Artificial environments and spatial travel implications: the case of Madrid Snow Zone

Author: Johannes Lipasti
Supervisor: Roger Marjavaara

Student
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Abstract

Place has been a fundamental topic for geographers (Agnew, 1987). It stands both for a study object and a manner of perceiving the world. This thesis departs from the theoretical debate regarding places and how places are considered as being spatially fixed in the sense that places cannot be reproduced or imitated elsewhere. However, technological innovations have extraordinary significance in all the realms of leisure and lifestyle (Godbey, 1997) whereas, leisure activities increasingly are being simulated and reproduced exemplifying the new postmodern culture and the ‘post-tourist’ (Urry, 1990). Thus, challenges the spatial fix of places (Shaw & Williams, 2004). There has been little empirical research regarding artificial environments and therefore, the research problem contributes to understand how artificial environments are altering habitual travel patterns regarding the ‘genuine’ or as previous authors have stated, regarding the ‘real thing’. The research questions proposed for the study, directed the researcher to a quantitative approach using the questionnaire as a main source of data collection. The simulated environment that was investigated in the study was the indoor ski slope located in Madrid (Spain). The results showed that the simulated environment is enhancing and intervening the ski activity. For most of the skiers the indoor ski slope is complementing their ski activity in front of the outdoor ski resorts. Furthermore, the facility is recruiting every year a great number of new skiers that after skiing indoors desire to experience the ‘real thing’. Due to the proximity of the facility to the major urban areas, the indoor ski slope is acting as an intervening opportunity and boosting the visitors towards outdoor skiing.

Keywords: Place, spatially fixed, simulated, postmodern culture, post-tourist, artificial environments, travel patterns, indoor ski slope.
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# Table of Contents

Abstract ................................................................................................................. I
Acknowledgements ........................................................................................... II
Table of Contents ............................................................................................... III

1. Introduction ....................................................................................................... 1  
   1.1 Research Objectives and Significance ......................................................... 2

2. Theoretical Background .................................................................................. 3  
   2.1 Place ............................................................................................................ 3  
   2.2 Place and Tourism ...................................................................................... 5  
   2.3 The Intervening Opportunity ...................................................................... 7  
   2.4 Place Fixity .................................................................................................. 9  
   2.5 Tourism and Artificial Environments ......................................................... 10

3. Xanadú-ski Facility ........................................................................................... 16

4. Methodology ..................................................................................................... 20  
   4.1 Method of Data Collection: The Questionnaire Survey ............................. 21  
   4.2 Reasons for Choosing the Questionnaire Survey ..................................... 23  
   4.3 Questionnaire Design ................................................................................ 24  
   4.4 Sampling Process ....................................................................................... 26  
   4.5 The Process of Data Analysis ................................................................... 27  
   4.6 Limitations .................................................................................................. 28

5. Results ............................................................................................................... 29  
   5.1 I Part: General Information of the Respondents ....................................... 29  
   5.2 II Part: Skiing-related Travel Patterns ...................................................... 32

6. Analysis ............................................................................................................ 36

7. Discussion and Conclusions .......................................................................... 44

8. References ........................................................................................................ 48

Appendices .......................................................................................................... 54  
   Appendix A ...................................................................................................... 54  
   Appendix B ...................................................................................................... 55
1. Introduction

The study of a place is a central topic in geographical research and in the composition and description of a society (Agnew, 1989). Place has also stood as a hot research topic for sociologists and psychologists. For both disciplines, place stands as a study object and a way of perceiving the world (Cresswell, 2004). Place has been considered as the unique core study object differentiating geography from other disciplines. Other disciplines such as Astronomy has the heavens, History has the time, and Geography has Places (Seamon, 2000). Patterns and processes of economic, social and political change are now seen as being conditioned by place. The word ‘place’ is used during many instances in our daily existence. In some situations it is used to refer to a building or a location – a site of significance or meeting. In other situations the word place can be discovered in everyday phrases such as “know your place”, “she was put in her place”. The word undoubtedly refers to something more than a spatial referent. “What one’s place is clearly related to one’s relation to others” (Cresswell, 1996, p.3). Different terms such as ‘locality’, ‘landscape’, ‘region’ and ‘place’ are frequently used in both empirical and methodological studies (Daniels, 1992). Place has been studied from the different ways in which it is conceived in a generic and non-specific way (Stephen, 1992). A place is never completed it is on the move in the way of becoming through actions and practices of people (Wang, 2015). The study of place and region, which has dominated human geography for long time, has now become a major element for the study of tourism (Hall, 2005).

In the light of modern globalisation, there has been an increased consideration of the significance of place through the social sciences (Hall, 2005). Place within the context of regional growth and promotion as new actors in the world economic scene has been a new subject undergoing intense study for government and industry (Kotler et al., 1993). Within the tourism literature, such concepts as ‘place marketing’, ‘selling places’ - have derived to have a significant attention as key elements of the tourism system (Page & Hall, 2003). Behind these concepts, the idea is that places, towns and territories are products to be promoted and sold for attracting mobile capital, investors and tourists. Consequently, places are products to be produced and consumed (Hall, 2005). Since tourism is a multidisciplinary area of study (Gilbert, 1990), the idea of a system approach has enabled to understand the way in which tourism operates, together with the interrelationships among diverse components in the system (Hall, 2005; Page & Connell, 2009). According to Leiper (1990) a system is defined as a set of elements that are linked to each other by at least one differentiating principle, here, tourism. Central to the tourism process have been the tourist attractions. They are often the reason for visiting a particular place, they offer activities and experiences and a means of gathering the signs of tourism consumption. As Rojek (1997) mentions, in all human cultures there is a deep desire to observe the extraordinariness and the beauty of places. It is not unexpected then that most of the attention has been focused on the production and consumption of attractions.

Tourism destinations have been characterized as being spatially fixed (Urry 1990; Urry, 2002), in that the tourism attraction providers have to provide specific services in specific places and cannot be offered at any place. Spatial fixity then is understood in terms of terrestrial reach: tourism destinations cannot be replicated elsewhere or replaced by another place (Page & Connell, 2009). They are attached to a given location (point or area on earth) and each place is exclusive. While consumers as a result of the
increasing movement - are more mobile able to consume tourist facilities on a global basis, tourism products are spatially fixed (Urry, 2002; Page & Connell, 2009).

However, as the main travel drive of tourists is the destination, whether genuine, real or artificial, in tourism and recreation activities, simulated and artificial environments are gaining importance and attractiveness over the world. Technological innovations have had a surprising significance in all the realms of leisure and lifestyle (Godbey, 1997). Tourism activities and environments are being simulated at an exceptional rate (Forrester & Singh, 2005). Through the artificial environment and landscape of different tourist attractions, the physical place and time can be falsified (Shaw & Williams, 2004) therefore, a specific service does not have to be attached to a specific place and the new technologies to artificially contest the spatial fix of places, which are not bounded. One example among others, is skiing, especially the indoor activity which has been gradually increasing in popularity over the world. It has been proven during the last two centuries that there is a close connection between urbanization and the rise of sports. Still, one does not relate winter sports with urban areas (Hofmann, 2012). The indoor ski projects are principally located in cities or near urban areas. They are not just a recreational structure; the simulation of the climate and nature conditions, produces a mountain ski resorts experience for the consumers. The new urban atmosphere is simulating the concept of outdoor skiing and these projects are expected to be a strong attraction all year around (Urbonaite, 2011).

1.1 Research Objectives and Significance

So far, there has been little empirical research examining artificial leisure environments. Previous studies have focussed on the way in which simulated and artificial tourism is developing as an emergent medium of tourism destinations (Forrester & Singh, 2005). Therefore, the aim of this research is to analyse in which way customer’s travel pattern and demand towards outdoor skiing is altered as a result of visiting leisure artificial environments. To achieve the aim, the different interviewees variables obtained by the quantitative approach will be analysed. Also, the study will explore to what extent an artificial leisure environment can act as an intervening opportunity. The indoor ski slope of Madrid (The Snow Zone) has been chosen for the research as it keeps a series of peculiarities in front of other artificial destinations. On the one hand, it is the largest indoor ski slope in Europe and the only one in Spain. Secondly, it is located in the third most populated community after with 6.466.996 inhabitants (Spanish Statistical Office, 2016): the Autonomous Community of Madrid. Additionally, the ski facility is situated near densely populated areas; in this case mainly the city of Madrid with a population of 3.165.883 millions (Subdirección General de Estadística, 2016).

The research approach was designed by the research questions and the theoretical background provided by the literature review. The following research questions will be addressed within the scope of the thesis:

(i) Is the indoor ski facility mostly visited by first time skiers?

(ii) How many new potential skiers is the indoor ski facility recruiting?

(iii) Is the indoor ski slope enhancing or altering the demand towards outdoor skiing?

(iv) To what extent is the indoor ski facility acting as an intervening opportunity?
One of the main significance of the study is to fill the gap regarding to the empirical research concerning artificial environments. The results from the spatial implications can be applied to other artificial environments to understand and predict how the travel patterns are altered and to what extent the artificial spaces modify the demand towards ‘the real thing’. Some personal data variables will be used to find differences within the respondents and to support the research questions. Also, the investigation contributes to advances in tourism industry and tourism planning to comprehend how consumers are responding to this type of artificial spaces compared to the conventional ones.

2. Theoretical background

2.1 Place

Places are central issues to geography but also have been a hot research topic for sociologists and environmental psychologists (Agnew, 1987; Agnew & Duncan, 1989; Canter, 1977). Geographers have for long time discussed the significance of place as the unique focus differentiating geography from other disciplines. However, the major question that geographers have asked is “what exactly is place?” Place has been, and remains, essentially defined by humanist discourses (Hetherington, 1997). Geographers in the beginning of the 70s were discontented with what they felt was a philosophically and experientially weak description of place. Therefore, these authors called “humanistic geographers” investigated the role of place in human experience (Buttimer, 1976; Relph, 1976; Tuan, 1974).

Place stands for both disciplines a study object and a manner of perceiving the world (Wang, 2015). Numerous studies in geography, sociology and environmental psychologists have tried to theorize the concept of place (Gustafson, 2001). Place is a challenging word and it has several meanings according to the Oxford English Dictionary (2017). It can mean “a share of space in which individuals live together”; it can also mean “rank” in a list, or “position” in a social hierarchy (Agnew & Duncan, 1989) and also “a particular position, point, or area in space: a location” (English Oxford Dictionary, 2017). Other authors have predominantly covered the geographical meaning in the modern social science. Geographical places have been pre-empted by the social classifications of state censuses as the main operational units of social theory; classes and status groups have relocated places and geographical settings. In conclusion, sociology has overcome human geography (Agnew & Duncan, 1989).

It is important to distinguish between place and space. There have been a lot of understandings towards the nature of space, including the thoughts that it is the location of human activities, or that it comprises spatial relations. Nevertheless, the definitions of space have tended to be more relational, they have directed on the ways in which space is comprehended, used and shaped. Hence, place has been a notion used in relation to space (Shaw & Williams, 2004). Attitudes towards defining a geographical concept of place have inclined to emphasize one or another of three components rather than their complementarity. Firstly, economic geographers have highlighted location or space as particular, where the spatial distribution of social and economic actions outcomes from between-place factor cost and market cost differences. Secondly, micro sociologists and humanistic geographers have been interested in ‘locale’, the sceneries for everyday routine social interaction offered in a place (Agnew & Duncan, 1989). Humanistic geographers such as Yi-Fu Tuan (1974) understands place as a set of rootedness and
authenticity and highlight the essence of human being in place and the relationship between individuals and place in terms of connection, value and belonging. The notion of place should be detainted through human perception and experience (Cresswell, 2004). Finally, anthropologists and cultural geographers have indicated importance in the sense of place or identification with a place produced by living in it. These three aspects have been seen as incompatible with place rather than complementary dimensions of place (Agniew & Duncan, 1989). For years, geographers have been interested in other elements besides place: procedures, systems, structures, methodologies, theories, models, ideologies, images, and techniques; places were habitually focussed to case studies (Daniels, 1992). However, the study of place and places is being revaluated (Agniew & Duncan, 1989; Daniels, 1992; Kotler et al., 1993). The revaluation course of place in geography encompasses a larger revaluation in the social sciences. Some processes and patterns of economic, social and political change are seen as conditioned by place, culture and concrete instances; for long they were seen as place-transcending and place-homogenising (Agniew, 1989).

Gieryn (2000) mentions three components involved in place conceptualization: geographic location, material form and investment (with significance and value). Places are situated among the geographical space, places have material form and they are observed as significant by individuals and often by social groups. Attending to the physicality of places, in cyberspace, metaphorical and virtual places may exist (McIntyre et al., 2006). During 1970s and 1980s there were intense discussions between positivist and phenomenological considerations of place (Relph, 1976; Canter, 1977; Sime, 1986). However, the presence of geographic location and material form, significance and value when considering place, shows a movement away from earlier discussions. Relph (1976) did an extensive study of place considering that such understanding could contribute to the preservation and renovation of existing places and the creation of new places. Within the modern era and globalization Relph (1976) argued that some places have moved towards placelessness making standardized landscapes and the eradication of distinctive places where places have no significance or relation to the distinctive setting.

