

< A study on low-cost carriers' travelers: Attitudes and tourist behaviours >

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AFFIDAVIT

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ABSTRACT

With the rise of low-cost carriers and the tremendous growth of the middle class, a global tourism boom has exploded, resulting in an influx of tourists at popular destinations, and a reduction in tourism quality, leaving prominent tourist destinations in a state of 'over-tourism'. Responsible and sustainable principles are on the minds of many destination managers and tourists, yet execution is often lacking. Hence, adjusting tourism behaviors and taking full responsibility are all necessary to balance the pros and cons of tourism development.

Therefore, it is especially important for destination manager organizations and tourism enterprises to understand the low-cost carriers' passengers that cause over-tourism, factors which can make these tourists more willing to spend on responsible tourist expenditure, and factors contribute to responsible and non-responsible tourist behaviors.

Previous research mainly focusses on tourist behaviors, motivations, and attitudes of destination residents, there is rarely any literatures that have been focus on the perspective of low-cost carriers' passengers. This thesis research addresses the identified gap with conducting a quantitative analysis through online survey to low-cost carriers' travelers around the world.

The attained findings revealed that LCC travelers' attitudes towards both responsible tourism and over-tourism have a positive influence on their intention to visit the destinations, income and type of payment method serve as the determinant factors that influence responsible tourist expenditure. The respondents provided thorough insights into the understanding of responsible tourist behaviors by applying the theory of planned behaviors, and several barriers had also been identified for non-responsible behaviors. Recommendations for further research are proposed based on these factors, as are implications for destination management organizations future researchers.

Key words: Low-cost carriers, tourist behaviors, over-tourism, responsible tourism, motivators, tourist attitude, tourist expenditure

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LIST OF ABBREVIATIONS

DMO	Destination Management Organization
EU	European Union
FSC	Full-Service Carriers
LCC	Low-Cost Carriers
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
UNWTO	United Nation World Tourism Organization

1 INTRODUCTION

1.1 Background

With the massive growth of the middle class and the rise of low-cost airlines, a global tourism boom has increased dramatically, it has also led to an explosion of tourists at popular destinations, a decline in tourism quality, and protests from residents of the scenic spots, leaving famous tourist spots in a dilemma of 'over-tourism'.

The number of international visitors is expected to reach 1.8 billion in 2030 (UNWTO, 2018), especially in Southern Europe, the Middle East and Africa recording the largest growth, economic and technological progress are the main factors. For example, Venice in Italy, one of the world's most popular tourist cities, receives an average of more than 30,000 tourists a day on cruise ships during the peak tourist season, but the ships that enter the canals cause waves that erode the foundations, flooding, coupled with large cruise pollution of local water sources, and brought many tourists. Another example is Barcelona, Spain, which is the second most popular destination in Europe after London and Paris. The number of tourists in Barcelona increased from 1.7 million a year to 8 million a year between 1990 and 2016, number of hotel rooms has increased from more than 10,000 to more than 37,000, tourism accounts for 14 percent of Barcelona's output (Russo et al. 2017). On the Rambla Street in the old city center of Barcelona, around 80 percent of the population is not local. Due to the expansion of the tourism industry, prices have risen, and public space has been reduced, and the residents of the old city have been forced to move out, has seriously affected the local cultural landscape.

As mentioned in the previous paragraphs, due to the rise of low-cost carriers, there has been a global tourism boom, LCCs appear to be dealing with increased route density issues and over-tourism issues (Levine, 2009). LCCs in Europe accounted for 44.5 percent of total seat capacity in 2020, despite a challenging year of Covid-19 pandemic, Ryanair remains Europe's busiest airline company, with 51.7 million passengers transported in 2020 (Mazareanu, 2021). The author also mentioned that Europe Wizz Air, like many other LCCs, has pursued a gradual growth strategy that has allowed it to expand its market share across Europe. This was accomplished by entering new markets that other European LCCs had not yet explored, such as Eastern Europe. Wizz Air's total income has climbed fivefold in the last decade, achieving nearly 2.7 billion euros in 2020. In addition, Eurostat (2019) recorded the number of air passengers, In 2018, 1.1 billion

passengers traveled by air in the European Union (EU), up 6% from 2017 and 43% from 2010. During this time, air passenger travel in the EU has continuously increased. In 2018, intra-EU transit accounted for over half (46%) of total air passenger transport in the EU, and extra-EU transport accounted for over a third (37%) of total air passenger transport, while national transport accounted for less than one in every five passengers (16%) (Eurostat, 2019). Furthermore, European Civil Aviation Conference (2018) even proposed that in 2040, the regulation and growth scenario most likely predicts 16.2 million flights in Europe, up 53% from 2017. Over the period 2017-2040, this corresponds to an average annual growth rate of 1.9 percent, a slower rate than before 2008. Panduwinasari et al. (2019) argues that the presence of LCC can have a beneficial impact on the economy, especially in the tourism sector, by allowing the middle and lower classes to select flights as a form of transportation. There is no doubt that the growth of LCC will bring huge business opportunities to airlines and the tourism industry, but it may also destroy the balance of local tourism and lead to over-tourism.

A study by the United Nations World Tourism Organization (UNWTO) in 2019 on "over-tourism" pointed out that overwhelming numbers of visitors to popular destinations will cause distress among residents and become a global phenomenon. Over-tourism has become a popular phrase to characterize the negative effects of tourism and has been applied to the problem of too many tourists in various places in a short period of time. (Kruczek, 2019). It also identified potential constraints and voluntary compromises aimed at effectively avoiding the spread of such issues (Russo et al. 2017, Stors et al. 2017) Responsible tourism refers to tourism that improves people's lives by providing better places to live and visit – with the emphasis on 'to live.' As a result, it is the opposite of over-tourism, which degrades the quality of life for locals while providing a negative experience for tourists.

To conquer this existing phenomenon of over-tourism, DMOs should have a better understanding of the tourist behavior, attitudes, and perceptions. Low-cost carriers' travelers tend to spend less, especially at the upper end of the distribution, although tourists bring massive economic growth to the local destination but at the same time too many travelers undoubtedly have a negative environmental impact on the local tourism industry, simply put, the disadvantages outweigh the advantages. Against this background, the author has developed five research questions regarding the topic of developing strategies for low-cost carriers overcoming over-tourism.

1. How do LCC travelers' attitudes towards tourism influence the intention to visit the destination?

2. What are the effective communication channels for tourism strategies in LCC travelers' perspective?
3. How do determinant factors influence LCC travelers' responsible tourism expenditure?
4. How do LCC travelers' attitudes towards over-tourism influence the degree of responsible' tourist behaviors?
5. What are the motivators of LCC travelers' responsible behaviors?
6. What are the barriers of LCC travelers' non-responsible tourist behaviors?

It is now well established from a variety of studies that analyze the effects of European LCCs on tourism activities. Martnez-Garcia and Raya (2008) present a microeconomic analysis on the length of stay of tourists in Catalonia, Spain, they illustrate that the length of a trip adjusts to certain sociodemographic factors as well as income, and travel time availability. Graham and Dennis (2010) evaluated the effect of low-cost airlines on the number and demographics of visitors to Malta. In contrast to tourists visiting many other European low-cost destinations, their empirical analysis shows that, while traffic to Malta from the UK increased significantly in 2007, these new flows of consumers do not appear to be interested in Maltese history and culture, nor do they take shorter trips or travel more in off-peak season. Recently, Sirbrijs and Vanneste (2021) investigated a tourism re-distribution policy project between Amsterdam and The Hague to manage over-tourism in collaboration, they pointed out that since the travelers have limited time and do not want to change their plans, it is tough to persuade visitors to change their views about where to go and what to do during their stay.

Many countries have adopted various measures in recent years, including setting a minimum travel cost and levying a city tax to reduce the number of tourists. But do these policies solve the problem? The boom of tourism, benefiting the entire chain of services such as travel agencies, airlines, cruise lines, tour buses, hotels, and restaurants. Business and government officials, many of whom only focus on controlling visitor numbers, such as hotel occupancy. But the rise of couch-surfing and shared accommodation, such as Airbnb, has more than offset some of the gains. European Parliament (2018) argues that it is necessary to keep in mind that the policy cycle on over-tourism is still in its early stages. According to the policy-cycle theory, policies evolve through a series of stages, the first of which is agenda setting. Over-tourism has progressed far enough into the agenda-setting stage but has yet to reach the policy-making stage at the EU level, and only rudimentarily so at the destination level. The authors Peeters (2018) also pointed out that the most common measures taken by destination management organizations and local governments to mitigate the negative effects of over-tourism are to spread

visitors across time and space which is aiming for a larger number of attractions over a longer season or to improve infrastructure, accommodation, and facilities capacity. The foregoing typical measures are all part of current tourism management plans and practices, although obviously are often not the right choice.

1.2 Research focus and objectives

It is especially important to understand the traveler behavior and expenditure factors of LCC traveler and target the appropriate travelers for the destinations. Previous studies have mostly focused on a single city or country as a discussion for over-tourism, as well tourist behaviors, there is hardly any research that critically discuss the actual tourist behaviors and motivations of travelers taking LCCs; most of the literature is based on any type of tourists, or characteristics of LCC travelers.

Gomez-D'eniz and Perez-Rodríguez (2021) examined and evaluated the differences in expenditure and duration of stay between tourists who travel with low-cost carriers and those who fly with full-service providers in Canary Island, Spain. The findings show that there are differences between LCC and full-service providers users in terms of both expenditure and length of stay, as well as differences in expenditure in the case of repeated visits and differences in length of stay based on the visitors' age, nationality, and travel party size. According to the author's findings for the model without covariates, FSC users who visit the destination spend more money and stay longer than LCC users, however, only 'high income' travelers show substantial variations between LCC and FSC users, high income LCC travelers spend longer duration at their destination. In comparison to FSC users, LCC users who return to the Canary Islands on a regular basis spend less money; to put it another way, LCC users aren't always low-income tourists (Gomez-D'eniz and Perez-Rodríguez, 2021).

Hong Tsui (2017) attempted to examine the impact of New Zealand's low-cost carriers on domestic tourism demand and growth, according to the study, LCC transport services supplied by Jetstar in New Zealand's domestic aviation industry had a significant impact. More importantly, this study's findings of the LCC's relevance for domestic tourism demand and growth is consistent with other recent literature that investigates the relationship between LCC expansion and tourism and economic growth in various countries (e.g., Donzelli, 2010, Koo et al., 2009, Pulina and Cortés-Jiménez, 2010).

Early examples of research into low-cost carriers show that LCC is indeed significant for tourism economic growth, what's more worth to mention is that Gomez-D'eniz and Perez-Rodríguez (2021) found out that high income travelers taking LCC spend more time in their destinations, this means that travelers with the LCC are not nearly budget travelers, but high-income travelers are willing to spend relatively high amounts of money and time on travel experience. Hence, what are the factors that can influence, or increase, the cost of LCC to non-high-income travelers or budget travelers in their destinations and their willingness to spend more time getting to know the place rather than just taking photos to upload on social media? Thus, this research paper does not focus a specific country or city but rather understand the LCC tourist behavior from a holistic perspective. These elements are combined in this thesis research, which has the following goals:

1. To understand the factors influencing tourist expenditure on responsible tourism from LCC travelers.
2. To identify the responsible and non-responsible tourist behaviors of LCC travelers.
3. To understand the cause-and-effect relationship of LCC travelers' attitudes towards over-tourism and responsible travel behaviors.
4. To develop possible strategies to for DMO to attract LCC travelers with responsible tourist behaviors.

This paper aims to provide DMOs an insight of LCCs tourist behaviors and spending patterns, to be able to understand how to attract the responsible travelers to the destination. More importantly, the benefits of the research could be able to recommend DMOs several approaches to overcome the problem of over-tourism.

The basic concepts of this thesis are described in this chapter, which includes a comprehensive background research on the topic of introduction of low-cost carriers, how low-cost carriers' leads to over-tourism, history background of over-tourism and its current strategies by UNWTO and example countries, tourist selection of destinations, tourist expenditure and the potential factors, as well responsible or non-responsible tourist behavior. This literature review will help the readers to have a better understanding of the previous publications in tourism field and demonstrate how the concepts interact with one another and hence contribute in the response to the research questions.

2 LITERATURE REVIEW

2.1 LCCs

A low-cost airline is one that provides transportation services at a lesser cost in exchange for the lack of many typical airline services (Vidović, 2006). Leasing an aircraft or transporting passengers, cargo, or mail for a charge is considered commercial air transport (ICAO, 2003). Seat capacity on low-cost carriers is often up to 200 people, a single-type aircraft is used, and ticket prices are lower than on many traditional carriers (Baker, 2013). Low-cost airlines mostly benefit from national airline market legislation and international liberal agreements (Bjelicic, 2007), and due to contracts, that generate huge revenue decreases in the low-cost airline model, airline operators choose secondary airports (Francis et al., 2003).

What the traditional airlines offer is an all-inclusive service, that is, in addition to the ticket, it also includes free luggage, free airline meals and a variety of other services, whether the passengers use them or not, a price is all inclusive, if passengers do not have baggage express, or do not want to eat airline food, there is no way to refund money. Non-ticket revenue is a primary priority for low-cost airlines, food, and beverage sales on aircraft account for a large portion of their revenue, non-ticket revenue includes commissions on services such as additional luggage fees, travel insurance, and hotel and vehicle rental (Doganis, 2006). Low-cost carriers seek to have the lowest costs possible so that they may offer the lowest fares possible when the consumer only pays for the most basic service, which is transportation (Sabaitytė et al., 2020). According to Dennis (2007), this can facilitate faster airport turnaround times by removing the requirement for planes to be cleaned and provisioned at every airport. Airlines will be able to fly more flights per day because of this.

2.1.1 Criteria of LCCs

According to International Civil Aviation Organization which is also named ICAO (2004), the most common definition of LCC is “an air carrier that has a relatively low-cost structure in comparison with other comparable carriers and offers low fares or rates”. Schlumberger & Weisskopf (2014) offers an alternative explanation: “although marginally different, most researchers define LCCs as carriers which, through a variety of operational processes, have achieved a cost advantage over full-service carriers (FSCs)”. The authors Klophaus et al. (2012) conducted a criteria table for the LCC business model (Table 1), in comparison to traditional carriers, archetypical LCCs are defined by practices that enable them to save cost.

Business model practice	Criterion
Single aircraft type	Fleet homogeneity index
Predominant use of secondary airports	Secondary airport index
Point-to-point traffic	Point-to-point services only
No code sharing	No code sharing
Only one one-way fare per flight available at each point in time	One-way fares only No more than one fare at any time No more than two fares at any time
Single class cabin	Single class cabin
No frills	No complimentary in-flight service with lowest fare category No complimentary in-flight service with highest fare category No free checked baggage with lowest fare category No free checked baggage with highest fare category No frequent flyer program

TABLE 1 CRITERIA FOR THE LCC BUSINESS MODEL.
(Source: Klophaus et al., 2012)

The target customers of LCC and FSC are different, FSC tries to provide service for all the tourists. In actual operation, since the benefits of the industrial and commercial tourists far exceed the leisure tourists, the nature of FSC's target group gradually leans towards the public commerce, and the product attribute also leans towards the experience orientation, the distribution of travel destinations presents a network-like feature with transportation hub as the core. The LCC business model targets price-sensitive customers, product attributes bias functional value, and point-to-point connectivity between travel destinations. FSC needs to build hubs to accommodate short, medium and long routes, and operate more complex fleets to accommodate different types of routes, backend crews, flight management, maintenance, and other services; LCC focus on domestic tourism or regional market, most of the single model, control the cost of manpower, with low ticket prices as the core to meet customer demand.

2.1.2 LCCs in Europe

The concept of LCC was developed in the United States of America and subsequently applied in Europe and the rest of the world in the early 1990s (Vidović, 2006). Airlines reorganized their management structures during the deregulation process to be more competitive. Southwest

Airlines, the first LCC in the United States, had been operating since the 1960s (Akgüç et al. 2018). Low-cost scheduled operators first appeared in Europe in 1991, when Irish carrier Ryanair turned itself from a traditional regional airline into a carbon replica of Southwest Airlines, the US low-cost pioneer (ICAO, 2003). As the authors Akgüç et al. (2018) stated it was followed by easyJet, a newcomer from the United Kingdom; Wizz Air, a Hungary-based low-cost carrier, was created in 2003 with the primary goal of connecting Central and Eastern Europe to the rest of Europe. Over the previous two decades, more airlines have emerged as LCCs as the European aviation sector expanded in tandem with the European Union's economic and political expansion.

The academic literature on LCC has revealed the emergence of several contrasting themes, Vidović (2006) stated that low-cost carriers pose a serious threat to commercial airlines because the full-service pricing structure of commercial operators makes it difficult to compete effectively with the prices offered by LCC, and the fare is the most important factor for most service users when choosing a carrier. When the aircraft sector was challenged by multiple terrorist attacks, wars, and the outbreak of SARS from 2001 to 2003, a sizable part of established operators suffered significant losses, whereas low-cost airlines remained profitable on average. Although LCCs' market share in the European aviation business climbed by about 20% in the last decade, established full-service carriers responded with a robust competitive response to maintain their market position. Full-service carriers, for example, have begun to provide budget-economy class flights as an alternative to full-service flights. LCCs, on the other hand, have a well-developed cost-cutting strategy that allows them to operate at a significantly reduced cost (Mazareanu, 2021). A considerable amount of literature has been published on LCC. These studies suggested that the emergence of the LCCs in Europe is mainly related to three major factors (Diaconu, 2012):

- Air transport is a cyclical industry, with demand linked to economic cycles (Hatty & Hollmeir, 2003);
- “The price of the air transport often represents a constraint factor for a large portion of the population” (Flouris, 2007);
- Deregulation in the aviation industry allows for the growth of new services, resulting in the formation of new airlines (Gillen & Gados, 2008).

The entry of new members from Eastern Europe into the European Union, as well as the adoption of legislation in countries that have not yet joined, has resulted in the launch of new low-

cost carriers' routes (Vidović, 2006). Routes to Bulgaria, Slovenia, Poland, Hungary, the Czech Republic, and, more recently, Turkey, Egypt, Jordan were introduced. Low-Cost Carriers have played a critical role in aviation's astonishing expansion during the last quarter-century, and they are expected to continue to do so.

2.1.3 LCCs leading to over-tourism

While holiday time and holiday pay are limits, more people are taking city getaways, frequently numerous short-term flights each year, especially with the rise of low-cost carriers and cheap coach travel. Aviation fuel is not taxed, and the polluter is not responsible for the environmental consequences of greenhouse gas emissions, flights are frequently less expensive than trains (Goodwin, 2017). Airlines used to charge more than 200 pounds for flights from London to Dublin; nowadays, low-cost carriers such as Ryanair charge around 40 pounds or even less; in recent years, low-cost airlines have introduced 'one-dollar ticket' promotions from time to time. Recently, not only short-haul flights, but long-haul flights have also become the development target of low-cost airlines, some transatlantic flights, for example, cost about 60 dollars. In 2017, the number of seats on budget flights rose to 28 percent of the total, almost double of what it was a decade ago.

UNWTO (2018) also stated that the tendency may be explained by the reduction in transportation costs, which allowed a larger segment of the population to travel. Second, the growing middle class in Asian economies contributed not only to the increase in the number of tourists traveling, but also to the diversification of their cultural backgrounds, which would later be discovered to be a major impediment to the already delicate interaction between visitors and locals (Pearce & Wu, 2016). According to UNWTO, the number of global visitors has increased from about 25 million in 1950 to more than 1.3 billion by 2017 and is expected to reach 1.8 billion by 2030. China had more than 70 million outbound visitors in the first half of 2018 and is growing at more than 10% a year, with the rest of the BRICS rising significantly. Overall, developed countries still account for most outbound travelers, with Europe still accounting for 48 percent, followed by the Asia-pacific region (25 percent) and the Americas (17 percent). Finally, numerous cities have become tremendously popular leisure tourism destinations because of their rapid growth and gradual increase in visitor attractiveness over the last few decades (Liu, 2020).

While Europe followed the United States in relaxing its grip on the skies, low-cost carriers have exploded. The low-cost and high-efficiency air transport sector was largely favored due to the

European Union's rising economy and significant demand for air transportation. After a period of development, Europe's low-cost airlines, such as Ryanair and Jetstar Airlines, have developed rapidly and formed a competitive "low-cost model". Over the years, these competitive low-cost airlines in the European continent continued to expand business, traffic and turnover have been good results. On the macro level, low-cost airlines in Europe's market share have been climbing, has now occupied half of the European air transport market. Low-cost airlines have mushroomed since Europe followed the US in loosening its grip on the skies. Because of the booming economy of the European Union and the strong demand for air transport, the low-cost and high-efficiency air transport market was widely favored. However, in contrast to the air transport market in the United States, which is an oligopoly formed by several aviation giants, the air transport market in Europe is extremely competitive. As Airlines strive to expand their territory, improve their network layout, and seize market share, the law of the jungle also applies to the market, some companies have lost out in the cutthroat competition. At present, there are dozens of European airlines, are undergoing the process of mergers and acquisitions and restructuring. On March 28, 2019, Iceland's low-cost airline, WOW Air, suddenly declared bankruptcy, all flights were cancelled, and passengers were stranded at major European airports. Before that, Europe has more than low-cost airlines into the "vortex of bankruptcy.". These tragedies are just a microcosm of the wave of bankruptcies among European airlines. Since May 2017, when Alitalia filed for bankruptcy, the "bankruptcy wave of European airlines enterprises" has started, Berliner Airlines, Vimal Airlines of Russia, Monarch Airlines and Flybmi Airlines have begun bankruptcy proceedings. Over the past two years, more than 10 low-cost airlines in Europe have gone bust or are about to be restructured. Europe's low-cost aviation market is, to some extent, in a state of mourning. European low-cost carriers tend to form homogeneous competition while supply and demand are structurally imbalanced: since their products are substitutes for each other due to their similar route structure, competition forces prices and rates to be influenced by rival pricing — and if rivals cut prices, they either cut prices themselves or lose market share; 'Price wars' are a common occurrence. Ryanair's ticket revenue is also depressed in Europe's highly competitive low-cost air transport market, but a successful business model still allows it to do well, a large part of its profits come from ancillary revenues. For example: additional baggage charges, seat selection charges, premium meals, premium Lounge, airline co-signed credit cards, and promotion of hotels, car rental and other services received commission and so on. Ancillary revenue will help airlines improve their profitability and gain a competitive edge. Despite the fierce competition of LCCs in Europe and the successive failures of many airlines, it is

impossible to avoid the fact that low-priced tickets have led to a sharp rise in the number of passengers in many tourist destinations.

