The large number of tourists in the Thamel region has diluted the authenticity of local cultural identity and practices.

177 responses



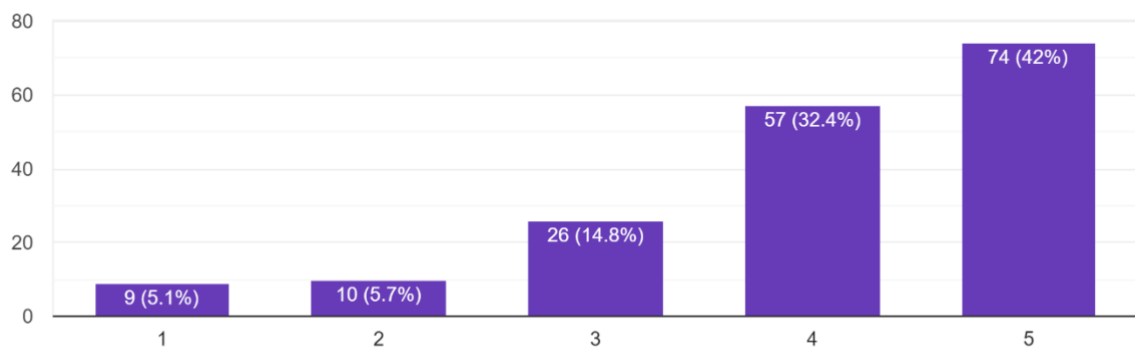
I perceive that over-tourism in the Thamel region has led to overcapacity and congestion in public spaces and related activities.

177 responses



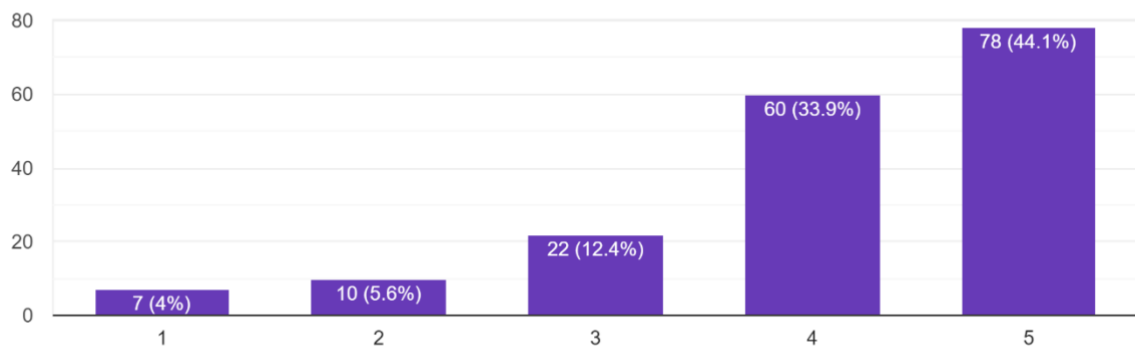
I think the dealings between tourists and locals in Thamel have negatively contributed to cross-cultural exchange and comprehension.

176 responses



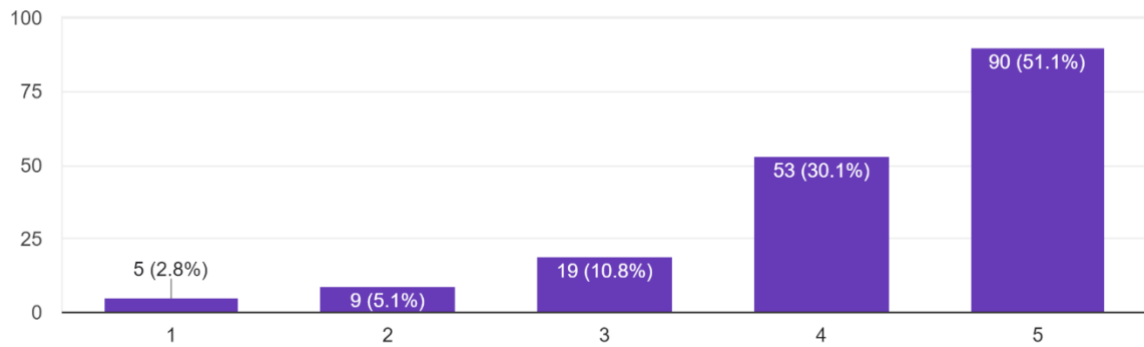
The influx of tourists has strained Thamel's social fabric.