Today, there seems to be extensive understanding that subjective as well as objective qualities of place need to be contemplated (Agniew, 1987; Massey, 1995; Gieryn, 2000; McIntyre et al., 2006). Some conclusions have been made about the term place in discussions about globalization. Firstly, previous research considered places as bounded while ignoring their links and interactions with their surroundings and it has been criticized (McIntyre et al., 2006). For giving meanings to places might be relevant to consider their interconnectedness within places (Massey & Jess, 1995). Secondly, the notions of place instead of concentrating on their change tend to focus on their stability and continuity. Places are not immobile – places are processes (Urry, 2002; Gieryn, 2000, p. 468). Finally, as seen before, place does not essentially have one precise and detailed meaning or set of meanings – different individuals and groups might have different and conflicting views and understandings of places (Massey & Jess, 1995). Also, there is nothing said about the size of places, despite of using the term to describe limited physical settings in everyday language (McIntyre et al., 2006). As Gieryn (2000) states places can be of different spatial scale: from a chair, room, building to a city, country, and planet.
2.2 Place and Tourism

A place is never completed but in the way of becoming through the actions and practices of people. In other words, people doing things create places. As a result of the increasing movement of individuals, mobility is becoming a significant factor when defining place (Cresswell, 2004). Sociologists like Urry states that places are economically, politically and culturally created through the mobility’s of people as places are not static, but depend upon what gets physically performed within them by hosts and by visitors (Wang, 2015). A strong division has been made between places and those travelling to such places (visitors, tourists, etc.). Social science has for a long time ignored the relevance of the movements of people for work, leisure, pleasure, and for politics and protest. Much social science investigation has been ‘a-mobile’ and have failed to examine how the spatiality’s of social life assume both the real and the imagined movement of individuals from place to place, individual to individual, event to event. Travel has been considered for the social sciences and seen as a black box, a neutral set of skills and procedures allowing forms of economic, social, and political life. Places have seen as push or pull actors to visitors (Sheller & Urry, 2006).

The study of place and region despite of being dominated by human geographers has become a main element in the study of tourism activity (Hall, 2005). Such activity is considered for being one of the greatest growing sectors in the world (Hall & Page, 2006). Tourism is one of the most significant global industries as the statistics suggest. In 1991, the international tourism industry employed 112 million people worldwide. By 2016, this had reached 284 million people employed worldwide, according to the World Travel and Tourism Council (WTTC, 2016). Places have to be observed in a set of material relationships, they are complex combinations of physical objects, businesses, labours, local societies, local state, and all kinds of practices, values and identities. In terms of tourism, the activity interacts with place characteristics and is shaping and place-shaped. Additionally, tourist places are complex combinations of physical objects produced by past investments in services (marinas, promenades, parks); local state; and different tourism and non-tourism performs. Places have changed with globalization in terms that they are open, not closed, and the grade of openness is fluctuating. They are continually varying over time through their inner dynamics and the way in which these interrelate with external globalized practices of change (Shaw & Williams, 2004). Places, practices and feelings are essential components of people’s life world (Manzo, 2005).

Besides places, also tourism activity has changed over time. Most of the books have failed to assume a correctly global standpoint to represent the speed of change in tourism on a global scale (Cooper, 2012; Hall, 2005; Page, & Connell, 2006). Today, tourism activity is part of globalization, a universal process of change and development that is no longer narrowed to the industrialized countries that back in the past offered the demand for world travel. Understanding the change of tourism activity over time is multifaceted as the forces of change are varied and not uniform (Page & Connell, 2009). Tourism is regularly seen as a business with great growth rates, and it is subject to profound change in how it is shaped and consumed. Nevertheless, there is still a lack of understanding how such changes are brought about (Hall & Williams, 2008). Hence, the pace of change in tourism has to be understood from a more complex perspective, as the forces of change are varied and not homogeneous (Page & Connell, 2009). The definition of tourism is a predominantly arid chase but important to understand the
nature, scope, influence, and scale of global tourism (Williams & Shaw, 1988). At both, a practical and a theoretical level are important in understanding the definition of tourism. The first one allows gaining a better understanding of the numerous sources of tourism data and information, while at a theoretical level, the definition exemplifies the broad magnitudes and character of tourism (Hall, 2005). The definition of Tourism varies source-by-source, person-by-person. There is no agreement concerning the definition of tourism. Nearly every each institution defines such concept differently (Page & Connell, 2009). Of importance to all definitions of tourism are notions of space and time. The former one in terms of travelling away from the home area and time meaning the time spent away from habitual home (Hall, 2005). However, according to The United Nations World Tourism Organization (UNWTO, 2011), Tourism can be delineated as follow: ‘‘Tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes’’. Nevertheless, the terms of ‘travel’ and ‘tourism’ are frequently switched within the published literature on tourism but they are intended to cover one or more aspects of the temporary movement of individuals away from their immediate home areas and daily work environments for business, pleasure or personal reasons (Page & Connell, 2009). There is a propensity to use the term ‘travel’ when ‘tourism’ is meant, still, the two terms are used in isolation or in unison to characterize three key concepts: movement of people; an economic or industrial sector; and, a system of interacting relationships of individuals with their desires to travel outside their habitual communities and the services that tries to respond to these needs.

The study of a system approach enables one to understand the broader issues and factors, which affect the tourism industry. Also, as it is challenging to cover the wide-ranging of approaches to tourism, an organizing framework is adopted (Cooper, 2012). Crucial to the tourism industry is the tourist destination region (Leiper, 1990) or the place with its all characteristics to be perceived as a destination. Therefore, the tourist destination is the essential product of the tourism industry and it is part of a broader tourism system. The notion of a system has been exceptionally important in the way in which tourism functions and has been used in various texts. At its easiest level a system is ‘‘an integrated whole whose essential properties arise from the relationships between its constituent parts’’ (Hall, 2005, p.57). Leiper (1990) defines a system as a set of features that are linked to each other by at least one distinctive value, in this case tourism. The different links in the system can be inspected in terms of streams between elements and the flows may stress the presence of some types of connections between different elements (Figure 2.2.1) (Page & Connell, 2009).

![Figure 2.2.1: Leiper’s tourism system.](image)

Source: Adapted by Leiper (1990).
There are three basic components of Leiper’s model: tourists, geographical elements, and the tourist sector. Tourists are the main actors in the system. After all, tourism activity is a human experience, enjoyed and memorised by many. The model shapes three geographical elements (Cooper, 2012; Hall, 2005): first, the tourist generation region; second, the tourist destination region; and, finally the transit region or route.

The first one, the tourist generation region symbolises the generating market for tourism and, it offers the ‘push’ to stimulate and motivate travelling. At this point the tourist search for travel knowledge makes the reservation and depart. The second element represents the ‘end’ of tourism, that is to say, planning and management approaches are applied and the magnitudes of tourism are felt (Cooper, 2012). The destination theorised as a geographical place, which is substance to a variety of aspects, which impact locational advantage and disadvantage (Hall, 2006; Hall, 2005), is the reason to be for tourism, with a range of distinctive places by their culture, history or nature significance. Is the ‘pull’ to visit destinations strengthens the entire tourism system and produces demand for travel in the generation area (Cooper, 2012). Finally, the transit region or route, it does not only represent the shortest cut period of travel between the tourist generation region and the destination itself. It comprises the transitional places, which may be visited en route. As Leiper (1990, p.22) states ‘‘There is always an interval in a trip when the traveller feels they have left their home region but have not yet arrived... [where] they choose to visit’’.

2.3 The Intervening Opportunity

Tourism activity comprises the movement (‘‘travelling’’) of people throughout time and space. Such tourism and movement have been part of the human involvement for millennia (Smith, 2004). However, tourism is seen as the movement of individuals either between home and a destination, or within destination regions. Slightly remarkably, little academic analysis and research has been paid to the study of tourist flows. Nevertheless, knowing the tourist movements and the factors that influence the relationship between the time / space that the tourists have with the destination has great implications for the tourism sector development (infrastructure, transport, tourism product, environmental and cultural impacts). Also, understanding the tourist’s flows and the spatial configurations of tourist movements among destinations and within a destination can help to offer better services and facilities to the sector. Therefore, modelling the movement of tourists can help to the industry to establish the optimum location of tourist attractions (McKercher & Lew, 2004).

The mobility of individuals between places and attractions is constantly influenced by different decisions and how these choices interact with the geographical space. Hence, different models have been used in previous literature to predict individual’s trips. One of the bases for spatial interaction, stated by Edward Ullman (1956) is the intervening opportunity. It is important to mention the intervening opportunity because is a significant factor in individual’s spatial interaction, and has relevant impacts on destinations developments in regions (Pan & Bao, 2005). Is a probabilistic model with important analytical influence used to model trip distribution (Afandizadeh, 2012). According to its definition, the theory states that the number of people traveling a given distance is directly proportional to the number of opportunity at that distance (Hall, 2005; Pan & Bao, 2005). From tourist researchers perspective, intervening opportunity
is defined differently. Destinations that are closer to tourist-generating markets catch more visitors than farther competitive places, thus reducing their probability visiting the latter when the closer places are seen as being intervening opportunity relative to the latter places (Jafari, 2000). The spatial interaction model is part of two-stage procedure. First, the individuals select a broad region with which to interact and then, the individuals choose a detailed destination from a set of replacements within the selected region (Hall, 2005). The intervening opportunity occurs in the decision-making phase of tourists when they can travel to a large number of destinations. The main idea of the intervening opportunity model is that an individual prefers the closest destination place that gives him the occasion to meet his desires (Nazem et al., 2015). The attractiveness of the destination is a function of the accessibility of the destination and the personal utility derived from the destination.

The following figure (4.1) clarifies the definition of intervening opportunity applied to the case study. Supposing that A and B are two cities in a region, and there is a ski facility in B, then citizens in A go skiing to city B (Figure 2.3.1: 1). If additional ski facility is built in city C, then the residents of A would go skiing to city C (Figure 2.3.1: 2), and intervening opportunity occurs in city C.

![Figure 2.3.1](image-url)  
**Figure 2.3.1:** Representation of Ullman (1956) intervening opportunity.  
Source: adapted by Ullman (1956).

In general, as in many studies there are some disagreements related to different viewpoints about the intervening opportunity. For instance, the model makes the supposition that visitors or trip makers are completely conscious and informed of the structure of the urban space as the actual time of trip. It is also assumed that visitors are fully aware about all available opportunities in the region (Ortuzar & Willumsen, 2001;
Afandizadeh, 2012). Most of the studies propose that this opportunity has the subsequent characteristics: it occurs in a given region where tourist’s demands and supplies coexist; distance is a relevant factor affecting intervening opportunity; there are two or more suppliers in some areas (for example, ski resorts); the suppliers nearer to market regions (in this case the most important, the city of Madrid) have more advantage benefits than those remote ones (Pan & Bao, 2005).

2.4 Place Fixity

Human mobility is the core part of tourism activity as it has been demonstrated previously attending to the definition of Tourism and Leiper’s (1990) tourism system. Tourism could not be possible without any temporary movement of individuals from place to place. Until recent years, the study of tourism has been placed on the analysis of the movement of individuals to places. The movement has been theorised in terms of the individual motives and needs of escapism “escape from the cage of routines” or adventure (Frändberg, 1998). Therefore, tourism has been considered in terms of individuals travelling to places as cultures in a represented or mapped space. Place and culture have been assumed for being immobile in relation to a fixed, cartographically organised space where the tourist considered as one of the mobile figures whose travels, inconsistently, fix places and cultures in the organised space (Lury, 1997). Nowadays, the whole world seems to be on the move and the scale of such movement between different places is massive in terms of numbers (Sheller & Urry, 2006). The globe’s airports, buses, ships, and trains are occupied with asylum seekers, international students, tourists, visitors, business people, sport stars, refugees, backpackers, etc.