The influence of low-cost airlines and the relative strength of the euro in recent years have also played a role. While the influx of United States and Chinese tourists to Europe has been noted, evidence suggests that regular visitors come from European countries. If the city and tourism authorities make it more difficult for tourists to get to their destinations by restricting cruise ships or low-cost airlines' access to airport terminals, the number of tourists will fall. City dwellers across Europe are using a variety of methods to promote their anti-tourism sentiments, stakeholders should look to the future and plan to create a more equitable environment for tourists and locals, even if that means there will be definitely less revenue for the tourism industry.

2.2 Over-tourism

2.2.1 Definition of over-tourism

The word 'over-tourism' first surfaced in newspaper articles about the negative impact of mass tourism on host communities and/or the natural environment in the previous few years (Kruczek, 2019). There was also an official definition of over-tourism from UNWTO (2018), which interprets: "the impact of tourism on a destination, or parts thereof, that excessively influences perceived quality of life of citizens and/or quality of visitors' experiences in a negative way".

George Young's book, *Tourism: Blessing or Blight* (1973) was the first to challenge the widely held belief that tourism is an undeniable driver of development. Since then, numerous studies have begun to investigate the consequences of increased tourism stress on local communities, as well as the drawbacks of tourist places being overcrowded (Boissevain, 1977; Williams, 1979). Butler (1980) proposed that a tourism area evolves over time and through many stages based on the number of visitors. The phrase "over-tourism" initially appeared in the early twenty-first century, when it was used to emphasize the dangers of over-exploitation of natural resources (Nelson, 2002). Later, the word 'turismofobia' was coined in the Spanish press to describe Barcelona citizens' reaction to the city's excessive tourism expansion (Milano 2017, Martin et al. 2018). Over-tourism does not refer to a single phenomenon, but to a series of them which converge and intersect to form a new trend worth studying (Żemła, 2020), Markusen (2003) argue that more problematic is the fact that the phrase itself is 'fuzzy,' in the sense that it is ill-defined,

unclear, and difficult to operationalize. ŹEmła (2020) conducted a table to highlight several of the literature-based definitions of over-tourism:

Source	Definition
UNWTO (2018)	A situation in which the impact of tourism on a destination, or parts thereof, excessively influences the perceived quality of life of citizens and/or visitors in a negative way
European Parliament (2018)	The situation in which the impact of tourism, at certain times and in certain locations, exceeds physical, ecological, social, economic, psychological, and/or political capacity thresholds
Higgins-Desbiolles et al. (2019)	Over-tourism describes a situation in which a tourism destination exceeds its carrying capacity—in physical and/or psychological terms.
Goodwin (2017)	Over-tourism is about destinations where hosts or guests, locals or visitors, feel that there are too many visitors and that the quality of life in the area or the quality of the experience has deteriorated unacceptably.
Butler (2018)	Overtourism represents a situation in which some numbers of visitors overload the services and facilities available and also become a serious inconvenience for permanent residents of these locations.
Milano et al. (2019)	The excessive growth of visitors leading to overcrowding in areas where residents suffer the consequences of temporary and seasonal tourism peaks, which have caused permanent changes to their lifestyles, denied access to amenities and damaged their general well-being.
Perkumiene, Pranskunienė (2019)	Overtourism is characterized by an excessive number of visitors, which affects the quality of the region.

TABLE 2 LITERATURE-BASED DEFINITIONS OF OVER TOURISM
(Source: ŹEmła, 2020)

The EUROPARC Federation, a consortium of protected areas and government authorities from 37 European countries, has produced a special feature on over-tourism in its 2017 issue, which mentioned unexpected visitor expansion could have two negative consequences: first, a deterioration in the quality of visitor experience that places are intended to give; and second, a decline in the biophysical features, local community life quality, and existing infrastructures.

According to Responsible Tourism Partnership, they refer over-tourism as destinations where hosts or guests, residents or visitors, feel that there are too many visitors and that the quality of life in the area or the quality of the experience has deteriorated unacceptable, it is the contrary

of responsible tourism, which focus on using tourism to improve destinations for locals to live and tourist to visit (UNWTO, 2018).

Moreover, Gössling et al. (2020) provided a discussion regarding to over-tourism can indeed be understood using social psychology theories related to place transformation. Steen et al. (2019) pointed out that linkages between location and psychology are important for understanding antecedents to social attitudes in a recent study. Their research linked psychological responses to the density of individuals in space. Higher levels of arousal can be triggered by perceived social density, resulting to either positive or negative outcomes and goal-directed behaviors like negative avoidance or positive approach (Stokols, 1972). As a result, over-tourism is linked to residents' changing attitudes toward tourists and their perceptions of social density. According to the model (figure 1), perceived social density, which is determined by the number of people in a specific location, can generate crowding (Stokols, 1972) and is a significant role in stimuli overload (Steen Jacobsen et al., 2019). To sum, the social psychology conceptualization model of over-tourism posits that responses to environmental and social change should be regarded as social psychological processes reflecting interferences with place perceptions, leading to behavioral and emotional responses (Gössling et al., 2020). The authors have conceptualized the processes underlying perceptions of over-tourism; a phenomenon that may be triggered when local residents perceive social, economic, or environmental changes brought about by increased visitor density in localities as a significant, negative change, resulting in stimulus overload, arousal, and negative affect (Gössling et al., 2020).

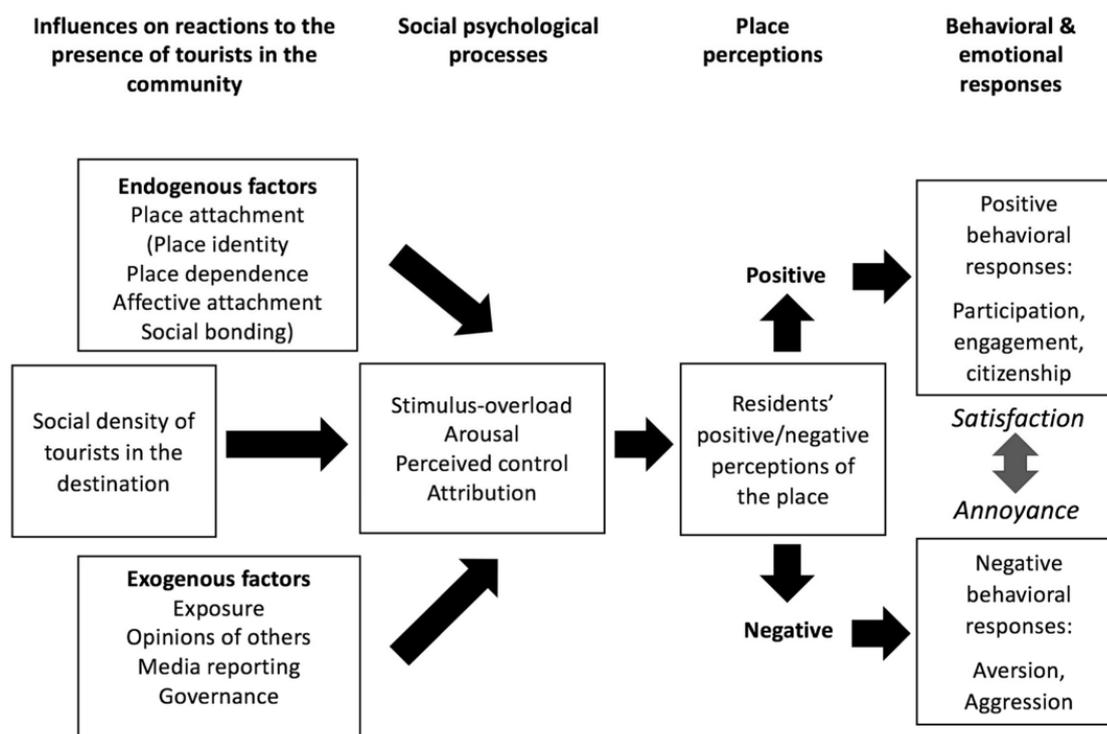


FIGURE 1 A SOCIAL PSYCHOLOGY CONCEPTUALIZATION OF OVER-TOURISM. (Gössling et al., 2020)

2.2.2 Tourism carrying capacity

Tourism allows the community and their people to share in the benefits of tourism, which is why the sector's relationships with locals must be strengthened. This can be accomplished by community engagement, congestion management, seasonality reduction, careful planning that respects capacity restrictions and destination specificities, as well as product variety. The tourism carrying capacity of a destination is described by UNWTO (2018) as “the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic, and sociocultural environment and an unacceptable decrease in the quality of visitors’ satisfaction”. Carrying capacity is a notion that has been frequently used in tourism and recreation research since the 1960s, though some researchers date it back to 1930 (Kennell, 2014). The author Wall (2020) claims that over-tourism is a concept based on carrying capacity, not a novel phenomenon. In addition, in defining and setting mechanisms, tourism congestion, carrying capacity and the acceptable limits of change, mechanisms must be identified and established to monitor and manage tourism congestion, both quantitative and qualitative indicators must be considered to ensure a comprehensive understanding of the impact of tourism (UNWTO, 2018). Kennell (2014) also argued that although it was a key concept in the development of sustainable tourism discourse, it has fallen out of favor in recent years as sustainable

tourism and its associated concepts such as Limits of Acceptable Change (LAC), Visitor Impact Management (VIM), Visitor Experience and Resource Protection (VERP), and Recreation Opportunity Spectrum (ROS) have come to dominate discussions of tourism management and impacts.

While all destinations and attractions are not identical in their morphology and structure, there is no single simple and direct measure of carrying capacity that can be applied evenly and equally to all of destinations (Kennell, 2014). ESPON (2020) also defined that there is no common way to capture the carrying capacity of tourist destinations across the multiple dimensions (social, economic, and environmental), nor is there an united technique to take geographical peculiarities into consideration when measuring their carrying capacity. Not only will carrying capacity fluctuate depending on geographical conditions, but there is no one-size-fits-all strategy to measuring tourist destination carrying capacity. Table 3 below serves an assessment of existing approaches revealed that there is not yet another solution for determining carrying capacity for all destinations:

Source	Strengths	Weaknesses	Suggested Indicators
Jurado et al. (2012)	Carrying capacity assessment: 24 indicators (9 physical, 9 socioeconomic, 6 social)	– Focus on the coastal area – Data availability/collection effort	1. bed nights (absolute value and percentage change) 2. arrivals (absolute value and percentage change)
UNWTO (2014)	Density (explicitly labelled as carrying capacity in this report), CO2 emissions, water consumption, solid waste generation, visitor load (number of tourists per day per 100 residents), resident satisfaction, congestion and intrusion, use of essential services	– Focus on cities – Data availability/collection effort	3. average length of stay 4. tourism revenues 5. share of tourism contribution to GDP
Gössling et al. (2015)	Travel distance and estimation of CO2 emissions	Focus on countries, no focus on modal split, source-market weighting, number of destinations visited	6. occupancy rate 7. number of bed spaces available in commercial accommodation establishments (absolute
European Union (2016);	– 43 core indicators	Data availability/collection effort	effort)

European Commission (n.d.)	<ul style="list-style-type: none"> – Supplementary indicators for specific types of destinations – Slovenia as one of the case studies 		<ul style="list-style-type: none"> value and percentage change) 8. share of Airbnb bed spaces
González-Guerrero, Robles, Pérez, Ibarra, and Martínez (2016)	<ul style="list-style-type: none"> – Overview of the carrying capacity studies – Evaluation of visitor management models 	NA	<ul style="list-style-type: none"> 9. distribution of bed spaces 10. distribution of demand (seasonality)
Green Destinations (2017)	<ul style="list-style-type: none"> – 6 main themes – 100 criteria 	Data availability/collection effort	11. tourism density
McKinsey & Company and World Travel & Tourism Council (2017)	<ul style="list-style-type: none"> – 9 metrics for a diagnostic development – 5 tactics with specific sets of actions 	Focus on cities	12. tourism intensity
Önder, Wöber and Zekan (2017)	An overview of potential objectives and indicators for destinations and their policymakers (classified as economic, social, and/or environmental)	Focus on cities	13. percentage of same day visitors to total number of visitors
University of St. Gallen (2017)	6 steps for understanding visitor flows	NA	14. CO2 emissions (during traveling to/from and at the destination)
Lenzen et al. (2018)	<ul style="list-style-type: none"> – Bilateral embodied CO2 emissions – Breakdown of the tourism carbon footprint into purchased commodities and emitting industries 	<ul style="list-style-type: none"> – Focus on countries – Analytical complexity 	15. waste production per tourist night compared to general population waste production per person (kg)
Peeters et al. (2018)	<ul style="list-style-type: none"> – 6 indicators of over tourism – Applicable to various types of destinations – Bled as one of the case studies 	NA	16. water consumption per tourist night compared to general population water consumption per resident night
Roland Berger (2018)	<ul style="list-style-type: none"> – Quality versus quantity – proactive measures (short term, midterm, long term) – 3 reactive measures 	Focus on cities	17. energy consumption per

UNWTO (2018, 2019)	– 11 strategies – 68 measures	– Focus on cities – Data availability/collection effort	tourist night compared to general population energy consumption per resident night
Gunter and Wöber (2019)	Travel distance, modal split, source-market weighting, number of destinations visited, and estimation of CO2 emissions	Focus on cities	18.closeness to airports, cruise ports and World Heritage Sites
Önder and Zekan (2019)	Recommendations	Focus on cities	
WEF (2019)	Variables from the pillars on environmental sustainability and natural resources	– Focus on cities – Data availability/collection effort	19.negative TripAdvisor reviews 20.overall satisfaction of visitors and residents with tourism

TABLE 3 SUGGESTED TOURISM INDICATORS FOR MEASURING CARRYING CAPACITY
(Source: ESPON, 2020)

Some of these studies are notable for their comprehensiveness, as seen by the large number of indicators and investigations into many aspects of sustainability. However, proposing dozens of (new) indicators does not guarantee that the approach in question will be used by stakeholders from all types and sizes of destinations in the end (ESPON, 2020). The most major weakness is the common problem of data availability/data collection effort required to begin a carrying capacity estimate. In other words, destinations may lack the necessary resources (human, financial, and organizational) to begin collecting a wide range of indicators indicated in research studies. Furthermore, it may be beyond their capabilities to do so on an ongoing basis to track the impact over time. The authors from ESPON (2020) judges that it is common for researchers to neglect the practical component while suggesting new indicators or approaches.

Environmental and biophysical carrying capacity (Liu and Borthwick, 2011; Simon et al., 2004; Zacarias et al., 2011); economic and social carrying capacity (Liu and Borthwick, 2011; Simon et al., 2004; Zacarias et al., 2011); and economic and social carrying capacity (Liu and Borthwick, 2011) have all been studied (Navarro et al., 2012). The links between these characteristics, as

well as their importance in any thorough assessment of tourism capacity, have been continuously recognized in literature (Navarro et al., 2012; Simon et al., 2004).

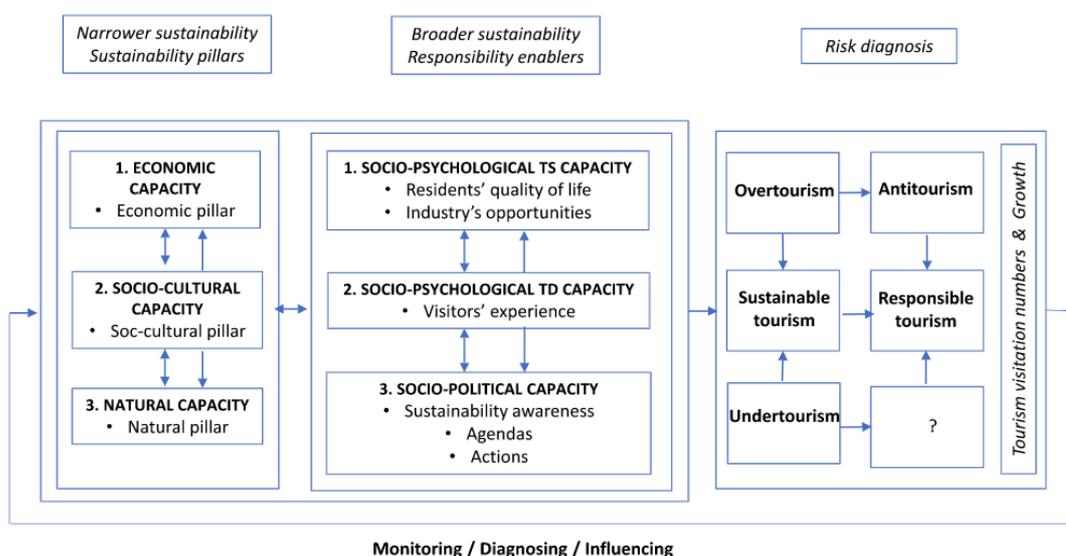


FIGURE 2 CONCEPTUALIZATION OF OVER-TOURISM
(Source: Mihalic, 2020)

Mihalic (2020) captured all essential over-tourism features in a single graphic model, multiple iterations of the first attempt at the model, and consistent use of various over-tourism terminology as shown in Figure 2, this portal depicts all key aspects of over-tourism risk, monitoring, and influencing in one place. Figure 2's first column depicts the three sustainability pillars and capacity; the pillars are divided into positive and negative categories. Tourism development and presence have a variety of effects. To support in monitoring, diagnosing, and analyzing the risk of over tourism and its underlying causes, indicator values could be compared to intended, agreed-upon, or legal carrying capacity among destinations or over time. The three sustainability enablers are shown in three separate yet interdependent boxes in the second column of Figure 2. These indicate levels of satisfaction among stakeholders, such as perspectives on the effects of tourism expansion and potential discomfort experienced by local stakeholders and visitors. The socio-political environment is the third box, and it is concerned with awareness, agendas, and actions. It provides a platform for tourism leadership, governance, and management, as well as civil and political initiatives (Mihalic, 2020). The relationships between elements, on the other hand, are not straightforward. Physical impact and perceptual socio-psychological indicators, for example, may yield conflicting consequences and send contradictory signals to the responsive action (Wall, 2019). During the conceptualization process, it became clear that some historically old and new developments in tourism ecology, economics, political tourism economy, welfare

economics, geography, sociology, psychology, and other disciplines related to the sustainability-responsibility tourism academic debate assisted in rethinking over tourism (Mihalic, 2020). As the project team from ENSON (2020) stated that tourism is associated to a destination's socio-economic situation. Tourism and regional development have such an impact on each other and support one other. Tourism capacity and offer can be enhanced by socioeconomic growth, but tourism's impact on regional development is enormous and may necessitate significant changes in development strategies. The rise of LCC and resulting in over-tourism is undoubtedly a major issue, but whether LCC travelers are aware of the issue, and taking less LCC trips or changing destinations is another matter. Based on the above-mentioned research, it is vital to understand whether LCC travelers' attitudes towards over tourism, the following hypothesis as **H1** is presented below:

H1a: LCC travelers' attitudes towards over-tourism have a positive influence on their intention to the destination.

H1b: LCC travelers' attitudes towards responsible tourism have a positive influence on their intention to the destination.

2.2.3 Approaches to counteract over-tourism

Despite today's rising attention of non-responsible tourist behaviors and the growing relevance of the sustainability paradigm, many European sites are still experiencing over tourism issues, prompting the UNWTO to acknowledge that the problem must be addressed immediately (Coldwel, 2017). In this chapter, strategies from UNWTO and examples of European cities cope with over-tourism will be introduced.