177 responses



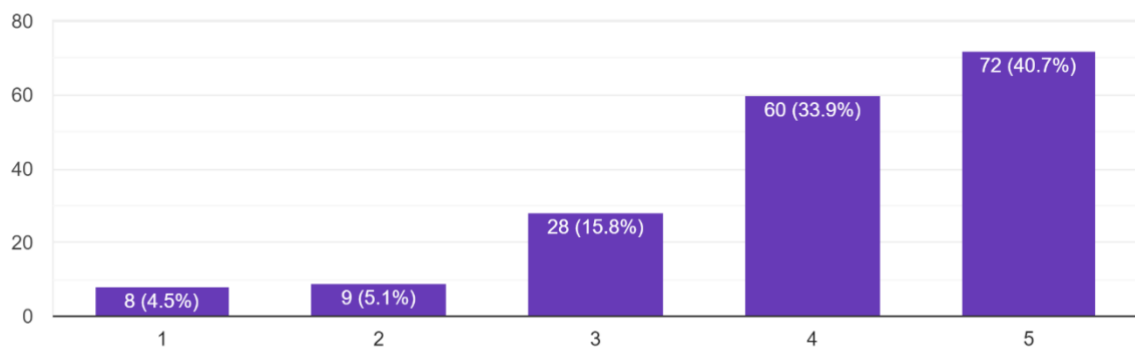
I believe that tourism-related activities have brought economic perks to the businesses and individuals in the Thamel region.

176 responses



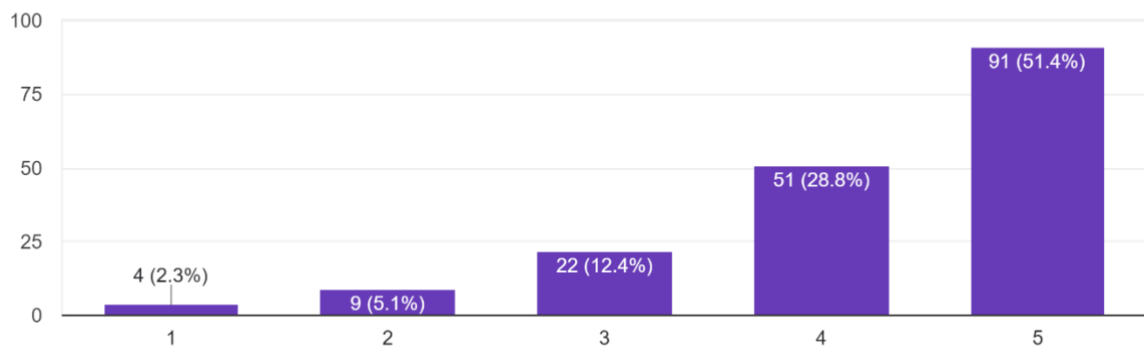
Thamel's overreliance on tourism revenue and entrepreneurial activities has created inequalities in wealth distribution among residents.

177 responses



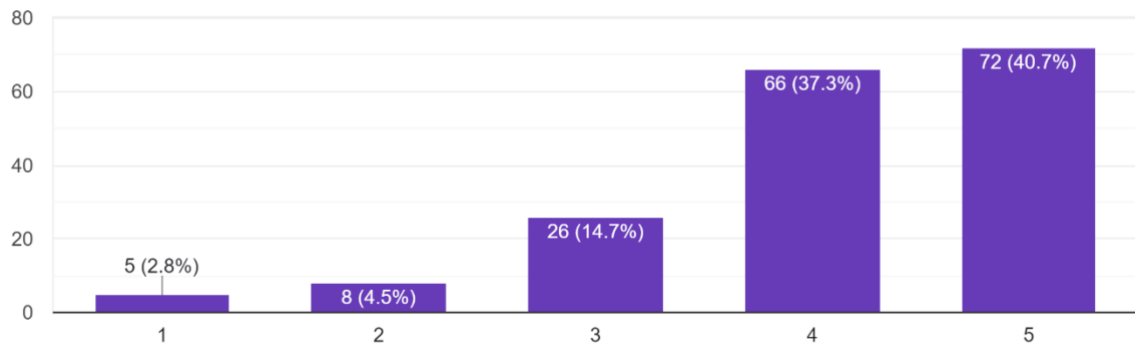
Based on my experience, the cost of living in Thamel has increased due to tourism growth.