One of the central discussions affecting to the tourist destination has been its nature of being spatially fixed. Tourism has become commodified so that the tourists consume the destination as a product. Nevertheless, unlike global manufacturing and production, the tourism destination is place-specific - it cannot be located in the cheapest place, like call centres. Temporal mobility is needed from individuals to experience a tourism product of a particular place and such place cannot be replicated or substituted elsewhere (Page & Connell, 2009). Tourism producers have to provide specific services in specific places and, such services cannot be offered at any place (Urry, 2002). The notion means that if one wants to experience the pyramids of Egypt then, the individual has to travel there. The real pyramids cannot be substituted elsewhere. While tourism destinations are to a significant point spatially fixed, consumers are progressively more mobile, able to consume tourist facilities on a global basis. Places have assumed to be quite fixed in terms of being given and distinct from those visiting (Sheller & Urry, 2006). Also, Hall (2005: 119) considers tourist locations as being spatially fixed when talking about spaces from a spatial system perspective stating that, cities and towns do not suddenly move away in order to maximize advantageous functions despite of changing and adapting over time in relation to new networks. Among the tourism literature, the supposition that tourist places are spatially fixed is broadly recognised (Cooper, 2012; Hall, 2005; Lury, 1997; Page & Connell, 2009; Urry, 2002). However, is therefore that in the “new nobilities paradigm”, Sheller and Urry (2006) disputes how places are not fixed, but involved within a complex networks. They dispute also against the ontology of distinguishing places and individuals. There is a multifaceted relationality of places and individuals linked through performances. The activities cannot be separated from the places that occur contingently to be visited. Furthermore, places travelled to depend in part upon what is experienced with them (Sheller & Urry,
As Sheller & Urry (2006, p.214) mention there are “hybrid systems, materialities and mobilities” combining objects, technologies, and socialities from where distinct places are shaped and reproduced. Places are not fixed, they are dynamic and they are not attached to space. Places and the materials through which they are articulated travel with us, they move across representations (spaces) and memories (time). They are like ships, not fixed – not anchored, they mobilize differentiation and are given temporary constancy through their dissimilarities (Hetherington, 1997) and get outside of their physical frontiers and do not unavoidably stay in one location (Della Dora, 2007).

Tourism practices and places have changed over time. The spatial pattern of leisure is determined by how we see the places – the sociologist Urry (1990) in his notion of the ‘tourist gaze’ has mostly theorized this idea. Such concept is appreciated because it helps to comprehend the processes of development of tourist places and of their way of consumption. Modern tourism practices are understood by the metaphor of visualization that is hidden in the term ‘gaze’ (Williams, 1998). During the lasts decades the research in social and spatial theory has focused on ‘postmodern’ and ‘modernist’ spaces. Such spaces are created in ways that encompass and distinct activities from broader social spheres to the scope that they symbolize a complete world or a sort of miniature city. These spaces are structured across consumption, leisure and image and by monitoring, gatekeeping and crowd disciplinary technologies - the spaces are regulated (Woodward et al., 2000). The postmodern tourism spaces are seeing as ‘quintessential’ postmodern spaces mixing different architectural styles and the ‘deliberate confusion of the real with the artificial’ (Williams, 1998, p.189). Therefore, the advancement of artificial attractions exemplifies some aspects of the redefinition of tourism practices and places, furthermore, is part of the globalization process.

2.5 Tourism and Artificial Environments

In previous literature, both concepts, artificial and simulated have been used for the same purpose and meaning. Cohen (1988) has used the word artificial when he refers to his discourses of authenticity in tourism. Artificial is something part of modern life where the modern man takes use of machines to make products and inauthentic things. Simulated environments refer to settings that imitate the original environment and are artificially man-made. It can also refer to created natural locations that produce a surreal experience of reality removing the dangers of authentic encounters.

The concept of simulated has invaded the home environments of our society. Less pricy materials are used to replace the real counterparts in order to simulate the appearance of the more expensive substitute. Also, artificial plants have been used to simulate the real thing or the use of images of fish tanks for televisions is replacing real aquariums. For basements or rooms without any windows is becoming popular the use of some glowing portraits framed by a windowsill to simulate a view of the outdoors. More and more the society is beginning to experience the simulation of several environments and simulation technologies have been used in other areas like architecture, planning, design, business planning and forecasting (Forrester, 2004). It is expected that citizens will experience activities in simulated settings in the future before trying the “real thing” (Dertouzos, 1997).
The concepts of simulated and artificial environments are not exclusively a novelty in tourism. This is proven by several examples of zoos and aquariums that have been even present for centuries and operated as one of the early steps of humans making environments planned to replicate conditions and habitats from the wilderness, and might be the earliest known constructions of human endeavour (Forrester & Singh, 2005). Nevertheless, these examples have changed and developed over years to become even more elaborate and outstanding nowadays. The Discovery Cove in Orlando, Florida, is a 1.2-hectare water park attraction and offers to their visitors the occasion to experience the marine world and its animals (Discoverycove, 2017). Visitors instead of taking a walk tour through the Cove; they can swim through different environments and have the chance to see thousands of exotic fish and stingrays.

Artificial scenarios have been also present in the construction of the Post-Fordism urban cores. The phenomenon of ‘city beaches’ arose after the first artificial city beach was created in ST. Quentin, France in 1996. Urban beaches allow the opportunity for citizens to go to the beach without leaving the city. Such concept has been difficult to delineate comprehensively but it has been possible to gather some key attributes: an urban location, large amount of sand in an open space, a view of the waterfront, and the presence of objects connected with beaches (deckchairs, umbrellas, palm trees). The efforts from the media reporting of Paris Plage (Gale, 2009) brought this type of artificial environment to popular consciousness, spreading the idea throughout all Europe. Paris Plage is the name given to the annual happening that meets the closing to traffic from mid-July to mid-August of the Pompidou thruway alongside the River Seine. It is three kilometres long and is thought to be the world’s first ‘urban beach’ (Figure 2.5.1). Paris Plage was created in 2002 by relocating around 2000 tonnes of sand, grass and wooden decking to shape three different ‘beaches’. During the operational month, it attracts three million guests (including local Parisians, and national and international tourists) for the purposes of walking and sunbathing. Such was the achievement that the attraction was extended in 2006 integrating a floating swimming pool. The idea is to provide an entrance free recreational space for residents who cannot afford a holiday, to those who are time-poor and it serves to stress its social tourism credentials (Gale, 2009).

![Figure 2.5.1: View of Paris Plage.](Source: Paradise Found Around (2014))
At the moment, many European cities have adopted the city beach idea. Berlin’s Strandbar Mitte, opened in 2002 was Germany’s first city beach project. Since then until 2010 more than 300 beaches have emerged in Germany. (Stevens & Ambler, 2010). One of the biggest artificial beaches is situated in Brisbane, Australia (Figure 2.5.2). The beach is located close to the city’s river and consists of a crystal lagoon with white sand shore and simulating a sub-tropical climate with, trees and plants (Forrester & Singh, 2005).

Figure 2.5.2: View of the Brisbaine’s artificial beach.
Source: Roger Marjavaara.

Technological innovations have remarkable significance in all realms of leisure involvement apart from permeating our homes and our daily agendas and habits (Godbey, 1997). This type of projects has taken a step forward in terms of magnitude with settings such as the indoor beach domes. Thus, is other setting that is gaining popularity in tourism. The first indoor beach dome was found at the Miyazaki Seagaia Ocean Dome, Japan. It was the world’s largest indoor beach inaugurated in 1993, and could accommodate 10,000 visitors (Baldacchino, 2010). It had almost 3,000 square meters of sand, and a constant 30°C (Forrester & Singh, 2005). The artificial sand was identical to the “real thing but it did not stick to your body as much”. The facility simulated waves, had a flame-spitting volcano and outstandingly had the world’s largest retractable roof, providing a lasting blue sky. However, it was closed down in 2007 because the Ocean Dome was never cost-effective for the Sheraton resort group, company that operated the complex (Baldacchino, 2010). Currently the most important is situated in Germany, the tropical islands resort (Figure 2.5.3). Is at the present one of the largest and the huge 360-metre long steel dome it is housed in the former CargoLifter airship hangar (Engels-Schwarzpaal, 2007). Primordially is a landscape of consumption where history inserts the scene in an ultramodern set-up. The facility offers among one roof a surreal experience of artificial sun, sea, and sand for those visitors who cannot afford long-haul vacations to tropical places - cultural commodities are for sale: services, experience and leisure. The tropical island is located outside the
East German Brandenburg province, which is characterized by underdevelopment, unemployment, and a background of xenophobia. The resort trusts on the twenty-five million inhabitants living within three hours drive distance, and the three to four million holidaymakers visiting the region annually. Tourists do not have to travel farther than south of Berlin, at the Tropical Islands, visitors can discover sand beaches, the world’s leading indoor rainforest, a blue lagoon, the South Sea with its islands, a wide-ranging tropical village, show, sport and culture, all at a satisfying temperature of 25º C (Engels-Schwarzpaul, 2007). The hangar’s dome looks like the sky – comprising not only a landscape, either a world. The space-time compression, modernism’s dream and unavoidable feature, eradicates distance, splits tradition, and with it the psychological estrangement of interior and exterior. In this particular place, time travels at a different pace. At equal distance one can experience the South Sea beach, the Bali Lagoon, Fale houses, depending on what guests have booked. A Fale in Samoa, despite of lacking walls, clear invisible lines would delimit it. On the contrary, the Fale in the Tropical Islands is unusually involved in the goings-on of technology and educational entertainment, in whose continuous stream historical layers of time are absorbed into imaginary dream pictures (Engels-Schwarzpaul, 2007).

Figure 2.5.3: View of tropical islands resort.
Source: Markus Ammann (2012).

These spaces integrate the space of vacation activities in the material environment, offer measures of distinction between them, and incorporate the symbolic principles socially and culturally enclosed to them (Lew et al., 2004). The indoor beach dome in Berlin is located an hour’s drive from the urban core and consists of 5 five million cub meters simulating a tropical islands environment (Tropical-islands, 2017).

On the other hand, there are entire simulated tourism destinations, places where visitors can experience the total built and themed environment. The best-known example is Las Vegas. The creation of a well-planned themed environment converted the city during the mid-1970s from a western-style gambling resort to an international entertainment zone (Shaw & Williams, 2004). Visitors do not have to travel to Egypt for seeing the pyramids when they can experience them in Las Vegas. The city of New York is also present in the city through the hotel ‘New York’, its façade reproduce the skyline of
New York along with landmarks such as the Statue of Liberty. Las Vegas reproduces all kinds of environments, from volcano eruptions, to pirate battles or replicas of lion habitats (Forrester & Singh, 2005). The space is one big fantasy city that comprises sequences of themed parks, each of which offers varying features to the tourist (Hannigan, 1998). As Huxtable (1997) stated, the architecture of Las Vegas is a ‘‘real fake’’ developed into an art form. The disgracefully fake has established its own native style and life style to become a real place (Huxtable, 1997). In addition, the opening of Disneyland theme park during 1955 in California provided an entirely innovative leisure space for Americans. Themed environments are mostly intended to attract tourists and visitors, these themed environments coincided with the expansion of tourism as a major form of economic development during the 1960s and 1970s predominantly located in the United States. However, the expansion has been undoubtedly a global phenomenon rather than singularly and American one (Lew et al., 2004, p. 195). According to Clawson & Knetsch (1966) classification, theme parks are classic ‘user-oriented’ attractions. They incline to localise close to large metropolises (Japan) or adjacent to big holiday regions such as the parks of Australia’s Gold Coast. They are planned to a specific formula, which comprises the pay one price concept, meaning that the accesses price pays for all the rides and event. It was innovative in the sense that visitors had to pay either to get in and for the rides (Cooper, 2012; Shaw & Williams, 2004). Also, they tend to be designed throughout a succession of themed ‘zones’ or ‘lands’, typically with a main street connecting the areas with different services such as restaurants or other services (Clawson & Knetsch, 1966). The visitors are immersed in a fantasy environment that offers entertainment and enjoyment, with clean and striking surroundings. The idea was to liberate individuals from the pressures of everyday life and giving them a strong contrast in the way of living. (Shaw & Williams, 2004). However, to create such simulated experience, the use of technologies is vital for the theme parks because they must continuously reinvent themselves with new an revitalised rides and products (Cooper, 2012). Through the artificial environment and landscape of the theme parks, Disneyland, and Las Vegas, place and time is falsified (Hannigan, 1998).

The artificial wave slopes have become popular during the beginning of the current century. Contrary to the waves in the ocean that are constantly moving forward, the artificial wave slope creates a thin layer of water that runs over a fixed padded wave form. To create different waves it is only necessary to regulate the thickness, flow or speed of the water (Forrester & Singh, 2005). Finally, it is necessary to emphasize artificial ski spaces. In the old days, generally, with the rise of temperatures in spring, the snow began to melt and this was a signal of the end of the ski season. However, today, snow domes provide such activity for skiers 365 days a year (Forrester & Singh, 2005). The indoor centres for outdoor sports have quickly been able to found themselves across the globe. These domes look like sports stadiums or airport hangars from the outside. The majority of the domes are placed in regions of Europe and Asia where the topography is flat because thanks to it can be made either slopes or flat tracks (Forrester & Singh, 2005).

Skydiving is nowadays also an activity that can be experienced indoors. Originally, the first vertical wind tunnels for skydiving were established during the 1950s and 1960s only for military and space travel purposes. This type of technology was commercialised in 1980s and ten years after it was replicated worldwide, first in Japan and Switzerland. Nowadays, there are more than 20 indoor skydiving centres for leisure
purposes across the United States of America and Europe. The first indoor skydiving
centre in Europe opened its doors in 2007 in the Netherlands. The air current reaches a
speed of 230 kilometres per hour where visitors can practice a real simulation of the
free-fall of a parachutist (Van Bottenburg & Salome, 2010).