2.2.3.1 UNWTO Strategies

Tourism which is well-managed can help progress the New Urban Agenda and the 17 Sustainable Development Goals, particularly Goal 11: "Make cities and human settlements inclusive, safe, resilient, and sustainable." The following table 4 – strategies and measures to address visitors' growth in cities by UNWTO (2018) identifies 11 strategies and 68 measures to assist destinations to understand and manage tourism growth:

Strategies	Measures
Strategy 1	– Host more events in less visited parts of the city and in its surroundings
Promote the dispersal of visitors	– Develop and promote visitor attractions and facilities in less visited parts of the city and in its surroundings
	– Improve capacity of and time spent at attractions

within the city and beyond	<ul style="list-style-type: none"> – Create joint identity of city and its surroundings – Implement travel card for unlimited local travel – Mark entire city as inner-city to stimulate visitation of less visited parts
Strategy 2 Promote time-based dispersal of visitors	<ul style="list-style-type: none"> – Promote experiences during off- peak months – Promote dynamic pricing – Stimulate events in off-peak months – Set timeslots for popular attractions and/or events aided by real-time monitoring – Use new technologies (apps and others) to stimulate dynamic time-based dispersal
Strategy 3 Stimulate new visitor itineraries and attractions	<ul style="list-style-type: none"> – Promote new itineraries at the city entry points and through the visitor's journey, including at tourist information centres – Offer combined discounts for new itineraries and attractions – Produce city guides and books highlighting hidden treasures – Create dynamic experiences and routes for niche visitors – Stimulate development of guided tours through less-visited parts of the city – Develop virtual reality applications to famous sites and attractions to complement onsite visits
Strategy 4 Review and adapt regulation	<ul style="list-style-type: none"> – Review opening times of visitor attractions – Review regulation on access for large groups to popular attractions – Review regulation on traffic in busy parts of the city – Ensure visitors use parking facilities at the edge of city – Create specific drop-off zones for coaches in suitable places – Create pedestrian-only zones – Review regulation and taxation on new platform tourism services – Review regulation and taxation on hotels and other accommodation – Define the carrying capacity of the city and of critical areas and attractions etc. – Consider an operator's licence system to monitor all operators etc. – Review regulation on access to certain areas of the city for tourist related-activities
Strategy 5 Enhance visitors' segmentation	<ul style="list-style-type: none"> – Identify and target visitor segments with lower impact according to the specific city context and objectives – Target repeat-visitors – Discourage visitation of the city of certain visitors segments
Strategy 6 Ensure local communities benefit from tourism	<ul style="list-style-type: none"> – Increase the level of employment in tourism and strive to create decent jobs – Promote the positive impacts of tourism, create awareness and knowledge of the sector amongst local communities – Engage local communities in the development of new tourism products – Conduct an analysis of supply-demand potential of the local communities and promote their integration in the tourism value chain

	<ul style="list-style-type: none"> – Improve quality of infrastructure and services considering residents and visitors – Stimulate development of impoverished neighbourhoods through tourism
Strategy 7 Create city experiences that benefit both residents and visitors	<ul style="list-style-type: none"> – Develop the city to fit with the residents’ needs and desires and consider tourists as temporary residents – Develop tourism experiences and products that promote the engagement of residents and visitors – Integrate visitor facilities within local festivities and activities – Create and promote local city ambassadors – Promote art and culture initiatives such as street art to provide fresh perspectives on the city and expand visitation to new areas – Extend opening times of visitor attractions
Strategy 8 Improve city infrastructure and facilities	<ul style="list-style-type: none"> – Create a city-wide plan for a well-balanced, sustainable traffic management – Ensure that major routes are suitable for extensive tourism activity and that secondary routes are available at peak times – Improve urban cultural infrastructure – Improve directional signage, interpretation materials and notices – Make public transport better suited for visitors – Set up specific transport facilities for visitors during peak periods – Provide adequate public facilities – Create safe cycling routes and stimulate bicycle rentals – Set up specific safe and attractive walking routes – Ensure that routes are suitable for the physically impaired or elderly visitors in line with accessible tourism principles – Safeguard quality of cultural heritage and attractions – Ensure cleaning regimes fit with tourism facilities and with peak times
Strategy 9 Communicate with and engage local stakeholders	<ul style="list-style-type: none"> – Ensure that a tourism management group (including all stakeholders) is set up and is regularly convened – Organize professional development programmes for partners etc. – Organize local discussion platforms for residents – Conduct regular research among residents and other local stakeholders – Encourage locals to share interesting content about their city on social media – Communicate with residents about their own behaviour – Unite disjointed communities
Strategy 10 Communicate with and engage visitors	<ul style="list-style-type: none"> – Create awareness of tourism impact amongst visitors – Educate visitors on local values, traditions and regulations – Provide adequate information about traffic restrictions, parking facilities, fees, shuttle bus services, etc.
Strategy 11	<ul style="list-style-type: none"> – Monitor key indicators such as seasonal fluctuations in demand, arrivals and expenditures, patterns of visitation to attractions, visitor segments, etc.

Set monitoring and response measures	– Advance the use of big data and new technologies to monitor and evaluate tourism performance and impact
	– Create contingency plans for peak periods and emergency situations

TABLE 4. STRATEGIES AND MEASURES TO ADDRESS VISITORS' GROWTH IN CITIES
(Source: UNWTO,2018)

Some scholars argue that, in order to address over tourism challenges, more regulation and government leadership are needed, rather than the self-governance models that have contributed to over tourism (Koens et al., 2018). For example, the quantity of media pieces and their sentiment, related civil efforts or political demands, and a destination's and government's sustainable development actions are all useful markers for monitoring and diagnosing over tourism. (Mihalic, 2020).

2.2.3.2 European cities coping with over-tourism

Hospers (2019) examined some of the actions made by stakeholders in Barcelona, Spain and Amsterdam, The Netherlands; the author stated that both cities are frequently cited as 'best practices' for dealing with mass tourism.

Barcelona has gained in popularity as a tourist destination since the 1992 Olympics. Over-tourism was identified as a concern in 2004, and local governments formally began taking action in 2008 (Ajuntament de Barcelona, 2017). It has followed a coordinated strategy to tourist management over the previous decade that stands out in different ways (Hospers, 2019). The City Council established a Municipal Action Plan (PAM) in 2008, committing the city to developing a Tourism Strategic Plan. The goal was to promote a tourism model that would strengthen the balance between local inhabitants and tourists while conserving the city's distinctive values (Goodwin 2019). This involved (1) planning the city's capacity for hosting tourists and ensuring the quality and sustainability of the sector; (2) planning the city's capacity for hosting tourists in accordance with the characteristics of the public space and with regard to the impact of tourism; (3) promoting cultural tourism based on Barcelona's role as Catalan capital, with its architectural heritage and Catalan language and cuisine; (4) and promoting tourism that includes civic-minded affluent people (Goodwin 2019). The Ajuntament de Barcelona released recommended practice guidelines. The goal of the city government was to improve the tourist experience and the city's image for inhabitants and visitors, to foster a more amicable cohabitation with residents and businesses who were inconvenienced by huge gatherings on the streets, and to preserve the city's public spaces (Goodwin, 2019). Guidelines is attached in the appendix 1.

The Dutch capital of Amsterdam, like Barcelona, has become a popular tourist destination, the city has 11 million tourists in 2005, and almost 18 million in 2017. According to projections, visitor numbers could reach 30 million by 2025 if no legislative changes are made (Hospers, 2019). Prior to the epidemic, government had taken many steps to try to address the problems caused by tourism in the city, including banning guided tours of the Red-Light District, not building new hotels, and raising tourist taxes. Almost 70 measures have been performed to put this city-in-balance policy into practice (Municipality of Amsterdam 2019). For example, not only are traffic flows in the city center regulated for coaches, taxis, trucks, and bicycles, but also for canal boats. Tourist annoyance in public places is dealt with by enforcing severe restrictions and imposing heavy fines (Hospers, 2019). In addition to the restrictions proposed by the mayor, some officials and residents have proposed softer solutions, such as encouraging people to explore areas outside the city center; introducing new itineraries, such as 'fake marriage with locals for a day', so that foreign tourists can experience real Dutch life; participating in cleaning up the city's garbage; helping to weed farms, and so on, in the hope of taking tourists away from the hot spots, but also allowing them to make real connections with local residents and bring a positive impact to the city.

The difficulties of over tourism in European towns are being more widely reported in the media. Over-tourism is easy to understand in theory: the rise of global tourism and the popularity of bucket lists have led to a concentration of visitors in a restricted number of locations. Local stakeholders, on the other hand, are confronted with 'tragedy of the commons' problems rather than benefiting from the 'winner takes all' paradigm (Hospers, 2019). As the experts conclude in the UNWTO report (2018): "nevertheless, the effectiveness of measures is highly dependent on their specific context." There is no such thing as a one-size-fits-all approach.

2.2.4 Communication channel

It is worth to mention that developing effective strategies is one thing, and effectively communicating the message and clearly informing tourists and residents as well as the industry on how to counteract over-tourism is the only way to achieve the goal of developing strategies.

Communication is a complex process for transmitting images and messages about tourist destinations products and even strategies and policies to potential visitors. In the case of delivering the message of over-tourism strategies, DMOs aim to identify the most effective ways of communication channels for LCC travelers, which is the essential way to maintain the balance

between attracting tourists and keeping a responsible and healthy local tourism environment. Belaure et al. (1985) stated that the communication system consists of the information source itself (in this case the DMOs); the messages which would be transmitted (over-tourism strategies and approaches); the receiver (the LCC travelers); and lastly the communication channel. Bogan (2014) identified different tourism communication types into four different information categories, which includes commercial, noncommercial, personal, and impersonal. The impersonal level of information transmission such as printed materials, video materials, tourist programs are more synthetic, direct, and focused on the artistic creation of the message, whereas the personal level such as tourists' information centers and tourism operators are far more detailed and convincing. Because it represents an experience that has already been taken from the client phase to the consumer phase, noncommercial information transmission can often be more credible than commercial information transmission (Bogan, 2014). The author has compiled a table of the tourism communication types, which some of the communication channels are chosen to test the hypothesis of the preferred and effective ways of LCC travelers to receive the message of over-tourism strategies. Table 5 is presented here below:

Tourist information categories	Personal level	Impersonal level
Commercial	<ul style="list-style-type: none"> - travel agencies; - tour operators; - tourism providers; - tourist information centers; - tourism offices abroad; - advertising agencies; - tourism fairs and expos. 	<ul style="list-style-type: none"> - radio, TV advertising; - newspapers, magazine advertising; - printed materials; - video materials; - cinema materials; - landline and mobile phones; - websites.
Noncommercial	<ul style="list-style-type: none"> - close friends; - family members and relatives; - neighbors, coworkers; - strangers; 	<ul style="list-style-type: none"> - tourist programs; - specialized press; - guides, tourist catalogues; - specialized film studios.

TABLE 5 TOURISM COMMUNICATION TYPES
(Source: Bogan, 2014)

In this research thesis, the author will not explore the scope of personal level plus noncommercial, since this paper strives to give DMOs a direction of effective ways to communicate the strategies of over-tourism, the used variables of communicational channel will be under the control of DMOs. Although governments and the UNWTO have spent a lot of time and money to develop solutions to over-tourism, whether tourists understand and comply with those policies is another matter. Therefore, the following hypothesis for testing the most effective ways of over-tourism strategies' communication channels are conducted below:

H2a: Tourist information centers have a positive influence on LCC travelers' understanding of over-tourism strategies.

H2b: Printed materials have a positive influence on LCC travelers' understanding of over-tourism strategies.

H2c: Websites have a positive influence on LCC travelers' understanding of over-tourism strategies.

H2d: Tourist programs and guides have a positive influence on LCC travelers' understanding of over-tourism strategies.

2.3 Tourist expenditure

At both national and regional levels, tourist expenditure contributes significantly to economic growth (Marrocu et al., 2015). Tourism is an expenditure-driven economic activity, and tourism consumption is at the heart of economic assessment and the foundation of its economic impacts (Mihalic et al., 2002), which contributes to clarifying the gross added value that destinations generate (Eugenio-Martin & Campos-Soria, 2014). From the standpoint of destination marketing, this knowledge could facilitate the identification of 'profitable tourists', those who stay longer and spend more money during their visits, as well as the development of effective marketing plans and policies based on valid market segmentations (Nicolau & Mas, 2005).

2.3.1 Determinant factors

Travelers must not only decide on a destination, but also on a variety of small and medium - sized, such as lodgings, restaurants, and transportation (Park et al., 2013). It becomes clear that, due to the diversity of many sub decisions, a single determining factor is unlikely to have the same influence on all of them (Park et al., 2019). In accordance with the authors, they used four sets of determinant factors (demographics, trip graphics, prices, and information sources) to explain and analyze expenditure patterns of international tourists visiting South Korea. The results show that occupation (self-employed); education (college and graduate schools); origination from China, Singapore, Taiwan, Malaysia, or Saudi Arabia; visiting Korea only; trip purposes: leisure, recreation, and holiday and shopping); traveling with family and relatives and friends; information sources; and consumer price index differential are determinant factors that have a positive effect on expenditures (Park et al., 2019). The study also discovered that for total expenses, there is a decreasing effect across the distribution of variable expenses, with stronger effects at low levels and lesser impacts at high levels (Park et al., 2019).

According to Pizam and Reichel (1979), as well as Spotts and Mahoney (1991), expenditure-based segmentation satisfies all four criteria for an effective segmentation method which are measurability, actionability, accessibility, and substantiality. Followed by the paper from Brida and Scuderi (2013): *Determinants of tourist expenditure, a review of microcalorimetric models*, the authors presented a thorough examination of econometric methods for analyzing tourism expenditure at the individual level. The authors classified four different categories of determinant factors, including economic constraints, socio-demographic, trip-related and psychographic variable which will be used in this thesis research as different variables to deepen into the factors that influence the tourist expenditure of LCC' travelers for responsible tourism.

2.3.1.1 Economic factors

Income is one of the most frequently used variables in economic factors due to its explicit role in economic theory in purchasing behaviors. The method income was measured differs from the explicit reference—to household, visiting party, average per family member (total or simply adult), household head, or only the interviewee among the research (Brida & Scuderi, 2013). It is commonly known that respondents are hesitant to divulge details regarding their earnings, therefore this variable is polled in some datasets using ordinal categorical variables like income classes which will be also used in this thesis research. The amount of financial support for the trip had been considered in Wang and Lee's (2011) study on regular and conference tourism. To account for decreasing marginal effects, Alegre et al. (2009) estimated coefficients for both income level and squared income. Although many scholars have suggested that income is a factor that affects tourist expenditure, however, whether income of LCC travelers affects their expenditure on responsible tourism has not been studied, therefore the author of this thesis research identified income as a measure of economic factors.

2.3.1.2 Socio-demographic attributes

Socio-demographic attributes includes age, gender, number of household members, nationality, and life cycle stages. In global terms, age-related variables are the most used in socio-demographic variables, age allows the researchers to find out whether different age groups influenced the travel expenditure on destinations. Age have been discovered to have a major impact on the image of tourist destinations in studies (Baloglu, 1997; Baloglu & McCleary, 1999). The overall impression of the destination is the perceived image of the destination (Oxenfeldt, 1974), and the impression plays an important role in a potential tourist's decision-making process. This characteristic of age groups, in which people born around the same time and within the same generation often share some comparable characteristics and ways of thinking, is why DMOs frequently segment their target market by age. Number of household members is a variable

separate from the size of the travel companions which will be mentioned in travel characteristics, this category relates to the number of members in the respondent's household. In addition, Cho (1991) used indirect assessments to distinguish tourist behavior by nationality. Kozak (2002) investigated the differences in tourism motivations between ethnicities and destinations using a direct approach. Pizam and Sussman (1995) took an explanatory approach to the investigation of the worth of nationality in terms of tourist behavior. The study indicated that nationality, along with other variables, contributes and should be considered when forecasting differences in tourist behavior.

Life cycle stages include the adolescence, early adulthood, middle adulthood, and old age, throughout all these periods, humans are constantly and steadily changing and the spending pattern as well changes. In this research paper, the author hypothesizes that people at different stages of their life cycle have different perceptions of responsible tourism, and that adolescence and early adulthood are more likely to spend more on responsible tourism than middle-aged and older people with higher incomes due to peer pressure or the influence of online communities. Therefore, the life cycle stage will eventually be an important measurement factor in this section.

2.3.1.3 Trip-related characteristics

Trip-related characteristics are the factors related to the traveler's vacation, which includes different components such as activities, type of payment method, number of destinations, travel information source, and length of stay. Participation in a sporting event, nature-based outdoor activity, beach experience, rural or outback tour, museum, or theater visit, and so on are all among activities. The diverse behaviors of boaters in Lee's (2001) study; the choice between different route types in bike tourism (Downward et al., 2009); and attending different sorts of cultural events at a national arts festival are all examples of activity-related variables (Kruger et al., 2010). According to Brida and Scuderi's (2013) study, activities were not significantly related with travel expenditure, which will not necessarily be the same in the case of LCC traveler.

Type of payment methods including Visa, Mastercard, American Express, Maestro debit card and cash, make travelers more likely to spend at their destination. In accordance with author Thrane (2015), he conducted research in whether method of payment affects total trip expenditure, the findings show that credit card and debit card users – the so-called 'plastic money' segments – spend more money overall on their trip than cash users; credit card users are the higher spenders between the two plastic money segments. Furthermore, Leones et al. (1998) examined at a metric regressor, which is the number of sites visited throughout the trip and discovered

that it is strongly and positively associated to expenditures. Although previous studies have shown that credit card users are more willing to spend money while traveling, most passengers on LCCs are budget travelers, and it is worth investigating whether LCC travelers are as willing to use credit cards and spend more on responsible tourism.

Regarding to travel information source, with the advances in technology, travelers can search for information and book trips online, in addition to going to a physical travel agency. Park (2020) stated that in the literature on spending, the role of information sources in predicting trip spending patterns is a new dimension. However, Berhanu and Raj (2020) examined the trustworthiness of travel and tourism information sources of social media, with the findings revealed that visitors aged 18–35 years had a higher agreement level with the reliability of social media travel information sources; as visitors' ages increase, the mean scores somewhat decline, with visitors aged 46 years and older having the lowest mean values.

In recent years, tourism consumption patterns have been defined by a decrease in the length of stay, which has been attempted to be offset by an increase in daily visitor expenditure or an increase in the number of tourists. (Aguiló, 2017) Length of stay the trip was the most utilized metric regressor in calculating travel expenditures. Other metric regressors, such as the length of the visit in hours (Brida et al., 2012; Downward & Lumsdon, 2004), were related to the unusual case study under examination.

2.3.1.4 Psychographic variables

As mentioned earlier, socio-demographic and travel-related characteristics, as well as income, are the most used variables, however, some scholars argued that the importance of psychological factors in destination selection and spending decisions cannot be neglected. Psychographic variables are consumer characteristics that may influence their responses to products, packaging, and advertising, as well as their purchasing decisions which includes stress level, lifestyle, interests, and opinions (Brida & Scuderi, 2013). According to Wang et al. (2006) and Lehto et al. (2002), the relevance of psychological aspects for destination selection and spending decisions cannot be underestimated. The satisfaction with a person's trip, overall life satisfaction, and stress experienced while commuting have all become more important components of our understanding of travel behavior, particularly when it comes to mode selection (Legrain et al., 2015). Additionally, cultural, social, personal, and psychological factors all had a significant impact on tourism demand (Pektas, 2018). One of the most important personal and psychographic determinants is lifestyle, people from the same subculture, socioeconomic class, and occupation

may lead very different lives. Pektas (2018) found out that there are significant relationships between 'experiencers, believers, achievers' and 'the demand for alternative tourism. Despite that, Brida and Scuderi (2003) commented that in general, psychological variables are not frequently used in the literature, and their measurement remains a mystery. Psychographic variables are more difficult to measure than other factors, and respondents may not be able to distinguish the difference between life cycle and lifestyle, in order not to confuse the respondents, psychographic variables will not be used in this paper.

Part of the chosen determinant factors will be used in the hypothesis to test factors that influence responsible tourist expenditure from LCC traveler, which are here below:

H3a: Income is associated with LCC travelers' responsible tourism expenditure.

H3b: Life cycle stages is associated with LCC travelers' responsible tourism expenditure.

H3c: Type of activities is associated with LCC travelers' responsible tourism expenditure.

H3d: Type of payment methods is associated with LCC travelers' responsible tourism expenditure.

According to Jurdana and Frleta (2016)'s research about factors affecting the expenditure of domestic and foreign tourists, the findings show that tourists with higher family income spend more than tourists with lower family income; foreign tourists who book their trip through a travel agency spend more than foreign tourists who book their trip independently which is related with the travel information search; and length of stay is an ambiguous variable, as it has only a negative impact on foreign tourists' daily expenditure levels while having no effect on domestic tourists' daily expenditure levels. Park et al. (2019) pointed out an important point: a single variable not having the same effect across the range of variable expenditures opens new courses of action for segmentation for DMOs and decision-makers in tourist organizations, as heavy and light spenders are influenced differently by their behavior.

2.4 Tourist Behavior

A comparative study of tourism destinations under pressure was studied Institute of Tourism (ITW) at Lucerne University of Applied Science and Arts, they highlight a variety of causes of over tourism, including marketing, changes in tourist behavior, changes in accessibility, and current and new attractions, in addition to worldwide tourism growth (Goodwin, 2017). The later studies

proved that travelers' behavior, the length of their stay, the number of tourists, and the type of tourism are often just as essential as the number of tourists (Lindberg et al., 1997).

There are already many definitions of tourist behavior in the academic field, "study of why people buy the product they do, and how they make their decision" by Horner and Swarbrooke (1996); "It is process involved when individuals or groups select, purchase, use or dispose of products, services, ideas or experiences to satisfy needs and wants" by Solomon (2016); and "those activities directly involved in obtaining, consuming and disposing of products and services, including the decision processes that precede and follow these actions" by Engel et al. (1995)

Caldito et al. (2015) stated that tourist behavior challenges confront destination marketers and tourism service providers daily. Understanding consumer behavior, particularly tourist behavior, aids businesses in developing products and services, improving tactics, and satisfying customers. Answers to the following questions are sought by all professionals: Why do people travel as tourists? What criteria do they use to choose a destination? What factors impact their choices? What will bring travelers happiness and value? Understanding tourist behavior will assist in destination and organizational planning and development; service providers will boost visitor experience and create memorable experiences, which will have an impact on destination economies as well as business financial performance.