177 responses



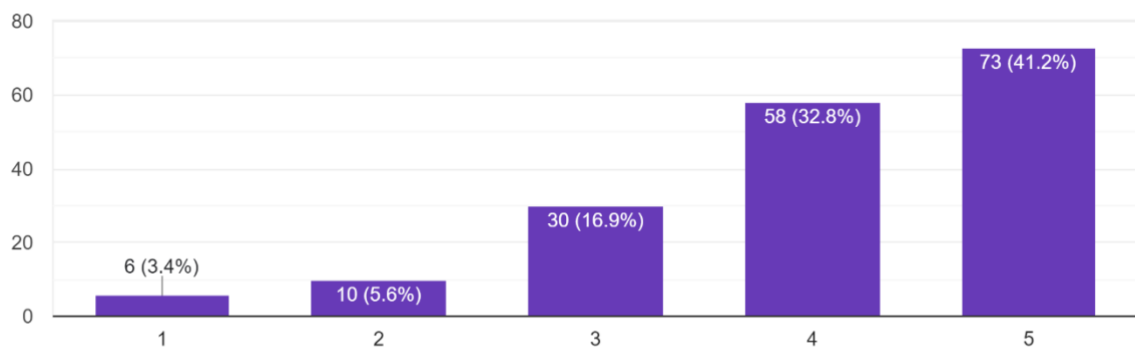
In my experience, the infrastructure in the Thamel region has struggled to cope with the demands of increasing tourist numbers.

177 responses



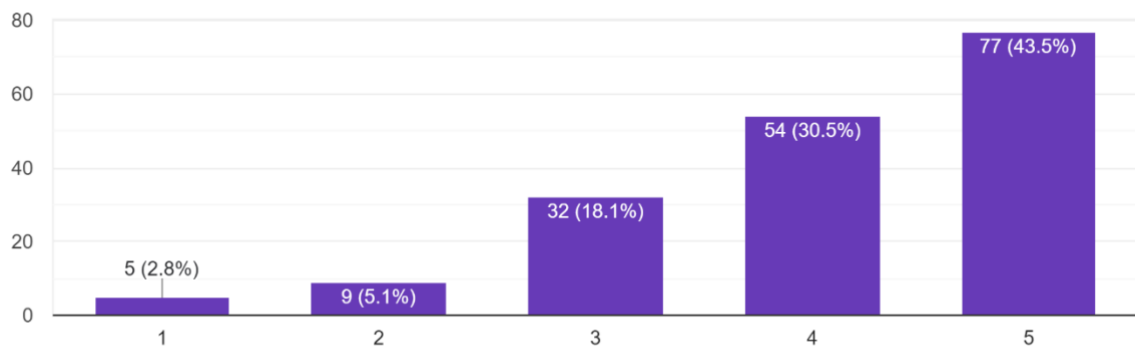
I think developing tourism infrastructure in Thamel has improved the overall quality of amenities and services.

177 responses



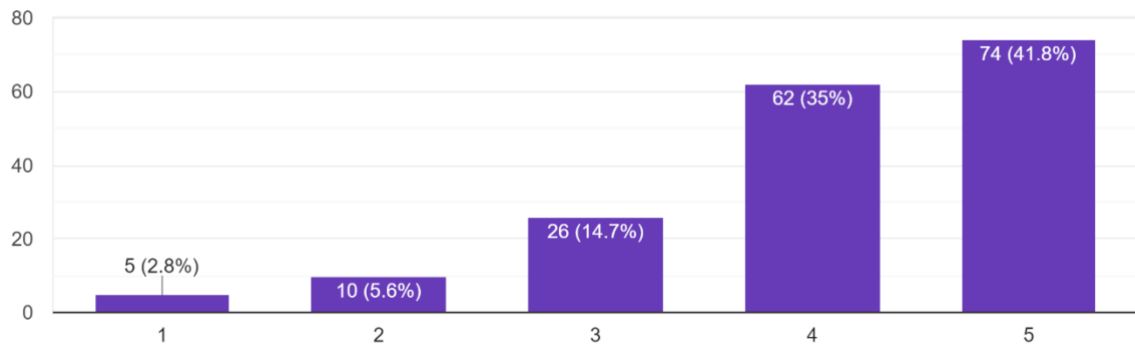
The expansion of tourism-related facilities in the Thamel region has encroached upon suburban areas and public spaces.