One of the pioneering spaces in Europe for indoor skiing is situated in Madrid, Spain
(Figure 2.5.4). Madrid Snow Zone it is found in a shopping mall (Xanadú) where its
main attraction is its large covered slope, the only one in Spain and the largest in
Europe, suitable for skiing or snowboarding (Madridsnowzone, 2017). Other similar
example is the Sayama Ski Resort, which was developed in 1959, and it is located in
Japan. Such indoor facility was developed after the post-World War II period when the
rapid industrialization and economic growth took place. Parallel, the ski population in
Japan increased and because skiing has been perceived as a weekend trip activity,
skier’s favoured sties close to large cities and that is why the Sayama Indoor ski ground
was developed (Shirasaka, 1984). By the beginning of the twenty-first century, most of
the indoor ski centres were situated in the Netherlands, Great Britain, Belgium and
Germany. Countries that had poor ski conditions originally took the idea. However,
today one can find these facilities over the world, even in desert areas located in the
Middle East, such as Bahrain or Dubai (Van Bottenburg & Salome, 2010).

Figure 2.5.4: Interior view of Madrid Snow Zone.
Source: Johannes Lipasti (2017).

Such sports activities like surfing, alpine skiing, cross-country skiing, snowboarding,
climbing, surfing, etc., which have been practised exclusively in natural outdoor
environments (mountains, oceans, rivers) are since the late 1980s offered in different
indoor centres (Van Bottenburg & Salome, 2010). Different studies (Forrester & Singh,
2005; Van Bottenburg & Salome, 2010) showed that the indoorisation of outdoor sports
would be a long lasting and progressively popular, place for tourists in the future. The
indoor centres offer a safe, anticipated and controlled experience for their visitors (Van
Bottenburg & Salome, 2010) and also, they are located in more accessible environments
(Forrester & Singh, 2005).
3. Madrid Xanadú-ski Facility

Spain is, after Switzerland, the second highest country in Europe by average altitude (660 meters) and, counting its important geographical mountain systems in which are 27 ski resorts, which together offer more than a thousand kilometres of tracks. Nowadays according to the Tourist Association of Ski Resorts and Mountain (ATUDEM, 2016) Spanish resorts currently run about 5 million skiers per season.

The Pyrenees and Sierra Nevada are the two biggest regions in Spain for skiing purposes. As the following table (Table 3.1.1) shows already between 80 and 90 per cent of the annual skiers are located in these two regions. Skiing in Spain is a relatively popular sport. Despite of being famous because of the beaches, Spain has good mountainous systems for the practice of this winter sport and for that reason it counts on a large number of ski stations distributed across the peninsula (Figure 3.1.1).

**Table 3.1.1: Evolution of the number of skiers by season and region.**

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>Pyrenees</td>
<td>3.533.066</td>
<td>2.761.370</td>
<td>3.043.071</td>
<td>3.137.786</td>
<td>3.029.605</td>
<td>3.205.118</td>
<td>123</td>
</tr>
<tr>
<td>Sierra Nevada</td>
<td>816.651</td>
<td>980.657</td>
<td>992.886</td>
<td>906.700</td>
<td>918.288</td>
<td>1.033.584</td>
<td>156</td>
</tr>
<tr>
<td>Central system</td>
<td>235.551</td>
<td>124.286</td>
<td>266.979</td>
<td>325.179</td>
<td>320.920</td>
<td>210.895</td>
<td>51</td>
</tr>
</tbody>
</table>

Source: data collected from ATUDEM (2016).

In the central mountain range, between the Community of Madrid and the province of Segovia (Castile and León), there are suitable conditions for skiing, but in this case the problem is the climatic conditions that due to the temperature and lack of precipitation reduce the season to the rest of the ski regions. Therefore, the success of the winter season in Spain depends a lot on the weather conditions. However, Spain has a ski slope, which is completely oblivious to the weather conditions. Located in a shopping mall, Madrid Snow Zone is the only indoor ski slope in Spain and the largest in Europe.

The shopping mall Xanadú in which the indoor ski slope can be found, it is located in the Autonomous Community of Madrid. This community is one of the seventeen autonomous communities of Spain and it is situated in the centre of the Iberian Peninsula (Figure 3.1.2). The capital of the community is the city of Madrid, which is also at the same time the capital of the country. The Community of Madrid is the third most populated community after Andalusia and Catalonia with 6.466.996 inhabitants (Spanish Statistical Office, 2016).
Figure 3.1.1: Main outdoor ski areas in Spain.
Cartography: Johannes Lipasti (2017).

Figure 3.1.2: Overview map of Spain.
Cartography: Johannes Lipasti (2017).
The ski facility is located in the southwest metropolitan areas of Madrid and it was built in 2003. The facility has a good accessibility from the different urban areas of the Community of Madrid. The main roads radiated out from Madrid – numbered in natural numerals from one to six. One of them, the highway (A-5), which, starts in Madrid and ends at the Portuguese border, goes through the mall providing an easy accessibility with a distance of only twenty-three kilometres (Figure 3.1.3).

The facility is quite distinctive from other shopping and leisure centers, its architecture and spatial layout were planned to create a true experience for the consumers. It is one of the few places in the world where consumers can walk through 220 shops with different entertainment activities such as karting, nightclubs, restaurants, minigolf, and even, which is relevant to this study, the indoor ski slopes (Carù & Cova, 2007). Here, once again place is altered and it is categorized by the hybridization of shopping centers, visitor spots, amusements parks, and holy sites. Is one of Madrid’s principal customer settings with its 220 shops and a large department store (El Corte Inglés) or the first apple store of Madrid. The Xanadú mall leads the ski resort south of Madrid, as the capital main mountains are located to the north of the city.

A part from the rivals, it attracts visitors in both summer and winter season, and is open 365 days a year. According to Carù and Cova (2007) it is visited in wintertime by skiers from the south of the city and in summer by everyone. The simulation of the climate and nature conditions produces a mountain ski resort experience for the consumers (Urbonaite, 2011). The ski resort experience is created with different chalet dinning halls, equipment rentals, sensorial stimulations such as light, temperature, humidity, and skilled skiers walking around carrying skis or snowboards on their shoulders. Xanadu is also an amusement park despite of being placed as a standard shopping center with the peculiarity of the indoor ski slope. However, it attracts children with its different activities such as the luna-park, day nurseries, children-oriented events and some Disney-style restaurants. Xanadu also looks like a holy site in such way that there are religious connotations to the architecture developed by the US Company Mills Corporation. The Spanish Catholic tradition explains the sacred overtones of the mall (Carù & Cova, 2007).
Figure 3.1.3: Overview map of Madrid-Xanadú. Cartography: Johannes Lipasti (2017).
The most innovative and differentiating element of Madrid-Xanadu with respect to other shopping centers, is its indoor snow track, open every day of the year (Figure 3.1.4).

![Outside view of Madrid Snow Zone](image)

**Figure 3.1.4:** Outside view of Madrid Snow Zone.
Source: Johannes Lipasti (2017).

The Madrid Xanadu snow track occupies a total of 24,000 square meters, of which 18,000 square meters constitute the proper track. With a totally alpinist decoration, the track consists of all the necessary elements to enjoy the snow to the maximum, either on skis, or on snowboards. The indoor facility, also offers fun for all those who do not want to ski. It has a specific area for beginners, a limited area for the most experienced in the world of skiing/snowboarding, a playground and a ramp for ‘tubing’ (slip on circular inflatables). The snow is made with a modern system designed specifically for enclosed spaces, obtaining a snow, which is even greater quality than the one produced by the mountain guns (Madrid Xanadú, 2003).

4. Methodology

Once the research problem was decided, it is important to determine how the study will be conducted. There were a number of questions that needed to be responded before one could proceed with the journey. What procedures were adopted to obtain the answers to research questions? How the tasks needed to complete the special components of the research process were carried out? What should be done and what should not be done in the process of undertaking the study? Fundamentally, the answers to these questions comprise the essential of a research design (Kumar, 2011).

Throughout the history of Science, it has emerged diverse school of thought such as Empiricism, Dialectical Materialism, Positivism, Phenomenology, Structuralism, as well as different interpretative frameworks such as Ethnography and Constructivism, which have originated different paths in the search of knowledge (Hernández Sampieri et al., 2006). Much social ontology has subsisted through the history of thought about human sociality. However, questions of social ontology cannot be separated from issues regarding the conduct of social research. The ontological postulations will feed into the ways in which research interrogations are formulated and research is carried out. The
point is not to delve into them now. Furthermore, many authors on methodological subjects find it useful to differentiate between quantitative and qualitative research (Bryman, 2008). Generally, these two research approaches are the most commonly used study designs (Kumar, 2011).

Quantitative research stresses quantification in the compilation and analysis of data, in which the emphasis is placed on the testing of theories (deductive) (Bryman, 2008). Quantitative study designs are specific, structured, and can be clearly defined and recognised (Hernández Sampieri et al., 2006). Besides, qualitative research is less specific and precise, and do not have the same operational depth. Qualitative research stresses words rather than quantification in the compilation and analysis of data. It is principally emphasized on the generation of theories (inductive) (Bryman, 2008). In general terms, the two approaches (quantitative and qualitative) are paradigms of scientific research, since both use careful, systematic and empirical processes in their effort to generate knowledge and, in general, both use five similar and interrelated phases (Grinnell, 1997). They carry out the observation and evaluation of phenomena; they; establish assumptions or ideas as a result of the observation and evaluation carried out they show the grid on which the assumptions or ideas are based; review such assumptions or ideas on the basis of evidence or analysis; propose new observations and assessments to clarify, modify and substantiate assumptions and ideas; or even to generate others.

The quantitative approach for this study was the most suitable to answer the research questions. Both techniques are not contradictory but complementary. Each of them respond better to certain goals and objectives. However, in this case since the study tried to measure the scope, intensity and meaning of the phenomenon of artificial environments, it was necessary to use quantitative techniques. On the other hand, the study seek the generalization of the results to a whole universe from a sample, which was aimed to be 547 participants, which corresponds approximately to the average number of daily skiers based in terms of the number of annual visits (Europa Press, 2016).

The qualitative approach was excluded because the study did not focus for an in-depth understanding of the way in which the consumers travel pattern were affected after visiting an artificial environment. Also, there was no need to get a detailed account from interviewee’s involvements by describing and explaining their lives in their own arguments (Flowerdew & Martin, 2005). Consequently, for gathering such information pertinent to every study, there are two major approaches from where data can be collected: primary data and secondary data (Kumar, 2011). Given the nature and novelty of the study, there was no previous data and could not be extracted from any secondary source. Therefore, the primary data approach was used as the source of data collection based on a predetermined questionnaire survey (through Google Drive forms) done by interviewing people.

4.1 Method of Data Collection: the Questionnaire Survey

Perhaps the most widely used instrument for collecting primary data is the questionnaire (Hernández Sampieri et al., 2006). Questionnaires are commonly used as tools for gathering data in human geography and interconnected areas of research (Parfitt, 2005). In the context of the study the questionnaire survey was an essential tool for collecting the primary data from people and their experience and demands towards the ski activity.
Generally, a questionnaire is a written inventory of questions, the responses to which are recorded generally by respondents (Kumar, 2011). However, in this case the investigator asked the questions and recorded the respondent’s answers to avoid any misunderstandings regarding the questions statements.

The survey form was designed following a structured questionnaire using close-ended responses. Predetermined sets of questions were asked to individuals who went to the indoor ski slope in Madrid Xanadú. The questionnaire was carried out in Madrid Xanadu shopping mall corridor nearby the entrance/exit to the ski facility and at the entrance of the shopping mall (standing areas) which was more closed to the facility (entrance number 4), all located in the second floor (Figure 4.1.1). These two spots were considered as the best points for participant’s recruitment as the ski slope company declined the entrance to their facility for the study purposes. The shopping mall is surrounded by a big parking slot and therefore, the entrance number 4 was selected as the second best place for standing to interview because, mostly all the visitors who went to the indoor ski facility parked the car near that entrance. Also, the buses and shuttles stopped there. The other two entrances, number 5 and 6 were used mostly by visitors who came to the shopping mall for other reasons than skiing. For activities such as shopping, bowling, going to the cinema, or for making the most of a bit of free time. These two standing areas were exchanged at the time of the questionnaires. The reason why not all the surveys were conducted in front of the entrance / exit of the ski track was the fact that some people for being already so close to the track did not want to participate in the survey. That is why some surveys were conducted in the entrance number 4 where the respondents were more open to participate in the survey. All the surveys were carried out in the afternoon, responding to the hours of greatest influx both to the indoor slope and to the shopping mall. Generally, the questionnaire was carried out from 15 p.m. until the closing of the entrance that took place at 21 p.m. The exception was the last day (9/4/17) where the questionnaires were made from the ski slope opening (10 a.m.) until the closing time (21 p.m.).

Figure 4.1.1: Plan of the second floor of the shopping mall. Cartography: Johannes Lipasti (2017).
Beforehand, an email was sent to both companies, the shopping mall (Ivanhoe Cambridge) and the indoor ski slope (ADM Media Relations & Nieve y Ocio S.L) to request prior authorization to conduct such interview as part of the study. Since the last one refused at the first moment all activity related to the investigation, all the information pertinent to the design of the interview was requested to the department of marketing of the shopping mall. The information provided by the shopping mall was related to what time and day do visitor’s peak, facility services available such as Wi-Fi, and some instructions concerning to the authorization provided for the interview. Since the shopping mall has Wi-Fi connection throughout its entire facility, it was decided to use a tablet to record the responses derived from the interview.