2.4.1 General tourist behavior

Tourism demand is the basic psychological factor for tourists to realize their tourism activities. The type of demand will lead to the type tourism motivation. Therefore, motivation is not only the process of tourist behavior, but also the process of tourist behavior decision-making. Whether an individual can become a tourist or often depends on the influence of many socio-economic factors. In terms of the conditions of generating tourism demand and realizing tourism activities, these factors can be divided into two parts: one is the conditions of tourists themselves which is the tourist demand; and the second is the impact of tourism destination which is the tourist supply factors. Wahab et al. (1976) made the first attempt to model tourist behavior, describing tourists as rational decision-makers who want to maximize their utility when acquiring tourism products. Yet, Schomoll (1977) pointed out that, while tourists make rational choices, they may only have a poor understanding of the destination, therefore, it is critical to raise brand awareness in the minds of tourists, because even if a destination is very tempting, customers may not choose it due to a lack of information and trust (Caldito et al., 2015). Tourist purchasing decision-making is defined by Mathieson and Wall (1982) as a sequential process

that begins with a desire or need for travel, is followed by an information search, an appraisal of that information, and finally a travel decision. Above here, Figure 3 shows the procedure that visitors go through from the time they decide to go on a trip till they return home, tourists make decisions at each of the three stages, and each stage influences the eventual outcome of their trip (Caldito et al., 2015):

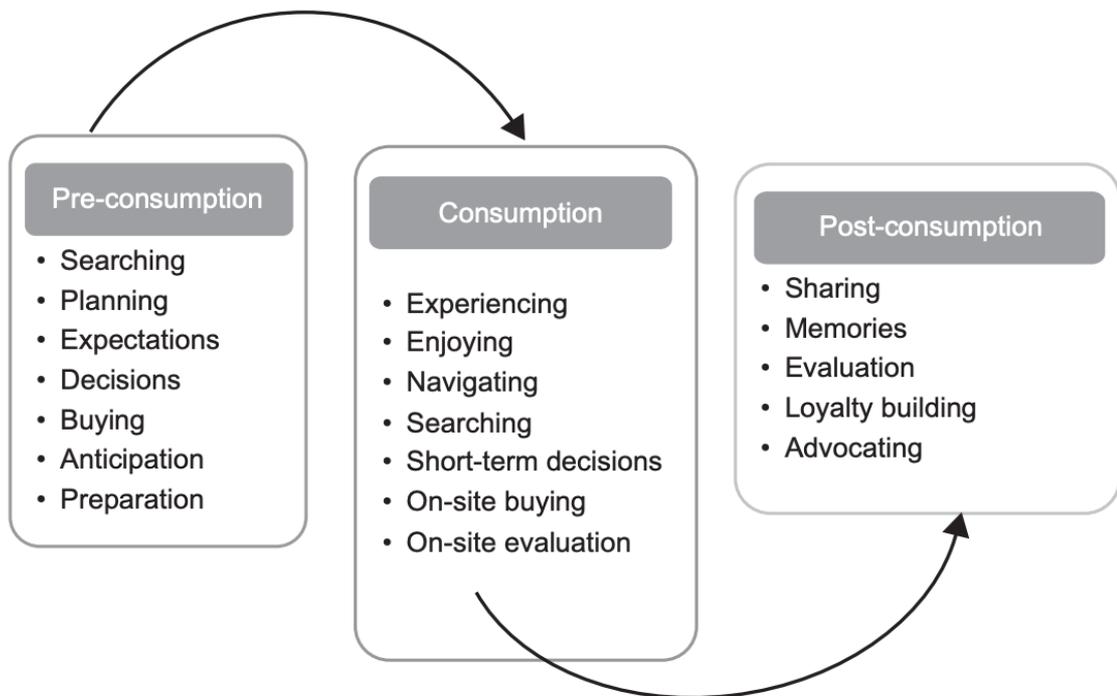


FIGURE 3 THE CONSUMPTION OF TOURISM PRODUCT BY TOURISTS
(Source: Caldito et al. 2015)

2.4.2 Motivation

It is vital to mention the motivations for travelers to make decision flying on a low-cost carrier and be willing to crowd up with others at a tourist destination. Motivation is shown as the driving force behind every conduct, and it has a direct impact on overall evaluation, or satisfaction with a tourist visit (Yoon and Uysal 2005). Since motivation is the driving force behind all behavior, it's likely that tourist motivation will influence tourist attitudes in general, as well as certain key characteristics of behavior including involvement, perception, and satisfaction (Fodness 1994). According to several studies, high degrees of involvement are significantly associated with proximal push and pull motivation factors, that is, motivation pushed internally by the tourist and externally pulled by the destination (Prebensen et al., 2012), push to pull strategy is frequently used for market segmentation and visitor profiling (Cohen et al., 2013). Pull motivation based on a destination has a negative impact on contentment, whereas satisfaction with the

destination experience and push motivation have a favorable impact on destination loyalty (Prebensen et al., 2012).

Personal factors can affect travel motivation, the difference of gender and their status in family society makes the appearance and development of tourism motivation different; age and physical condition can also have a significant impact on travel motivation. Economic capacity is the basis and foundation for individuals to choose their way of life, it restricts the emergence and development of tourism motivation. If the price of tourism products is high, the cost of tourism activities will be high, it will inevitably affect the emergence of tourism motivation and its transformation into tourism behavior. Leisure time is also an important factor for individuals to choose the way of tourism, without leisure time, tourism motivation will not come into being and tourism behavior will not be realized. Social factors are also influencing travel motivation. Social politics, economy, culture, constitute the social environment and background of personal life, have a strong restriction and influence on people's social behavior. Tourism is a kind of social lifestyle, which cannot exist independently without social background. In the real society, in addition to political, economic, cultural, and other factors, the most important and direct impact is the construction of tourism environment, including the attitude of the state power institution to the tourism, the related policy and so on.

2.4.3 Theory of reasoned action (TRA)

The motivational influences that determine humans' behavior are the focus of theory of reasoned action (TRA), which was originally based on Fishbein's study on attitude-caused behavior (Fishbein, 1967). According to TRA, people are rational and have beliefs and knowledge that they have systematically gathered from a variety of sources, including personal experiences, formal education, media, and interactions with relatives and friends, but they also interpret and remember this information (Fishbein & Ajzen, 2011). Several background factors, according with reasoned action framework, influence behavior. Individual (personality, mood, emotions, values, stereotypes, general attitude, perceived risks, past behaviors), social (education, age, gender, income, race, ethnicity, religion, culture), and information (knowledge, media, intervention) are the three groups of background factors (Fishbein & Ajzen, 2010). In this research paper, the author will use LCC travelers' knowledge towards over tourism as a measure of travels' intention for performing responsible tourist behaviors. The hypothesis will be presented after the section of responsible tourist behaviors.

2.4.4 Theory of planned behavior (TPB)

The Theory of Planned Behavior (TPB) is a well-known theory that is frequently used in numerous fields to analyze human behavior and psychology (Bosnjak et al., 2020). TPB is a model built from the Theory of Reasoned Action (TRA) by adding a non-volitional predictive construct of perceived behavior control, which was introduced by Ajzen (1991). The framework suggests three high - risk behaviors antecedents that regulate behavior intention, particularly regarding, attitude, which refers to one's favorable or unfavorable, like or dislike, and positive or negative opinions on behavior, subjective norm, which is one's perception of social pressure from friends, family, and peers; and perceived behavior control, which is one's perception of the capability and ability to engage or act in such a manner (Ajzen, 1991). Below, Figure 4 shows clearly the components and elements of TPB model:

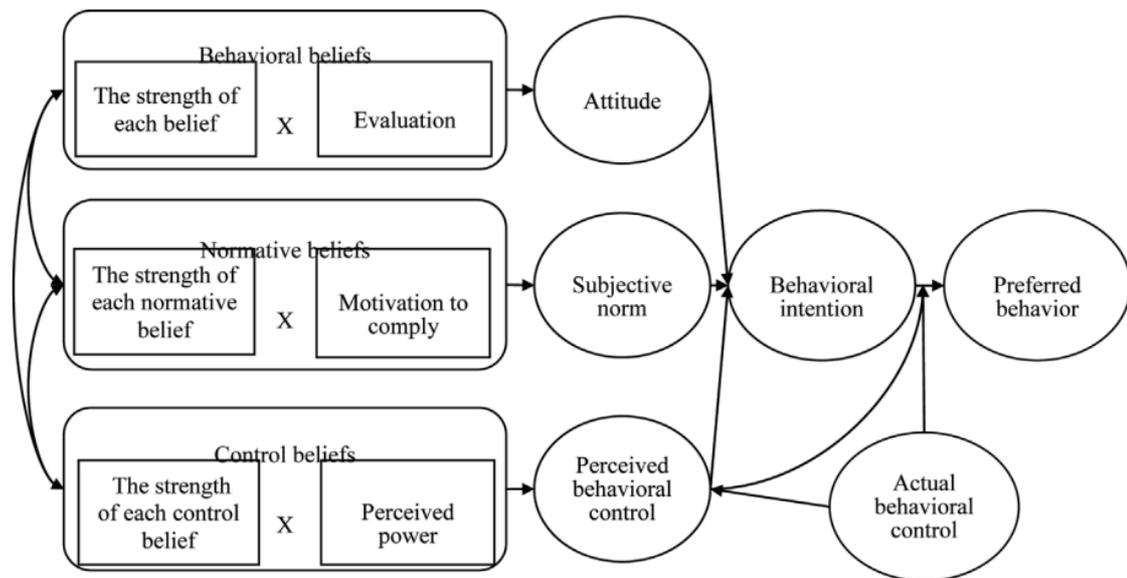


FIGURE 4 TPB MODEL
(Source: Ajzen & Fishbein, 2005)

TPB is frequently used in tourism and hospitality research to forecast and investigate travelers' intentions for destination selection, decision-making, and tour planning (Kuo & Dai, 2012), therefore, this thesis research will also use the three different antecedents of TPB to examine the impact of LCC travelers on responsible tourism.

2.4.4.1 Attitude

According to the theory of planned behavior, attitude is a predictor of intention behavior (Ajzen, 1991). The total set of behavioral beliefs that link a behavior to various outcomes and other

attributes determines one's attitude towards a certain behavior. The evaluation of the outcome or attribute weighs the strength of each belief (Kuo & Dai, 2012). The expectancy-value model states that behavioral beliefs based on a variety of outcomes and individual experiences determine one's attitude toward a behavior (Fishbein & Ajzen, 1975). In this research, attitude refers as the attitude towards participating or performing responsible tourist behaviors.

2.4.4.2 Subjective norms

Subjective norm is the perceived social pressure (Ajzen, 1991) to engage or not engage in a behavior based on an individual's perception of whether a key person in their life would like them to engage in the behavior. In simple words, when people are put under a lot of pressure from people they consider important, they are more likely to engage in environmentally responsible activities (Fenitra et al., 2021). Although correlations between these variables are often quite high, especially for attitudes and subjective norms, few studies have investigated potential relationships between attitudes, subjective norms, and perceived behavioral control (Quintal et al., 2010). According to Oliver and Bearden (1985), the strength of association between these variables suggests that subjective norms may influence attitudes; when people form their own attitudes, they consider others' expectations and willingness to comply. Quintal et al.'s (2010) study indicated that subjective norms was significant positive predictors of intentions to visit the destination, therefore, this research hypothesized that subjective norms have a positive influence on LCC travelers' responsible tourist behaviors.

2.4.4.3 Perceived behavioral control

The ability and capability of an individual to do a specific behavior is referred to as perceived behavior control (PBC) (Wang et al., 2021). According with Theory of Planned Behavior (Ajzen, 1991, perceived behavior control influences intention behavior. Fennitra et al. (2021) conducted research about extended theory of planned behavior to explain environmentally responsible behavior in contact of nature-based tourism, the result showed that TPB construct of perceived behavior control had a greater impact on intention than the other TPB constructs which are attitude and subjective norm. Previous studies have found mixed evidence for perceived behavioral control's moderating effect on the intention-behavior relationship (Armitage & Conner, 2001; Yang-Wallentin, Schmidt, Davidov, & Bamberg, 2003). Higher perceived behavioral control was related to greater intention-behavior consistency in each case. Consequently, this thesis research suggests that higher perceived behavior control increases the LCC travelers' responsible tourist behaviors. According to the TPB model, the hypothesis can be drawled as following:

H4a: Attitude positively influence LCC travelers' responsible tourist behaviors.

H4b: Subjective norm positively influence LCC travelers' responsible tourist behaviors.

H4c: Perceived behavior control positively influence LCC travelers' responsible tourist behaviors.

2.4.5 Perceived value of a destination

As visitors are seen as "value-driven" (Levy 1999), tour operators and DMOs must recognize what their customers value to remain competitive (Woodruff 1997). Consequently, perceived value is represented as a critical strategic tool for businesses seeking to compete in the marketplace (Woodruff 1997). According to Cravens et al. (1988), a consumer's value perception has typically been defined as the level of rationing or trade-off between quality and price. Consumer values are more constant over time than attitudes (Crick-Furman & Prentice, 2000). Perceived quality and monetary price are the two key antecedents of perceived value in tourism services, according to several research (Chen and Chen 2010). Few attempts have been made to understand these changes emerging markets and how they influence tourist behavior. A key implication of this for tourism is that perceptions, like attitudes, are crucial in constructing visitor involvement, destination image, satisfaction, and service quality (Cohen et al., 2013).

2.4.6 Responsible tourist behaviors

The emerge of responsible travelers is owing in part to the to the concerns about the effect of mass tourism which had occurred only in the past few decades. According to Swarbrooke and Horner (1999), tourists not buying souvenirs manufactured from animal parts, not attending bullfights, and not being photographed with captive monkeys and bears are all examples of 'green' tourist behavior. There are also those 'dark green tourists,' who take vacations where they actively support and assist in environmental efforts. The author Weeden (2013) mentioned that the environment, animal welfare, social, political, and trade justice are all issues that ethical consumers are motivated by. They show their values through a diverse range of behaviors, including boycotting, recycling, purchasing green energy, and political activity. Also, the author mentioned that responsible tourists are those who want to reduce the costs of tourism's externalities by vacationing in a way that provides a fair and equal distribution of benefits to local populations while also protecting wildlife and the environment (Weeden, 2013).

In a recent study conducted by the Center on Ecotourism and Sustainable Development (CESD), most tourists want to learn about social, cultural, and environmental issues while traveling and they believe it is important that tourism does not harm the environment, and want hotels to protect the environment, among other things (Chafe 2004). One-third to one-half of tourists interviewed said they are willing to pay more to businesses that help local communities and the

environment (Chafe 2004). In addition, according to Stanford's (2006) research, there are two main broader themes regarding the definition of responsible tourists, which includes spends, aware, respects and open, interactive, interested. The most common word or idea from the respondents is tourist that spends money and have plenty of cash. François-Lecompte and Prim-Allaz (2009) also argued that responsible tourism is defined as the consumption of a service that has a positive impact on the tourist's environment, as well as the use of purchasing power as an expression of social and environmental concern. Therefore, it can be seen that local citizens in the destinations consider tourist expenditure as a main factor, tourist expenditure is already mentioned in the previous chapter, and hypothesis were set up for the research of LCC tourist behaviors. Tourists are aware and informed of environment and culture, as well respect the environment, engage and being friendly to locals are widely mentioned.

The above paragraphs introduce the motivations of travelers and the literature of theory of reasoned action, theory of planned behaviors, as well how tourists perceive the value of a destination. H3a to H3c have been presented in the paragraphs of TPB, combining the above several theories among the responsible tourists, the following hypothesis are presented below:

H4d: LCC travelers' knowledge towards over-tourism positively influence on their green tourist behavior level.

H4e: LCC travelers' attitudes towards responsible tourism positively influence LCC travelers' responsible tourist behaviors.

H4f: LCC travelers' responsible tourism expenditure positively influences LCC travelers' responsible tourist behaviors.

2.4.7 Negative tourist behaviors

Stanford (2006) conducted discussions with industry representatives such as tour operators and public sector representatives to define the 'non-responsible tourist'. Overall, the representatives' definitions revealed the opposite attributes or characteristics of a responsible tourist. They do mention particular examples of behavior that they believe is non-responsible such as throwing trash, which is showed in the table above:

Broader theme	Word or idea	Frequency*
No respect, ignorant and doesn't care	Does not respect or care about environment/people	21
	Litters	19
	Rude/ignorant/inconsiderate	12
	Loud	9
	Drunken	9
	Takes things they shouldn't	3
	Lights fires	2
Not interested, doesn't engage and unaware	Doesn't understand/not aware of what they visit	7
	Doesn't engage with the country they are visiting	7
	Lazy	3
	Doesn't spend money	3
Other	Kiwi experience	5
	Package tourist	3
	Asians	3

TABLE 6 REPRESENTATIVES DEFINE NON-RESPONSIBLE TOURIST
(Source: Stanford, 2016)

Author Stanford (2006) also conducted a table which includes several fundamental characteristics that both responsible and non-responsible tourists share. It is proposed that each dimension will have varying degrees of responsibility; for example, a very responsible tourist might have a stronger interaction with local people, possibly working as a community volunteer, whilst a non-responsible tourist would avoid any form of engagement (Stanford, 2006). The author also stated that while tourists may show responsibility in one sector, they may not have been so responsible in another. The definition of responsible and non-responsible tourist is in the table below:

A responsible tourist:	Dimension	A non-responsible tourist:
Demonstrates many of the following dimensions		Demonstrates many of the following dimensions
Is aware of and understands...the environment, culture, safety, local issues	Awareness	Is not aware or doesn't understand...the environment, culture, safety, local issues
Spends (more)...money and time	Spending	Doesn't spend (more)...money and time
Respects and appreciates...the environment, the people, the land & laws	Respect	Doesn't respect or appreciate...the environment, the people, the land & laws
Is open, tolerant and non-judgemental, celebrates difference	Openness	Is not open, tolerant and non-judgemental, does not celebrate difference
Is interested and engages...with the environment, people and culture	Engages	Is not interested and does not engage...with the environment, people and culture
Expects high standards... of themselves and others	Standards	Accepts low standards...both of themselves and others
Reciprocates	Reciprocity	Does not reciprocate

TABLE 7 DEFINITIONS OF RESPONSIBLE AND NON-RESPONSIBLE TOURIST
(Source: Stanford, 2016)

2.4.7.1 Barriers for tourist behaviors

Any obstacle that affects tourist behaviors can be considered a barrier for tourist behaviors, and the most common variable that prevents tourists from traveling is cost. But what other factors besides money could be considered a deterrent for travelers to participate responsible and non-responsible tourism? Del Chiappa et al. (2019) provides new perspectives on the factors that prevent tourists from traveling responsibly. A sample of 837 Italian travelers was profiled in particular based on the main roadblocks to responsible tourism. Impediments to responsible tourism, according to the study's findings, are related to five main categories: 'lack of accessibility,' 'unwillingness,' 'lack of trustworthiness,' 'stress,' and 'price.' Any barrier that makes it difficult or impossible for tourists to access, navigate, or engage in responsible tourism is considered an accessibility issue. Ratner et al (2020) stated that if people are aware of environmental problems, there are many internal and external barriers to taking real measures to prevent or reduce the negative impact and consequences. Nasrudin et al. (2014) conducted research about barriers and motivations for sustainable travel, the study showed that more than half the respondents indicated that walking and cycling is exhausting, and one-fourth of people consider driving a car is more convenient. In addition, punctuality issues, inefficient public transportation services, and high fares are among the reasons respondents refuse to use public transportation during trips, which can surely lead to non-responsible behaviors.

Perceived risk in consumer behaviors has been largely studied in tourism literature, it is commonly considered in the tourism industry that a deep understanding of travel demand and a deep knowledge of travel barriers are critical for forecasting future travel patterns, as current travel barriers may have a critical impact on destinations (Ferrerira & Menzies, 2017). According to Dolnicar (2005), perceived risk and its relevance in travel-related consumer behavior can be categorized in two aspects: investigations of negative connotation risks and sensation-seeking behavior, which is effectively positive risk seeking. Roehl and Fesenmaier (1992) were the first to examine on data-driven market categories based on respondents' perceived fear levels; equipment risk, financial risk, physical risk, psychological risk, satisfaction risk, social risk, and time risk are the seven risk categories that have developed from consumer behavior research. To summarize, tourism scholars have been interested in perceived risk study since the 1980s. Contributions can be broadly characterized as investigating either positive risk, such as sensation seeking and thrill, or perceived risks to be avoided (Dolnicar, 2005), which are referred to as travel barriers in the thesis research.

Dolnicar (2005) conducted research to understand the barriers to leisure travel, using tourist fears as marketing basis for an exploratory study into tourist fears conducted for an Australian tour operator, the article analyzes two data sources and presented open-ended answers to questions about the fears visitors perceived in the context of traveling. On a percentage scale, respondents were asked to rate the frequency of a list of incidents occurring in the context of international, domestic, adventure, and cultural tourism. The main factors that oversea travelers consider as travel risks and travel barriers are exposed to the risk of contagious disease, might be a victim of terrorism, might get bad value for money, might get sick, might feel socially uncomfortable, might be a lot of insecurity involved, natural environment might be hostile, might travel to exotic and unusual places, might undertake thrilling activities, and the weather might be bad. In the authors' opinion, several of the above factors are factors that influence travelers' choice of destination, followed by might feel socially uncomfortable, might be a lot of insecurity involved, and might get bad value for money as factors that actually influence travelers' participation in responsible tourism. Although travelers have certain perceived risks and fears in the travel decision process, many still travel with the perceived risks in their minds, however, some tourists prefer to participate in mass travel or travel on their own instead of interacting with the locals in their destination. These might result from the fact that this kind of tourists might feel socially uncomfortable of talking to others, they do not want to engage with the environment, local, and culture with locals consider these as non-responsible travel behaviors. In addition, the author speculates that tourists' fear of being ripped off and exploited by the locals in the destination may also be the reason why tourists are reluctant to spend enough money and time.

From the travel barriers and perceived risk mentioned above, the author could draw few more hypothesis according to the different dimensions of non-responsible tourist behavior, which are here below:

H5a: Insufficient travel time has a positive influence on LCC traveler's non-responsible tourist behaviors.

H5b: Insufficient funds have a positive influence on LCC traveler's non-responsible tourist behaviors.

H5c: LCC travelers feeling feel socially uncomfortable have a positive influence on LCC traveler's non-responsible tourist behaviors.

H5d: Perceived risk of might get bad value have a positive influence on LCC traveler's non-responsible tourist behaviors.

2.5 Selection of Tourists

A concept based on the tolerance of the host community for tourists is not only subjective, but also difficult to quantify (Kruczek, 2019). The level of tolerance among locals for a tourist influx varies based on local and private interests (McCool et. al 2001; Saveriades 2000). Many scholars have done research on how travelers select their destinations, but how destination DMOs and government agencies attract and select the travelers they are welcoming to their destination is a different issue. According to Dolnicar and Long (2009), a shift in focus from the prevailing product-oriented approach to a demand-oriented approach has been proposed as a strategy to mitigate the effects of the inherent trade-offs that the tourism sector faces between profit maximization and investment in environmental sustainability. The success of such an approach is contingent on the existence of a class of tourists who are not only motivated to protect the natural environment of the host destination, whether they are traveling in an ecotourism or general tourism context, but also represent a financially attractive market segment.

Soteriades (2012) stated that tourism sites are confronted with a new set of issues as consumers and the environment change, only those destinations that notice and respond to market changes will be successful in the future. DMOs must be able to analyze the demands of their visitors, discover appropriate method of segmenting the markets in which they compete, design, and launch appropriate products, and effectively interact with potential visitors to be effective in the tourism markets (Soteriades, 2012). Different strategic marketing approaches such as regional networking, cooperative marketing, clustering approach are widely mentioned. However, this paper will not discuss here the different ways of formulating and attracting target tourists, but from the above paragraphs it is clear that in addition to the choice of destination by tourists, the other way around, the choice of tourists from destination perspective and attracting responsible tourists are also key points to make local tourism sustainable and positive.