177 responses



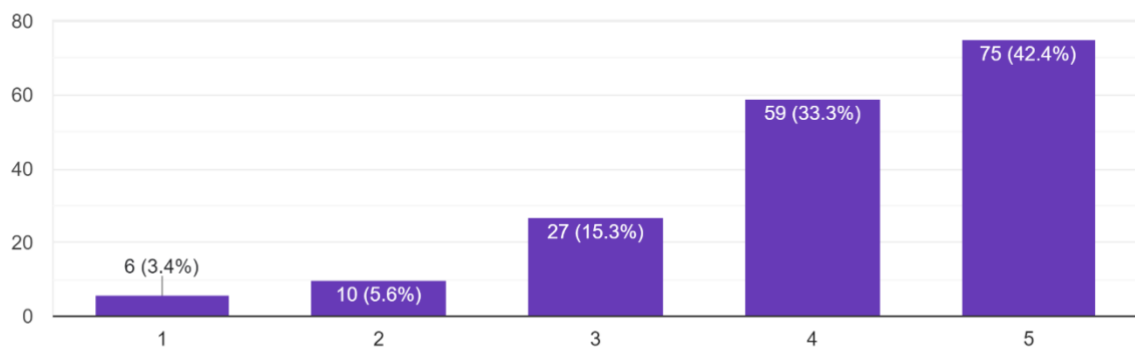
I believe that the rise in tourist activities has adversely affected housing affordability for local inhabitants in Thamel.

177 responses



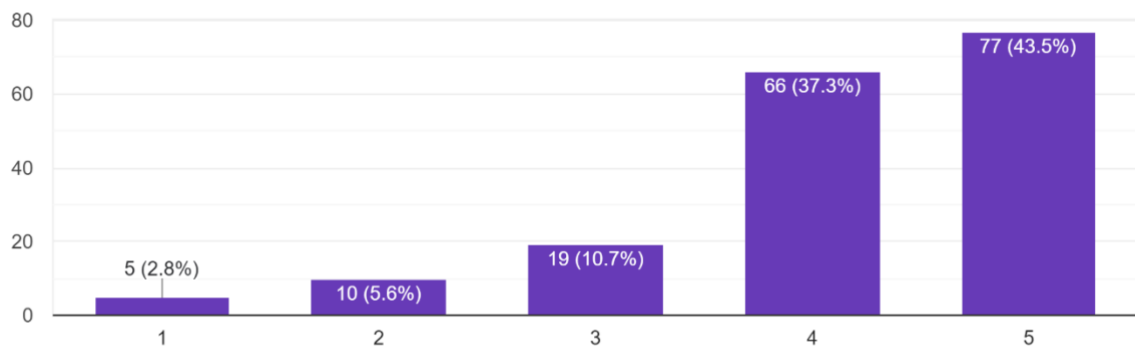
I feel the presence of short-term rental accommodations or sharing houses has altered Thamel's residential character.

177 responses



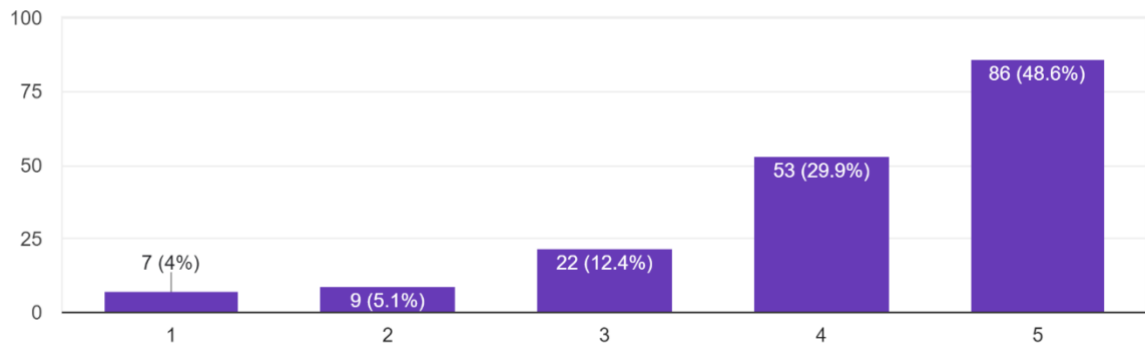
In my experience, the noise and disturbance from tourists and tourism-related activities have affected the quality of life for Thamel's locals.