4.2 Reasons for Choosing the Questionnaire Survey

First of all, before starting to develop the process, it was important to consider all the methods available for approaching the aim of the study. Browsing only secondary sources was not sufficient due to the nature of the research as mentioned before. All the information about visitors, from where they come from, tastes towards ski, etc. is not available at any public record and the facility also did not want to provide any information regarding their customers. Hence, all the data needed to answer the aim had to be obtained through primary sources such as the questionnaire survey. Both advantages and disadvantages were taken into account when the method and the instrument of data collection were chosen.

The questionnaire was executed face-to-face considering different criteria’s: firstly, due to the nature of the investigation. As the investigation in some research questions wanted to know if after the experience of skiing indoor could enhance skiing in a real resort, it was important to have spontaneous responses. In that case, the time of reflection before answering is reduced if comparing it to a handled questionnaire. Also, as the target population was the shopping mall visitors who went to skiing, interviewing approach was needed to first know the purpose of the stay that they had in the facility before proceeding with the interview schedule. As not all the visitors went to Madrid Xanadú for skiing purposes. Secondly, questions could be explained (Kumar, 2011). The results were more reliable because questions could be repeated or putted in different form to be understood. Thanks to that it was less probable that a question was misinterpreted. And finally, interviewing had a wider application (Kumar, 2011). Even though using a tablet for the questionnaire the interview can be used with any type of population. When the interviewer recorded the answers, it did not matter if the respondent was familiar with new technologies, for example older people.

The questionnaire form through Google Drive was chosen considering the following criteria’s: it is not expensive and having the questionnaire in a digital format with Google drive forms did not suppose any additional costs; it saved time. As the questionnaire survey was expected to reach the largest number of participants as possible, recording the answers through close-ended questions saved time and it is faster to collect the answers by just typing them in to the questionnaire form with the tablet. Also it is faster as some questions differ from each other attending to the responses made by the interviewees. Here, the interviewer knew the flow of the questions and the different answer options so the flow of the questionnaire went faster; real time coding and data analysis. The use of using a digital format questionnaire enabled to follow the
results in real time and spending time for coding is not needed; questions and answers focus to answer the research questions. Using the close-ended questions in the questionnaire makes sure that it goes straightforward to fulfil the research questions stated for the investigation.

However, the method and the instrument for data collection has also some disadvantages. Firstly, asking people face-to-face to participate in the questionnaire is time consuming. All participants must be approached in a way in which the investigation is presented and explained. After that many of them refuse or participate in the questionnaire. Secondly, the use of close-ended questions might suggest ideas that the respondent would not otherwise have. Also, respondents with no opinion can answer anyway or the desired answer by the participants is not a choice in the questionnaire. However, to reduce this disadvantages the category of “other” or “other reason” was added to the questionnaire to not force respondents to choose any specific answer.

4.3 Questionnaire Design

Google drive forms were used to create and design the questionnaire draft. Firstly, what was sought with the questionnaire was speed and simplicity at the time of the survey to reach as many respondents as possible, so Google drive forms responded to the demands. With Google drive tool, it was possible to create the questionnaire survey for free and the requirement was just to have a Gmail account. Secondly, the coding and obtaining results were done in real time in an excel file so the time needed to analyse the results were more reduced.

The questionnaire was designed to take into account that it followed a logical order regarding the different research questions. The questionnaire was divided in two parts: the first part contained the general information regarding the respondent (see Appendix A); data that categorise people, their circumstances and their environment (gender, age, occupation…), also called respondent variables (Flowerdew & Martin, 2005) and the second part which was focussed on the respondents ski travel patterns and motivations (see Appendix B).

The Google Drive questionnaire form was both designed and performed in Spanish. Subsequently, for the analysis of the results all questions and answers were translated into English. This step was carried out in the most exact way possible so that the different sentences had the same meaning as in Spanish in order to avoid any results misinterpretation.

As the first part of the questionnaire covered the general information, the questions were created through different categories for the respondent to choose from. This was easier since asking direct questions such as ‘How old are you?’ or ‘How much do you earn?’ often might cause problems (Flowerdew & Martin, 2005). To avoid a problematic situation, all questions regarding the background of the respondents were divided in ranges making sure that they were mutually exclusive. Also, since some questions were more personal, such as the annual income for instance, the respondents were given the possibility of not responding to them with the ‘‘ no answer’’ category.

The second part was the most important part of the questionnaire as it was connected to the main research questions. This part sought to answer the four research questions in a
logical order: (i) Is the indoor ski facility mostly visited by first time skiers? (ii) How many new potential skiers is the indoor ski facility recruiting? (iii) Is the indoor ski slope enhancing or altering the demand towards outdoor skiing? (iv) To what extent is the indoor ski facility acting as an intervening opportunity?

In this section to create the questionnaire in a logical sequence, some questions varied according to the response made by the respondent. The following figure (Figure 4.3.1) exemplifies the questionnaire road map and as it is observable, the first question marked the route for the respondent.

**Figure 4.3.1:** Questionnaire roadmap.
Source: Johannes Lipasti (2017).
As it is observed the first question marked the pattern of the survey. Following the left part of the previous figure (first time skiers), what was intended to study was whether the indoor ski slope was enhancing outdoor skiing or did not have any implications. That is why the first time respondents were asked if after skiing indoors will motivate them to visit a real resort, so they would be enhancing outdoor skiing. If there is no motivation to visit outdoor ski resorts then it can be stated that the indoor ski slope did not have any influence on the demand. However, a followed up question was added to the ones who would plan to travel to an outdoor ski resort. Two major regions were offered as a response to the question (Pyrenees, Sierra Nevada) among the Central System for being the closest outdoor skiing region to Madrid, and the option of ‘‘other region’’ if none of the previous options respond to the region. Therefore, “‘other regions’” referred to either to the rest of outdoor ski resorts of Spain or outdoor ski resorts located abroad. Pyrenees and Sierra Nevada were chosen since they cover more than 80 per cent of the country skiers per season according to the Tourist Association of Ski Resorts and Mountain (ATUDEM, 2016).

The right hand side alternative was conducted to the ones who already had some previous experience in skiing. Then, it was sought to know if the indoor ski slope has modified the demand towards the ski resorts an in which way it has done it (second research question).

On the other hand, as the study sought to know how the indoor ski slope intervenes in front of the outdoor ski resorts a common question was asked to all participants. In which way is acting or not as an intervening opportunity and which are the factors that influence this phenomenon (distance, price, etc.).

4.4 Sampling Process

Once the questionnaire was designed it was important to focus on the sampling process. Sampling is one important component of every quantitative research design that has been given less attention in methodological textbooks and journals (Mason, 2002). To sample in a questionnaire-based research it was appropriate to follow a four-phase approach (Table 4.4.1).

Table 4.4.1: Sampling stages.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Define a sample universe (N)</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Choose on a sample size (n)</td>
</tr>
<tr>
<td>Phase 3</td>
<td>Formulate a sample strategy</td>
</tr>
<tr>
<td>Phase 4</td>
<td>Source the sample</td>
</tr>
</tbody>
</table>

Source: Adapted by Robinson (2014).

The first phase was to define the sample universe. This is the entirety of individuals from which cases may be justifiably be sampled in the study (Robinson, 2014). The sample is this case was all the individuals who went for skiing purposes to the indoor facility. As any statistical data was provided by the facility, the only data available was
the one that the company has provided to different newspapers. Hence, the sample universe is estimated to be around \( N = 200,000 \) individuals who visit the slope in a year (Europa Press, 2016). However, as the ski slope is located in the Xanadú shopping mall, the total number of visitors to the mall for leisure reasons is estimated to be around 13 millions (Madrid Xanadú, 2003).

Much of the quantitative approaches cannot address the whole study universe, is therefore, why research usually chooses to work with a sample of the universe (n), understood as a subgroup of the universe, a subset of elements that belong to that set defined in its characteristics and which, is called sample size (Rodríguez et al., 1996). The questionnaire was aimed to reach \( n = 547 \) participants corresponding to the number of visitors that go on average to skiing in a day as mentioned before in this section. However, 452 participants were reached as the final sample representing 83 per cent of the aimed sample size.

As there was no previous knowledge and data about the visitors of the indoor ski facility, the sample strategy was random. All respondents were randomly selected from the population, and each had an equal probability of being selected. Usually, if the sample is too small, there could be a moderately high prospect that the sample population will be atypical of the object population with reverence to key characteristics (Flowerdew & Martin, 2005). However, adolescents between the ages 0-17 were excluded because they usually travel in companion of their own parents. Furthermore, parents are primarily the ones choosing the leisure activity and they influence on the decisions.

Finally, the last phase encompassed the process of recruiting participants from the targeted population from the real world. The stage needed ethical and sensitivity considerations (Robinson, 2014). The study aim was informed and what participation involved for the potential candidates. The main way of recruiting participants for interviews was using a face-to-face method. All participants were recruited either at the entrance/exit of the ski facility or among the nearest entrance to the facility from the parking slot. As the sampling was random, every person who visited the ski slope was asked to participate in the survey at the time when the interviewer was not busy (doing a survey) until a positive reaction was obtained from the respondent to participate. The number of dropouts was not counted exactly. However, the dropouts varied according to the days between two and three out of five surveyed. During the weekends, despite of having more visitors visiting the ski facility, guests were less receptive when they were asked to participate in the questionnaire. Overall, when there were fewer visitors, people were more willing to conduct the questionnaire.

### 4.5 The Process of Data Analysis

The indoor ski facility was visited in two periods of time during the research - the last week of February (week 8), beginning of March (week 9) and during the beginning of April (week 15). In total ten days were spent to conduct the questionnaire. As shown in the table (Table 4.5.1) the number of questionnaires varied day by day. During the first two days the number of participants was more reduced compared to the other days due to the fact that more time was allocated for adapting to the facility and, to find out the optimum places to recruit the respondents.
Table 4.5.1: Number of interviews made by day.

<table>
<thead>
<tr>
<th>Day</th>
<th>Number of participants</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>23/2/17</td>
<td>10</td>
<td>2.2</td>
</tr>
<tr>
<td>24/2/17</td>
<td>23</td>
<td>5.1</td>
</tr>
<tr>
<td>25/2/17</td>
<td>27</td>
<td>6.0</td>
</tr>
<tr>
<td>02/3/17</td>
<td>57</td>
<td>12.6</td>
</tr>
<tr>
<td>03/3/17</td>
<td>52</td>
<td>11.5</td>
</tr>
<tr>
<td>04/3/17</td>
<td>38</td>
<td>8.4</td>
</tr>
<tr>
<td>06/4/17</td>
<td>58</td>
<td>12.8</td>
</tr>
<tr>
<td>07/4/17</td>
<td>58</td>
<td>12.8</td>
</tr>
<tr>
<td>08/4/17</td>
<td>49</td>
<td>10.8</td>
</tr>
<tr>
<td>09/4/17</td>
<td>80</td>
<td>17.7</td>
</tr>
<tr>
<td>Total</td>
<td>n=452</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Johannes Lipasti (2017).

The data was analysed using the software package SPSS Statistics. As Google Drive forms already creates an Excel file containing all the results collected from the questionnaire, the data file was entered into SPSS. After that, each variable of each different case was coded into different values to run an analysis. The outcomes obtained from the questionnaire are exposed in the ‘Results’ section. In this section each result is presented as a percentage and in terms of the number (count) of respondents. Subsequently in the ‘Analysis’ section some variables from the questionnaire were used to run a cross-tabulation analysis. This inquiry provided a way of analysing the relationship between two or more variables. Thus, provided a way of comparing the results for one variable with the results of another.

4.6 Limitations

One of the main constraints concerned to the project was the time limit, it had to be done in five months and, therefore, the sample size ended up with 452 respondents and did not reach the aimed sample.

On the other hand, the lack of accurate statistical data on the number of visitors who come to the ski slope monthly/daily could have helped to make a more exhaustive analysis regarding seasonality and its implications for an artificial space that is open 365 days a year. Because of that, only the average annual number of visitors who came to the facility was within reach for the study.

It is also unknown if the results would have differed if the questionnaire had been carried out inside the ski slope, for example, in the resting areas of the skiers. Many respondents in the entry/exit area of the track were in a hurry either to go skiing or going back to their homes and this may have influenced the results. However, to avoid limitations in terms of access to the outdoor ski resorts and therefore different results, the questionnaire was conducted in a period in which outdoor ski resorts were also open to the public and in favourable conditions for the practice of the sport. With that, the different opportunities were present and available at the time of making travel decisions.

On the other hand, at the time of the survey there were a large number of participants who either had no income or refused to report it. This fact influenced when categorizing
skiers taking into account their income compared to the average income of the Autonomous Community of Madrid, therefore, it was no possible to reach a specific conclusion.

