

Master Thesis

A Shrinking World: How Developments of the Airline Industry
Impact People's Perception of Distance



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Abstract

The world as we know it today has evolved to be a very connected space, where not only ICT's (information & communication technologies) have made it easy to interact with individuals around the globe at any time, but also developments in air travel allow to reach ever more distant destinations. Many go as far as describing the world as shrinking or small; it seems that at least it feels smaller than it used to. Most recently, the evolution of low cost carriers, that are today the market leaders especially throughout the Western World, has brought some time and cost advantages, once again revolutionising modern travel behaviour. Throughout the past decades, research has also identified the phenomenon of cognitive distance explaining how individuals grasp physical distance subjectively based on factors such as time, cost, accessibility, familiarity and culture. Such studies evolve around mobility patterns mostly in urban environments, but lack to examine how distance is perceived in the context of international air travel. The present study sets out to test the mentioned subjective attributes identified throughout the theory in the context of air travel in Europe and also add the layer of low cost travel that has evidently had a large impact on the attributes of time, cost and accessibility directly and indirectly also on the other two. To address these research gaps, a quantitative survey study was designed, as a relationship between the two variables of LCC (low cost carrier) developments and cognitive distance were to be examined. Two short qualitative interviews were used in advance to help design the questionnaire to be rolled out mostly through non-random sampling online. The results were analysed using SPSS (statistical package for the social sciences) and its various tools for descriptive and inferential statistics analysis. It was found that the described attributes make for a subjective perception of distance parameters also in the context of air travel and that LCC's have a large impact today on the cognition of distance, making destinations easier, quicker and less expensive to reach and therefore appear closer. As the study is limited by the employed methods as well as the hypotheses tested based on the examined theoretical framework, the author suggests further research in the field to identify more factors, as well as how exactly they interrelate and are influenced by developments in the airline industry.

Keywords: distance, perception, cognitive distance, low cost carriers, air travel, tourism, travel behaviour.

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Introduction

“I’d definitely fly to Hamburg and probably try looking for a train or take the car to Paris”, is what a male, 24, from Cologne, Germany, said, when talking about what cities close by he would visit and how he would be planning to get there. The car ride from Cologne to Hamburg is 425 kilometres and usually takes about four hours. The road to Paris is about 500 kilometres, takes more than five hours and involves driving in at least two foreign countries. Nevertheless, Paris seemed closer to the man, while you would expect the opposite, as, even though physical distances are very similar, France is still a foreign country and Hamburg and Cologne are both popular German cities. The second guy present during this discussion explained how he had been to Hamburg quite often for work in the past and how it seemed much less of a ride to him, although he also could not be sure which city was closer in terms of kilometres as he was quite sure that a plane ticket to Paris was considerably cheaper than to Hamburg.

This happened quite often when speaking about distances to travel. A German woman, 45 years old, was fairly sure that New York was less distant than Istanbul, although the flight to New York in reality takes nearly eight hours, while flying to Istanbul only takes less than four hours. So how come these people perceive distance ‘wrong’ in spatial reality, while others get it ‘right’ as well? It seems there are some factors influencing how we perceive distance as opposed to what it is physically. At the same time, it seems that air travel has a great impact on this phenomenon in the way that it makes us think of distance in flight times and availability and therefore makes distance seem different than it is at times (Ankomah, Crompton, & Baker, 1996; Hall, 2005; Jain & Lyons, 2008; Pirie, 2009). Distance as a relative concept as well as the ways in which air transportation have and continue to impact it are the subject of the thesis at hand.

Background

In a world more connected than ever through technology more advanced and easily accessible than ever air travel has developed from a dangerous luxury that only few were privileged for into a basic demand, a necessity even for many (Larsen & Guiver, 2013; Walmsley & Jenkins, 1992). With the travel time needed and costs decreasing alongside previously dominant government restrictions the demand for short-haul air travel has increased immensely, especially in Europe for instance, where open skies agreements now allow for an airline from one country to operate point-to-point scheduled routes between a second and a third country flying over as many borders as necessary (Bows, Anderson, & Peeters, 2009; Doganis, 2009; ICAO, 2016). Such developments inevitably have major impacts on all parties involved in air travel (Doganis, 2009).

Different authors argue that general travel behaviour has changed drastically alongside the developments in the airline industry and especially low cost carriers (Doganis, 2009; Fageda, Suau-Sanchez, & Mason, 2015; Hall, 2005; Knowles, 2006; Larsen & Guiver, 2013; Lin & Morais, 2008; Mazanec, Wöber, & Zins, 2007; Peeters & Eijgelaar, 2012). Both, how and why people travel is different today than just a decade ago. Trips are generally shorter, to the point that the World Tourism Organisation has been debating on changing the entire definition of a tourist, who was always supposed to spend at least one night at a destination, which is today being challenged (UNWTO, 2008; Yeoman, Munro, & McMahon-Beattie, 2006). At the same time, people travel further for a shorter time period. A weekend getaway to a city more than 1.000 kilometres away is not uncommon any longer. Travelers are able to spend significantly less money on their short trips, as not only the air fare has decreased, but also for instance the emergence of the sharing economy with companies such as Couch Surfing, Airbnb and Uber have had a great impact on cost for accommodation and transportation in general (Crompton, 1979; Doswell, 2009; Jain & Lyons, 2008).

Now people travel for much more trivial reasons, such as visiting friends or family, simply to escape their daily routine on a free weekend or even for work (Chiang, Wang, Lee, & Chen, 2015; Fisher & Price, 1991).

As we like to speak of the globe as figuratively shrinking with expressions such as 'small world' these trends and developments raise the question whether tourists really perceive distances as smaller today (White & White, 2007; Yeoman et al., 2006). Distance can mean many different things. To some it is just a burden that needs to be overcome in order to reach a destination and to others it can be the entire reason to travel. It is evident that travel behaviour, motivation and value are not what they used to be and that distance is much more than physical space, as it is spoken about predominantly in relative terms (Doswell, 2009; Larsen & Guiver, 2013). So is it possible that distances at least feel smaller today influenced by several factors but also by the developments of the aviation industry?

Problem analysis

Distance as a concept is generally perceived subjectively, meaning people will estimate the objective or real distance to a place differently according to various factors such as their personal relationship with the place (Larsen & Guiver, 2013; Walmsley & Jenkins, 1992). As to the estimation of distance, three factors play a significant role. The energy involved, the time needed and the frequency of travel (Walmsley & Jenkins, 1992).

The energy involved can be minor things such as the decision of going somewhere or getting one's car ready to go in short distance travel. The energy consumed visiting a place 5 kilometres away does not vary too much from going somewhere 10 kilometres distant, as most energy consuming factors remain the same despite little variations in distance (Walmsley & Jenkins, 1992). Thinking on a larger scale about air travel, the

decision to go becomes much more notable as well as the necessary preparations and other factors, perhaps as perceived discomfort of the actual travel join in (Hall, 2005; Hanlon, 2007). These can reach from limited baggage allowance and discomfort of plane seats up to decreased connectivity in the air (Doganis, 2009). Fear or loss of personal space and many other factors can also cost energy when traveling. These factors are again highly subjective and perceived more or less distinctly by individuals (Larsen & Guiver, 2013; Walmsley & Jenkins, 1992).

Travel time is seen as the basis of cognitive distance. Therefore, in an urban surrounding, a greater distance that can be reached faster, perhaps due to traffic or public transport connectedness, is often perceived to be shorter (Ankomah et al., 1996; Lin & Morais, 2008; MacEachren, 1980). People calculate distance in their minds as a combination of time and velocity, so while we do understand the differences in velocity of different modes of transport for instance, we still tend to cognise distance in relation to time of travel (Walmsley & Jenkins, 1992). In fact, it is understandable that a place that can be reached by train within 4 hours might be objectively closer than a place reached within an only one-hour long flight, although the distance to the place reached in an hour is more likely to be underestimated than the other.

Frequency of travel and increased familiarity or emotional involvement with a place can decrease perceived barriers and subsequently the subjective distance (Larsen & Guiver, 2013). Between two places with the same distance, people estimate objective distances more accurately to the place that is more frequently visited and at the same time are more likely to underestimate the distance to that place (MacEachren, 1980; Walmsley & Jenkins, 1992).

Despite much research and knowledge on the social dimensions of distance, such as personal space or the separation of different social groups, cognitive distance remains

a somewhat neglected issue in research concerned with travel behaviour (Larsen & Guiver, 2013; Stradling, Hine, & Wardman, 2001; Walmsley & Jenkins, 1992). Although researchers suggest the world is 'shrinking' generally due to improvements in transport technologies as well as communication, distance today still remains one of the major constraints on travel (Bows et al., 2009; Christidis, 2016; Doganis, 2009; Doswell, 2009). The popular gravity model of travel behaviour shows the strong relationship between the likelihood to travel and the distance between two places (Jakle, Brunn, & Roseman, 1976).

The developments in the air travel industry, especially with the emergence of low cost carriers, are arguably the most crucial in the reduction of travel time and price, which furthermore impacts the subjective or cognitive distance between places (Doganis, 2009; Hsu, Yen, Chang, & Woon, 2016). That is why people today are more likely to travel than ever before and these developments also come with great opportunities for the airlines who can think of new or further developed ways to actively reduce cognitive distance and general boundaries, perhaps using the three concepts of energy, time and familiarity (Larsen & Guiver, 2013).

[Aim and relevance](#)

This thesis aims at examining whether the emergence and development of low cost carriers in Europe have and continue to change people's perception of distance and in effect perhaps impact mobility patterns through travel behaviour and motivation. A thorough synthesis of initial and recent literature in the field of cognitive distance as well as the airline industry will create a deep insight into the contemporary travellers' minds, while their direct input through primary research will help create understanding of their mind-set regarding distance.

The study is set to investigate the people's perception of distance, as mostly examined in an urban environment, in the context of international air travel, while also investigating the role the modern airline industry plays in altering perceptions of distance.

Grasping what other future developments are to be expected is important to all kinds of stakeholders, who will need to adapt to those again, while understanding the perceptions and current and future needs of the traveller will be of great significance to the industry that will have to be even busier catering to specific needs and wants and delivering highly tailored services (Larsen & Guiver, 2013). "Fasten your seatbelt: the passenger is flying the plane." (Taneja, 2018). At the same time research shows that time and cost are the two factors that most influence the perception of distance, while a reduction of time and cost are the two major outcomes of developments in the airline industry and the evolution of low cost air transport. It is therefore crucial to examine the relationship between those two subjects, which is so far a still rather neglected issue (Doganis, 2009; Knowles, 2006; Larsen & Guiver, 2013; Walmsley & Jenkins, 1992).