177 responses



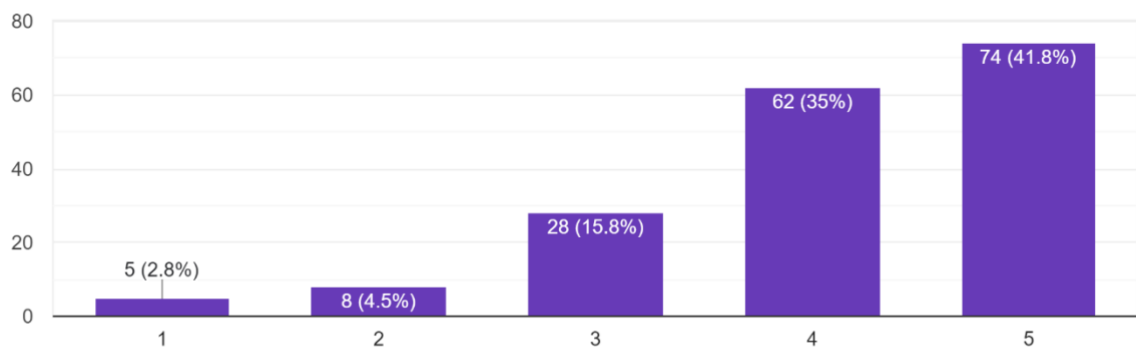
Based on my experience, over-tourism has diminished the sense of locals' authenticity and identity in the Thamel region.

177 responses



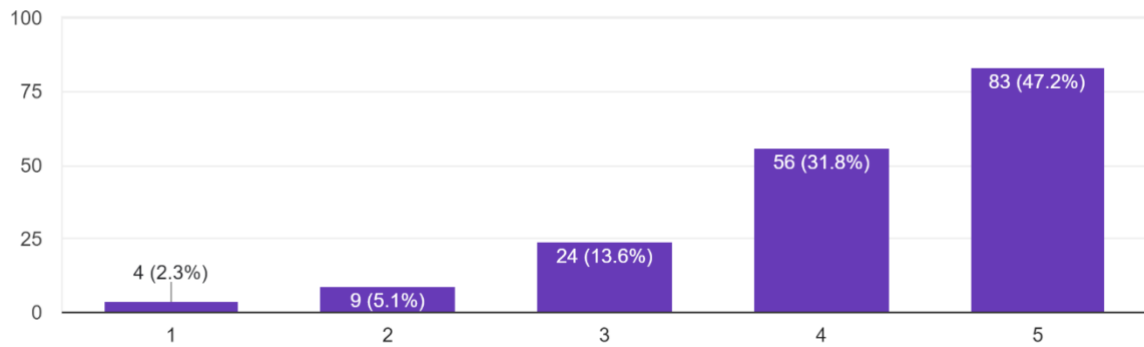
I feel excessive tourist activities have led to the failure to preserve historical and cultural landmarks, which is essential for maintaining Thamel's unique character.

177 responses



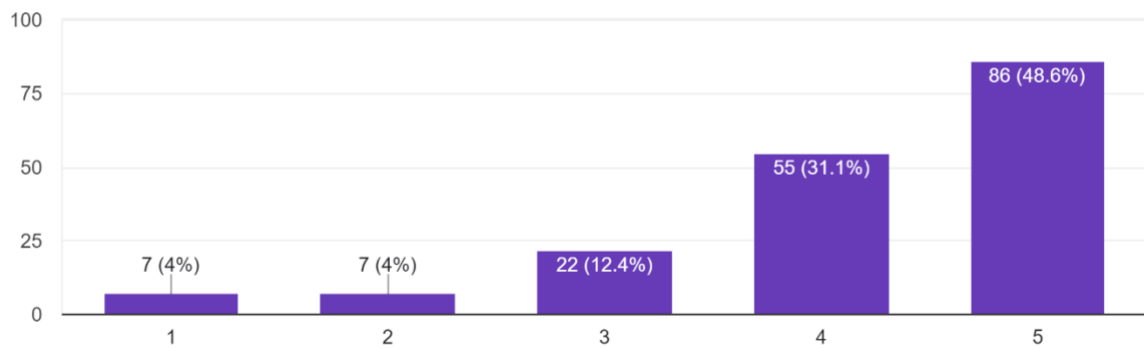
I feel that minimal efforts are made to balance tourism development with the preservation of the local identity and heritage in the Thamel region.