Self-selection is a limitation in the aspect of voluntary participation in most of the studies where interviews are used as a method for collecting primary data. As Costigan & Cox (2001) mentioned, in interviews, intimate self-disclosure is occasionally necessary and this is expected to lead to a sample encompassing participants who are more open, more patient and more concerned with the topic than the overall sample universe.

5. Results

5.1 I Part: General Information of the Respondents

Based on the results and the first part of the survey that covered the general information of the respondents, attending to the gender (Figure 5.1), the majority of the respondents corresponded to men’s 284 (62.8%) and the rest to women’s 168 (37.2%). This result can be explained due to the predominance of male skiers in the indoor ski facility.

![Gender distribution](image)

**Figure 5.1.1**: Gender distribution. Source: Johannes Lipasti (2017).

The profile of the respondents (Figure 5.1.2) responds to young skiers since 186 (41.2%) of them correspond to the range between 18 and 25 years old. To this, it is followed by 135 (29.9%) that corresponds to the rank between 26 and 35 years old, 118 (26.1%) of the respondents between the ages of 36 and 50 and, lastly, 11 (2.4%) and 2 (0.2%) for the ages between 51 and 65, and over 65 years old in succession.
The majority of the skiers (Figure 5.1.3) came from the municipalities of the Autonomous Community of Madrid 258 (57.1%), followed by 144 (31.9%) participants coming from the city of Madrid. There were also some skiers who came from another autonomous community different than Madrid, 37 (8.2%) and even; thirteen respondents who were skiing lived abroad 13 (2.9%).

Concerning the occupation (Figure 5.1.4), almost half of the respondents 216 (47.8%) were employed at the time of the survey followed by 163 (36.1%) corresponding to students. This is also explained since most skiers were young; it is more likely that many of them are still in their study phase for their future work. Both employed and students already comprise about 85% of respondents so the rest of occupations were quite small. 40 participants (8.8%) were self-employed followed by 26 (5.8%) being unemployed. This is a rather low figure observing the unemployment rate at the national
level. In the fourth quarter of 2016, the unemployment rate in Spain was 18.75% according to the active population survey made by the Spanish Statistical Office (2017). Finally 5 participants (1.1%) did not want to provide their occupation and 2 skiers (0.4%) were retired.

Figure 5.1.4: Occupation distribution.
Source: Johannes Lipasti (2017).

In general, attending the education attainment (Figure 5.1.5), half of the respondents 226 (50%) had a bachelor degree or similar. The figure followed by 167 respondents (36.9%) with high school studies and 55 (12.2%) with master's programmes. Only 4 respondents (0.9%) were Ph.Ds. In this question the category of “no answer” was given for those people who either did not want to answer to their education attainment or had lower education than a Bachelor’s degree. Outstanding is that there were no respondents with lower than a degree or high school.

Figure 5.1.5: Education attainment.
Source: Johannes Lipasti (2017).
The last question of the first part corresponded to the annual income of the participants (Figure 5.1.6). As expected, given the nature of the question a high number 135 participants (29.9%) did not want to provide this data even though the responses were provided into different range categories. The vast majority of people who were studying and without any salary had no problem in answering this question. 163 (36.1%) answered that they did not have any income. The questionnaire participants who had at that time some income were distributed as follow: 12 (2.7%) earned between 1-8.500 euros, 60 (13.3%) corresponding to the range of 8.501-15.000 euros per year, 46 (10.2%) corresponding to 15.001-24.000 gross euros per year, 19 (4.2%) related to the range of 24.001-35.000, 17 (3.8%) corresponding to more than 35.001 euros.

Figure 5.1.6: Annual gross income (in euros).
Source: Johannes Lipasti (2017).

5.2 II Part: Skiing-Related Travel Patterns

The second part of the questionnaire was fundamental to find the answer to the four addressed research questions. A similar figure (Figure 5.2.1) is added into this part as in the methodology. The main idea is to facilitate the reader to follow the results of this section. With this figure reader can observe the number of participants who answered to each question. Therefore, the first question sought to know if the visitors who came to the indoor ski slope were first time skiers or had some previous experience of skiing either in ski resorts or in the same indoor facility/ similar indoor slopes. The results showed that most of the respondents corresponding to 273 (60.4%) already had previous experience of skiing. However, 179 (39.6%) of the respondents were first time skiers. For those who did not have any previous experience skiing, they were asked if the fact of having skied in an artificial environment would motivate them to visit a ski resort in the future (second question). A high percentage responded favourably, exactly 173 (83.6%) and only 34 responded no to the question (16.4%). To this question it was also conducted from the third question the ones who had a previous experience skiing only in indoor ski facilities.
In the third question (Figure 5.2.2) most of the respondents, 161 (59%) had skied in both settings: outdoor and indoor skiing. 84 (30,3%) at the time of the questionnaire had skied in outdoor ski resorts followed 28 (10,3%) who had skied in indoor facilities. As 28 respondents were conducted to the second question, at the end 207 respondents (45,8%) of the total (452) conducted the questionnaire in a way to see if the indoor ski slope were enhancing new skiers towards outdoor skiing. The rest, as they already had
previous experience in outdoor skiing, 245 (54,2%) conducted the questionnaire to find out how the travel pattern were altered after indoor skiing.

3) What is your previous experience?

![Bar chart showing previous experience in skiing]

**Figure 5.2.2:** Skier’s previous experience  
Source: Johannes Lipasti (2017).

The fourth question was directed to the ones who wanted to visit an outdoor ski resort in a future. Hence, they were asked which region they want to visit (Figure 5.2.3). Almost half of them, 77 (44,5%) wanted to visit the Pyrenees followed by 56 (32,4%) visiting Sierra Nevada, 22 (12,7%) other regions and 18 (10,4%) visiting the Central System.

4) Where will you plan to travel?

![Bar chart showing desired regions for skiing]

**Figure 5.2.3:** Desired regions for skiing.  
Source: Johannes Lipasti (2017).

The fifth question (Figure 5.2.4) wanted to know how the demand for skiing was altered after skiing in the indoor ski facility. 102 (41,6%) respondents stated that their visit to the indoor ski slope were complementing their ski activity, 101 (41,2%) stated that after skiing indoors their demand towards outdoor skiing was increasing, 23 (9,4%)
mentioned that their demand towards outdoor skiing was being reduced and complemented at the same time. That meant that if for example someone skied two days less in a year in outdoor resorts, those two days were replaced by skiing in the indoor slope. 15 (6.1%) respondents stated that their demand towards outdoor skiing was being reduced after indoor skiing. For those respondents the demand towards the indoor ski facility was growing. Finally, just 4 (1.6%) respondents said that the indoor ski slope is replacing completely their demand towards outdoor resorts.

5) After indoor skiing, which of the following statements would describe your demand for skiing?

Figure 5.2.4: Skier’s demand towards outdoor skiing.
Source: Johannes Lipasti (2017).

The last question (Figure 5.2.5) was directed to all the participants (except the ones who answered “no” to the second question, therefore, 34 cases were excluded). Here, the possibility to check one or more answers were given and were responded by 418 participants. This question was the only one that allowed multiple responses as visitors might have several reasons for visiting the Snow Zone. As the figure shows, most of the respondents (280) marked accessibility/distance as the reason of choosing the indoor slope in front of a ski resort. After the accessibility category, it followed by 132 respondents who stated that “the indoor ski slope meets my needs”; 51 individuals stated that they chose the indoor ski facility due to “other reason” and finally, 47 respondents mentioned the conditions of the facility in terms of the snow and slope.

Furthermore, because this question was the only one who gave the possibility to choose a multiple response, it explains why the sum of the percentages is no equal to 100%. Nevertheless, the results can be translated to a percentage scale from 0 to 100: accessibility (45,8%); the indoor ski slope meets my needs (21,6%); price (16,5%); other reason (8,3%); and, the facility conditions (7,7%).
6. Analysis

This section will provide the main answers to the research questions based on the results obtained previously, and the use of cross tabulations will offer a deeper statistical analysis departing from the results shown previously. The cross tabulations are a quantitative research method appropriate for analysing the relationships between two or more variables. Also, it is one of the most commonly used techniques of analysis for questionnaire data. Usually cross tabulations enable to examine connections within the data that may not be readily apparent when analysing the results in an aggregate level (Greasley, 2008).

To answer the first two research questions it is important to highlight the number of novice skiers who attended to the indoor ski slope. As seen in the last section, 179 (39.6%) of the respondents were first time skiers meaning that the Madrid Snow Zone was the first contact to skiing. The rest of the respondents had a previous experience skiing (273, 60.4%). This percentage (39.6%) is very relevant if an annual estimation of the number of new skiers who might attend the facility is made. Based on the data obtained with the questionnaire and the approximate number of annual visits to the center (N= 200,000), it can be stated that around 79,200 new skiers visit every year the facility. Consequently, the number of new skiers that the Snow Zone is recruiting every year is really relevant considering the region and that most of the visitors came from the urban areas near the indoor slope. The facility functions as a ‘shuttle station’ being the
place where many skiers and teams take contact with the snow and perform their first trainings before moving to an outdoor ski resort. Thanks to the Snow Zone accessibility characteristics, it is recruiting an important number of new skiers every year promoting a potential increased demand for outdoor skiing. Out of the number of new skiers that Madrid Snow Zone is recruiting, 83.6 per cent of them will visit an outdoor ski resort. This means that 66.211 out of 79.200 will travel to an outdoor resort. Finally, it is also important to consider the number of experienced skiers who came as a first time to the indoor ski slope. Based on the number of experienced skiers (273), 84 of them despite of skiing in an outdoor resort, they were first time skiers in the Snow Zone (30.8 % out of 273 skiers). Therefore, the facility also recruits experienced skiers apart from the new skiers as mentioned.

The following table (Table 6.1) shows the distribution of first time or experienced skiers in relation to gender.

**Table 6.1:** Skier gender and first time skiing cross-tabulation.

<table>
<thead>
<tr>
<th>Gender</th>
<th>First time skiing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected Count</td>
<td>112,5</td>
<td>171,5</td>
</tr>
<tr>
<td>% Within Gender</td>
<td>34,9%</td>
<td>65,1%</td>
</tr>
<tr>
<td>Count</td>
<td>80</td>
<td>88</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected Count</td>
<td>66,5</td>
<td>101,5</td>
</tr>
<tr>
<td>% Within Gender</td>
<td>47,6%</td>
<td>52,4%</td>
</tr>
<tr>
<td>Count</td>
<td>179</td>
<td>273</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected Count</td>
<td>179,0</td>
<td>273,0</td>
</tr>
<tr>
<td>% Within Gender</td>
<td>39,6%</td>
<td>60,4%</td>
</tr>
</tbody>
</table>

As shown, there are some differences between males and females. More females went to the ski facility as first time skiers compared to males. However, the percentage within female gender was quite equal: 47,6% first time skiers and 52,4% experienced skiers (indoor, outdoor or both settings). On the other hand, 65,1 % of male skiers have already skied before either in outdoor resorts or in the indoor facility. To prove if there is a real relationship between the sex of skiers and their first time they skied a statistical analysis comes in handy.

The Chi-square employs a statistical test to cross-tabulation by relating the real observed frequencies in each cell of tables with expected rates. The expected frequencies are those expected if the data is ‘randomly distributed’ (Greasley, 2008). The values of interest are along the top row (Table 6.2). The Pearson Chi-Square value is 7,185, with a probability (significance) value of .007. This means that the probability of this distribution occurring by chance is less than .007 – or 1 in 1000 concluding that there is a connection between the sex of interviewees and the first time they skied. Male
skiers were more likely to have previous experience in skiing before visiting the indoor facility while female skiers were more likely to be first time skiers.

Table 6.2: Chi-Square Test between gender and first time skiing variables.

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>7,185a</td>
<td>1</td>
<td>.007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity Correction b</td>
<td>6,662</td>
<td>1</td>
<td>.010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>7,145</td>
<td>1</td>
<td>.008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td></td>
<td></td>
<td>.010</td>
<td>.005</td>
<td></td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>7,169</td>
<td>1</td>
<td>.007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>452</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 66.53.
b. Computed only for a 2x2 table.

Designed by: Johannes Lipasti (2017).

The two major areas from which the greatest number of visitors came to the facility were both from the city of Madrid and from the province itself. However, there was not a clear correlation within the place of residence and the previous experience in such sport (Table 6.3, p.39). A small difference it is observed within the city and the province, where the ones coming from the city tend to be first time skiers compared to the ones coming from the province (61.6% of the respondents have skied before). Overall, depending on the place of origin of the skiers, all categories (Madrid city, Province of Madrid, etc.) were characterized by experienced skiers.

The third research question was focussed whether the indoor ski slope is enhancing or altering the demand towards outdoor skiing. In the results section (question 5) it is clear that most of the experienced visitors (41.6%) are complementing their activity. Also, other respondents stated their demand towards outdoor skiing is increasing after indoor skiing. Overall, it is clearly enhancing outdoor skiing firstly, because the demand towards outdoor skiing either is complemented by the Snow Zone or it increases after skiing indoors and, secondly, because the indoor facility is recruiting and introducing new skiers to such sport every year. However, the demand can be analysed also crossing some variables.