Research questions

The following research questions were formulated to guide and set boundaries to both the secondary and primary research in the following:

RQ1: What are the underlying reasons for distance to be perceived subjectively by travellers?

RQ2: How do developments in the airline industry impact the subjective perception of distance in the European travellers' mind?

Thesis structure

The following diagram illustrates the structure of the thesis at hand. Using a tree as a metaphor the theoretical background chapter including a thorough literature review that follows this introductory chapter represents the roots of this study. The following methodology is the trunk that carries the research, while the findings are the fruits and leaves the tree carries. Finally, the discussion and conclusion will synthesize what was found throughout the study.

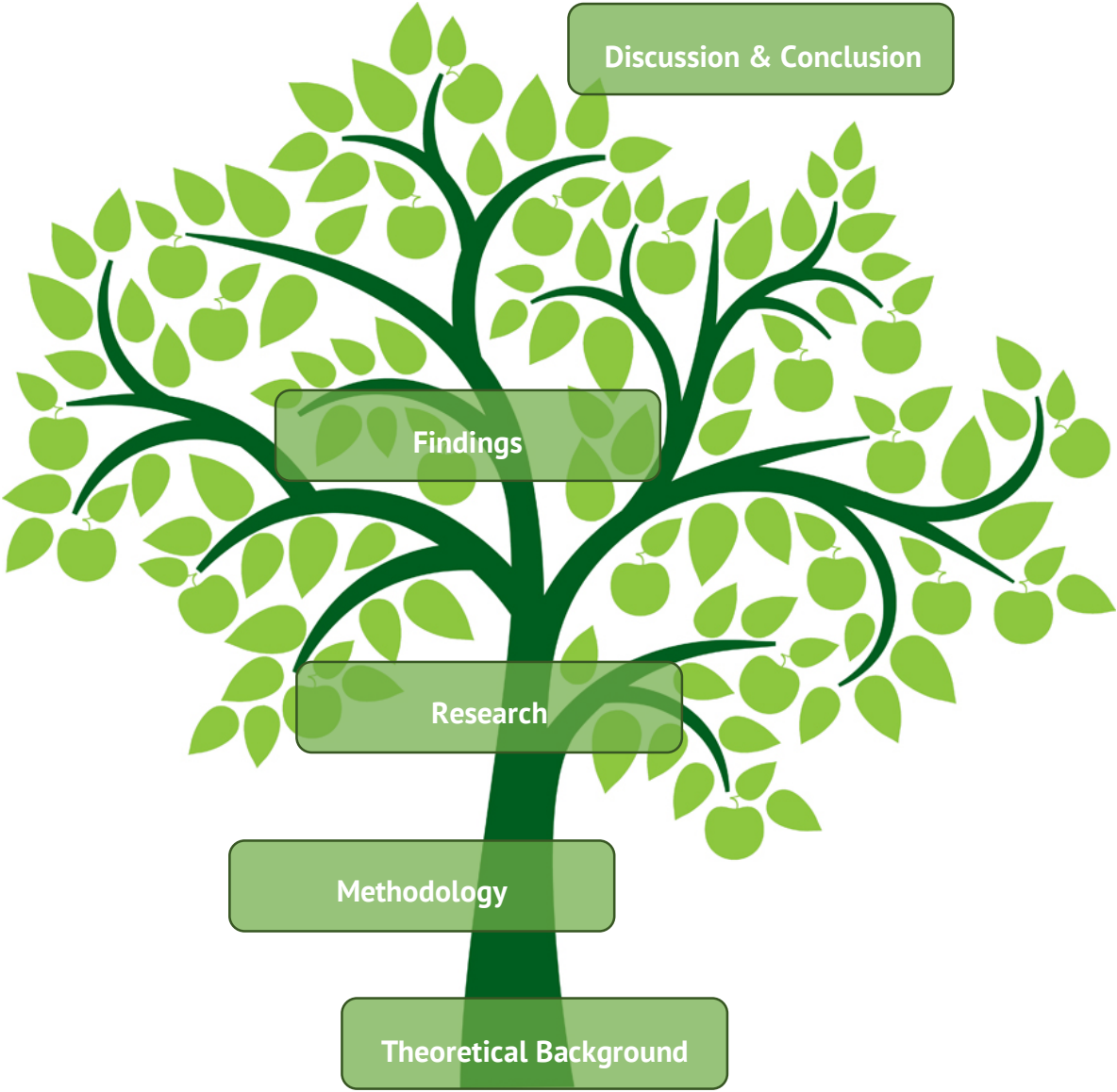


FIGURE 1: THESIS STRUCTURE TREE

Theoretical Background

Literature Review

The Airline Industry

When studying the impacts modern commercial aviation has on society it is crucial to understand also how the aviation industry has come to be what it is today. This chapter provides a synthesized review of the airline industry's history and the business models of the modern airlines. Therefore, keeping the aim of the study at hand in mind, the focus lies on scheduled operations¹ carrying passengers predominantly.

1.1.1 Airline History

Pre-WWII

The airline industry has been facing external challenges ever since its very beginnings in the early 20th century. The transportation of passengers initially grew out of airmail routes in the US. These airplanes with open cockpits and wood and fabric constructions were steered by retired pilots of the first world war with no navigation aids whatsoever. At the time passengers were rarely taken and if they were, they were mostly viewed negatively as they took up valuable space for airmail (Brady, 2000). In 1927, Juan Trippe, the founder of Pan American Airlines, negotiated exclusive landing rights on one of the first international airmail routes and later formed a monopoly for international traffic leaving the US, protected by the government (Barnes, 2017). That year set a mark in American aviation history as people grew to be air-minded, seeing air travel as a true alternative to the predominant railway transport for the first time,

¹ This refers to airlines serving scheduled routes and therefore excludes any unscheduled operations such as personal aircraft, charter airlines or ambulance services (Barnes, 2017).

with passenger numbers growing 500% as well (Lehrer, 2000). Back then flying was adventure though. The materials planes were made of offered very little protection from extreme temperatures. They flew very low, noisy and turbulent and forced landings were not seldom, often leaving passengers with having to take a train after all to reach their destinations (Barnes, 2017; Brady, 2000; Doganis, 2009).

Post-WWII

This would only change following WWII, which had been the most rapid period of technological advancements for the aviation industry. The technical innovations the war had spawned reached from radically improved reliability and safety of passenger transportation to the development of aerial navigation technology (Doganis, 2009). At the same time a large supply of aircraft was now readily available to be transformed to suit civilian transportation needs (Barnes, 2017). According to Barnes (2017) this time can be described as commercial aviation's golden era, although air travel was a luxury and a privilege (Omelia, 2003).

The period following the Second World War is characterised by strict governmental regulation. Carriers were assigned markets they could operate in after specific legislation had allowed the government to control the industry by establishing market leaders, who are known today as traditional or legacy carriers, who often carry their relationships with their respective government even in their names, such as British Airways, Air France or KLM (Brady, 2000; Doganis, 2009). As the governments allowed no competition over price through strict regulations, the airlines could build monopolies whilst pricing internally. Even ticket distribution was regulated to sustain the industry of third party travel agents (Barnes, 2017).

As political tensions diminished after the war international air travel could become a reality and the governments of states and countries went into so-called 'bilateral air service agreements'. Such agreements between countries regulated all aspects of operations between the involved nations, such as traffic rights, what airlines could

service what markets using which airports carrying how many passengers and the frequency of landings and departures (Barnes, 2017). Again, these service agreements left the governments in strict control. In the meanwhile, they gave the operators some specific freedoms necessary for international operations (Barnes, 2017; Doganis, 2009). The following table lists the nine statues formulated by the International Civil Aviation Organization (ICAO) valid today (ICAO, 2016):

Freedom No.	Description
1	The right granted by one state to another to fly over its territory without landing.
2	The right to land in the granting states territory for non-traffic purposes, allowing technical stops for maintenance and refuelling etc. without boarding or deplaning passengers.
3	The right to carry passengers from the country of origin to the destination.
4	The right to board traffic at the destination and carry them back to the country of origin.
5	The right to carry passengers from a second to a third and fourth (and so on) country. All countries must be part of the agreement.
6	The right to carry passengers between two member states by stopping in the country of origin.
7	The right to carry passengers between two countries on routes that lie completely outside the country of origin.
8	The right to carry passengers from one point to another within a country on a service originating in the home country.
9	The right to carry passengers between two points in a foreign country.

TABLE 1: FREEDOMS OF THE AIR.

International treaty has recognised the first five of these freedoms officially, therefore the ones beyond the fifth are characterised as ‘so called’ freedoms (ICAO, 2016). Some

of the latter are also made use of very rarely outside the European open skies² agreement. For instance, the seventh right is used predominantly throughout Europe, where airlines nowadays serve routes between foreign countries that are situated completely outside the scope of their home country. The same goes for the eighth and ninth freedoms that are extremely seldom outside the EU (Barnes, 2017).

Deregulation

In the late 1970's the government of the United States followed a mission to return control of civilian markets to the consumer and therefore drove deregulation by initially instituting the Airline Deregulation Act in 1978. While the new legislation applied only to the domestic market of the US first, the change gained popularity quickly and spread over the Western World. The concurrent market leaders now had to expand their services to protect themselves from new entrants (Barnes, 2017; Brady, 2000; Doganis, 2009). Barnes (2017) comments: "In the open market, the threat of competition became almost as productive as competition itself" (Barnes, 2017, p. 32). Traditional carriers continued to follow their industry-wide golden rule of not competing for price at first despite the several alterations deregulation drove. These include the elimination of national ownership constraints and the opening up of new markets and routes (Doganis, 2009). During the 1990's the whole concept developed into the open skies agreements throughout the EU (Christidis, 2016). In 2008, the EU went into an open skies agreement with the US to further increase competition and reduce air fares. Generally, traditional air carriers were forced to change their whole strategies without the governments regulating competition for them. Many, such as Pan American Airways, were pushed into bankruptcy unable to innovate and compete under the new circumstances (Barnes, 2017). Others needed large subsidies by their governments to survive, especially with the macro economic factors hitting the industry in the early 2000's (Doganis, 2009).