2.6 Conclusion of literature review

The most essential concepts and theories were addressed in the previous subchapters. Drawing small conclusion, the rise of low-cost airlines has undeniably caused many problems in over tourism. Over-tourism has been largely studied by scholars over the past few years, government and academics have also been very active in developing strategies to help the tourism industry move forward in a positive way. Government and DMOs should have better insight of the tourist and their behaviors, the factors that drives visitors to contribute more to the destinations.

Tourist expenditure and determining factors are also well studied, however, the travel behaviors and expenditures factors of LCC travelers are rarely studied and mentioned in academic field. Thus, the research of this LCC travelers' study is worth exploring, it also enables DMOs and other scholars to better understand the insight of LCC passengers and their travel behaviors.

To summarize the hypotheses developed in the literature review from past chapters, to begin, the author aims to understand the attitudes of LCC and their intention to visit the destination with **H1**:

H1a: LCC travelers' attitudes towards over-tourism have a positive influence on their intention to the destination.

H1b: LCC travelers' attitudes towards responsible tourism have a positive influence on their intention to the destination.

Next, the thesis research continues with exploring the most effective communication channel for tourism strategies to LCC travelers and their attitudes towards responsible tourism:

H2a: Tourist information centers have a positive influence on LCC travelers' attitude towards responsible tourism.

H2b: Printed materials have a positive influence on LCC travelers' attitude towards responsible tourism.

H2c: Websites have a positive influence on LCC travelers' attitude towards responsible tourism.

H2d: Tourism programs and guides have a positive influence on LCC travelers' attitude towards responsible tourism.

After that, to find out the determinant factors that influence LCC travellers' tourist expenditure for responsible tourism in destinations with **H3**:

H3a: Income is associated with LCC travelers' responsible tourism expenditure.

H3b: Life cycle stages is associated with LCC travelers' responsible tourism expenditure.

H3c: Type of activities is associated with LCC travelers' responsible tourism expenditure.

H3d: Type of payment methods is associated with LCC travelers' responsible tourism expenditure.

Most importantly, to identify how LCC travellers' planned behaviours influence the degree of responsible tourist behaviours:

H4a: Attitude positively influence LCC travelers' responsible tourist behaviors.

H4b: Subjective norm positively influence LCC travelers' responsible tourist behaviors.

H4c: Perceived behavior control positively influence LCC travelers' responsible tourist behaviors.

H4d: LCC travelers' knowledge towards over-tourism positively influence LCC travelers' responsible tourist behaviors.

H4e: LCC travelers' attitudes towards responsible tourism positively influence LCC travelers' responsible tourist behaviors.

H4f: LCC travelers' responsible tourism expenditure positively influences LCC travelers' responsible tourist behaviors.

And lastly, to point out the barriers influencing LCC travellers' non-responsible tourist behaviour:

H5a: Insufficient travel time has a positive influence on LCC traveler's non-responsible tourist behaviors.

H5b: Insufficient funds have a positive influence on LCC traveler's non-responsible tourist behaviors.

H5c: LCC travelers feeling socially uncomfortable have a positive influence on LCC traveler's non-responsible tourist behaviors.

H5d: Perceived risk of might get bad value have a positive influence on LCC traveler's non-responsible tourist behaviors.

Figure 5 illustrated the key focuses of this research for a deeper understanding of the logic flow of this thesis:

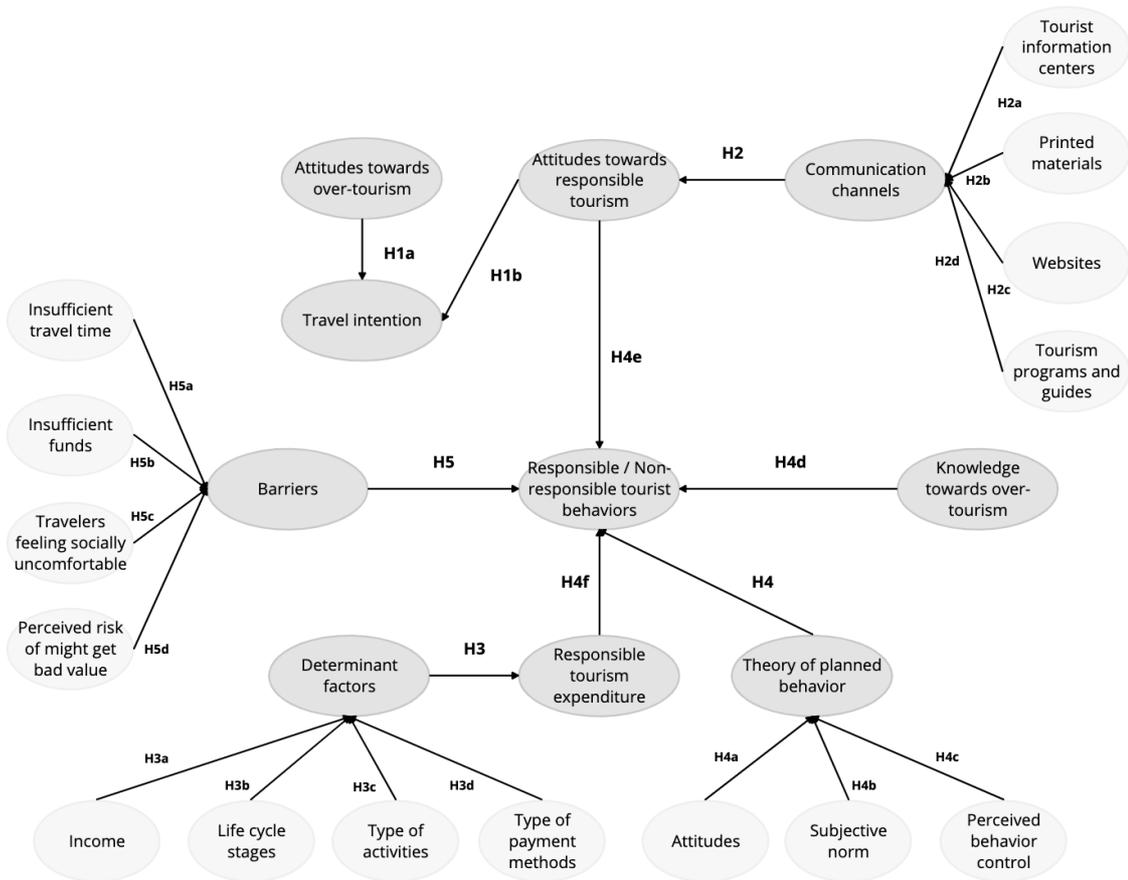


FIGURE 5 RESEARCH MODEL

The methodology chapter, which follows, explains in detail the research approach will be used throughout the study, together with the participants and data collection methods.

3 METHODOLOGY

The thesis research's methodology chapter explains the chosen research method as well as the data collection techniques in great details. It is presented by first explaining the research design process, followed by the choice of sampling method and then online survey. Next, following by the items which are being measured and explanation of data analysis, several sub-chapters provide a comprehensive overview and a description of the various stages that lead to obtaining the final results.

3.1 Research design

This research follows a linear process that will be explain in the following. First, a review of relevant literature is performed, and concepts and theories are identified. Then, in a conceptual framework, these concepts and theories are all brought together, and hypothesis are conducted to answer the research questions. Next, an online survey is used to collect data from low-cost carriers' passenger which is then statistically analyzed to support or refute the hypothesis which are presented in the last chapter. Finally, the findings and results will be presented, and conclusion of the thesis research will be drawn from them.

A quantitative study will be done in form of an online survey, with the fact that this research method looks at the cause and effect and make predictions which are the case of the thesis.

3.2 Choice of sampling method

For this research the author uses the convenience sampling which is a non-probability sampling technique where the researcher selects samples from the population exclusively because respondents are easily obtainable. Datta (2018) stated that non-probability sampling is ideal for exploratory research which is the case of this thesis and research that are intended to develop the understanding of a population, low-cost carriers' passengers are here the population of the study which will be explored. Advantages such as techniques need less effort and less time to finish up, not much costly are mentioned, this research is a master thesis which does not have unlimited time to collect data and support of money for the research. Therefore, non-probability sampling seems to be the most suitable technique for these studies.

As mentioned in the last paragraph, respondents were chosen for convenience sampling in the above trial due to the fact that they were convenient and easily accessible. All respondents who met the inclusion criteria and were admitted to emergency departments for intravenous cannulation were not randomly selected as sample members. As a result, not every member of the population had the same chance of being chosen (Sedgwick, 2013). It would be ideal to use the entire population in every type of study, but most of the time this is not possible due to the population's finite size, therefore, most researchers use sampling techniques such as convenience sampling for this reason (Etikan, 2016). Sedgwick (2013) also stated that to determine whether a convenience sample accurately represents the population, the characteristics of the sample must be examined. Therefore, the author of this thesis research began the questionnaire by asking respondents: Have you ever flown with low-cost carriers? Respondents who answer in the affirmative will be asked to answer other questions, in contrast, respondents who give a negative response will be shown a direct message thanking you for taking the time to complete this survey. This is to filter the low-cost carriers' passengers that are needed for this study rather than a whole population. Here, the author of this study considers that if the sample travelers are randomly selected, this makes it difficult to reach passengers who have actually flown on low-cost airlines, it is better to approach populations in the low-cost airline community directly. Thus, the author believe that convenience sampling is that appropriate choice of sampling method in this case.

3.3 Online survey

From systematic sampling methods to improved questionnaire design and computerized data analysis, survey research techniques and technologies advanced dramatically during the twentieth century (Evans & Mathur, 2005). Online questionnaire is one of the most effective and direct tools to collect data from the target group, it can reach the target number more effectively, increase the response rate, speed up the analysis time and reduce the time cost. Paper-based questionnaires require a lot of manpower from making, distributing, returning, and analyzing. In addition, since there is no unified platform for publishing paper-based questionnaires, the questionnaire makers must visit the respondents one by one after completing the questionnaires and ask for assistance in filling them out, and it is impossible to measure the organization and subsequent analysis after returning the questionnaires. By using online questionnaires, the above time costs can be eliminated, and the questionnaire can be created and analyzed through digital tools, and the Internet can be used to identify more target respondents and speed up the

return time. When respondents answer questions on a paper-based questionnaire, the survey issuer will be always waiting on the sidelines. This action is likely to indirectly cause stress to the respondents, which in turn prevents them from answering the true answers they have in mind. With online questionnaires, there is a greater degree of privacy, and respondents are more inclined to give truthful answers, increasing the credibility of their responses. All these conditions are necessary for this paper, the respondents may be reluctant to respond truthfully about their perceptions and the importance they place on responsible tourism due to pressure from the questionnaire distributors if they are present next to them. Moreover, if this study is only focused on one country and one location, people of different nationalities have different views on responsible tourism and over-tourism, and the authors cannot know the views and responses of low-cost carriers from different continents. For all these reasons, the author of the research believe that an online survey is the best way to conduct this study. There are no known details about the passengers, and as such the author of this thesis has no phone numbers or email addresses. Only closed questions are asked in the survey, and all participants received the same standardized questionnaire.

3.3.1 Facebook groups

To facilitate access to the low-cost carriers' customers and to randomly sample the respondents regardless of age and ethnicity, the authors joined many Facebook cheap airline groups and posted online questionnaires on subreddit. Facebook is a social network service that had 2.91 billion members worldwide by January 2022. Although most of the companies nowadays use Facebook as a marketing tool, with the fact that Facebook provides marketing features and allows to purchase advertisement, it is convenient for researchers to reach target respondents with the group feature. This study focuses on the tourist behavior of low-cost carriers' passengers to develop strategies for DMOs to attract the 'right' tourists, therefore, the author searched and posted the online survey in groups which are related with low-cost carriers and budget travel, aim to reach the travelers who actually had taken low-cost carriers before. Facebook groups such as EasyJet/EasyJet Holidays Help & Advice, AirASIA, Ryanair (non-official), Wizz Air, ONLINE TICKETING via CEBU PACIFIC, PHILIPPINE AIRLINES, Spirit Airlines, Jetstar, TravelFree group – cheap flights and more, Vueling please, AirBaltic Action Group, Travel On A Budget Official, Kulula Airlines Fan Club, Fastjet South Africa, Jual Tiket Pesawat Murah (LION AIR, CITILINK) are all included.

3.3.2 Subreddit

In addition to the Facebook groups, the author also uses Reddit as a platform for posting the questionnaires. Reddit is an entertainment, social and news site that allows registered users to post text or links on the site, making it essentially an electronic bulletin board system. Jamnik and Lane (2017) conducted research of the use of Reddit as an inexpensive source for high-quality data, the findings show that Reddit participants provided high-quality data at a low cost, which was comparable to the responses gathered using undergraduates. The website appears to be a promising tool for psychological assessment, research, and evaluation. The authors also mentioned that Reddit users may provide a more diverse sample than traditional college student samples, while also providing accurate data with high measurement reliability (Jamnik & Lane, 2017). Therefore, the author of this paper published the questionnaire on several subreddits, with the following: r/backpacking, r/aviation, r/airlines, r/ryanairusers, r/vagabond, r/westjet, r/solotrip, r/jetblue, r/flightism, and r/SouthwestAirlines.

3.4 Item measurement

In the beginning of the online survey, respondents will first be asked whether they voluntarily agree to participate in this survey, and have you ever flown with low-cost carriers, which are the only two required questions to answer. This question was asked to ensure that the respondents were all volunteers and passengers of low-cost carriers. In the following of the online survey, participants are often being asked for their agreement towards the statement, a 5-point Likert Scale will be measured from (1) strongly disagree to (5) strongly agree. According to Preedy and Watson (2010), 5-point Likert Scale is “a type of psychometric response scale in which respondents specify their level of agreement to a statement typically in five points: (1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree.”

The first section of the survey consisted of a series of questions designed to assess LCC passengers' attitudes towards over-tourism and responsible tourism. The questions related with attitudes towards over-tourism are adapted from Leonidou et al. (2014), and responsible tourism from Choi & Sirakaya (2005) and Hsu et al. (2020). Statements related with positive environmental ethics among all parties and community residents in destinations are presents in this section and measured by a 5-point Likert Scale.

The next section measures the knowledge of over-tourism. A short definition of over-tourism is presented in the description for participants to have a better understanding of over-tourism and two statements are given. Adapted from Szromek et al. (2019), participants are asked to indicate their degree of agreement toward their affection of presence in a tourist destination and again measured by a 5-point Likert Scale.

In the following section, general information as a tourist will be measured with multiple choices. Participants are asked to give some information about main activities (Eugenio-Martin & Inchausti-Sintes, 2016), main payment method during travel (Thrane, 2015), and preferred method of obtaining travel information (Bogan, 2014). Preferred method of obtaining travel information aims to respond the research question of the effective communication channels for tourism strategies in LCC travelers' perspective.

The continued section was designed to measure and understand the tourist behaviors of low-cost carrier passengers' tourist behaviors. Participants will be asked about some of their travel behaviors while they are traveling or decision-making process before the trips. Six statements including both responsible behaviors (Dias et al., 2021; Han et al., 2009) and non-responsible behaviors (Passafaro et al., 2015; Szromek et al., 2019) are presented and participants are asked to indicate their degree of agreement toward their affection of presence in a tourist destination and again measured by a 5-point Likert Scale. This aim to identify the responsible and non-responsible tourist behaviors of LCC travelers

Followed by the section of planned behavior which is based on the theory of planned behavior (Ajzen & Fishbein, 2005), this section measures the degree of agreement toward three different pillars such as attitude, subjective norms, and perceived behavioral control for responsible tourism. A short description of responsible tourism is provided for participants in before the statements. Statements of attitude are adapted from Kuo & Dai (2012) and Fenitra et al. (2021), with engaging in responsible tourism is worthy, needed, and beneficial. The authors Kuo and Dai (2013) measured subjective norms by statements such as 'in my daily life, the most important people or groups to me consider I should engage in responsible tourism. In the end of this section, perceived behavioral control is measured by three statements with confidence and ease of engaging in responsible tourism.

Upcoming is the section of travel barriers, this section measures the barriers and hurdle that low-cost carriers' passengers may encounter during their travel. Despite limited amount of time and money, testing item such as feelings and emotions talking with people just met and not knowing that well are adapted by the authors Erliksson et al. (2020). The participants are also asked to indicate their degree of agreement with by a 5-point Likert Scale.

To understand the tourist expenditure for responsible tourism from low-cost carriers' passengers, the question of the approximation percentage of travel budget is spent on products or services related to responsible tourism is presented in this section. The reason for not asking directly about expenses is that most travelers do not remember and record their expenses during the trip, also, when traveling in different countries with different spending levels. Here, the options for this question are multiple choice and each 20% is measured as a unit.

Second from last section is the travel intention, which is the process of transforming travel motivation into travel behavior. Three statements related with degree of agreement of perceive engagement in responsible tourism as meaningful activity, and intentions to engage in responsible tourism in the future are presented, and again measured by a 5-point Likert Scale from strongly disagree (1) to strongly agree (5).

In the last section of the survey, general demographic information toward gender, age, annual net income level, and continent of residence are being asked. Although participants are not required to answer all the questions in this section, annually net income and age are measure variables in determinant factors to test hypothesis. All these item measurements will be analyzed in chapter 4, and the chosen statistical test will be mentioned in next paragraph. Appendix 2. shows the measurement item table which are used in conducting the online survey.

3.5 Data analysis

Data was collected via an online survey, which will be imported into Jamovi for statistical testing of the hypotheses. First, a description of the statistics will be introduced. Descriptive statistics describe the relationship between variables in a sample or population to summarize data in an organized manner. When conducting research, calculating descriptive statistics is a critical initial step that should always be completed before performing inferential statistical comparisons (Kaur et al., 2018). The second step, before testing the hypotheses, the author will conduct

reliability tests with checking the Cronbach's alpha value. The author Taherdoost (2016) stated that, in social science research, questionnaires are one of the most extensively utilized data collection instruments. The main goal of a questionnaire in research is to collect important data in the most accurate and valid way possible. As a result, survey and questionnaire accuracy and consistency, often known as validity and reliability, are important aspects of research technique. Therefore, the author of this thesis research will check the Cronbach's alpha value by combining different questions into multiple variables.

Apart from the reliability check, the author will also provide an overview of descriptive of Likert Scale questions' responses. In addition to numbers of respondents, mean, and the standard deviation, Shapiro-Wilk test will also be used on every Likert-scale question to test the normality in frequentist statistics, in other words, the test determines if the samples fit normal distribution or not.

To test the hypotheses, statistical tests will be chosen depending on whether the data set is normally distributed or not. The measurement level of independent variables and dependent variables is also a key point in choosing the correct statistical test. To ensure that the conclusion of this study is valid, the statistical technique must be properly chosen and described in the procedure prior to the study's beginning. The following chapter is the results and findings of the analyzed data, along with the descriptive statistics and reliability check of the variables.

4 RESULTS

Results of the online survey are presented in this chapter. The primary data was gathered over two weeks in the end of April to beginning of May 2022. The data from respondents is first presented in detail using descriptive statistics to help understand the distribution of the data, and then the hypotheses are tested using correlations and group differences tests based on the presented data.

4.1 Descriptive Statistics

An overall of 250 responses was collected during the time of data collection, after data cleaning with deleting the incorrect or erroneous data as well deleting the responses from participants who have never flown with a low-cost carrier, 240 responses will be used and analyzed.

4.1.1 Demographics

To avoid survey participants with more personal questions at the beginning of the questionnaire, the authors placed the demographics at the end of the questionnaire. Here, the demographic features of overall data sets were first reported using a frequency analysis.

Descriptives				
	GENDER	AGE	INCOME	CONTINENT
N	238	238	236	238

TABLE 8 NUMBER OF RESPONDENTS FOR DEMOGRAPHICS

Out of the 240 respondents, not all the participants answered the questions for demographics. 238 respondents answered the questions for gender, age, and continent, and 236 respondents answered the question of the level of income. Although the author of this thesis assumed that income is the question which many participants not willing to respond, 236 out of 240 participants gave an answer of their income level, this indicates that most of the participants are still willing to give information about their income level.

4.1.1.1 Gender

Looking at the gender distribution in Table 9, it can be seen that there are more males than female's respondents. This results in a distribution of 55.5% of male respondents, 40.8% of

female respondents, and 3.4% of respondents prefer not to say and only 1 non-binary which is 0.4% of the total responses.

Levels	Counts	% of Total	Cumulative %
Female	97	40.8%	40.8%
Male	132	55.5%	96.2%
Prefer not to say	8	3.4%	99.6%
non-binary	1	0.4%	100.0%

TABLE 9 GENDER DISTRIBUTION OF RESPONDENTS

4.1.1.2 Age

Table 10 shows the age distribution of the respondents, the age ranges from 17 years old or younger to 66 years old or older which respondents were given 4 different age group as options. The distribution of these groups shows that most of the respondents ages between 18 to 40 years old with 63% of the total, followed by 41 to 65 years old which is 31.9%. There are only 9 respondents which are 66 years old or older and 3 respondents that are 17 years old or younger.

Levels	Counts	% of Total	Cumulative %
17 years old or younger	3	1.3%	1.3%
18 to 40 years old	150	63.0%	64.3%
41 to 65 years old	76	31.9%	96.2%
66 years old or older	9	3.8%	100.0%

TABLE 10 AGE DISTRIBUTION OF RESPONDENTS

4.1.1.3 Net income level

The net income level was categorized into 5 different groups which can be seen in table 11, as it shows, 29.2% of respondents lies within the level of '€37,001 - €80,000', which the author can conclude that most of the low-cost carriers' travelers are earning enough income for surviving. 23.7% responded with '€18,201 - €37,000;' which shows that nearly one-fourth of low-cost carriers' travelers belongs to the second group of net income level. 19.5% responded with '€0 - €18,200'; 16.9% responded with '€80,001 - €180,000'; and there are 10.6% of respondents indicated that their net income level belongs to the group '180,001 and over'. The results indicates that most of the low-cost carriers' passengers do have enough income, and more than half of them earn more than €37,001 annually.