Departing from this premise, some differences between the demand towards outdoor skiing and gender can be observed (Table 6.4, p. 40). Furthermore, the Chi-Square test (Table 6.5, p.40) shows that there is a relation between gender and their demand towards outdoor skiing. Three cells were expected to count less than 5 in the test. However, the significance level is .02 meaning that the probability of this distribution occurring by chance is less than 2 in 100. As the significance level result is less than 5 in 100 (5%) then the test can be accepted.

Attending to male skiers, 47.9% stated that their demand towards outdoor skiing was being complemented by the indoor ski facility. This result was followed by 36.5% who
stated that their demand was increasing due to the fact of skiing indoors. One statement were respondent only by male skiers. Four of them mentioned that their demand towards skiing in outdoor resorts has been replaced by the indoor ski slope. Focusing on female skiers, 51.3% of the respondents stated that their demand towards outdoor skiing is increasing and 28.2 mentioned that they are complementing their ski activity.

**Table 6.3:** Place of residence/ first time skiing cross-tabulation.

<table>
<thead>
<tr>
<th>Residence</th>
<th>First time skiing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Madrid city</td>
<td>59</td>
<td>85</td>
</tr>
<tr>
<td>% within Residence</td>
<td>41.0%</td>
<td>59.0%</td>
</tr>
<tr>
<td>% within First time skiing</td>
<td>33.0%</td>
<td>31.1%</td>
</tr>
<tr>
<td>% of Total</td>
<td>13.1%</td>
<td>18.8%</td>
</tr>
<tr>
<td>Count</td>
<td>99</td>
<td>159</td>
</tr>
<tr>
<td>Province of Madrid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% within Residence</td>
<td>38.4%</td>
<td>61.6%</td>
</tr>
<tr>
<td>% within First time skiing</td>
<td>55.3%</td>
<td>58.2%</td>
</tr>
<tr>
<td>% of Total</td>
<td>21.9%</td>
<td>35.2%</td>
</tr>
<tr>
<td>Count</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Rest of provinces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% within Residence</td>
<td>48.6%</td>
<td>51.4%</td>
</tr>
<tr>
<td>% within First time skiing</td>
<td>10.1%</td>
<td>7.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>4.0%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Count</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Abroad</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% within Residence</td>
<td>23.1%</td>
<td>76.9%</td>
</tr>
<tr>
<td>% within First time skiing</td>
<td>1.7%</td>
<td>3.7%</td>
</tr>
<tr>
<td>% of Total</td>
<td>0.7%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Count</td>
<td>179</td>
<td>273</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% within Residence</td>
<td>39.6%</td>
<td>60.4%</td>
</tr>
<tr>
<td>% within First time skiing</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>39.6%</td>
<td>60.4%</td>
</tr>
</tbody>
</table>

Designed by: Johannes Lipasti (2017).
Table 6.4: Gender and demand towards outdoor skiing cross-tabulation.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Demand</th>
<th>Replacing</th>
<th>Reducing</th>
<th>Complementing</th>
<th>Reducing and complementing</th>
<th>Increasing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Count</td>
<td>4</td>
<td>8</td>
<td>80</td>
<td>14</td>
<td>61</td>
<td>167</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>2,4%</td>
<td>4,8%</td>
<td>47,9%</td>
<td>8,4%</td>
<td>36,5%</td>
<td>100,0%</td>
</tr>
<tr>
<td></td>
<td>% within Demand</td>
<td>100,0%</td>
<td>53,3%</td>
<td>78,4%</td>
<td>60,9%</td>
<td>60,4%</td>
<td>68,2%</td>
</tr>
<tr>
<td>Female</td>
<td>Count</td>
<td>0</td>
<td>7</td>
<td>22</td>
<td>9</td>
<td>40</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>0,0%</td>
<td>9,0%</td>
<td>28,2%</td>
<td>11,5%</td>
<td>51,3%</td>
<td>100,0%</td>
</tr>
<tr>
<td></td>
<td>% within Demand</td>
<td>0,0%</td>
<td>46,7%</td>
<td>21,6%</td>
<td>39,1%</td>
<td>39,6%</td>
<td>31,8%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>4</td>
<td>15</td>
<td>102</td>
<td>23</td>
<td>101</td>
<td>245</td>
</tr>
<tr>
<td></td>
<td>% within Gender</td>
<td>1,6%</td>
<td>6,1%</td>
<td>41,6%</td>
<td>9,4%</td>
<td>41,2%</td>
<td>100,0%</td>
</tr>
<tr>
<td></td>
<td>% within Demand</td>
<td>100,0%</td>
<td>100,0%</td>
<td>100,0%</td>
<td>100,0%</td>
<td>100,0%</td>
<td>100,0%</td>
</tr>
</tbody>
</table>

Designed by: Johannes Lipasti (2017).

Table 6.5: Chi-Square Test between gender and demand towards outdoor skiing variables.

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>11,716&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4</td>
<td>.020</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>13,062</td>
<td>4</td>
<td>.011</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4,927</td>
<td>1</td>
<td>.026</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>245</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> 3 cells (30,0%) have expected count less than 5. The minimum expected count is 1,27.

Designed by: Johannes Lipasti (2017).

There were also differences when comparing the skier previous experience and the demand (Table 6.6, p.42). The ones who visited the indoor ski facility for their first time, but previously have been skiing in outdoor ski resorts stated that their demand were complemented with the indoor ski slope (45,2%) and, due to the fact of skiing indoors their demand for ski resorts increased (40,5%). Quite a similar result was obtained from the ones who had skied previously in both settings (indoor and outdoor). The two most answered statements were that their demand towards outdoor ski resorts
is increasing after skiing indoors (41.6%) and that their demand towards outdoor skiing was complemented by the indoor slope (39.8%). However, 15 participants (8 males and 7 females) mentioned that their demand for ski resorts is decreasing. Therefore, their demand towards indoor skiing was increasing. It is not a big number if we consider the number of new potential skiers that the facility is recruiting every year and after their first contact want to visit an outdoor ski resort. Nevertheless, there is negligible tendency from skiers who have experienced both settings to reduce their visits to ski resorts and by replacing those visits by Madrid Snow Zone.

In conclusion, every person surveyed who had previous experience skiing, but it was their first time visiting the indoor track, their demand towards outdoor ski resorts mostly either was complemented by the indoor track or the demand towards outdoor skiing increased after the visit to the Snow Zone. On the contrary, respondents who skied ‘‘frequently’’ on both slopes (indoor and outdoor) tend to differ slightly in comparison to first-timers (in the indoor slope). This is observed since it is the only group attending to the previous skiing experience where participants chose statements from the questionnaire where their demand towards outdoor skiing where replaced or reduced with the indoor ski slope of Madrid Snow Zone.

Distance and accessibility have proved to be vital for consumer’s choices when considering the travel pattern. To answer the last research question it can be stated that the Madrid Snow Zone is acting as an intervening opportunity for either first time and experience skiers. Distance is a basic pattern to travel behaviour and it proves Ullman’s (1956) interaction model where consumers tend to choose the closest destination if both facilities (indoor/outdoor) can provide the same opportunities. However, the fact that the Snow Zone is at a shorter distance does not mean that customers will stop visiting the ski resorts located at a greater distance from the tourist generation region, in this case the place of residence. Therefore, the attractiveness of the Madrid Snow Zone is a function of the accessibility and the personal utility resulted from the ski facility. The following table (Table 6.7, p.43) shows also how the importance of this variable decreases among the interviewees when the distance between the place of residence and the facility increases. The results are based on the total number of responses obtained (611 ‘‘multiple response question’’). As the last question was based on a multiple-response question, some interviewees checked one or more reasons for visiting the indoor ski slope.

These results also explain and support why most of the skiers came from the Community of Madrid. The ski facility is more accessible in terms of distance from the different metropolitan areas of Madrid than from the city of Madrid. It is also assumable that most of the skiers who came from the southern metropolitan areas (described by Carù and Cova, 2007) live closer to the facility compared to the ones that came from the city of Madrid. From all the responses obtained 25.2% living in the metropolitan area stated that accessibility is one of the reasons for visiting the Snow Zone, followed by the respondents of Madrid city with 17.2%. The rest of the visitors, the ones who came from the rest of the provinces of Spain or from abroad despite of being a reduced number, their reasons for visiting the Madrid Snow Zone were different than the respondents living in the Autonomous Community of Madrid. To conclude, appreciating the different factors of space and time are central to understand tourism mobility within different regions.
Table 6.6: Skier’s previous experience and the demand towards outdoor skiing.

<table>
<thead>
<tr>
<th>Previous experience * Demand Cross-tabulation</th>
<th>Demand</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>My demand towards ski resorts is being replaced by the indoor slope</td>
<td>My demand for ski resorts is reducing. Therefore, the visit to the indoor slope is increasing</td>
</tr>
<tr>
<td>Skiing in ski resorts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>% within Previous experience</td>
<td>1.2%</td>
<td>0.0%</td>
</tr>
<tr>
<td>% within Demand</td>
<td>25.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>0.4%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Count</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>% within Previous experience</td>
<td>1.9%</td>
<td>9.3%</td>
</tr>
<tr>
<td>% within Demand</td>
<td>75.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.2%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Count</td>
<td>4</td>
<td>15</td>
</tr>
<tr>
<td>Both</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% within Previous experience</td>
<td>1.6%</td>
<td>6.1%</td>
</tr>
<tr>
<td>% within Demand</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.6%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% within Previous experience</td>
<td>1.6%</td>
<td>6.1%</td>
</tr>
<tr>
<td>% within Demand</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.6%</td>
<td>6.1%</td>
</tr>
</tbody>
</table>

Designed by: Johannes Lipasti (2017).
Table 6.7: Reasons for visiting the indoor ski slope attending to the place of residence.

<table>
<thead>
<tr>
<th>Residence*</th>
<th>multiple response Cross-tabulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Reasons</td>
</tr>
<tr>
<td></td>
<td>Accessibility /Distance</td>
</tr>
<tr>
<td>Madrid city</td>
<td>Count</td>
</tr>
<tr>
<td>% of total</td>
<td>17,2%</td>
</tr>
<tr>
<td>Province of Madrid</td>
<td>Count</td>
</tr>
<tr>
<td>% of total</td>
<td>25,2%</td>
</tr>
<tr>
<td>Rest of provinces</td>
<td>Count</td>
</tr>
<tr>
<td>% of total</td>
<td>2,8%</td>
</tr>
<tr>
<td>Abroad</td>
<td>Count</td>
</tr>
<tr>
<td>% of total</td>
<td>0,7%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
</tr>
</tbody>
</table>

Designed by: Johannes Lipasti (2017).

Finally, as there were a large number of participants, who either had no income or refused to report it - it was not possible to make an analysis of the profile of the skiers comparing the data with the population of Madrid. However, a general conclusion can be made attending to the profile of the respondents. Overall, more men than women visited the ski facility. On the other hand, the skier corresponds to a younger profile, in which the 50 years of age is exceeded by a very small extent. Most of them live around the facility and have a high educational attainment since more than half of the interviewees had a bachelor’s degree or master's degree.

Attending to the different age groups and the annual income variable. A large number of participants (138) stated that they don’t have any income (74,2% within 18 and 25 years old). Therefore, they were young participants and mostly all of them were students. After the range age of 26 it was observed that more respondents answered that they had some income and therefore, they were mostly employed (21,5% earning up to 8500€). According to the Spanish Statistical Office (2016), the average annual gross salary in Spain was 22,858 euros per worker. However, the most frequent or modal salary was 16,491 euros. In the study case, respondents between the age range of 26 and 35 were distributed below the average and between the average of Spain. In the age category of 36 to 50 there were more people who refuse to provide their annual income (65,3%), but also there were more people with higher income than the average in Spain (13,6% with an income between 15.001 and 24.000). This group represents the 26.1% percentage of all the respondents and it has the greatest number of self-employed (23).
7. Discussion and conclusion

The thesis has shown that place is a central topic in geography (Agnew, 1987). Places encompass features, characteristics and human interactions (Massey, 1993). Place is understood as a set for interaction, however, this setting must be located geographically. For Agnew (1987, p.27) “place is not just locale, as scenery for activity or social interaction, but also location”. Place is considered taking into account three elements: locale, or place as setting for interaction, places positioned in geographical space and an attachment between individuals and place. However, what might best be described as a place for one determination is not essentially the best for another (Massey, 1993).

Furthermore, places hold interactions within individuals and these individuals interact with different places through human mobility, is therefore why the human temporary mobility and circulation within places has been an important dimension when defining tourism (Hall, 2005). Hence, the definition of tourism shows the importance of human mobility understood as the movement of individuals (tourists) to specific locations (destinations, parts to which tourists travel) for consumption purposes. Places are the core product of tourism and destinations are the main forces within the tourism industry. Consequently, the main travel drive of tourist is the destination, whether genuine, real or artificial (Godey, 1997). Destinations are assumed to be different from place to place, and its characteristics and uniqueness is debated to be unachievable to move or reproduce elsewhere (Massey, 1993). Hence, a place in its particular geographical location is spatially fixed.