² Open skies agreements often form the basis of today's external aviation policies. They open up markets through liberalisation and thus promote fair competition (Christidis, 2016).

Low-cost carriers

In the light of deregulation of the industry emerged new airlines with a business model differing significantly from the traditional one. These so-called Low-Cost Carriers (later on LCCs) managed to minimise their operating costs by making some crucial alterations to the airline business model and finally force traditional carriers into direct price competition in every market they entered (Doganis, 2009; Fageda et al., 2015). This is widely known today as the ‘Southwest effect’³ and practised in Europe most prominently by Ryanair. The mere presence of LCCs in a market that way has a drastic influence on every player in it (Barnes, 2017).

The turn of the millennium and the year 2000 brought a large airline crisis after the 1990’s had marked a high point for the industry globally. The leading airlines had expanded routes rapidly, increased passenger numbers continuously and were lucky to deal with historically low fuel prices (Doganis, 2009; Hanlon, 2007). In 2000 technological advancement had begun to stagnate and further deregulation of the late 1990’s showed its effects. The government further boosted the market presence of LCCs, who have started to become a true alternative to full-service carriers for the increasingly price-sensitive consumer (Barnes, 2017; Doganis, 2009). At the same time the traditional airlines were not innovating and the terrorist attack of 9/11 intensified the crisis in 2001 that showed a significant drop in passenger numbers. So did the Iraq war of 2003 and the strong economic recession of 2008 that was accompanied by high fuel prices (Barnes, 2017).

During these highly challenging years for the industry and especially the full-service airlines, Southwest made record profits. The European counterparts Ryanair and Easyjet were able to expand on a large scale, especially looking at their route structures (Barnes, 2017). They had managed to adapt to the changing external

³ Southwest is a Texan airline that is widely perceived as the pioneer of the LCC business model. The CEO of Ryanair spent time at Southwest before implementing their practices back home.

circumstances and difficulties by drastically challenging the outdated operating and marketing practices of the traditional carriers. Thus they minimised their costs, while offering the lowest prices and managed to be profitable when most others could not (Doganis, 2009).

1.1.2 Traditional vs. Low-Cost Business Model

Legacy carriers

Traditionally, airlines operate so-called hub-and-spoke systems, where they have one or more hubs and serve connecting routes to and from their hub (Doganis, 2009; Fageda et al., 2015). Flying from Manchester to Barcelona, for instance, with British Airways, you would have to stop over in London most probably. These hubs are usually large airports that have a far-reaching catchment area and are surrounded by a busy air space. Together with some secondary hubs, legacy carriers were able to build up large networks with this design and cover enormous geographical areas around the world (Barnes, 2017). The operational systems involved with managing passengers and baggage in a hub-and-spoke network are highly complex and costly, although as traditional airlines typically worked under strict governmental protection and regulation they had not to worry about maintaining profitability for a long time (Barnes, 2017; Doganis, 2009).

The traditional airlines also offer some amenities on top of the basic service that is the flight itself. Historically, air travel was an expensive luxury and so passengers are served food and beverage and also receive entertainment, checked baggage and airport services, such as lounges for exclusive guests. Furthermore, there are different seats that can be purchased through the distinction between First Class, Business Class and Economy (Barnes, 2017). All of such services and systems are complex and costly to operate and therefore legacy carriers have rethought their business models since deregulation of the market and the sudden challenges that came with it

(Doganis, 2009). As a result, the traditional business model is not as homogenous today as it used to be (Barnes, 2017).

The low-cost business model

It was mentioned earlier that the emerging LCC's have founded their success in drastically reducing operating expenses. In fact, they have since developed an entirely different business model that seems more fit to face the challenges of the unregulated market of today.

Instead of maintaining a central hub and serving routes from it, LCC's are known to operate point-to-point, meaning their aircraft are stationed on various airports, often secondary airports, so that the passengers can fly from origin to terminal destination without a stopover (Fageda et al., 2015). This system works especially on short-haul flights and has long been established by LCC's in North-America and Europe. It is also emerging throughout Asia and South-America. While some LCC's already serve long-haul routes, typically these still require the advantages of the hub-and-spoke network system (Barnes, 2017; Christidis, 2016; Doganis, 2009).

As one of the most prominent differences LCC's have tremendously decreased inclusive services. This phenomenon is known as 'no frills', to the point that low-cost airlines are often called no-frills airlines (Brady, 2000; Hanlon, 2007). Most additional services that legacy carriers have always provided inclusively are still available, but need to be paid separately at LCC's. These include food and beverage, assigned seating, checked baggage and loyalty programmes (Barnes, 2017; Doganis, 2009). All these save cost for the operator and decrease the price for the passenger.

At the same time LCC's have reduced and simplified their services in terms of single cabin service. Most of them follow the strategy of not offering a First or Business Class. This has several advantages. It drastically increases cabin space to place more

Economy seats in, so that eventually more seats can be sold. The airlines can also save on costly trainings for crews that only have to service the simpler Economy class (Fageda et al., 2015). This goes hand in hand with the concept of fleet commonality that describes the practise of using a single type of aircraft and equipment, which in the airline industry means reducing costs on a large scale through lower maintenance and crew training requirements (Barnes, 2017; Doganis, 2009).

One of the major costs for most airlines are labour costs. Many LCC's therefore keep their workforce out of labour unions allowing not only for lower wages, but also higher utilisation of the workforce as rules can be kept much less restrictive (Barnes, 2017; Doganis, 2009; Fageda et al., 2015; Hanlon, 2007; Lehrer, 2000). The workforce is often reduced to the minimum in general, also indirectly, by eliminating third parties, for instance ticket selling agents that were prominently used by traditional carriers (Barnes, 2017).

All in all, LCC's have proven to be highly innovative in cutting costs and maximising revenues. Some measures do both at the same time. For instance, looking at one of the most successful innovations that is the elimination of free checked baggage. By charging for this service, airlines have introduced an enormous new revenue stream, while also decreasing pieces of baggage their aircraft carries and therefore weight and therefore fuel cost (Doganis, 2009; Fageda et al., 2015). Many LCC's, such as Ryanair, even register their fleet using a lower MTOW⁴ to save cost additionally (Doganis, 2009).

⁴ Maximum take-off weight. This number is initially given by the aircraft manufacturer and plays a big role in determining airport fees airlines have to pay. By registering a lower number operators reduce the weight they are allowed to carry, but also reduce airport charges.

Essentially, LCC's have been able to drastically simplify the airline business model. The passenger basically gets only what he or she pays for in terms of inclusive services. Offered services were not necessarily reduced, but monetised (Barnes, 2017). This does not only save cost through simplification, but also raises new ways to generate revenues, such as offering a more limited selection of food and beverage only on demand for example. Today, ancillary revenues have become more important to LCC's than pure ticket sales, to the point where many airlines now offer completely unrelated services, such as booking a hotel or rental car as well (Fageda et al., 2015).

Other changes that intend to drive efficiency are not related to services but to the operating design of the carriers. Using secondary airports with less traffic not only decreases charges instantly, but also increases productivity through better on-time performance and lower turnaround times, as the smaller airports are less congested by traffic (Barnes, 2017). The point-to-point design in general allows for more consistent passenger service (Doganis, 2009; Fageda et al., 2015). Reducing seating space and using a single cabin and aircraft type allows to achieve higher load factors⁵ and offered seat kilometres⁶, together with more aggressive overbooking⁷ techniques (Doganis, 2009). That way LCC's are now the most efficient and some of the most profitable airlines in the world (Barnes, 2017).

Today's market is characterised by increasingly heterogeneous business models (Barnes, 2017). Although the practises described here are associated with LCC's, they are not always being used exclusively by such, if even (Barnes, 2017; Doganis, 2009). Some LCC's offer on-board services free of charge or fly from large primary airports or even serve long-haul routes. At the same time, most legacy carriers have had to adopt

⁵ The load factor equals the percentage of filled seats out of the total amount of available seats.

⁶ The available seat kilometres (ASK) shows the airlines passenger carrying capacity. It is the number of available seats multiplied by the number of kilometres flown.

⁷ Hotels and airlines prominently use this practise of selling more rooms or in this case seats than they have available to minimise the number of empty seats due to no-shows.

some low-cost practises to survive in the new challenging market environment (Fageda et al., 2015). One could say that the low-cost mind-set dominates the market today, where competition is fierce and price-driven. The innovations LCC's have introduced reach far into the operating models even of traditional airlines today and LCC's generally reach far into the traditional carriers' markets, as, for instance, Ryanair has the largest market share in countries such as Italy and Spain today (Barnes, 2017; Doganis, 2009; Fageda et al., 2015).

The perception of distance

Distance is a concept that is predominantly not understood as practical as it may sound in physical terms, but instead in relative scales that are not to be measured in metres or kilometres. The following section seeks to point out what researchers have found and written about relative distance. To stay within the frame of this study, the focus lies on how distance is perceived in connection to tourism.

1.2.1 The role of distance in travel behaviour

A tourist is classified as someone visiting and staying in places that lie outside their usual environment (Cohen, 1974). Therefore, traveling across a distance, long or short, is a vital part of tourism per se, as it would not be possible without any means of transportation. It is also evident that the distance to destinations play a role throughout the tourist's travel experience (Larsen & Guiver, 2013). According to Fridgen (1984) there are five phases connected to the tourism experience with distance featuring in all of them. Starting with planning a journey, distance is, at least indirectly, a major criterion for selecting or not selecting a destination. The second phase, which is actually traveling to the destination, is when distance really comes into play as it is actually travelled, which happens yet again on the return journey. Being at a place people still cross local distances and also often really feel the distance

to home. Lastly, distance is also crucial in the travel recollection process, as it represents the spatial separation between home and the place that was visited (Fridgen, 1984; Larsen & Guiver, 2013).

Not only does distance play a vital role throughout the holiday experience, but it also represents an important motivation to travel in general (Baxter, 1979; Cao, Mokhtarian, & Handy, 2009). It is important to many tourists to feel distant from home in one way or another when traveling, which is reflected by the notion of escaping the usual surroundings, which is a major intrinsic motivation for travellers (Hall, 2005; Mazanec et al., 2007; McKercher, Chan, & Lam, 2008). Exploring the unknown or different represents one of the non-spatial entities that Larsen and Guiver (2013) identified in relative distance.