Frequencies of INCOME

Levels	Counts	% of Total	Cumulative %
0-€18,200	46	19.5%	19.5%
€18,201- €37,000	56	23.7%	43.2%
€180,001 and over	25	10.6%	53.8%
€37,001- €80,000	69	29.2%	83.1%
€80,001- €180,000	40	16.9%	100.0%

TABLE 11 NET INCOME LEVEL DISTRIBUTION OF RESPONDENTS

4.1.1.4 Continent of residence

Above Table 12 shows the continent of residence of the respondents. Most of the respondents of the online survey are from North America with 47.1%, followed by Europe with 36.6%. There are 23 respondents from Asia that takes 9.7% from the total, and 10 from Australia (4.2%), and only 3 respondents for both Africa and South America for both 1.3%.

Frequencies of CONTINENT

Levels	Counts	% of Total	Cumulative %
Africa	3	1.3%	1.3%
Asia	23	9.7%	10.9%
Australia	10	4.2%	15.1%
Europe	87	36.6%	51.7%
North America	112	47.1%	98.7%
South America	3	1.3%	100.0%

TABLE 12 CONTINENT OF RESIDENCE DISTRIBUTION OF RESPONDENTS

4.1.2 Overview of responses on Likert Scale questions

This section provides an overview of the response data for each single question, including the number of respondents, mean, standard deviation, as will the Shapiro-Wilk test result. The Shapiro-Wilk test is a statistical procedure for determining whether a continuous variable has a normal distribution, this procedure help the author to determine using a parametric test or non-parametric test for testing hypothesis in the upcoming sections. In most of the questions with 5-point Likert Scale, the level of agreement is measured from (1) strongly disagree (2) disagree (3) neutral (4) agree and (5) strongly agree. To see all the questions, please look at Appendix 2.

Variables	5-point Likert Scale		Mean	Std. Deviation	Shapiro-Wilk W	Shapiro-Wilk p
	Question	N				
Attitudes towards over-tourism	ATT_OT1	239	4.01	1.14	0.798	<.001
	ATT_OT2	240	3.60	1.25	0.874	<.001

	ATT_OT3	239	3.45	1.23	0.894	<.001
Attitudes towards responsible tourism	ATT_RT1	240	4.41	0.787	0.728	<.001
	ATT_RT2	240	4.29	0.992	0.727	<.001
Knowledge towards over-tourism	KNOW_OT1	240	4.12	0.976	0.799	<.001
	KNOW_OT2	240	3.96	1.05	0.832	<.001
Responsible tourist behavior	RTB1	240	4.11	1.04	0.792	<.001
	RTB2	239	3.71	1.03	0.882	<.001
	RTB3	239	2.85	1.22	0.911	<.001
Non-responsible tourist behavior	NRTB1	240	2.77	1.20	0.904	<.001
	NRTB2	240	2.82	1.36	0.886	<.001
	NRTB3	239	2.41	1.18	0.886	<.001
TPB – attitude	TPB_A1	240	4.15	0.949	0.780	<.001
	TPB_A2	239	4.26	0.944	0.748	<.001
	TPB_A3	239	4.31	0.896	0.731	<.001
TPB– subjective norm	TPB_SN1	238	3.06	1.20	0.907	<.001
	TPB_SN2	237	2.98	1.22	0.899	<.001
	TPB_SN3	238	3.23	1.17	0.904	<.001
TPB – perceived behavior control	TPB_PBC1	238	4.09	0.914	0.781	<.001
	TPB_PBC2	238	3.95	1.09	0.827	<.001
	TPB_PBC3	237	3.25	1.07	0.913	<.001
Travel barriers	TIME_BARRIERS	240	3.43	1.29	0.885	<.001
	MONEY_BARRIERS	239	3.33	1.31	0.895	<.001
	SOCIAL_BARRIERS1	240	2.53	1.28	0.881	<.001
	SOCIAL_BARRIERS2	240	2.62	1.35	0.878	<.001
	VALUE_BARRIERS	238	3.01	1.26	0.911	<.001
Travel intention	RESP_TI1	239	3.65	1.14	0.878	<.001
	RESP_TI2	238	3.66	1.20	0.862	<.001
	RESP_TI3	238	3.50	1.22	0.882	<.001

TABLE 13 OVERVIEW OF DESCRIPTIVE OF LIKERT SCALE QUESTIONS' RESPONSES

Above here Table 13 shows the overview of descriptive for all the 5-point Likert Scale questions, as seen in the second block for attitudes towards responsible tourism, the mean for both questions are larger than 4, and the standard deviation is smaller than 1. Low standard deviation shows that most of the data is clustered around the mean. This indicates that most LCC passengers have a positive agreement on the importance of responsible tourism.

Another thing that is worth to mention is the responsible tourist behavior, the means for 3 different questions about responsible tourist behavior is quite different, the overview of descriptive shows that for RTB1 the mean is 4.11; RTB2 is 2.71; and RTB3 is 2.85. This shows that the LCC passengers have different agreement on their behaviors regards to responsible tourism. In comparison, the means for non-responsible tourism behaviors are lower than the average,

which are 2.77, 2.82, and 2.41, representing that most of the LCC passengers do not agree on the non-responsible behaviors. Despite that, the second question NRTB2 with “I think that tourists should not be forced to care for the wellbeing of the local populations, this task must be accomplished by the local authorities”, the standard deviation is relatively high with the value of 1.36, showing that respondents have quite different opinions in regards of this question.

In addition, in the section of theory of planned behaviors, the agreement towards attitude is higher than subjective norm and perceived behavior control, with all three questions for attitude with means higher than 4. In the section of travel barriers, it can be seen that most LCC passengers indicates that rather higher agreement on time and money barriers comparing to social barriers, the constraints of traveling are mostly cause by insufficient time and money rather than feeling worries or nervous while talking to people who they have just met. However, the standard deviations for these questions are rather higher than all other 5-point Likert scale questions. Especially with 1.31 of standard deviation for money barriers, and 1.35 for the second question of social barrier, this means that comparing to all other questions, the data are more spread out from the mean.

In the second half of the online survey, the participants were asked to indicate their agreement on intention towards responsible tourism. The means for travel intention are higher than the average with 3.65, 3.66, 3.50, but with standard deviation larger than 1 which are 1.14, 1.20, 1.22. Although more than half of the LCC passengers are to participate in responsible tourism, the data is quite spread out from the mean.

Out of the total 240 usable databases, most of the respondents answered all the questions, there are only a few questions with lesser than 240, but with at least 237 responses. This indicates that the number of times each question has been answered and the statistics are fair and even, and that no question is particularly under-represented.

Lastly, a very important point that can be seen from the last column of Table 13, Shapiro Wilk p value for all variables and 5-point Likert scale questions are smaller than 0.001, which indicates that all data that had been collected through the online survey are not normally distributed. Therefore, the author can conclude that for hypothesis testing, non-parametric tests should be used in this case.

4.1.3 Overview of responses on multiple choices questions

In this section, an overview of the responses for multiple choices questions are presented. Table 14 shows that out of the 240 usable data, all the respondents answered the question for their main activities during travel and their preferred communication channel of obtaining travel information. There is only 1 missing data for the main payment method used during travel and 5 missing data for responsible tourist expenditure.

	ACTIVITY	PAYMENT	COMMUNICATION CHANNEL	SPENDING
N	240	239	240	235

TABLE 14 NUMBER OF RESPONDENTS FOR MULTIPLE CHOICES QUESTIONS

4.1.3.1 Determinant factor – activity

Table 15 in below shows the frequency table of the main activity LCC passengers participate in when they go on a vacation. With 42.1%, almost half of all respondents indicate city sightseeing as the main activity, the second largest number of respondents visit nature park or historic site with 26.3%. Followed by the option 'none of the above', 9.2% of respondents indicates that their main activity taking LCC is not mentioned in the following options. 5.8% of respondents chose sports and outdoor activities, 4.2% respondents go on arts or cultural event and nightlife. The rest is distributed as follows: 2.9% for theme-park, 2.5% for shopping, 1.3% for health tourism, and both 0.8% for business meeting/convention and group tour. This shows that most of the LCC passengers go to a city for vacation.

Frequencies of ACTIVITY

Levels	Counts	% of Total	Cumulative %
Arts/cultural event	10	4.2%	4.2%
Business meeting/convention	2	0.8%	5.0%
City Sightseeing	101	42.1%	47.1%
Group tour	2	0.8%	47.9%
Health tourism	3	1.3%	49.2%
Nightlife	10	4.2%	53.3%
None of the above	22	9.2%	62.5%
Shopping	6	2.5%	65.0%
Sports and outdoor activities	14	5.8%	70.8%
Theme-park	7	2.9%	73.8%
Visit nature park or historic site	63	26.3%	100.0%

TABLE 15 FREQUENCY TABLE OF TYPE OF ACTIVITIES

4.1.3.2 Determinant factor – payment method

For the main payment method that low-cost carriers' passenger uses during their travel, more than half of the respondents indicate that they use credit card as the main method, with 56.1% out of the total. The percentage of debit card and cash users are similar, with 22.6% and 20.9% respectively, and 0.4% of respondents answered 'none of the above' as his or her main payment method, which is only 1 respondent out of 240. This can be summarized as only one-fifth of respondents use cash as their main payment method, and four-fifths respondents uses either credit or debit cards.

Levels	Counts	% of Total	Cumulative %
Cash	50	20.9%	20.9%
Credit card	134	56.1%	77.0%
Debit card	54	22.6%	99.6%
None of the above	1	0.4%	100.0%

TABLE 16 FREQUENCY TABLE OF TYPE OF PAYMENT METHOD

4.1.3.3 Communication channel

Below here, table 17 shows the frequency table of preferred type of communication channel for LCC passengers to obtain travel information. A large percentage of respondents preferred website as the communication channel for obtaining travel information. The rest is distributed as follows: 2.5% for none of the above, 2.1% for tourist programs and guides, and 1.7% for tourist information centers and 1.3% for printed materials. This shows the importance of the destination website for low-cost carriers' passenger with the fact that most of them obtain travel information through the website and all other communication channel can be count as minors in this case.

Levels	Counts	% of Total	Cumulative %
None of the above	6	2.5%	2.5%
Printed materials	3	1.3%	3.8%
Tourist information centers	4	1.7%	5.4%
Tourist programs and guides	5	2.1%	7.5%
Website	222	92.5%	100.0%

TABLE 17 FREQUENCY TABLE OF TYPE OF COMMUNICATION CHANNEL

4.1.3.4 Tourism expenditure

The last item is the tourism expenditure for responsible tourism, the respondents were asked to indicate their approximate percentage of travel budget spent on products or services related to responsible tourism. 43% of the respondents indicated that they only spend 0% to 20% for responsible tourism, followed by 30.2% indicating that they spend 21% to 40% on responsible tourism related product. The third largest number of respondents answered 41% to 60 % with the 20% out of total, and the rest is distributed as follows: 5.5% for 61% to 80% and 1.3% indicating that they spend 81% to 100%.

Frequencies of SPENDING			
Levels	Counts	% of Total	Cumulative %
0% to 20%	101	43.0%	43.0%
21% to 40%	71	30.2%	73.2%
41% to 60%	47	20.0%	93.2%
61% to 80%	13	5.5%	98.7%
81% to 100%	3	1.3%	100.0%

TABLE 18 FREQUENCY TABLE OF RESPONSIBLE TOURIST EXPENDITURE

4.2 Reliability Analysis

4.2.1 Cronbach's alpha

Before conducting the primary analysis, it's critical to check the reliability of all modified scales since it gives you a clear picture of the relationships between each measurement item on the scale. To accomplish the step, the author ran a reliability check for combining the questions into different variables with checking the Cronbach's alpha value. The reliability analysis findings are listed in the table 19 below.

Variables with 5-point Likert Scale	N of Items	Cronbach's	
		Alpha	Acceptance
Attitudes towards over-tourism	3	0.779	√
Attitudes towards responsible tourism	2	0.277	×
Knowledge towards over-tourism	2	0.807	√
Responsible tourist behaviors	3	0.530	×
Non-responsible tourist behaviors	3	0.757	√

Theory of planned behavior – Attitude	3	0.906	√
Theory of planned behavior – Subjective norm	3	0.910	√
Theory of planned behavior – Perceived behavior control	3	0.761	√
Social barriers	2	0.932	√
Responsible travel intention	3	0.907	√

TABLE 19 RESULTS OF RELIABILITY ANALYSIS

From Table 19 showing above, 10 variables with 5-point Likert Scale are tested for the reliability with Cronbach's alpha. The most popular metric of internal consistency is Cronbach's alpha, which is frequently used with many Likert questions in a survey or questionnaire that form a scale. Typically, when the Cronbach's alpha value exceed 0.6, thence the reliability of the variable is accepted. In this case, the variables "theory of planned behavior – attitude" with 0.906; "theory of planned behavior – subjective norms" with 0.910; "social barriers" with 0.932; and lastly "responsible travel intention" with 0.907 are highly satisfying and accepted. In addition, other variables such as "attitudes towards over-tourism" with 0.779; "knowledge towards over-tourism" with 0.807; "non-responsible tourist behaviors" with 0.757; and "theory of planned behavior – perceived behavior control" with 0.761 are not as satisfying by the author but still acceptable as Cronbach alpha values exceed 0.6. However, there are two variables that the Cronbach alpha values are lower than 0.6, which are "attitudes towards responsible tourism" with only 0.277 and "responsible tourist behaviors" with 0.530, therefore, these two variables are not accepted. To conquer the problem of uncorrelated errors and non-dimensionality items, the author transformed the items which will be mentioned in the next section.

4.2.2 Transforming unreliable items

To deal with the variables that did not exceed the value of 0.6 for Cronbach's alpha, the author transformed the question items for the variable "responsible tourism behaviors". Instead of testing the variable directly, the author decided to test the times that low-cost carriers agreeing on the responsible tourist behaviors. To conduct this, the agreement level of (4) agree and (5) strongly agree are both recoded into '1'; and (1) strongly disagree, (2) disagree, and (3) neutral was transformed into 0. These indicates that if the low-cost carrier's passenger has a positive agreement on responsible tourism behavior, the variable will indicate 1; vice versa, if the LCC passenger disagree or having neutral comment for the responsible tourist behaviors, the

variable indicate 0. By summing up the 3 transformed variables, a new variable “Responsible tourist behavior index” was added in the analysis, to test the times of agreement from LCC passengers for responsible tourist behaviors.

4.2.3 Drop item

Another variable with low Cronbach’s alpha is the one “attitudes towards responsible tourism”, to have higher reliability for the variable, the author dropped when of the item ‘ATT_RT2’ which stands for the question ‘community residents in destinations should receive a fair share of benefits from tourism’. To select the dropping item, the author considers that ‘ATT_RT1’ with “the tourism industry must ensure good quality tourism experiences for future visitors” as a more straightforward question to understand the attitude of LCC passengers for responsible tourism.

After the reliability analysis for variables with 5-point Likert Scale had been conducted, unreliable item has been transformed, as well one of the items from low Cronbach’s alpha variable has been dropped, the hypotheses will be tested in the following section.

4.3 Testing hypotheses

The results of the hypothesis testing with Jamovi are shown in this section. For each hypothesis, different tests were used due to the reason of different measurement levels. According to the Table 13 in the last sub-chapter, the Shapiro-Wilk p value for all the variables is lower than 0.001, therefore, non-parametric tests are being used for all the hypotheses.

4.3.1 Attitudes and responsible travel intention

H1a: *LCC travelers’ attitudes towards over-tourism have a positive influence on their intention to the destination.*

H1b: *LCC travelers’ attitudes towards responsible tourism have a positive influence on their intention to the destination.*

Hypothesis	Variables	Spearman’s rho	p-value
H1a	ATT_OT_COMP, RESP_TI_COMP	0.611	<.001
H1b	ATT_RT1, RESP_TI_COMP	0.150	0.010

TABLE 20 RESULTS OF SPEARMAN’S CORRELATION – H1

Hypothesis H1a analyzes whether the attitudes towards over-tourism from low-cost carriers' travels positively influence their responsible travel intention in their destination. As showed in Table 20, there is a strong significant correlation with p-value smaller than 0.001, the Spearman's rho value also shows there is a strong monotonic relationship with the value of 0.611. Thence, **H1a** is accepted here.

The next hypothesis is H1b, which is hypothesizing that the attitudes of LCC passengers toward responsible tourism have a positive effect on their intent to visit the destination. Although the value of Spearman's rho is quite low with a very weak correlation of 0.150, the p-value is still significant with 0.010, thence, **H1b** is also accepted in the hypothesis testing.

4.3.2 Communication channel and attitudes towards responsible travel

H2a: *Tourist information centers have a positive influence on LCC travelers' attitude towards responsible travel.*

H2b: *Printed materials have a positive influence on LCC travelers' attitude towards responsible travel.*

H2c: *Websites have a positive influence on LCC travelers' attitude towards responsible travel.*

H2d: *Tourism programs and guides have a positive influence on LCC travelers' attitude towards responsible travel.*

Kruskal-Wallis	χ^2	df	p
ATT_RT1	1.89	4	0.756

TABLE 21 RESULTS OF KRUSKAL-WALLIS TEST – H2

As mentioned in Table 13, with the Shapiro Wilk p value smaller than 0.001, the author of this thesis tended to choose non-parametric tests. In the case of H2, different communication channels were given to respondents of online survey and hypothesis were set up to test whether any of the communication channels have a positive influence on LCC travelers' attitude towards responsible travel. Kruskal-Wallis test was used to measure significant differences on a continuous dependent variable by a categorical independent variable with more than two groups. The result shows that the test statistic Kruskal-Wallis H value (χ^2) is 1.89, with 4 degrees of freedom, denoted by df in the output. Most importantly, the p value 0.756 reject the hypothesis, meaning that communication channels have no influence on responsible travel attitude.

4.3.3 Impact of determinant factors on responsible tourism expenditure

H3a: *Income is associated with LCC travelers' responsible tourism expenditure.*

Contingency Tables

INCOME	SPENDING					Total
	0% to 20%	21% to 40%	41% to 60%	61% to 80%	81% to 100%	
0-€18,200	20	14	10	2	0	46
€18,201- €37,000	18	17	17	3	0	55
€180,001 and over	18	3	3	0	0	24
€37,001- €80,000	25	23	11	6	3	68
€80,001- €180,000	20	13	5	2	0	40
Total	101	70	46	13	3	233

TABLE 22 CONTINGENCY TABLES – H3A

Table 22 shows the contingency tables of income from LCC's travelers, and the percentage of travel budget spent on services or products related with responsible tourism. As it can be seen in the table, most of the travelers in all income groups tend to spend 0% to 20%. Only 3 respondents in the income group of €37,001- €80,000 spent 81% - 100% of their budget on responsible tourism. In addition, although there are only 24 respondents out of 233 belongs to the €180,001 and over income group, most of the people still do not tend to spend their budget on responsible related products and services.

Chi-square (χ^2)	N	df	p
26.7	233	16	0.045

TABLE 23 RESULTS OF CHI-SQUARE TEST – H3A

Hereby, Chi-square test was used, a Chi-square test for independence analyzes two variables to discover if they are connected. In a broader sense, it examines whether categorical variable distributions differ from one another. Table 23 indicated that Chi-square statistic is 26.7 with degree of freedom of 16, and most importantly, H3a is accepted with the p value of 0.045 with the Chi-square test, it can be easy concluded that there is an association between the two variables: income and LCC travelers' responsible tourism expenditure.

H3b: Life cycle stages is associated with LCC travelers' responsible tourism expenditure.

Contingency Tables

AGE	SPENDING					Total
	0% to 20%	21% to 40%	41% to 60%	61% to 80%	81% to 100%	
17 years old or younger	1	2	0	0	0	3
18 to 40 years old	62	47	28	9	1	147
41 to 65 years old	34	22	14	4	1	75
66 years old or older	4	0	4	0	1	9
Total	101	71	46	13	3	234

TABLE 24 CONTINGENCY TABLES – H3B

In the literature review, there was a brief introduction of socio-demographic attributes, the author also hypothesizes that people at different stages of their life cycle have different perceptions of responsible tourism. Hereby, 17 years old or younger is considered as adolescence; followed by 18 to 40 years old as early adulthood; 41- to 65 years old as mid-adulthood; and lastly, 66 years old or older as late adulthood. Table 24 shows that most of the respondents belongs to early adulthood, out of those 147 in early adulthood, 62 of them indicated that they spend 0% to 20% in responsible tourism products. It can also be noted that there are only 3 respondents in each of the three different life stages spending 81% to 100% of their travel budget in responsible tourism.

Chi-square (χ^2)	N	df	p
15.8	234	12	0.199

TABLE 25 RESULTS OF CHI-SQUARE TEST – H3B

In the case of life cycle stages, the value of test statistic is 15.8, with the total number of 234. Due to the test statistic is based on a 5x4 crosstabulation, the degrees of freedom (df) for the test statistic are 12. [$df = (R-1) * (C-1) = (5-1) * (4-1) = 4 * 3 = 12$] The corresponding p-value of the test statistic is $p = 0.199$, which is a lot greater than the significance level of 0.05, therefore, **H3b** is hereby rejected meaning there is no association between the two variables: life cycle stages and LCC travelers' responsible tourism expenditure.

H3c: Type of activities is associated with LCC travelers' responsible tourism expenditure.

Contingency Tables

ACTIVITY	SPENDING					Total
	0% to 20%	21% to 40%	41% to 60%	61% to 80%	81% to 100%	
Arts/cultural event	4	3	2	1	0	10
Business meeting/convention	2	0	0	0	0	2
City Sightseeing	47	31	18	3	1	100
Group tour	0	1	1	0	0	2
Health tourism	1	0	2	0	0	3
Nightlife	4	3	2	1	0	10
None of the above	11	5	4	1	0	21
Shopping	1	4	1	0	0	6
Sports and outdoor activities	6	3	2	2	0	13
Theme-park	3	1	3	0	0	7
Visit nature park or historic site	22	20	12	5	2	61
Total	101	71	47	13	3	235

TABLE 26 CONTINGENCY TABLES – H3C

Above here is the contingency tables of the types of activities and the percentage of travel budget spent on services or products related with responsible tourism. It can be seen that most of the respondents with the value of 100 consider city sightseeing as their activities, out of these 100 respondents, nearly half with a value of 47 respondents indicate that they spend 0% to 20% on responsible tourism products, followed by 31 people indicated that they spend 21%-40%. 61 respondents out of the total of 235 prefer to visit nature park or historic site as their main activity, however, similar like city sightseeing, most of the LCC travelers spend less than 60% for responsible tourism from their travel budget.