Nevertheless, the meanings of these elements have changed over the past decades (Agnew, 1987). Places have become less dependent on geographical locations and this assumption has come to be questioned through leisure artificial environments and the technological innovations. Sociologists have moved to reflections where places are involved within multifaceted networks, places move around and do not essentially stay in one geographical location. Hence, it is noted how places are not fixed, they are dynamic (Della Dora, 2007; Sheller & Urry, 2006). Also, geographers have moved to reflections where places are part of broader systems of flows and places can get outside their physical boundaries (Della Dora, 2007, 2009). Places are produced and reproduced through hybrid systems, materialities and mobility’s that connect objects, technologies, and socialities. Generally, places themselves are the ‘travellers’; they travel slowly or faster, great or short mileages, within systems of human and nonhuman agents (Sheller & Urry, 2006). Mobility is not longer simply connected within human mobility, which affects the individual places. Places are considered ‘mobile’, like ships that get outside their physical boundaries (Della Dora, 2007, 2009).

The different artificial environments showed in the ‘Theoretical Background’ section, exemplify places where weather, nature, culture, history, activities, experiences and even time are reproduced and simulated, challenging the spatial fix of places. Tourism spaces are like places, they are dynamic in that they are regularly being shaped, abandoned and re-created (Shaw & Williams, 2004). Besides, artificial and simulated environments have a long history in different settings. This has been proven by several examples of zoos and aquariums that have been even present for centuries (Forrester & Singh, 2005). More and more people, who do not have the resources to travel to distant places, can experience the characteristics of a desired place in their neighbourhood. The production of new tourism spaces such as theme parks, shopping malls, heritage centres
has become a new form of commercial enterprise. Visitors of such places arrive into a carefully assembled, regulated space, boosting the tourist experience providing entertainment and excitement. The most examined and discussed example is Disney Land opened in California during 1955 (Shaw & Williams, 2004). Disney Land offered a solid contrast to the spaces of daily life providing a liberate experience with illusions of escapism.

Important attention has been paid into the human mobility within these leisure destinations and the reasons for such movement. Ullman (1956) was one of the first authors to distinguish the importance of spatial structure to interaction through his notion of intervening opportunity. During 1950s, Ullman considered three concepts in order to explain the bases for spatial interaction: complementarity, transferability, and intervening opportunity. Complementarity refers to an areal and of areal differentiation, in other words, it equalises excess supply with excess demand (Krmenc & Esparza, 1993). Transferability or distance is required in an interaction system. This interaction will occur only when it is cost effective in spite of perfect complementarity. Lastly, the intervening opportunity as discussed in the theoretical part stated that the number of persons travelling to a given place is directly proportional to the number of opportunities at that place (Akwawua & Pooler, 2001). The basic supposition is that the travel pattern remains as short as possible, increasing only in the case if it fails to find a satisfactory destination at a shorter distance (Heanue & Pyers, 1966). Complementarity, conversely, generates interchange between two regions only if no intervening opportunity is available as shown in the first case of the following figure (Figure 7.1:1). The intervening opportunity then, reduces the number of visits to the destination located further away. However, the indoor ski slope has shown a different behaviour towards consumers than the premise of Ullman interaction model (Figure 7.1:2).

Figure 7.1: ‘Activity boosting’ intervening opportunity.
Source: Adapted by Ullman (1956).
The figure shows a new spatial interaction model within destinations. The indoor ski slope is acting as an intervening opportunity following the results of the questionnaire due to its easy accessibility and closeness to urban areas. Distance and time appears to be an important factor when choosing the destination. However, for both first time skiers and experienced skiers, this intervening opportunity is acting as a booster to such winter activity. First time skiers have the first contact to skiing in the Madrid Snow Zone and after that they travel to more remote areas to experience the ‘real thing’. On the contrary, experienced skiers complement the activity with the intervening opportunity. For both types of skiers the demand towards outdoor skiing increases after indoor skiing so, the Snow Zone (C) is acting as a stop among the transit route between the visitors generation region (A) and the outdoor ski resort region (B).

Furthermore, this study provided a more in-depth understanding of the nature of the travel patterns after experiencing leisure activity in simulated environments. The particular case of indoor skiing in Madrid Snow Zone showed that the activity is not replacing or reducing the demand towards the ‘real thing’ for the moment (some minor cases were observed). However, our society continues to develop and the ways in which leisure and tourism are socially composed change. Tim Gale (2009) made a contribution to understand the meanings of the contemporary relationship concerning tourism and the everyday. He takes the examples of urban beaches and virtual worlds to provide a context for understanding the contemporary relationship between tourism and the everyday. He criticizes both practices, visiting urban beaches and virtual worlds for being an example of ‘the end of tourism’ hoping to stimulate broader discussion of tourism’s connection to everyday life. With the urban beach *Paris Plage*, located in France, Gale (2009) argued that it has far-reaching magnitudes for tourism. It offers an alternative to visit the beach in a real way, thus separating traditional destinations and their constituent attraction and, over time proffering to their decline. The case of Madrid Snow Zone despite of being in a different artificial context has shown different results than the urban beaches. The establishment of an indoor ski slope near the major urban areas of Madrid opened the opportunity to practice downhill skiing in the indoor variants embracing the essentials of control, predictability and calculability given by the facility. Furthermore, such visitors mostly are complementing their activity parallel to outdoor skiing. Thanks to such intervening opportunity, the demand towards outdoor skiing is also increasing for many of them, as the visitors are able to practice a sport (all year round) that was determined for its practice by the meteorological conditions.

As the technological improvements has boosted the fidelity of the artificial leisure environments, society might get to a point where these artificial environments will define participation in that specific activity for a segment of society in the future. Some leisure activities that we nowadays contemplate as the traditional forms of rock climbing, downhill skiing, kayaking, wave surfing can become obsolete or an ancient view of the historical way that our ancestors enrolled in these types of leisure years ago (Van Bottenburg & Salome, 2009). At the end is a matter of time how leisure artificial environments will continue to permeate our society and modify the way we recreate and influence our observations of what is the ‘real thing’. We already have some examples of sports that used to be practiced outdoors and have been replaced almost entirely in indoor settings. One example is the case of ice-skating, nowadays to practice the activity is easier to visit an indoor ice rink. There are thousands of indoor ice rink arenas spread over the United States of America, Canada, and Europe (Yang et al., 2000).
Previously, authors such as Van Bottenburg and Salome (2009) has discussed the influence of technological innovations parallel to the indoorisation of outdoor sports. Their analysis offered the first theoretical exploratory understanding of the process of indoorisation of outdoor sports. However, these new types of services cannot be understood exclusively as the outcome of economic, technological or natural improvements. Still, it is obvious that some prerequisites by advanced technology were needed for the indoorisation of outdoor activities: the developments in construction, cooling and isolation procedures or improvements in water, snow and atmospheric control.

Different studies (Forrester & Singh, 2005; Forrester, 2004; Van Bottenburg & Salome, 2010) have pointed out the different features that characterize these artificial leisure environments. The first characteristic is that they are more accessible, for example, the Snow Zone can be visited at any time during the day and at any time of year (during the summer), and in any weather conditions (rain, snow, etc.) since it is recreated indoors. They are also more accessible to novices, who may not feel to have the required skills to be able to participate in the conventional outdoor environment. Also, they are more accessible because it is easier to reach in terms of time and distance. Usually, these artificial facilities are located near the major tourist generation regions. Another characteristic is their controllability; artificial leisure environments can be controlled by the temperature, air, weather, lightning, etc. As a result of their controllability these settings are normally safer. All hazards present in natural settings are filtered to provide a dangerous free experience. Such characteristics also responded to the characteristics of Madrid Snow Zone.

Finally, the creation of artificial spaces destined to tourism is a good investment considering several reflexions. Artificial places are an alternative to all those individuals who cannot travel to distant places. Therefore, they can experience the characteristics of a place that is not ‘naturally present’ in their locality such as indoor beaches, ski slopes, etc., without travelling long distances. On the other hand, these environments are more accessible to a greater number of people because they are located near urban centers. Also, such places are more accessible attending to the characteristics mentioned in the last paragraph. Thanks to it, for example, in the case of the Madrid Snow Zone a large number of people make their initiation to the sport in a safe artificial space before visiting a ‘genuine’ or ‘real’ outdoor ski resort. Thus, it is boosting and enhancing activities that maybe people would not practice unless it is located at a short distance.

Such artificial environments upsurge the discussion of the uniqueness and authenticity of places. The unique of a place is not so far granted and attached to a particular location. Consequently, places can be produced, reproduced and moved elsewhere outside of its original boundaries. The pyramids for instance, can be found now in Las Vegas apart from Egypt or elsewhere. The same can be done with nature, culture, history, activities and experiences. This opens the discussion for a future research based on visitor’s perceptions towards artificial leisure environments and how such concepts of uniqueness and authenticity are observed. Also, due to the deficiency of the studies based on artificial leisure environments, would be important to create a typology of the different artificial settings. With this, it will enhance the possibility to study how individuals travel patterns are altered according to each artificial setting. Whence, the results could favour the planning of new destinations and tourist places for different agents involved in this competency.
To conclude, taking into account the results obtained in this study, it is highly advisable for different institutions and government agents to invest in artificial spaces destined to such snow activity. Since in this case it has not been demonstrated that there is a direct competition against the conventional ski resorts, thus, that the indoor ski slope is replacing the demand towards the ski resorts. The indoor ski facility is recruiting a considerable amount of new skiers every year, meaning that after learning to ski in Madrid Snow Zone they will travel to outdoor ski resorts to experience ‘the real thing’.

8. References


Ammann, M. (2012). Tropical Islands. [image] Available at: https://www.flickr.com/photos/maram68/6716745435/in/photolist-bex5pM-bewXQn-bewUXg-7Sa9qh-7S9CkY-7bB16Y-9FY3kb-7S6YZP-7S9EAd-CUX9e-bewVo8-bex2Ur-7S6NKV-bex1Ui-7S9Xqy-bewTCR-DjMNkH-bex6Jp-beMd8V-7S6f4-7S6Ba-7Sanx7-7S9SyQ-bexaUK-7S72oR-7SafEG-7S6z42-bewUqa-7Sa7x5-bex6mx-becx1x-bex1t6-bexa2x-bexavM-7S9JLY-7S6pvv-7SamLC-hJCUWy-7S6kXc-bexdhP-7S6QDa-4rwYYt-81xjYk-61WvQi-7S9BuQ-bex9op-bex6Wa-7S6F4M-7SakVS-bex86H [Accessed 23 May 2017].


Appendices

Appendix A: Outline of the questionnaire general information.

I PART: GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Gender</th>
<th>Occupation</th>
<th>Place of residence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Student</td>
<td>Madrid capital</td>
</tr>
<tr>
<td>Female</td>
<td>Employed</td>
<td>Province of Madrid</td>
</tr>
<tr>
<td></td>
<td>Self-employed</td>
<td>Rest of provinces</td>
</tr>
<tr>
<td></td>
<td>Unemployed</td>
<td>Abroad</td>
</tr>
<tr>
<td></td>
<td>Retired</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No answer</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Education attainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-25</td>
<td>High school</td>
</tr>
<tr>
<td>26-35</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>36-50</td>
<td>Master's degree</td>
</tr>
<tr>
<td>51-65</td>
<td>Doctorate (PhD)</td>
</tr>
<tr>
<td>&gt;65</td>
<td>No answer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annual Income (gross in €)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No income</td>
<td></td>
</tr>
<tr>
<td>0-8500</td>
<td></td>
</tr>
<tr>
<td>8501-15000</td>
<td></td>
</tr>
<tr>
<td>15001-24000</td>
<td></td>
</tr>
<tr>
<td>24001-35000</td>
<td></td>
</tr>
<tr>
<td>&gt; 35001</td>
<td></td>
</tr>
<tr>
<td>No answer</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B: Outline of the questionnaire travel pattern.

II PART: TRAVEL PATTERNS

1) Overall, is it your first time skiing?
Yes
No

2) After indoor skiing, will this motivate you to go to a real ski resort in a future?
Yes
No

3) What is your previous experience?
Skiing in ski resorts
Skiing in indoor slopes
Both

4) Where will you plan to travel?
Sierra Nevada
Pyrenees
Central system
Other

5) After skiing in an indoor slope, which of the following statements would describe your demand for skiing?
My demand towards the ski resorts is being replaced by the indoor slope
My demand for ski resorts is reducing. Therefore, indoor skiing is increasing
My demand is being complemented (both ski resorts and artificial slopes)
My demand for ski resorts is reducing and complementing
My demand for ski resorts is increasing

6) What is the reason for choosing the indoor ski slope in front of a ski resort? Check one or more
Accessibility/Distance
Price
The indoor ski slope meets my needs
Facility conditions (Quality of snow and slope)
Other reason