1.2.2 Cognitive distance and destination choice

Cognitive distance describes distance in relative terms as perceived by travellers. According to Ankomah et al. (1996) cognitive distance was identified as a concept by researchers and connected to destination choice as an influencing factor. Four levels of destinations are generally differentiated: First the initial set of destinations that entails all destinations tourists might consider when thinking to travel. These destinations are grouped into three categories of the second level in the following, namely the reject set of destinations, the inert set of destinations and the late set of destinations. On the third level the destinations in the late set are grouped again into an inaction and an action set, showing which destinations the tourists actively informed themselves about and which not. Then the fourth level equals the selected destination out of the action set (Ankomah et al., 1996). Between all stages steps of evaluation take place subconsciously or consciously based on some identified evaluation criteria. This is where cognitive distance comes into play being one of those criteria alongside other so-called situational constraints such as budget, time

and health (Larsen & Guiver, 2013; Lin & Morais, 2008). On the other hand, factors that influence choice of destination are also social and psychological in nature, such as motives and values, personal characteristics and attitude and the benefits sought at the destination (Ankomah et al., 1996).

Research shows that distance is generally estimated more accurately when looking at the late set of destinations of tourists compared to the reject and inert sets, meaning that people have a better idea of distance to places they really consider visiting (Ankomah et al., 1996; Larsen & Guiver, 2013). Therefore, it is probable also that a better understanding of distance positively impacts the decision to group a destination into one's late set. At the same time, the traveller is more likely to underestimate the distance to destinations he or she considers to visit (Larsen & Guiver, 2013). Thus, distances to places in the reject and inert sets are more likely to be overestimated, again, representing one of the reasons they might not be considered further for some people (Ankomah et al., 1996). As described previously, other people can also find attraction and therefore intrinsic values and motivation in the overestimation as they view distance as the mere purpose of travel (Cao et al., 2009).

1.2.3 Physical and relative distance

The concept of physical distance is widely known and understood for its practical advantages. It makes sense to most people when they hear a place is 100 kilometres away for example. At the same time research shows that most people do not refer to distance in physical terms at all. When asked about the distance to a destination most tourists stray from the physical dimension and employ relative units that are fairly unconnected to physical space (Baxter, 1979; Hall, 2005; Larsen & Guiver, 2013; Nicolau, 2008).

The units that are most frequently pointed out are time, cost, cultural difference, accessibility and familiarity (Larsen & Guiver, 2013). These points

together make the concept of relative distance that challenges the pragmatic view of distance just being miles and kilometres, because to most people not all kilometres are the same (Larsen & Guiver, 2013; Pirie, 2009).

The time that is needed to get somewhere plays a big role in how tourists perceive distance and so does the cost. Many people when estimating distance would even speak in terms of time and cost (Duval, 2007; Jain & Lyons, 2008). These are also crucial factors in travel behaviour, as tourists also decide on how far to travel with the time they have at disposal and their budget in mind (Knowles, 2006). A combination of the two is regularly used as the determining factor to influence choice of destination. The cheaper it gets, the more time are people often willing to spend, although nowadays LCC's are mostly the cheapest and fastest transport mode and are therefore widely preferred (Larsen & Guiver, 2013; Lin & Morais, 2008). This is especially true when there are little to no intrinsic values connected to the transport to a destination, which is often the case when choosing air transport, as people that see the actual process of traveling distances as part of the experience would rather choose a sort of road or rail transport where they can be much more in touch with the surroundings they are passing by (Stradling et al., 2001). Today, flying has become the most widely used form of vacation travel, while lower fares and faster aircraft are an essential part of the reason that future projections point at even more growth and more and more distant destinations becoming easier to access (Duval, 2007; Hall, 2005). John Urry (1999) suggests a paradigm shift in the study of sociology to be concerned increasingly with the study of mobilities or movements rather than society in an ever more borderless world. He underlines the significant impacts of people's travel in today's experience of time and space amongst other attributes. Time in itself is described as a social construct that gains significance overall in the century of increasing exchange and movement of not only people, but also ideas and images, objects and money for instance (John Urry, 1999).

Accessibility, next to time and cost, also impacts the perception of distance. A destination that is connected to the tourist's home through a direct flight generally feels closer due to easy access (Larsen & Guiver, 2013). The perceived distance shrinks further when there are several operators flying to the destination and the price is not perceived as too high (Doganis, 2009; Duval, 2007). Destinations that are inaccessible might have a certain charm, but are also often linked to a certain hassle to be reached as the journey is not as straightforward as to other places. At the same time, this mostly means that the resources needed are significantly higher, again, in terms of time and cost (Peeters & Eijgelaar, 2012).

Cultural difference is often an attraction to tourists as they want to escape the usual or ordinary. At the same time, it is also a factor that can enlarge perceived distance, as places with a high degree of difference in culture often seem further away (Mazanec et al., 2007; McKercher et al., 2008). During the research of Larsen and Guiver (2013) a Danish interviewee pointed out that a flight to New York took her longer than a flight to Egypt, but as New York was closer to her culturally, she felt like Egypt was actually further away.

Another determinant is how familiar one is with a destination and respectively also the route to get there. People that visit a place regularly and are more connected to it will most of the time estimate the distance to be lower than people alien to that place (Larsen & Guiver, 2013; Nicolau, 2008; Peeters & Eijgelaar, 2012).

All in all, it is evident that most people perceive distance in relative rather than physical terms or units and therefore, distance is very subjective, although ultimately it is very practical and objective when described solely in physical terms and numbers (Larsen & Guiver, 2013). Nevertheless, in reality tourists perceive distance differently according to the points mentioned previously. This phenomenon can be described with the term 'cognitive distance' that essentially entails the notion mentioned above

that not all kilometres are the same (Ankomah et al., 1996; Duval, 2007; Hall, 2005; Lin & Morais, 2008).

[Theoretical framework](#)

In order to give direction and set a frame to the study, existing theories were used as reference and at the same time were tested as well. It has been crucial for the study to bear in mind the theories that have initially enabled this study to take off at an already advanced standpoint rather than having to start from scratch. Practically, this means theory for instance has given the insight that time, price, availability and other factors impact the perception of distance. Therefore, rather than investigating what those factors are, the study tests the existing theory in a new setting and adds the layer of low cost air transport, that has evidently had an impact on developments regarding travel time, price, availability and others.

[Time/space & cost/space convergence](#)

Knowles (2006) re-examines how transport shapes space and shows how the globe has figuratively shrunk alongside great innovations of the past centuries, such as sea, road and air transport, as well as for instance telecommunication, which is sometimes colloquially referred to as the 'death of distance'. Essentially, the theory initially developed by Janelle (1968) shows that time and space, as well as cost and space, converge, meaning that with less time and/or money spent the distance to or space between places will at least feel less significant. The same effect on a larger scale was brought by telecommunications innovations for instance, as distance becomes less of a burden when it becomes easier to reach out to people far away, which is possible today with the tap of a finger. This theory stands for innovation and technological advancements lowering the perception of distance in general throughout time,

independent of traveling or specific travel habits and so forth. The following illustration shows how the world has shrunk in the minds of its inhabitants throughout the centuries. We can assume that this process has been ongoing afterwards and today and in the future as well as technology advances further.

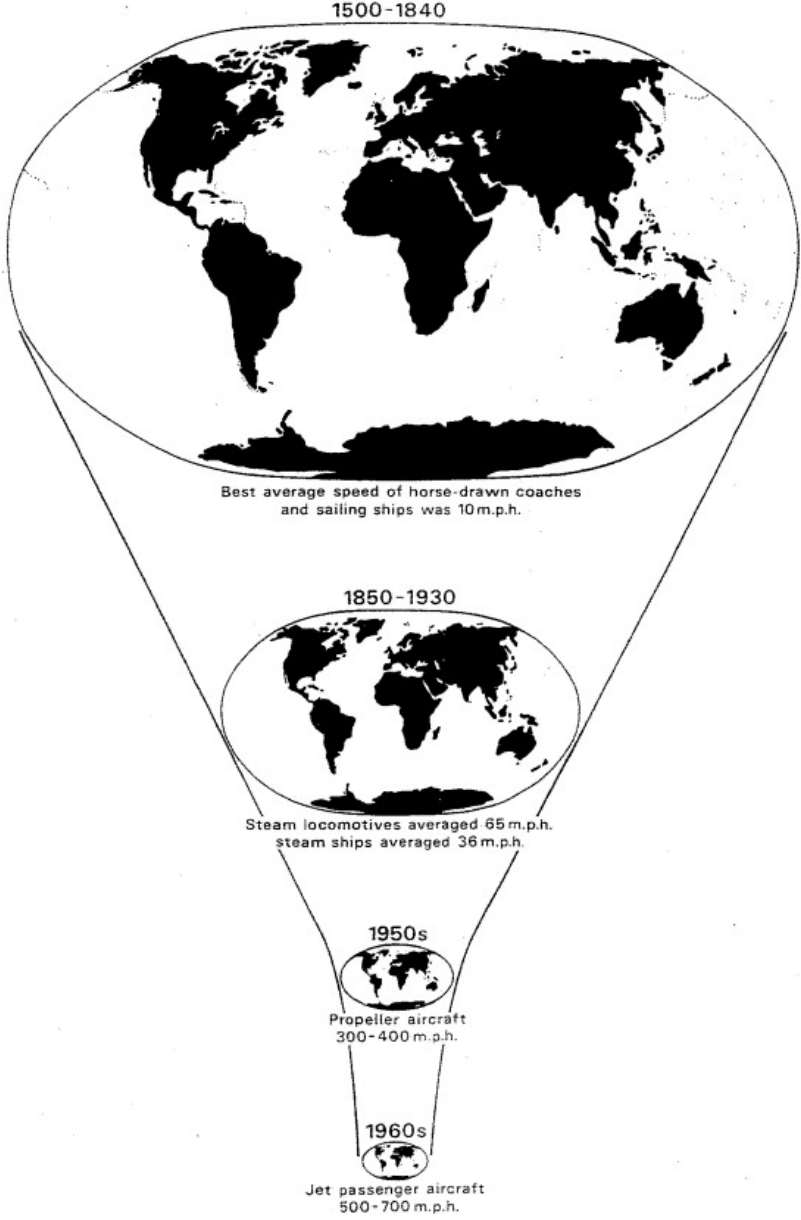


FIGURE 2: A SHRINKING WORLD.
Source: (Knowles, 2006)

Cognitive distance in vacation choice sets

As described previously Ankomah et al. (1996) have identified some different sets in destination choice that describe how travellers choose destinations and cognitive distance plays a significant role in the decision making process between all different stages of sets. Therefore, cognitive distance is evidently a major factor in destination choice and travel behaviour as well as motivation. The following figure shows where cognitive distance lies between other influencing criteria.