Chi-square (χ^2)	N	df	p
15.5	235	30	0.987

TABLE 27 RESULTS OF CHI-SQUARE TEST – H3C

Table 27 shows the results of Chi-square test for the two variables: type of activities and LCC travelers' responsible tourism expenditure. The test statistic value of 15.5 in the case and number of valid cases is 235. The degrees of freedom (df) for the test statistic are 30 and it should be noted that the corresponding p-value of the test statistic is 0.987, with a value that is nearly close to 1, a P value close to 1 indicates that there is no difference between the groups other than chance. Thence, **H3c** is being rejected due to the high value.

H3d: Type of payment is associated with LCC travelers' responsible tourism expenditure.

Contingency Tables

PAYMENT	SPENDING					Total
	0% to 20%	21% to 40%	41% to 60%	61% to 80%	81% to 100%	
Cash	13	16	14	5	0	48
Credit card	65	40	19	6	3	133
Debit card	23	15	14	2	0	54
None of the above	0	0	0	0	0	0
Total	101	71	47	13	3	235

TABLE 28 CONTINGENCY TABLES – H3D

The contingency tables of H3d shows the association between different types of payment method while LCC passengers prefer to use when they travel, and the percentage of travel budget for responsible tourism. It can be seen from the Table 28 that more than half of the travelers use credit card during their travel, however, out of the 133 credit card users, 65 users indicated that they only spend 0% to 20% of their travel budget on responsible tourism. In addition, for the travelers who prefer using cash, compared to the users of credit card, the amount of responsible tourism expenditure is quite equal in the first three column, with the value of 13 people for 0% to 20%; 16 for 21% to 40%; and 14 for 41% to 60%.

Chi-square (χ^2)	N	df	p
201.13	235	20	<.001

TABLE 29 RESULTS OF CHI-SQUARE TEST – H3D

The last hypothesis here in this section shows that the Chi-square statistic and its p-value were calculated, a relationship emerged with (χ^2 (20, N=235) = 201.13, $p < 0.001$). This indicated that the **H3d** is accepted with the p value smaller than 0.05, in other words, there is an association between the type of payment and responsible tourism expenditure.

4.3.4 Theory of planned behavior and responsible tourist behaviors

H4a: Attitude positively influence LCC travelers' responsible tourist behaviors.

H4b: Subjective norm positively influence LCC travelers' responsible tourist behaviors.

H4c: Perceived behavior control positively influence LCC travelers' responsible tourist behaviors.

Hypothesis	Variables	Spearman's rho	p-value
H4a	TPB_A_COMP, RTB_INDEX	0.416	<.001
H4b	TPB_SN_COMP, RTB_INDEX	0.354	<.001
H4c	TPB_PBC_COMP, RTB_INDEX	0.297	<.001

TABLE 30 RESULTS OF SPEARMAN'S CORRELATION – H4A TO H4C

In this section, participants were asked about their attitude towards engaging in responsible tourism, with three different adjectives: worthy, needed, and beneficial. These questions were adapted from Kuo and Dai (2012), to measure the attitude from low-cost carriers' travelers' attitude in the theory of planned behavior. As shown in Table 30, **H4a** is strongly significant with the p-value lower than 0.01, as well, there is a moderate monotonic relationship between attitude and responsible tourist behaviors with the value of 0.416.

Participants of the online survey were asked to indicate their level of agreement with three questions regarding with subjective norm, it was mainly about the most important people or groups to the participant consider that he or she should engage in responsible tourism. In this case, Table 30 shows that there is strongly significant relationship between the two variables, in another words, the more that the low-cost carriers' travelers consider the opinion of the people they value important, the more they behave responsibly during their travel. Thence, **H4b** is accepted here.

H4c hypothesize that LCC travelers' responsible tourist behaviors are positively influenced by perceived behavior control. As mentioned in the literature review, previous research has shown that more perceived behavior control was related to greater intention behavior consistency. It is also the same in this thesis research, although the Spearman's rho value is only 0.297, the p-value is smaller than 0.001 which shows strong significance between perceived behavior control and responsible tourist behaviors.

4.3.5 Responsible tourist behaviors

Hypothesis	Variables	Spearman's rho	p-value
H4d	KNOW_OT_COMP, RTB_INDEX	0.331	<.001
H4e	ATT_RT1, RTB_INDEX	0.084	0.099

TABLE 31 RESULTS OF SPEARMAN'S CORRELATION – H4D TO H4E

H4d: *LCC travelers' knowledge towards over-tourism positively influence LCC travelers' responsible tourist behaviors.*

Table 31 shows the relationship between knowledge towards over-tourism from low-cost carriers' travelers and their responsible tourist behaviors. Behaviors such as searching information before visiting a destination, preference to visit an alternative destination rather than a mass site, and willingness to spend extra to stay an environmentally friendly hotel were being asked. **H4d** is accepted with a strong significant value lower than 0.001, this indicates that the more over-tourism knowledge LCC travelers have, the more responsible they behave during their travel.

H4e: *LCC travelers' attitudes towards responsible tourism positively influence LCC travelers' responsible tourist behaviors.*

For **H4e**, with p-value of 0.099 which is higher than 0.05, the hypothesis here is rejected, in addition, the Spearman's rho value is also low with the value of 0.084 which shows a very weak monotonic relationship between the two variables. It is a surprising finding that the attitudes towards responsible tourism does not influence their responsible tourist behaviors. The reasons will be discussed in the next chapter.

H4f: *LCC travelers' responsible tourism expenditure positively influences LCC travelers' responsible tourist behaviors.*

Kruskal-Wallis	χ^2	df	p
RTB_INDEX	18.6	4	<.001

TABLE 32 RESULTS OF KRUSKAL-WALLIS TEST – H4F

The result of H4f shows that the test statistic Kruskal-Wallis H value (χ^2) is 18.6, with 4 degrees of freedom, denoted by df in the output. Most importantly, the corresponding p-value of the test statistic is smaller than 0.001, which indicated that the hypothesis is highly significant. Thence, the author can conclude that responsible tourism expenditure from LCC travelers have a high and positive influence on their responsible tourist behavior, in simple words, the more LCC travelers spend on responsible tourism, the more responsible they are with their behaviors.

4.3.6 Travel barriers and non-responsible tourist behaviors

H5a: *Insufficient travel time has a positive influence on LCC traveler's non-responsible tourist behaviors.*

H5b: *Insufficient funds have a positive influence on LCC traveler's non-responsible tourist behaviors.*

H5c: *LCC travelers feeling socially uncomfortable have a positive influence on LCC traveler's non-responsible tourist behaviors.*

H5d: *Perceived risk of might get bad value have a positive influence on LCC traveler's non-responsible tourist behaviors.*

Hypothesis	Variables	Spearman's rho	p-value
H5a	TIME_BARRIERS, NRTB_COMP	0.038	0.278
H5b	MONEY_BARRIERS, NRTB_COMP	-0.153	0.991
H5c	SOCIAL_BARRIER_COMP, NRTB_COMP	-0.020	0.621
H5d	VALUE_BARRIER, NRTB_COMP	0.124	0.028

TABLE 33 RESULTS OF SPEARMAN'S CORRELATION – H5A TO H5D

In this section, the author measured several different travel barriers and whether the barriers positively influence low-cost carriers' travelers' non-responsible tourist behaviors. From the total 243 respondents, 24.7% of participants strongly agree that they have a very limited amount of time during travel, followed by 29.2% for agree and 20.6% for neutral. Most of the LCC travelers indicated that they do not have enough time during travel. However, Table 33 here shows that the p-value is 0.278, a lot higher than the significant value 0.05, thence, **H5a** is rejected. It can be concluded that insufficient travel time has nothing much related with non-responsible tourist behaviors.

The next travel barriers in this research is the insufficient funds. Comparing to all the previous Spearman's rho value in this research, the value for **H5b** is negative. A negative correlation means that when one variable increases, the other begins to decline, that is to say, insufficient funds negatively influence non-responsible tourist behaviors instead of influencing it positively. However, with the large p-value of 0.991, the hypothesis is rejected with the fact that it is not significantly related.

In the online survey, participants were being asked with two questions related with social barriers such as typically feel worried or nervous to speak to people who have just met or do not know that well. From the findings of Table 33 here, there is also a negative spearman's rho value but a high p-value of 0.621. Thence, **H5c** can be rejected with conclusion as there is no significant relationship between low-cost carriers' social discomfort and non-responsible tourist behaviors.

The last hypothesis in this section is presented here above, with the p-value of 0.028, it can be concluded that there is a significant relationship between perceived risk of might get bad value and low-cost carriers' travelers' non-responsible tourist behaviors. Although the monotonic relationship between the variables is quite weak, the hypothesis is still being accepted.

4.4 Conclusion of hypotheses

To represent a comprehensive view of the data analysis, the following Table 34. Displays all hypotheses with related statistical test findings:

Hypothesis	Statistical Test	p-value	Acceptance
<i>H1a: LCC travelers' attitudes towards over-tourism have a positive influence on their intention to the destination.</i>	Spearson's correlation	<.001	√
<i>H1b: LCC travelers' attitudes towards responsible tourism have a positive influence on their intention to the destination.</i>	Spearson's correlation	0.010	√
<i>H2a: Tourist information centers have a positive influence on LCC travelers' attitude towards responsible travel.</i>			
<i>H2b: Printed materials have a positive influence on LCC travelers' attitude towards responsible travel.</i>	Kruskal-		
<i>H2c: Websites have a positive influence on LCC travelers' attitude towards responsible travel.</i>	Wallis	0.756	×
<i>H2d: Tourism programs and guides have a positive influence on LCC travelers' attitude towards responsible travel.</i>			
<i>H3a: Income is associated with LCC travelers' responsible tourism expenditure.</i>	Chi-square	0.045	√

H3b: Life cycle stages is associated with LCC travelers' responsible tourism expenditure.	Chi-square	0.199	×
H3c: Type of activities is associated with LCC travelers' responsible tourism expenditure.	Chi-square	0.987	×
H3d: Type of payment is associated with LCC travelers' responsible tourism expenditure.	Chi-square	<.001	√
H4a: Attitude positively influence LCC travelers' responsible tourist behaviors.	Spearson's correlation	<.001	√
H4b: Subjective norm positively influence LCC travelers' responsible tourist behaviors.	Spearson's correlation	<.001	√
H4c: Perceived behavior control positively influence LCC travelers' responsible tourist behaviors	Spearson's correlation	<.001	√
H4d: LCC travelers' knowledge towards over-tourism positively influence LCC travelers' responsible tourist behaviors.	Spearson's correlation	<.001	√
H4e: LCC travelers' attitudes towards responsible tourism positively influence LCC travelers' responsible tourist behaviors.	Spearson's correlation	0.099	×
H4f: LCC travelers' responsible tourism expenditure positively influences LCC travelers' responsible tourist behaviors.	Kruskal-Wallis	<.001	√
H5a: Insufficient travel time has a positive influence on LCC traveler's non-responsible tourist behaviors.	Spearson's correlation	0.278	×
H5b: Insufficient funds have a positive influence on LCC traveler's non-responsible tourist behaviors.	Spearson's correlation	0.991	×
H5c: LCC travelers feeling socially uncomfortable have a positive influence on LCC traveler's non-responsible tourist behaviors.	Spearson's correlation	0.621	×
H5d: Perceived risk of might get bad value have a positive influence on LCC traveler's non-responsible tourist behaviors.	Spearson's correlation	0.028	√

TABLE 34 SUMMARY OF HYPOTHESES STATISTICAL RESULTS

5 DISCUSSION AND CONCLUSION

This master's thesis aims to have a greater understanding of tourist attitudes, behaviors, and perceptions. The paper intends to give DMOs an overview of LCC visitor behaviors and spending patterns therefore that they may figure out how to attract responsible tourists to the destinations. More importantly, the findings of the study may be able to suggest to DMOs a variety of solutions to the problem of over-tourism. Throughout the process in searching for relevant literature, there is hardly any research that critically discusses the actual tourist behaviors and motivations of travelers taking LCCs; most of the literature is based on any type of tourist, or characteristics of LCC travelers. Previous studies have mostly focused on a single city or country as a discussion for over-tourism, thus, this master thesis addresses the current gap in academic literature concerning the tourist behaviors and perceptions from LCC travelers.

5.1 Key findings and discussion

Observing from the perspective of the data collected, this chapter presents the key findings from analyzed data.

In tourism research, travelers' attitudes are often considered to have a positive impact on travelers' destination choice, perceived service quality, travel satisfaction, return visit imagery, and recommendation intentions. To answer the RQ1: 'How do LCC travelers' attitudes towards tourism influence the intention to visit the destination?', two hypotheses were set up and tested from two different angles, attitudes towards over-tourism and attitudes towards responsible tourism. Statistical test findings show that both attitudes of LCC travelers toward over-tourism and responsible tourism have a positive influence on travelers' intention to visit the destination. This is in line with the results obtained from the study conducted by the authors Mohaidin et al. (2017) in Penang, Malaysia, their research shows that tourists' intentions to choose a sustainable tourism site were highly influenced by their attitude, motivation, and word-of-mouth. In addition, Shen et al. (2019)'s research also concluded that the findings show that their pro-tourist behavioral intention is positively influenced by their attitude toward tourism. Place image has been found to have a positive relationship with place attachment and tourism attitudes, with place attachment also having a positive relationship with attitude and pro-tourist behavioral intention. In the questionnaire, respondents were asked about the importance of promoting positive environmental ethics through all stakeholders while developing tourism, and

whether participants agreed to reduce their own consumption to protect the environment. Attitudes towards tourism has a significant relationship with travel intention., therefore, the author believe that LCC travelers do not only care about their own travel experience, but also understand the impact that travelers bring to the environment.

After understanding the positive impact of tourists' attitudes towards over-tourism and responsible tourism on their intention to travel, the second research question 'RQ2: What are the effective communication channels for tourism strategies in LCC travelers' perspective?' is especially important. Research conducted by Hsieh & O'Leary (1993) and Molina and Esteban (2006) suggested that word-of-mouth as the most important sources for communication channel in tourism information sources. From the descriptive statistics of the thesis, it can be seen that 222 participants out of 240 valid respondents indicated that website is the most effective way for travelers to obtain travel information. Although this shows the importance of the website compared to other communication channels for travelers, all H2 are rejected, meaning that none of the communication channels have influence on LCC travelers' attitude towards responsible tourism. This clearly shows that travelers' attitudes toward responsible tourism are not influenced by the time and money spent by local DMOs to establish fine communication channels, it is the psychological tendency of a traveler in the pre-travel stage to react to the traveler's own behavior in relation to the destination and travel conditions. In the research from Yilmaz and Batmaz (2007), they identified the influence of communication channels on destination choice by exploring the role of communication channels on student's information sources, the study demonstrates that the information sources utilized in destination selection have no meaningful relationships. Although this study does not focus on the communication channel on LCC travelers' destination choices, this study underlines that the way travelers commonly obtain travel information does not affect attitudes towards responsible tourism.

Followed by RQ3:' How do determinant factors influence LCC travelers' responsible tourism expenditure?' Due to the diversity of multiple sub-decisions, it becomes evident that a single main determinant is unlikely to have the impact on all the decisions (Park et al., 2019). The author of this paper agrees on the point by authors Park et al. (2019), however previous studies did not show the factors especially for LCC travelers' responsible tourism expenditure. Brida and Scuderi (2013) gave a comprehensive review of econometric approaches for assessing tourism expenditure on a per-person basis. Economic restrictions, socio-demographic, trip-related, and psychographic variables were all recognized as determinant factors by the authors. The author of this

this study chose four different determinant factors that were considered important. Out of the four chosen factors, this study reveals that income and type of payment method have significant association with LCC travelers' responsible tourist expenditure. In accordance with Park et al. (2020), income is viewed in the literature as a personal budget constraint that limits people's purchasing power, with greater income levels resulting in higher consumption levels. Their study also shows that higher income has positive effect on tourist expenditure. Yet, this study suggested that income is associated with responsible tourist expenditure, LCC travelers in this case have greater purchasing power in the regards of responsible tourism. Another interesting determinant factor is the payment method, more than half of the respondents indicated that they use credit card during travel, which also have a significant association with responsible tourism expenditure, this can be seen as credit card users are willing to pay more in responsible tourism.

The result of H4e answering the research question 4 'How do LCC travelers' attitude towards over-tourism influence the degree of responsible tourist behaviors?' is quite surprising with a non-significant result. The authors Hu and Sung (2022) examined ambivalence emotions' mediating influence in altering the relationships between place attachment and responsible tourist behaviors. According to their findings, an ambivalent attitude considerably affects the association between place attachment and responsible tourist behaviors. However, this is the first study to show that LCC travelers' attitude towards over-tourism does not significantly influence the degree of responsible tourist behaviors. This result may be due to the discrepancy between the tourists' attitude towards over-tourism and their own personal behaviors, that is, although the tourists' concept is to avoid over-tourism, their own behaviors are still led by their own interests.

The next research question is which motivators can influence the responsible behavior of LCC travelers which is measured by H4a, H4b, H4c, H4d, and H4f. The motivators are firstly measured by the three aspects in the theory of planned behavior (TPB), attempts to explain human behavior by assuming that intentions capture the motivating variables that determine behavior. The attitude of a person toward an action is referred to as behavioral beliefs. Subjective norms are the normative beliefs, and perceived behaviors control, which refer to a sense of having control over one's behavior (Ajzen & Driver, 1992). Hsu and Huang (2010) conducted an extension of the theory of planned behavior model for tourist, the extended TPB model with tourist motivation fit the data relatively well; also, according to the authors Pahrudin et al. (2021), with a modified theory of planned behavior: a case of tourist intention to visit a destination post pandemic Covid-10 in Indonesia, the findings revealed that the theory planned behavior components are

substantially influenced in the intention to visit a local destination in Indonesia. In this thesis research, all the three variables in TPB positively influence tourist's responsible tourist behavior, which essentially confirming earlier studies in this field. Internal and external drivers appeared to be motivating for the survey respondents to develop responsible tourism practices. Thereafter, H4d shows that LCC travelers' knowledge towards over-tourism positively influence their responsible tourist behaviors. Maier (2021) stated that information on tourism's irrefutable environmental consequences is uncovered, and knowledge of tourism destinations' sustainability issues raises awareness. Therefore, knowledge towards sustainable issues or in this case, over tourism, can be regarded as a key point for raising awareness to effect on traveler's actions and behaviors. Gutierrez-Taño et al. (2019) expressed that a greater level of knowledge on the perception of the impacts, it generally results in a greater perception of costs and a lesser negative impact. The authors also stated that the degree of knowledge tourist have of the activity has an impact on tourism. According to the results of this study, knowledge towards over-tourism has a substantial impact on responsible tourist behavior, it contradicts Látková and Vogt's (2012) claim that knowledge is a minor predictor of positive and bad consequences. In this sense, the results concerning the knowledge confirm the results of Maier (2021), and Gutierrez-Taño et al., however, the study of LCC travelers is the main target, which adds another piece of knowledge to the academic research. Lastly, as revealed by the respondents of the online survey, responsible tourist expenditure positively influences on responsible tourist behavior, it is not difficult to understand this point, the more the traveler is willing to spend budget on responsible tourism, the more the traveler is willing to behave responsibly as well.

In this context, it has been possible to see the motivators affecting responsible tourist behaviors, thus, the last research question: 'what are the barriers of LCC travelers' non-responsible tourist behaviors' was presented. Statements concerning about tourists should pay leisure and amusement and should not be involved in the social and environmental problems of the place visited had been given out in the survey. The only significant variables is perceived risk, other variables such as insufficient travel time, insufficient funds, and the feelings of socially uncomfortable were not significant. The authors Sirbrijns and Vanneste (2021) investigated a tourism re-distribution policy project between Amsterdam and The Hague to manage over-tourism in collaboration, and they found it difficult to persuade visitors to change their minds about where to go and what to do during their stay because they have limited time and do not want to change their plans. However, this study shows that LCC travelers do not exhibit non-responsible tourist behaviors even if they do not have enough time and have the possibility of not changing their

itineraries and plans as Sirbrijns and Vanneste (2021) suggests. Del Chiappa et al. (2019) offered new insights into the variables that discourage visitors from traveling ethically, with 'lack of accessibility,' 'unwillingness,' 'lack of trustworthiness', 'stress,' and 'price'. This research is also sort of inconsistent with Del Chiappa et al. 's study that price being the barriers. Nonetheless, insufficient money and price are considered as two different variables, showing that LCC travelers do not perform non-responsible tourist behaviors even though they are not having sufficient amount of money during travel. Another non-significant factor is the feelings of socially uncomfortable, although Dolnicar (2005) declared of the travel barriers of might feel socially uncomfortable as one of the travel barriers to leisure travel, it is not the case here for LCC travelers. Many LCC travelers often have lower incomes than FSC, and such backpackers or low-cost travelers need to stay in youth hostels or join tours with other tourists, this study also revealed that most LCC travelers did not feel much fear or discomfort about interacting with others while traveling. Therefore, the present authors believe that the attributes of the study are reasonable and accurate. The last and only one variable with significant influence is the perceived risk of might get bad value. Tourism risk is inherently a subjective assessment of a negative event (Liu et al., 2013). It is the possibility of loss that has a negative impact on one's attitude toward behavior (Quintal et al., 2010). As mentioned earlier, the majority of LCC travelers indicated that they had insufficient time as well as money during their travel, and they have fears for the possibility of getting a bad value, hence, under perceived risk and fear, LCC travelers may carry out non-responsible tourist behaviors

Furthermore, the findings of this study have a wide range of consequences for those in authority of destinations in the context of activity management. A better understanding of the variables will enable tourism destination management in taking steps to ensure that tourism is properly managed.