176 responses



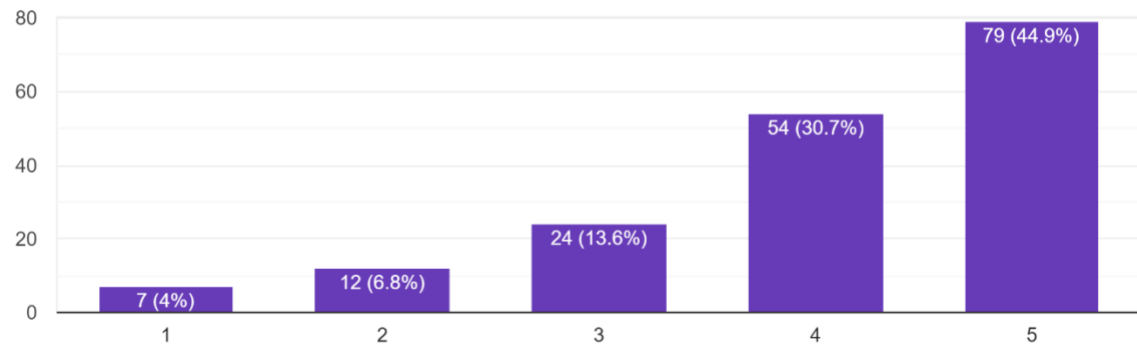
Overall, I perceive overtourism to have an adverse impact on the overall well-being of the Thamel region.

177 responses



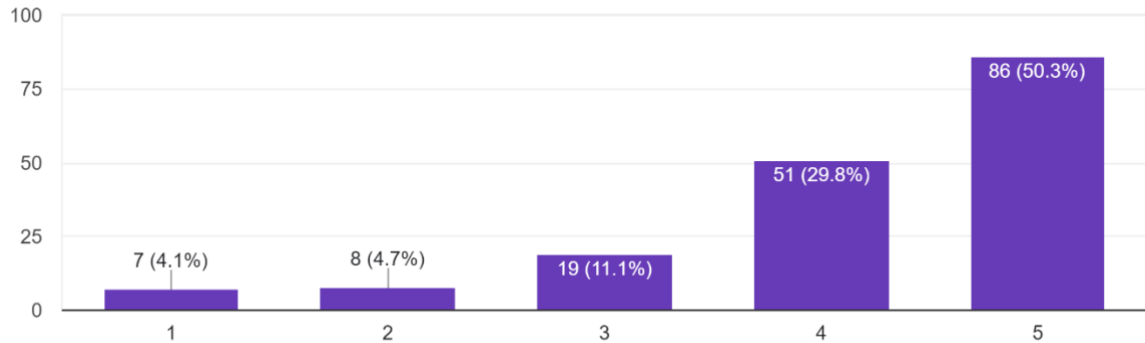
Given its adverse impact on the environment and socio-cultural settings, I'm afraid about the longevity of tourism activities in the Thamel region.

176 responses



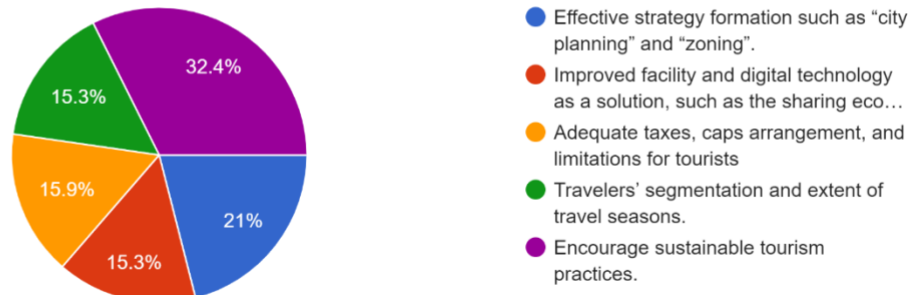
I feel that efficacious measures are urgent to address the adverse impact of over-tourism in the Thamel region.

171 responses



Based on your perception, what strategical solution is crucial to alleviate over-tourism in the Thamel region?

176 responses



Based on your perception, what is the prime barrier to overcoming over-tourism in the Thamel region?

177 responses