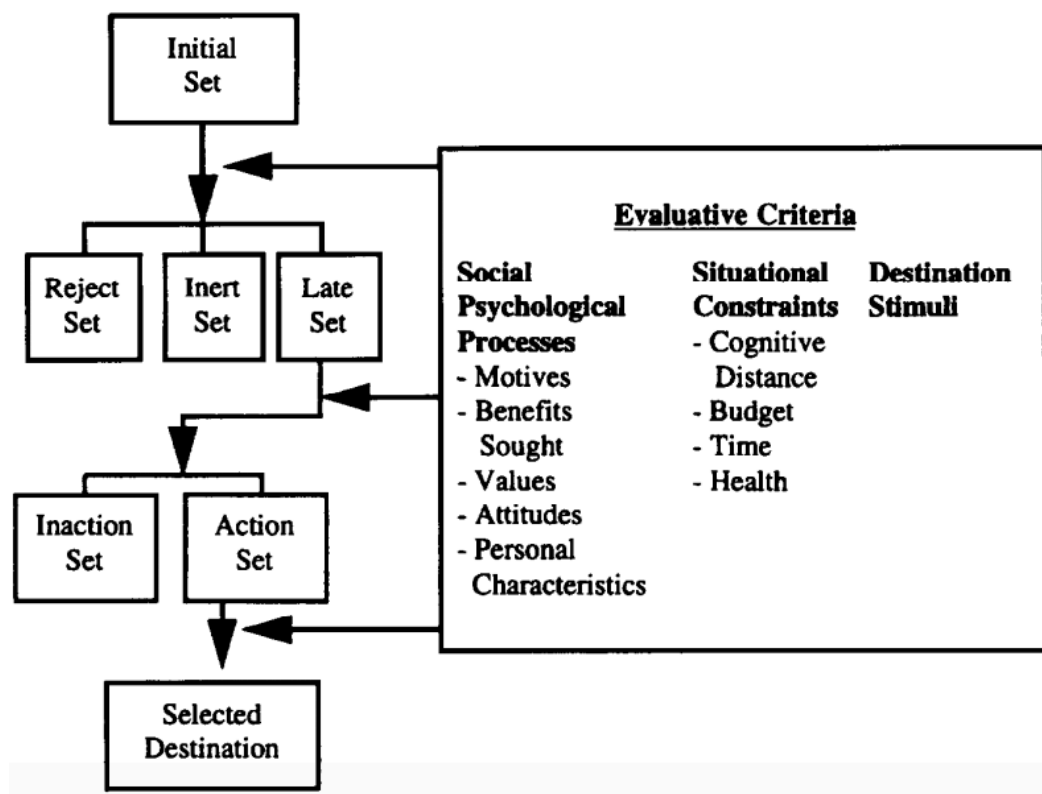


FIGURE 3: THE ROLE OF COGNITIVE DISTANCE IN VACATION CHOICE SETS.
Source: (Ankomah et al., 1996)

Sensitivity to distance

Different individuals are more or less sensitive when it comes to distance according to several factors, including their income, family constellation, residence and variety-

seeking behaviour and motivations (Nicolau, 2008). In that way the effect of distance can be either positive or negative in the destination choice process. Someone with a high income and no children living in a large city, who is generally classified as variety-seeking, is more likely to be less sensitive to large distances than someone on the opposite side of the cluster (Nicolau, 2008). In fact, distance can even become a travel motivation. Throughout the decades it has become a large motivation to travel in general simply to escape routine and explore the unknown, to the point where it is often less important to tourists where exactly they are going and increasingly important that it is far away from home. Distance, therefore, is burden and motivation at the same time. Also, it has become popular to travel only to be traveling, meaning that in society it is simply seen as a necessity to travel once or twice a year so people adapt to that (Cao et al., 2009; Nicolau, 2008). As an outlook on the future, popular research describes an era of 'hypermobility' that could be ahead, meaning that people are always on the move and physical travel will not be substituted but further enhanced by electronic communications (John Urry & Larsen, 2011).

Relative distance

Distance is mostly not referred to in physical spatial terms but in relative terms and is also highly subjective as opposed to what could be expected when analysing physical space. Larsen and Guiver (2013) identify three major factors that impact the perception of distance most, namely, time and cost, as described previously on the basis of Knowles (2006) research, and furthermore the factor of cultural difference that leads many tourists to assume distances to be shorter when cultural difference is perceived lower and vice versa. Many authors describe such phenomena, while modern developments in the airline industry significantly reduced time and cost to travel, which is why it is crucial to analyse modern aviation's impact on cognitive distance (Doganis, 2009; Larsen & Guiver, 2013).

Methodology

This chapter examines different research approaches and presents the approach employed by the author using the 'research onion' developed by Saunders, Lewis, and Thornhill (2009). The methodology is described working from the outside layers of the onion to the inside, meaning that research philosophy, the basis of methodology, is examined first, followed by the approach, strategy and ultimately specific techniques and procedures.

Research philosophy

The research philosophy adopted throughout a study is crucial as it encloses important assumptions about how the researcher views the world and comes to know things. Such views inevitably impact decisions made about the research approach and strategy (Bryman & Bell, 2015; Saunders et al., 2009). Ontology is described as the study of being, meaning it deals with reality and what establishes a fact. There are two major streams of thought that can essentially be described with the adjectives objective and subjective. Objectivists, also known as positivists, essentially believe that social phenomena exist independent of social actors. On the other hand, subjectivism can be described as the philosophical stance that embraces social actors as an impact on social phenomena (May, 2011; Saunders et al., 2009).

This study aims at analysing the relationship between the low cost airline industry and distance and works under the hypothesis that distance is subjective as it is perceived differently by different individuals based on factors such as personal experience for instance (Larsen & Guiver, 2013). The idea stems from the ontological belief that reality and social phenomena exist independently of the human knowledge of their existence, such as distance in this case, but is interpreted differently or subjectively, based on varying social conditions (Saunders et al., 2009). Critical

realism, as the ontological stance this research departs from, is a standpoint that incorporates both, objectivity and subjectivity, meaning that things are objectively real, rather than socially constructed, but at the same time are deceiving and open for varying interpretation (Bryman & Bell, 2015; Neuman, 2013; Saunders et al., 2009). Distance, as being perceived by travellers, is subjective in the way that it is interpreted, but is also a real phenomenon that exists in physical terms whether we know it or not (Pirie, 2009; Saunders et al., 2009). At the same time the perception of distance can change over time with technological developments or even personal developments such as experience and is therefore interpreted through social conditions that can change (Larsen & Guiver, 2013; Saunders et al., 2009).

Epistemology in research philosophy is an approach to think opposite to ontology, which is concerned with the study of knowledge rather than being. You could say it is the study of what establishes knowledge that is acceptable (Saunders et al., 2009). This branch of research philosophy can essentially be divided into three major streams of thought. Positivism stems from the ontological standpoint of objectivity and represents the believe that credible facts and data can only be derived from observable phenomena. This philosophy that has its origin in the natural science is highly focussed on breaking phenomena down into their simplest core elements and producing generalisations that work like laws (Bryman & Bell, 2015). Realism is also concerned with objectivity and the fact that objects exist independent of the human mind and that knowledge is created scientifically, although critical realists argue that what we experience is only an image of real world phenomena and not the thing directly (Bryman & Bell, 2015; May, 2011; Saunders et al., 2009). Finally, interpretivism advocates the role of humans, who are social actors, and generate different outcomes. As reality is thought to be socially constructed and subjective, so are meanings and phenomena, and to study them it is crucial to focus on the details of particular situations and the reality and reason behind them (Neuman, 2013; Saunders et al., 2009).

The study at hand departs from the authors critical realist views and belief that the senses can be deceiving and that the world is not only experienced directly, but that this experience is followed by a kind of mental processing (Bryman & Bell, 2015; Saunders et al., 2009). Essentially, the epistemological stance is that “[...] phenomena create sensations which are open to misinterpretation [...]” (Saunders et al., 2009, p. 119). This means that the author follows the goal of objectivity as much as possible, while realising social conditions and constraints that impact interpretations by the human mind. The ontological and epistemological standpoints in this case go hand in hand. As a critical realist the researcher subsequently also realises his impact on the study through bias and the value-laden nature of research in itself (Bryman & Bell, 2015; May, 2011; Saunders et al., 2009).

What is seen is part of a bigger picture, in the sense that as a researcher it is only possible to grasp what is going on if the social structures responsible for a social phenomenon can be understood (Saunders et al., 2009).

Research approach

When talking about approaches to research there are two major possibilities to approach a study; in a deductive or an inductive manner. Deduction means to use existing literature in a field to build a theoretical framework and formulate hypotheses to test through the research. With this approach the researcher starts with theory and creates data to test it (Bryman & Bell, 2015). On the other hand, when there is little to no theory available to test, the inductive approach allows the researcher to start from data and build theory out of it. The major differences between these approaches are that deduction is more structured, focused on generalising and predominantly entails the collection of quantitative data, while induction is less concerned with generalisation, but more with gaining deep understandings of meanings through the collection of predominantly qualitative data (Bryman & Bell, 2015; Saunders et al., 2009).

Although the two approaches are different in nature they both have some advantages and disadvantages and could even be employed in combination. In this case, the study follows two goals. Firstly, a detailed theoretical framework could be built on the topic of cognitive distance, as previous research has identified and examined this social phenomenon (Ankomah et al., 1996; Bryman & Bell, 2015; Larsen & Guiver, 2013; Pirie, 2009). On the other hand, although it seems like a logical next step, the relationship between cognitive distance and the modern airline industry with its emergence of low cost carriers was identified as a research gap with little previous research conducted (Larsen & Guiver, 2013; Walmsley & Jenkins, 1992; Yeoman et al., 2006). Nevertheless, both subject matters call for a deductive approach for this study, as some hypotheses were formulated beforehand and tested by generating data. Based on the previously presented research philosophy leading the study combined with the nature of the topic and the fact that a theoretical framework and clear hypotheses could be created, the most fitting research approach in this case can only be deductive as the creation of theory is not the matter of this research (Bryman & Bell, 2015; May, 2011; Saunders et al., 2009). Moreover, the study is aimed at testing a phenomenon in a new context and also examining the cause and effect relationship between the two described variables, which is why a quantitative approach is chosen, nevertheless also bearing in mind that qualitative research will be necessary in the future to create a deeper understanding of how the phenomena interrelate.