5.2 Theoretical and practical implications

Implications can be obtained from the quantitative research findings and the discussion of this thesis in order to further contribute to academia and industry. Examining the causal relationships among tourist attitudes, travel intention, responsible tourist expenditure, responsible and non-responsible tourist behaviors can help government officials, destination management organizations, and hospitality operators deepen into low-cost carriers' passengers and devise effective ways for promoting responsible tourism. As displayed in the results, LCC tourists'

attitude towards both responsible tourism and over-tourism affect their intention of visiting a destination. As shown in the literature review, while tourist deciding to travel to a specific destination, it may be affected by interpersonal factors or external factors. Here, this paper establishes that attitude is an important key to travel intentions, and it is especially important for DMOs to strengthen the perceptions and attitudes of tourists about over-tourism and responsible tourism. It can be seen as a scheme to attract quality visitors instead of the ones who is harming the tourist destination. However, from the elements learned in H1, tourist attitude affects travel intention. If the DMO wants to change and understand tourist attitude, this study suggests not to start from the communication channel. Although the website is confirmed to be the most common communication channel for LCC travelers to obtain travel information, it can be used as a tool for posting information and for destination managers to market responsible tourism. However, there is still other considerations to be made in order to change the attitude of LCC travelers towards responsible tourism through the website.

In terms of the determinants of LCC visitors' spending on responsible tourism, the number of visitors who are willing to spend more on responsible tourism is relatively low, from the lower to the higher income brackets. From a practical point of view, if DMOs want to attract a large number of visitors to tourist attractions where many LCCs land, it is necessary to bear the risk that many LCC visitors do not have much desire to spend on responsible tours and are prone to over-tourism. Instead, DMO and hospitality operators can surely work on using different payment methods in the destinations, in line with the findings from this thesis research that type of payment methods have an influence on responsible tourist expenditure. In addition, the other two determinant factors life cycle stages and type of activities suggesting that these factors do not affect responsible tourist expenditure, in other words, the ages of LCC travelers and what visitors are mostly doing during travel have nothing to do with whether they would spend more on responsible tourism or not. With all the facts, DMO is here recommended to focus on attracting LCC passengers with higher income level and introduce different payment methods in destinations.

Based on the findings of drivers and motivators for LCC travelers' responsible tourist behaviors, all the three pillars of theory of planned behaviors, knowledge towards over-tourism, and responsible tourist expenditure have been established and confirmed. In the regards of theory of planned behaviors, the motivators are essentially confirming the earlier studies in tourism academic mentioned before. It can be concluded that LCC's responsible tourist behaviors are based

on and affected by internal drivers such as personal intrinsic motivation and external drivers such as normative beliefs which is pressured by others. Apart from that, DMOs should also value LCC travelers' knowledge of over-tourism. Although educating travelers had been already recommended many times in tourism field, this thesis also concluded the importance of traveler's knowledge. In addition to attracting tourists and promoting tourism, the responsibility of DMOs to maintain a balanced environment and avoid over-tourism cannot be ignored. To make tourists knowledgeable about over-tourism and to make them behave responsibly while traveling is the key to a successful destination.

In closing, perceived risk of might get bad value during travel is considered as the only barriers for non-tourist behaviors. A further contribution is outlined here in the field of behavioral theories. Nudging (Thaler & Sunstein, 2008) was used to explain and motivate tourists' behavior toward greater responsibility. In spite of that, the study here suggested that the factors for non-responsible tourist behaviors. Here, LCC visitors do not exhibit non-responsible tourist behaviors just because they don't have enough money or time to travel, or because they feel socially uncomfortable to interact with locals or other tourists. The contribution of LCC passengers to tourism is still more beneficial than detrimental in essence. In-depth understanding of LCC passengers and their tourist behaviors is enforced as a condition for dealing with new situations and issues that different sorts of tourism strategic planning models present.

5.3 Future research and limitations

Contextual factors may limit the findings of this study, which would require additional investigation in future studies. The research has conducted a quantitative approach and therefore, there might be some improper representation of the target population. The respondents provided their level of agreement on several different variables such as attitudes towards over-tourism and responsible tourism, behavior attributes, and intention to participate responsible tourism. However, the findings are based on a limited number of participants from low-cost carriers Facebook groups and Reddit. The online survey is conducted in English only, and most of the respondents are from North American countries or European countries. If the survey was conducted in several different languages, the results could be different with respondents in different continent having different perceptions. Another way that the author hereby suggests further researchers is to decrease the regions with only specific regions or continents are used for

sample collection, this approach allows the DMO to focus more on understanding the characteristics of a regional LCC traveler rather than all travelers around the world.

Furthermore, the Covid-19 pandemic had an impact on this thesis. On the one hand, tourism was shut down in the past two years. On the other hand, many travelers have not traveled abroad or traveled on low-cost carriers in the past two years, most of the attitudes towards tourism and impressions of travel were before the Covid-19 outbreak, it may have impacted respondents' perspectives.

5.4 Conclusion

This quantitative thesis aims to have a better knowledge of LCC travellers' attitudes towards over-tourism and responsible tourism and their travel intention, identify the effective communication channels for tourism strategies, point out the determinant factors that influence responsible tourism expenditure, and recognize the motivators and barriers for LCC travellers' tourist behaviours. The results show the different perceptions, factors, and behavioural patterns within LCC travellers. As a result, the research findings can be used to derive implications for destination management organizations and tourism enterprises to have an insight of low-cost carriers' travellers.

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APPENDIXES

Appendix 1: Tourist guidelines in Barcelona

(Goodwin, 2019)

1. Keep group sizes small and appropriate to the place and local activity; and avoid causing congestion, suggest unaccompanied visits and reduce the length of explanations.
2. Use audio guides and reduce noise pollution.
3. Respect children's privacy and safety, do not make contact and avoid stops at locations where there are large numbers of children.
4. Give tour groups free time in places where they are least likely to cause annoyance and disruption and where possible use spaces designed for tourist use.
5. Discourage graffiti and climbing on sculptures and monuments.
6. Discourage littering and encourage the correct sorting and disposal of waste.
7. Plan tour itineraries to causing congestion by avoiding busy areas and busy times. Pay special attention to the needs of people with reduced mobility.
8. Only call the driver to pick up when the group is assembled.
9. Guiding inside buses, trams and other forms of public transport is prohibited except with explicit permission granted by the city's transport operators.
10. Encourage the use of pre-purchased timed tickets; if tickets are purchased on arrival, then the group must join the queue.
11. Guides are advocates and ambassadors for Barcelona's story, culture, territory and heritage and they must both display knowledge of and respect for the police and civic agents and be kept informed of new rules, signs and transportation routes.
12. Guides must Maintain up-to-date, objective and extensive knowledge of the tourism resources and public spaces they visit and present to groups, without communicating prejudices. "Explaining the local culture and habits can help visitors to understand the behaviour and way of life of Barcelona's residents."
13. Guides must pay taxes and fiscal, administrative and labour fees;
14. Respect the Tourism Law and comply with it
15. Display "Tolerance, education, co-existence and cordiality with the rest of the industry, groups and local residents. The tour guide's behaviour during the activity can influence the conduct and social and environmental attitudes of visitors after the visit."
16. Join the communication/coordination channels available between the municipality and professional tour guides

Appendix 2: Measurement Item Table

Constructs	Measurement Items	Source
Attitudes towards over-tourism	(1) Tourism must protect the environment now and for the future	Leonidou et al. (2014)
	(2) The diversity of nature must be valued and protected by tourism	
	(3) Proper tourism development requires that wildlife and natural habitats be always protected	
	(4) Tourism development must promote positive environmental ethics among all parties that have a stake in tourism	
	(5) I believe that the quality of the environment is deteriorating because of tourism	
	(6) As a tourist, I would be willing to reduce my consumption to help/protect the environment	
Attitudes towards over-tourism	(1) Rather than visit a place where tourism damages the environment, I prefer not to go on holiday	Passafaro et al. (2015)
	(2) When planning a vacation, one must always choose a place where tourism does not damage the environment	
	(3) Rather than visit a place where tour operators sweat local workers, I prefer not to go on holiday	
Attitudes towards over-tourism	(1) We do not need to worry about environmental protection activities as there are enough electricity and water resources and green areas.	Çavuşoğlu et al. (2020)
	(2) Recycling is important in terms of conservation of natural resources.	
	(3) Enterprises providing hospitality services (hotels, restaurants etc.) are environment friendly	
Travel intention	Novelty seeking:	Jang et al. (2009)
	(1) I like to experience different cultures and different ways of life.	

(2) I like to see how other people live.

(3) I attend cultural events that I don't have access to at home.

Self-Esteem

(1) I want luxury, nice food, and a comfortable place to stay.

(2) It's important for me to go someplace fashionable on vacation.

Ego enhancement

(1) I like to talk about my vacation when I get home.

(2) I like to be able to talk about the places I've visited and the things I've seen on vacation.

Socialization

(1) It is important for me to spend time with family and friends.

(2) I want to meet new people and socialize.

Rest and Relaxation

(1) The main thing for me on vacation is just to slow down.

(1) During the next one year, I might (about 30% chances) engage

in low-carbon tourism.

(2) During the next one year, I would (about 50% chances) engage in low-carbon tourism.

Kuo & Dai (2012)

(3) During the next one year, I will (about 80% chances) engage in

low-carbon tourism.

**Communica-
tion channels**

1) Tourist information centers

(2) Printed materials

(3) Website

Bogan (2014)

(4) Tourist programs and guides

...effect my destination choice.

(1) Tourism needs to be developed in harmony with natural and

Choi & Sirakaya (2005)

	cultural environment	
	(2) Regulatory environmental standards are needed to reduce the negative impacts of tourism development	
	(3) Tourism industry must ensure good quality tourism experiences for future visitors	
Attitudes towards responsible tourism	(1) I believe that tourism is a strong economic contributor to the community. (2) Community resources must be protected now and for the future. (3) The tourism industry must embrace the values of community residents. (4) Community residents should receive a fair share of benefits from tourism.	Hsu et al. (2020)
Tourism expenditure	(1) Spending per person (2) Daily spending per person (3) Total gross spending	Kozak et al. (2008)
Determinant factors – Income	Annual Income: (1) 0-\$18,200 (2) \$18,201-\$37,000 (3) \$37,001-\$80,000 (4) \$80,001-\$180,000 (5) \$180,001 and over	Ren et al. (2018)
Determinant factors - Life cycle stages	Annual Income: (1) <\$75,000 (2) 75,000-\$150,000 (3) >\$150,000	Mach & Ponting (2021)
Determinant factors - Type of activities	(1) Health tourism (2) Theme-park (3) Sports and outdoor activities (4) Nightlife	Eugenio-Martin & Inchausti-Sintes (2016)

	(5) Shopping	
	(6) City Sightseeing	
Determinant factors - Type of payment methods	(1) Debit card (2) Credit card (3) Cash	Thrane (2015)
	(1) During my visit to foreign countries as a tourist, I often talk with friends about problems related to the environment (2) When I visit foreign countries as a tourist, I avoid buying goods with unnecessary packaging material (3) I sometimes contribute financially to environmental organizations when I visit foreign countries as a tourist (4) When I visit foreign countries as a tourist, I buy organic food, whenever possible (5) When I visit foreign countries as a tourist, I use products made from recycled (6) I reduce and recycle waste, whenever possible, during my visits to foreign countries as a tourist	Leonidou et al. (2014)
Responsible tourist behaviors	(1) I would like to follow the legal policies of the destination and scenic spot (2) I would like to dispose of the garbage properly during my trip (3) I would like to protect the plants and animals of the destination and scenic spot (4) I would like to protect the relics and facilities of the destination and scenic spot (5) I would like to encourage others to follow the legal policies of the destination and scenic spot (6) I would like to encourage others to protect the environment of the destination and scenic spot (7) I try to stop others from damaging the environment of the destination and scenic spot	Zhou et al. (2020)
	(1) Knowing how to respect the local community	Dias et al. (2021)

	(2) Do not damage the patrimony	
	(3) Be compliant with the rules/legislation of the country you visit	
	(4) Respect the local culture and tradition	
	(5) Buying local products/contributing to local trade	
	(6) Get informed before visiting the site (rules of conduct, religion and customs, appropriate clothing, etc.)	
	(7) Opting to visit a destination that fosters decent and fair conditions and respects the rights of workers	
	(8) Choose to visit an alternative destination to a mass destination	
	(9) Opting to hire a local tourism agent responsible for making the visits	
	(1) I am willing to spend extra to stay at an environmentally friendly hotel.	Han et al. (2009)
	(2) It is acceptable to pay more for a hotel that engages in green practices	
	(1) I am happy with my decision to stay in the green hotel.	Çavuşoğlu et al. (2020)
	(2) I feel that I contribute to environmental protection and sustainable development.	
	(1) Engaged in low-carbon tourism is worth/unworthy in terms of your business.	
	(2) Engaged in low-carbon tourism is unneeded/need in terms of your business	
	(3) Engaged in low-carbon tourism is very adverse / beneficial in terms of your business.	Kuo & Dai (2012)
	(4) Engaged in low-carbon tourism is inconvenient / convenient in terms of your business	
Theory of planned behavior – Attitude	(1) For me, reducing littering when traveling is very beneficial	
	(2) For me, disposing litter properly is very meaningful	Fenitra et al. (2021)
	(3) For me, avoiding littering is very Favorable	
	(4) I believe littering is a negative habit	

Theory of planned behavior – Subjective norm	<p>(1) In your daily life, most important person to you (e.g., family members, teachers, competent...) considers that you engaged in low-carbon tourism is should not be/should be.</p> <p>(2) In your daily life, most important group to you (e.g., school, workplace, community...) considers that you engaged in low-carbon tourism is should not be/should be.</p>	Kuo & Dai (2012)
Theory of planned behavior – Perceived behavior control	<p>(1) People who are important to me think I should reduce littering in nature</p> <p>(2) People who are important to me would want me to properly dispose of my litter when traveling.</p> <p>(3) People whose opinions I value would wish me to avoid littering in nature</p>	Fenitra et al. (2021)
Knowledge towards over-tourism	<p>(1) If I do not gain the concept of sustainable environment during my travel, I would not / would be engaged in low-carbon tourism.</p> <p>(2) If there is no tour operator willing to cooperate during my travel, I would not / would be engaged in low-carbon tourism.</p> <p>(3) If I am not healthy during my travel, I would not / would be engaged in low-carbon tourism.</p> <p>(1) I am confident that, if I want to, I can do something helpful to protect the environment of this destination</p> <p>(2) It is up to me to do something helpful to protect the environment of this destination</p> <p>(3) For me, it is easy to do something helpful to protect the environment of this destination</p> <p>I think that my presence in a tourist destination may affect ...</p> <p>(1) Economic situation of residents (living costs, income)</p> <p>(2) Comfort of recreation for residents in their free time</p> <p>(3) Satisfaction of residents with professional life</p> <p>(4) Residents' access to social infrastructure</p>	Kuo & Dai (2012)
		Fenitra et al. (2021)
		Szromek et al. (2019)

	(5) Sense of pride of residents for belonging to the city (6) Condition of the natural environment in the town	
	(1) Avoiding littering can help to reduce the environmental problem and improve the wild animals' welfare. (2) Reducing littering can help to reduce the air pollution and the hazardous organisms that might be a source of disease	Fenitra et al. (2021)
	(1) Vacationers pay to get leisure and amusement, and should not be involved in the social and environmental problems of the place visited (2) Tourists should not be forced to care for the wellbeing of the local populations, this task must be accomplished by the local authorities (3) Vacationers should not be asked to respect the environment; this task should be accomplished by the local authorities	Passafaro et al. (2015)
Non-responsible tourist behaviors	(1) I pay for the holiday, so I can use the local amenities however and whenever I want (2) To be honest, it is not my concern—I want to relax when I feel like it (3) This is an exaggeration—in my opinion, the negative impact of tourists is exaggerated (4) During the trip, I sometimes use more water for washing and more electricity than at home (5) I believe that during a tourist trip I am free to do more, I am on holiday after all (6) I do not intend to deal with what the residents think about my presence and behavior	Szromek et al. (2019)
Not spending enough money and time	If I do not have sufficient time and funding during my travel, I would not / would be engaged in low-carbon tourism.	Kuo & Dai (2012)
Price	(1) Cost associated with the whole payment (2) Price for return ticket (3) Prices at destination (meals, shopping,)	Gallarza & Gil Saura (2006)

	(4) Opportunity cost for the price paid	
	(5) Cost associated with the time invested in the trip	
	(1) The price was the main criterion for the decision	Sa'nchez et al. (2006)
	(1) I worry about that other might think I do odd things	
	(2) I am afraid that my close friends will not accept my behaviour	
	(3) I am worried about others disapproving of my behaviour	
Feel socially uncomfortable	(4) I worry about that people will evaluate me negatively	Erliksson et al. (2020)
	(5) I feel worried when talking with people I have just met	
	(6) I feel nervous when talking with people I don't know that well	
	(7) I am afraid of interacting with other	
	(8) I feel nervous when I must talk with others about myself	

Appendix 3: Survey Questions

Developing strategies for low-cost carriers overcoming over-tourism

This survey aims to provide destination managers with insight into the tourist behaviors and attitudes of low-cost carriers' passengers. The responses to this survey will be only used for the author's master thesis and only used for statistical analysis. Participation in this survey is anonymous and takes approximately 8-10 minutes to complete. Thank you for taking the time to complete the survey.

***Required**

1. I voluntarily agree to participate in this survey. *

Mark only one oval.

- Yes
 No

2. Have you ever flown with low-cost carriers? *

Mark only one oval.

- Yes
 No

Attitudes
towards
tourism

In this section, the questions will be related to your personal attitudes towards tourism. Please indicate how much you agree with each statement.

3. I think tourism development must promote positive environmental ethics among all parties that have a stake in tourism.

Mark only one oval.

- 1 2 3 4 5
-
- Strongly disagree Strongly agree

4. As a tourist, I would be willing to reduce my consumption to help protect the environment.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

5. I think when people plan a vacation, one must always choose a place where tourism does not damage the environment.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

6. The tourism industry must ensure good quality tourism experiences for future visitors.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

7. Community residents in destinations should receive a fair share of benefits from tourism.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

Knowledge
towards over-
tourism

In simple words, over-tourism refers to the congestion or overcrowding caused by an influx of tourists. Please indicate how much you agree with each statement.

8. I think that my presence in a tourist destination may affect the economic situation of residents, such as living costs and income.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

9. I think that my presence in a tourist destination may affect the condition of the natural environment.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

General
information

In this section, you will be asked for some general information as a tourist. Please choose the most important or most frequently used one.

10. What is the main activity you participate in when you go on a vacation? Please select one from the list below.

Mark only one oval.

- Health tourism
- Theme-park
- Sports and outdoor activities
- Nightlife
- Shopping
- City Sightseeing
- Business meeting/convention
- Arts/cultural event
- Group tour
- Visit nature park or historic site
- None of the above

11. What is the main payment method you use when you travel? Please select one from the list below.

Mark only one oval.

- Debit card
 Credit card
 Cash
 None of the above

12. Which of the following options is your preferred method of obtaining travel information? Please select one from the list below.

Mark only one oval.

- Tourist information centers
 Printed materials
 Website
 Tourist programs and guides
 None of the above

Tourist behaviors

In this section, you will be asked about some of your travel behaviors while you are traveling or your decision-making process before the trip. People show values through a diverse range of behaviors. Please indicate how much you agree with each statement.

13. I search for information before visiting the destination, such as rules of conduct, religion and customs, appropriate clothing, etc.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

14. I prefer to visit an alternative destination to a mass destination.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

15. I am willing to spend extra to stay at an environmentally friendly hotel.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

16. I think that tourists pay to get leisure and amusement, and should not be involved in the social and environmental problems of the place visited.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

17. I think that tourists should not be forced to care for the wellbeing of the local populations, this task must be accomplished by the local authorities.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

18. I do not intend to deal with what the residents think about my presence and behavior.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

**Planned
behavior**

Any form of tourism that can be consumed in a responsible manner is considered responsible tourism, for example, minimizing negative social, economic, and environmental impacts. In this section, you will be asked to indicate how much you agree with each statement regarding responsible tourism.

19. Engaging in responsible tourism is worthy.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

20. Engaging in responsible tourism is needed.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

21. Engaging in responsible tourism is beneficial.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

22. In my daily life, the most important people to me (e.g., family members, teachers, competent...) consider that I should engage in responsible tourism.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

23. In my daily life, the most important groups to me (e.g., school, workplace, community...) consider that I should engage in responsible tourism.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

24. People whose opinions I value would wish me to engage in responsible tourism.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

25. I am confident that, if I want to, I can engage in responsible tourism.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

26. It is up to me to engage in responsible tourism.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

27. For me, it is easy to engage in responsible tourism.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

**Travel
barriers**

In this section, statements regarding travel barriers will be presented. Please indicate how much you agree with the statements.

28. I typically have a very limited amount of time during my travel.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

29. I typically have a very limited amount of money during my travel.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

30. During my travel, I typically feel worried when talking with people I have just met.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

31. During my travel, I typically feel nervous when talking with people I don't know that well.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

32. During my travel, I typically feel worried that I might get bad value from participating in tourism activities.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

Tourism
expenditure

In this section, please choose the approximate percentage of spending for responsible tourism. For example, the cost of accommodation in a green hotel, hiring a local guide, etc.

33. When you travel, approximately how much percentage of your travel budget is spent on products or services related to responsible tourism?

Mark only one oval.

- 0% to 20%
- 21% to 40%
- 41% to 60%
- 61% to 80%
- 81% to 100%

Travel
intention

Travel intention is the process of transforming travel motivation into travel behavior. please indicate below whether you would like to engage in responsible tourism during your next travel.

34. I perceive engagement in responsible tourism as a meaningful activity.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

35. On my next travel, I would like to engage in responsible tourism.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

36. In general, I intend to actively engage in responsible tourism.

Mark only one oval.

	1	2	3	4	5	
Strongly disagree	<input type="radio"/>	Strongly agree				

Demographic Information

Almost done with the survey! Lastly, demographic information will be collected. Please choose the answer to each question and click "submit" at the bottom of the page.

37. Gender

Mark only one oval.

- Male
- Female
- non-binary
- Prefer not to say

38. Age

Mark only one oval.

- 17 years old or younger
- 18 to 40 years old
- 41 to 65 years old
- 66 years old or older

39. Net Income level (Annually)

Mark only one oval.

- 0-€18,200
- €18,201- €37,000
- €37,001- €80,000
- €80,001- €180,000
- €180,001 and over

40. Continent of residence

Mark only one oval.

- Europe
- Asia
- Africa
- North America
- South America
- Australia