Research design, quality and strategy

The research design explains how the researcher will attempt to answer the set research questions, which are presented in the introductory chapter. As the research questions show a need to examine the relationships between certain variables, an explanatory study was conducted and quantitative data was gathered, analysed and interpreted (Saunders et al., 2009). Employing a quantitative research is the logical consequence of all factors playing into the decision (Bryman & Bell, 2015). Initially,

the topic being about examining the relationship between distance and air travel suggests quantitative methods, as well as the author's research philosophy and the deductive approach (Bryman & Bell, 2015; May, 2011; Saunders et al., 2009). The advantages a quantitative study brings fit the philosophy and aim of the study at hand in the way that it allows for greater objectivity, a broad scope and therefore greater generalisation, as well as comparisons across categories and reducing bias by the researcher (Saunders et al., 2009).

What is furthermore important for a successful quantitative study is to ensure validity and reliability as much as possible. Validity is concerned with whether the study measures what it sets out to measure, meaning that as this research should measure what attributes impact cognitive distance, as well as the relationship between it and low cost air travel, it is crucial to ensure that the questions asked do exactly that (Bryman & Bell, 2015; May, 2011; Neuman, 2013; Saunders et al., 2009). Content validity is one subset of validity that measures whether the measure used covers all necessary content the variable under investigation requires. In this study the questions asked to participants were formulated based on the theoretical framework that was built, as well as on in-depth qualitative interviews with two participants, whose input helped building on the theory and determining what to ask and how to do so (Bryman & Bell, 2015). Therefore, face validity is very high in this study, as described measures were taken to make sure instruments are appropriate for certain concepts. Generalisability, or external validity, is given as the sample used is as large and as diverse as necessary, in terms of demographics of respondents (Bryman & Bell, 2015; Saunders et al., 2009). Construct validity is given through theory evidence, meaning that behaviour suits theoretical propositions. For instance, the author assumed beforehand that travellers not willing to take over one hour for a 1.000km flight would give special importance to time as a determinant of relative distance, which is validated through the study, next to other similar behaviours (Saunders et al., 2009).

Reliability on the other hand is concerned with consistency and replicability of the study. The question the researcher must ask himself here is whether the used instrument will bear the same results when employed again at a different time in the same situation (Bryman & Bell, 2015; May, 2011). Homogeneity is one subset of reliability in quantitative studies and describes whether a construct is measured through all scale items. To ensure consistency, again, theory and input by others were used in designing questions and answering options, which are always the best measures for a certain construct (Saunders et al., 2009). A prominent test to measure the internal consistency that can be used for instruments with a Likert scale is calculating the Cronbach's α coefficient. The questionnaire used in this study used instruments with different scales. Eight items used Likert scales from one (disagree) to five (agree), purposefully including a neutral option to give respondents a way of answering if they were undecided. Using all eight items in the reliability testing, the instrument achieved a Cronbach's α score of ,740, which is considered a strong one in measuring internal consistency. The test also shows that the deletion of single items would not lead to a significantly higher score, illustrating that the standard deviation of the items is at a good level as well.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,740	,756	8

TABLE 2: CRONBACH'S ALPHA TEST ON LIKERT SCALE INSTRUMENTS.

Stability and equivalence are the other two measures of reliability and were addressed by testing questions with different individuals before rolling them out. Through various feedback the questions and answer possibilities were reformulated until they were easily understandable and no misinterpretations happened anymore. Although it is impossible to calculate reliability exactly, the described measures ensured the

best possible estimate of reliability for this study (Bryman & Bell, 2015; Saunders et al., 2009).

Both validity and reliability are strong indicators of quality and credibility of the research at hand and its results, which is the reason why the author has taken the appropriate and necessary measures to ensure the best achievable levels of both (May, 2011; Neuman, 2013; Saunders et al., 2009).

The research onion shows some different options for research strategy. In this case a survey was executed as it allows for the collection of large amounts of data that can be standardised and compared easily. Surveys are a strong tool in quantitative and deductive research due to their effective and efficient nature, which makes them a very popular instrument (Bryman & Bell, 2015; Saunders et al., 2009). For this survey an online questionnaire was used as the instrument for data collection, the sample of which as well as techniques used are described in the following. Finally, the time horizon chosen for this study is cross-sectional rather than longitudinal, given the scope of this research project. This means that this study examines social phenomena at a specific moment in time and must therefore be understood as a 'snapshot'. The research itself, meaning the data collection, accordingly took place quickly within just two weeks, so that no significant changes could play into the research (Bryman & Bell, 2015; May, 2011; Neuman, 2013; Saunders et al., 2009).

Population and sample

This research aims to project its results onto a particular population that in this case is kept as broad as possible. The population, by definition, is given by the scope of the study. Essentially, every European traveller is part of the population, although the sampling frame of this study inevitably poses some limitations on the representativeness of the sample (Saunders et al., 2009).

There are basically two major sampling techniques: probability and non-probability sampling. Probability samples are random samples of a population, which ensures best that the sample represents the population. With non-probability sampling it is nearly impossible to calculate the odds of individuals being selected to participate. This type of selection is much more efficient in terms of time and cost and makes respondents much easier to access, although it brings limitations as it is not random and therefore might not be sufficiently representative of the population (Bryman & Bell, 2015). In this case, the researcher needed to use a non-probability sample due to constraints imposed on the study, although the maximum level of randomness possible was ensured. Convenience sampling was employed primarily as the study was conducted in two cities convenient to the researcher, namely Cologne in Germany and Lund in Sweden. The questionnaire was mainly filled by people in those places, although the majority of respondents were obtained through different Facebook groups and online forums that address inhabitants of the cities (Bryman & Bell, 2015; May, 2011; Saunders et al., 2009). At the same time the researcher made use of social media appearances to reach out to possible respondents as well. In the next step, snowball sampling was employed as respondents reached out, again mostly online through groups and forums, to others. This way the sample can be described as representative of the population as much as possible considering the scope of the study, because respondents were at least random within the sampling frame (Bryman & Bell, 2015; Saunders et al., 2009).

In terms of demographics the sample is not focussed on a specific group of people, but on everybody that has at least sat in an airplane once. On the other hand, in order to hear about the study and be able to participate in it the possible respondents needed to live around a certain location or be connected to it in some way, have a social media profile and have a connection to the internet, all of which of course lead to some general assumptions about the sample (Bryman & Bell, 2015; Saunders et al., 2009). Otherwise, diversity in terms of demographics was wished for and recorded, again, to

establish external validity being able to generalise results for the population under investigation, which should be the aim for a quantitative study in any case. The sample itself is described in detail in the following chapter before thorough data analysis (Bryman & Bell, 2015; May, 2011).

Data collection and analysis

As described previously an online survey was conducted with a questionnaire as the mean to collect data. In order to be able to yield valid results, some hypotheses were formulated based on theoretical background that was analysed previously. Meanwhile some conversations and interviews of qualitative and semi-structured nature backed what the theory suggested, so that the validity of questions and answer possibilities of the questionnaire could be ensured (Bryman & Bell, 2015; Neuman, 2013). These interviews were also based on the theory reviewed in chapter two, but at the same time left some space for the interviewees to add their own perspective and for the interviewer to test whether those perspectives would support the theory, which they ultimately did. The hypotheses that were tested are the following:

- | |
|--|
| 1. The trend in modern travel behaviour is towards taking more and shorter trips to foreign cities. Furthermore, air travel is increasingly popular for the time and cost advantage it provides. |
| 2. Relative attributes such as time, cost, availability, cultural conditions and knowledge of destinations impact the perception of distance travellers have. |
| 3. Low cost air travel is at least partially responsible for changes in travel behaviour regarding travel frequency, as well as for distances to appear smaller today as opposed to before low cost carriers became the most important players in the European market. |

4. The distance to destinations that have greater availability of low cost flights and are more prominent in terms of tourist numbers and media coverage etc. will be underestimated in relation to destinations with similar physical distance that lack those factors.

TABLE 3: RESEARCH HYPOTHESES TESTED.

The data collected was analysed in the following using the statistics computer software SPSS that offers the analysis of data through descriptive and inferential statistics. Using the software, the results of the study could be described in detail, while also predictions about the population in question could be made. To do so some of SPSS' various functions for descriptions of data, measures of correlations between variables and hypothesis testing to make predictions about a population were employed (Bryman & Bell, 2015; Green & Salkind, 2016) Through the questionnaire both categorical and quantitative data was gathered, so that in order to analyse some of the data it was necessary to recode it from string into numeric variable types. How and what data was collected exactly has been thought out before designing the survey already bearing in mind the different statistical tests that would be used afterwards. Data was subsequently collected in a way that allowed the researcher to perform descriptive statistical analysis, as well as tests to compare means of different samples or within a sample and also statistical analysis to identify significant correlations between certain variables.

When analysing and especially interpreting data to come to conclusions about the population there is a high risk of making false assumptions or assumptions that are not sufficiently founded. It is important to avoid making so-called logic leaps that are often very tempting for researchers, but show a gap in the argument made (Green & Salkind, 2016; Saunders et al., 2009). Here it is crucial as well that an appropriate theoretical framework is used for interpretation of data, as otherwise conclusions made could be invalid or at least not objectively supported. To ensure objectivity the

author also minimises bias brought into the interpretation of results by working closely with the theory and constantly challenging whether the assumptions being made can even be derived from the data at hand (May, 2011). At the same time, the researcher stays aware of the values he imposes on the study through bias, as is probably unavoidable following the critical realist belief that phenomena are open to misinterpretation due to social conditioning playing a significant role in making sense of reality (Saunders et al., 2009).

Online questionnaire

As described previously the questions ultimately asked to participants were all inspired by examined theory as well as the conducted qualitative interviews. The questionnaire therefore consists of some different type of questions. Some demographic information such as education and work status as well as age and gender were collected as these are factors that are known to play into travel behaviour. While income does so strongly as well, it was left out because of ethical considerations and the experience that respondents generally prefer not to answer to such questions. Ultimately, to examine how distance is perceived, income was deemed not to be so highly necessary as a determinant. Furthermore, questions were asked to examine the travel behaviour of people regarding for instance destination choice, trip length and frequency amongst others to identify possible correlations with how distance is perceived, which were to be expected. The attributes known to impact how distance is perceived were tested through Likert-scale questions to be able to numerically compare which attributes most importance would be placed on. Respondents were also asked through some final questions whether they believe that they perceive distance differently today and if the developments in the airline industry could have anything to do with it. The final questions where distances needed to be guessed were designed for the purpose of testing whether the assumption that distances to particular places would be underestimated would be true.

Ethical considerations

In research it is always important to consider ethical aspects when it comes to the collection and processing of data, especially the more specific it is to individuals. Sometimes it is owed to the topic of research itself that very sensitive data must be gathered, which is not the case in this study, although it was still made sure not to ask for data that is not necessarily needed (Bryman & Bell, 2015; Saunders et al., 2009). If demographic data for instance is collected that has no obvious use for the study this could make an impression of the researcher not being trustworthy. Therefore, very little demographic data was collected and anonymity was ensured completely, so that not even the researcher would know what data belongs to individual respondents (Bryman & Bell, 2015; May, 2011; Saunders et al., 2009).

Another important ethical aspect is how to approach possible respondents and to have their consent to use the gathered data. Issues associated with gaining access did not evolve due to the nature of the survey. In approaching the respondents, the researcher made sure to provide honest information in terms of duration to undertake the survey, what purpose the respondents' data will fulfil ultimately and how total anonymity will be ensured (May, 2011; Neuman, 2013). It is important for respondents to understand exactly why what data is being gathered and that they will be protected in order to gain their trust and consent subsequently, which they gave by filling the questionnaire. The questionnaire was preceded by a detailed debriefing accordingly. This way no embarrassment, harm or disadvantages were imposed on the participants (Bryman & Bell, 2015; Saunders et al., 2009). All participants were aware at every point of the study that they were subject to research as it was conducted in an entirely transparent manner. In this case it would not have been beneficial to examine respondents without them knowing in advance. All practices throughout the study followed the overall guideline only to gather data that is deemed necessary and appropriate in a way that is necessary and appropriate (Saunders et al., 2009).

Finally, all data collected was processed and stored exclusively by the researcher and at no times distributed. Storing took place only for the duration of the study. From planning to collection and analysis throughout all of this study, a strict ethical and moral code was followed.

Limitations

Overall limitations to this study are analysed at the end of this paper, although some of the limitations stem from the choices made throughout the methodology of a study, as is the case here. Firstly, the study being quantitative makes it extremely difficult to make objective assumptions about the backgrounds of certain phenomena, as the survey design calls for rather closed questions and answers with limited space for elaborate explanations. This choice had to be made nevertheless in favour of greater external validity as well as to meet the aim of this particular study (Bryman & Bell, 2015; Saunders et al., 2009). Using this approach to the research, the study is only able to contribute to the field in a certain limited way. It is hard to impossible to create really deep insights into the subject matter without addressing it qualitatively. This study must therefore be seen for what it is, a testing of the found phenomenon in an under researched environment, as well as an initial analysis of the quantitative relationship of cause and effect between two variables. Furthermore, the deductive approach followed limits the research to testing theory rather than developing new theory, which was also a deliberate decision. Most limitations arguably stem from the sampling of this study, which could not be entirely random due to reasons of access and economic factors, both imposed by the nature and scope of the study. Also the size of the sample sets some limits to generalisability, although the response rate was sufficiently high. In future studies of the subject it will be important to ensure the sample is even more representative of the population investigated (Bryman & Bell, 2015; May, 2011; Saunders et al., 2009).

Findings

In this chapter the gathered data will be presented and analysed objectively using tools for descriptive and inferential statistics. The interpretation of the examined data will be left as much as possible to the following conclusions and discussion. Presentation of the findings in the following is guided by the previously developed hypotheses, which is why findings are presented in an order that compliments the testing of those.

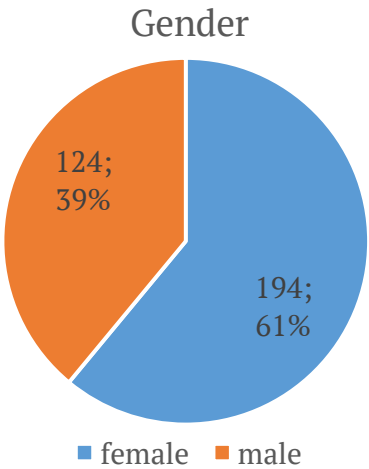


FIGURE 4: GENDER OF SURVEY RESPONDENTS.

The respondents were initially asked to answer a few questions regarding their demographics, in order for the researcher to be able to test some assumptions regarding the influence of some demographic attributes on certain phenomena associated with this study. Of the 318 survey respondents, 194 are female and 124 are male, which gives a ratio of 61% to 39%. Therefore, when giving the values 1 to female and 2 to male respondents, the mean is 1,39,

while the standard deviation of 0,489 indicates responses are spread closely around the mean, which is logical considering there are only two possible values.

The age of participants was collected through an open question, meaning the respondents were required to fill in a whole number by themselves into a blank. For analysis purposes the age variable was then recoded into three groups. The groups to be used were supported by popular research, differentiating between Generation Y, that is 18 to 34 years old, Generation X, that is 35

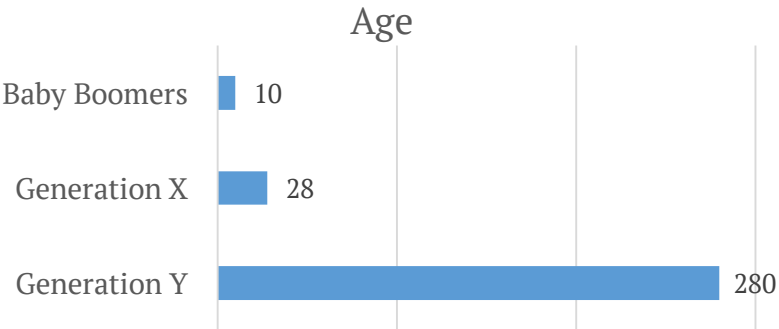


FIGURE 5: AGE OF SURVEY RESPONDENTS.

to 50 years old and finally, baby boomers from 51 to 70 years old. In this study all respondents could be grouped into these, with values 1 to 3 given to the groups in ascending order. The mean in this case is 1,15 and the naturally low standard deviation of 0,437 shows, again, how the majority of responses are grouped closely around the mean. In fact, 88,1% of respondents fall under Generation Y, 8,8% under Generation X and 3,1% under Baby Boomers. As responses were not gathered while already grouped, this allows to identify the exact age average, being 27 years old. The mode, meaning the most given answer is 24 years and the median, meaning the number in the middle, when all numbers are spread out in numerical order, is 25. The minimum is 18 and the maximum 63. The standard deviation of 8,329 is rather low considering the overall spread of answers given and supports the observation that in terms of age the respondents are mostly young travellers. This is due to the nature of data collection and the sampling techniques employed.

Furthermore, respondents were grouped into educational and employment status, as these are significant factors in travel behaviour as research has shown. In terms of education completed the most frequently given answer with a number of 128, 40,3% of respondents, is “bachelor’s degree”. 27% have completed a “master’s degree” and 3,1% a doctorate, while 21,4% are high school graduates, 6,9% completed a trade

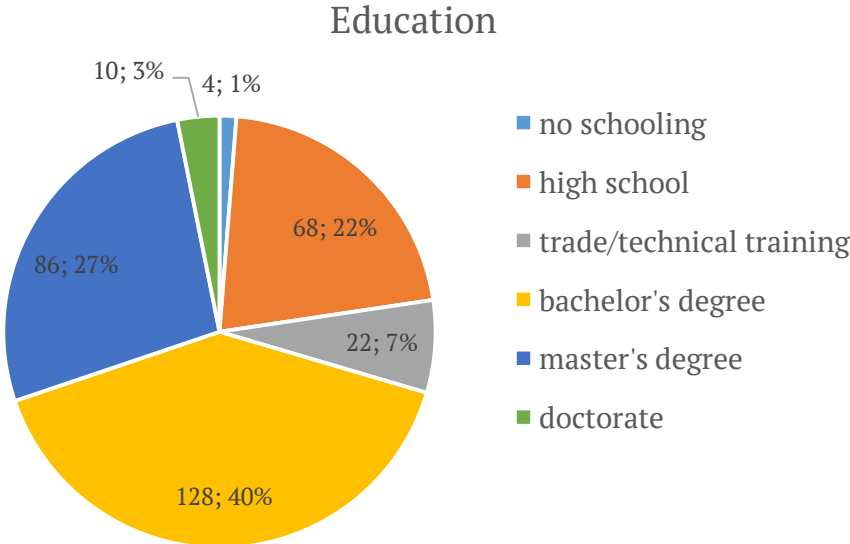


FIGURE 6: EDUCATION OF SURVEY RESPONDENTS.

or technical training and 1,3% completed no schooling at all. Although sampling was primarily executed through university groups, the other techniques of sampling and especially snowball sampling bears fruit as 29,6% of respondents are not associated with any university at all. In terms of employment there are two large respondent groups. 42,8% who are employed for wages and 39,6% students, while 7,5% are self-employed and 5% are unemployed. The rest is accounted for by some missing values and people who filled the given “other” blank, all of which are insignificant.

Travel behaviour

“The trend in modern travel behaviour is towards taking more and shorter trips to foreign cities. Furthermore, air travel is increasingly popular for the time and cost advantage it provides.”

Some initial survey questions were aimed at examining exactly those attributes in travel behaviour that the evolution of LCC’s has impacted, namely time and cost essentially and those influenced by these factors, such as where to travel and how long for instance (Crompton, 1979; Doganis, 2009; Fageda et al., 2015; MacEachren, 1980). Therefore, what the hypothesis tested here entails is the assumption that people travel more frequent, but shorter, as the factors of time and cost allow for that more and more. When asked how often the respondents travel usually, the mode of answers, the answer given most frequently, is ‘once a year’, which is the answer possibility of least frequency. This accounts for 47,8% of responses, so what is important to note is that the cumulative percentage of the other answers is 52,2%, meaning more than half the people travel to a foreign country at least every other month. 8,8% travel at least once a month and 4,4% even more than that. The mode of how long they travel on average is ‘two to three days’, representing essentially weekend trips. 124 out of 318 people gave this answer, accounting for 39% of respondents. 28,9% travel around one

week and 25,8% for at least two weeks, while 6,3% state they would travel even just for a day. Although it was expected by the researcher that these variables would correlate negatively, meaning that people who travel more frequently would do shorter travels, this phenomenon could not be observed with the data at hand. Due to the nature of the variables of data gathered, Spearman's rho correlation coefficient was calculated in the following as well as Pearson's. As the variables in question here are nominal and normally distributed, Pearson's correlation could be used. The coefficient $r = -.045$ is too close to zero to be of any generalizable significance ($p = .573$). Subsequently, there is not sufficient evidence to reject the null hypothesis and conclude that there is a significant linear relationship between the variables.

Nevertheless, significant correlations could be observed with two other variables and travel frequency, namely the type of trip most popular and the preferred transport mode. Asked about the kind of trips individuals usually engage in 48,4% chose the answer option of 'city trips', while 27% prefer the traditional 'beach vacation' and 9,4% travel predominantly for business motives. Some other responses, such as 'road trips', 'sports trips' or 'school trips' account for a rather little percentage of responses, although, even though the answer possibility was missing, 18 respondents mentioned the visit of family and friends as their number one travel motivation by themselves. This type of trip variable correlates with travel frequency, in the way that individuals that travel more often are also more likely to mention 'city trips' as their preferred type of trip. The null hypothesis in this case can be rejected as $p = .000$ shows significance at the 0.01 level, with a coefficient r of $-.329$. Although it is significant, this correlation can be described as moderate at the most. The correlation on the other hand between travel frequency and the preferred mode of transport is a low one with $r = -.141$ and $p = .012$, demonstrating significance at the 0.05 level, which means that the probability this coefficient would be achieved by chance is less than five out of 100. The preferred transport mode is flying with a strong 78% of total responses, while car transport lands before public transport, such as bus or train, with 12,6% versus 9,4%.

Correlations

			Trip Length	Trip Type	Transport Mode
Pearson's r	Travel Frequency	Correlation Coefficient	-,045	-,329	-,141
		Sig. (2-tailed)	,573	,000	,012

TABLE 4: CORRELATIONS TRAVEL FREQUENCY WITH OTHER VARIABLES

The respondents that chose flying were asked about their motives to do so, as well as the ones who chose land transport. With flying the two motives of time and cost clearly dominate the responses. 59,7% chose only “saving time”, 18,9% chose both “saving time and cost” and 5,7% only chose “saving cost”. As this question was answered just by 284 individuals, these three categories account for the majority of responses with a number of 268 in total. The remaining respondents indicated the necessity to fly due to their remote locations and also mentioned time as the prevailing factor. 168 respondents put in their reasons to prefer land transport (at times) with one crucial factor being comfort as mentioned by 66 respondents. 88 respondents selected the option that they would only prefer flying starting from a distance of 1.000 kilometres, showing the impact of distance in choice of transport mode. 44 respondents also say they like to experience the scenery, which is an option developed based on what Larsen and Guiver (2013) have found about the perception of distance. In this question, respondents were free to choose more than one answer and also to give other input, which they did, although answers other than the ones presented are rather insignificant.

Finally, participants were also asked about the factors impacting their choice of destination. The answer possibilities given based on theory here were: ‘time’, ‘money’, ‘availability’, ‘distance’ and ‘prior knowledge’. The chart below illustrates the spread of answers given. More than 75% of respondents specify time, money and availability as their most important influencing factors to choose a destination to

visit. According to the literature these factors are also the three major outcomes of modern developments of the airline industry. Especially LCC's have drastically reduced travel time and ticket prices, while also making never thought of destinations reachable through increasing passenger numbers enormously (Ankomah et al., 1996; Bows et al., 2009; Brady, 2000; Cao et al., 2009; Chiang et al., 2015; Christidis, 2016; Doganis, 2009; Fageda et al., 2015; Hanlon, 2007; Larsen & Guiver, 2013).

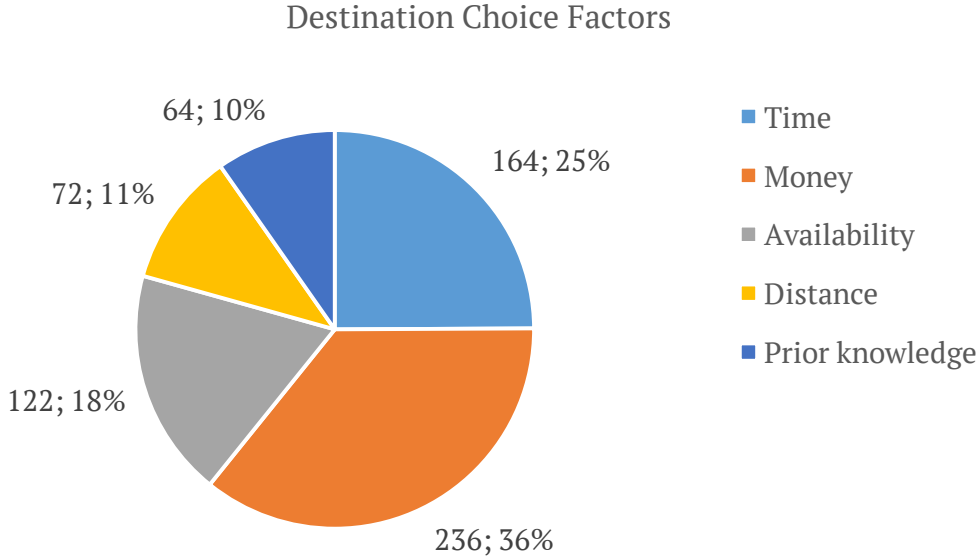


FIGURE 7: DESTINATION CHOICE FACTORS.

Respondents were also asked, based on a destination about 1.000km away, how long they would be willing to fly and what maximum price they would be willing to pay for a ticket to that destination. 62,9% of respondents answered they would accept to fly one to two hours, which is a normal flight time today considering the distance. 17% think the flight should not take more than one hour and 20,1% are willing to fly for even more than two.

Regarding the price 44,7% estimate their maximum between 50 and 100€, which again is quite realistic considering air fares today. 27% are willing to pay between 100 and 150€, while 17,6% are willing to pay even more and 10,7% believe the price should be under 50€.

Perception of distance

“Relative attributes such as time, cost, availability, cultural conditions and knowledge of destinations impact the perception of distance travellers have.”

The analysis of modern travel behaviour gives significant insights also about how distance is perceived and how sensitive people are to distance today. In the next step, individuals were asked about the attributes they believe have an impact on their personal perception of distance. Respondents were provided with six different attributes that were identified through the reviewing of previous research. “The time to reach a place”, “the price”, “the availability of flight options”, “cultural differences at the destination”, “prior knowledge or familiarity with a place” and “knowledge of the actual physical distance” (Baxter, 1979; Brady, 2000; Chiang et al., 2015; Doganis, 2009; Larsen & Guiver, 2013). As evidently it is mostly not only one attribute influencing travellers on this topic but a combination of all of these, so that this question of the questionnaire could be answered choosing as many of the attributes as necessary. That way 34 values were created only for this one question to analyse. The researcher therefore counted how often each attribute was selected by the respondents. 234 respondents out of the total 318 selected time as the major impacting attribute, making it the most selected one by far. Price was selected 116 times, availability 90 times, cultural differences 66 times, knowledge of a place 34 times and the actual physical distance 122 times. The most popular combination was time and physical distance with 16,4% of respondents selecting it, closely followed by time as the sole attribute with 13,2%.

The same attributes were then presented to respondents in the form of statements incorporating them. The respondents were asked to indicate whether they agree or disagree with the statement on a Likert scale with five options; a high score always

meaning “strongly agree” and giving weight to the attribute in question as an impacting factor.

Statistics for Distance Attributes						
		Availability1	Time1	Cost1	Knowledge1	CultureZone1
N	Valid	318	318	318	318	318
	Missing	0	0	0	0	0
Mean		4,24	4,46	3,52	3,16	3,07
Median		4,00	5,00	4,00	3,00	3,00
Mode		5	5	4	4	3
Std. Deviation		,844	,792	1,111	1,172	1,096

TABLE 5: STATISTICS FOR DISTANCE ATTRIBUTES

The table shows that the mean for the time attribute is 4,46, meaning the average answer would be between agree and strongly agree, while the most given response was strongly agreeing even. This highlights really how crucially important the factor time is in the cognition of distances. Also the mean for availability is high (4,24), again with a five being the number one selected score. For these two attributes the standard deviation is quite low furthermore. For instance, the ,792 standard deviation for the time attribute underlines how closely responses are spread around the high mean score. The means for cost, familiarity and cultural differences are lower in descending order, although the mode of cost and familiarity is still “agree”. Only for the culture attribute is the most given answer neutral, but it is important to note that for none of the attributes the mean is below three, which would mean disagreement.

Here the researcher also wanted to examine how these attributes correlate with each other, meaning does a high score on one scale mean the probability to have a high score on a different scale rises or maybe falls?

Correlations between the Distance Attributes

		Availability	Time	Cost	Knowledge	CultureZone	
Spearman's rho	Availability	Coefficient	1,000	,517	,264	,150	-,044
		Sig. (2-tailed)	.	,000	,000	,007	,433
		N	318	318	318	318	318
Time		Coefficient	,517	1,000	,316	,291	,124
		Sig. (2-tailed)	,000	.	,000	,000	,028
		N	318	318	318	318	318
Cost		Coefficient	,264	,316	1,000	,164	,236
		Sig. (2-tailed)	,000	,000	.	,003	,000
		N	318	318	318	318	318
Knowledge		Coefficient	,150	,291	,164	1,000	,546
		Sig. (2-tailed)	,007	,000	,003	.	,000
		N	318	318	318	318	318
CultureZone		Coefficient	-,044	,124	,236	,546	1,000
		Sig. (2-tailed)	,433	,028	,000	,000	.
		N	318	318	318	318	318

TABLE 6: CORRELATIONS BETWEEN THE DISTANCE ATTRIBUTES

In this case, Spearman's correlation coefficient was calculated as the variables in question are ordinal, meaning the gathered data from the Likert scales is not normally distributed. The table of correlations does show some significant correlations, the strongest of which is between the factors cultural differences and familiarity or knowledge as the variable was named. Spearman's rho is $r=,546$, which is an indicator of a rather strong correlation between the variables. With a $p=,000$ the correlation is significant at the 0.01 level, meaning the probability to obtain this coefficient by pure chance is lower than one in 100 cases. This correlation means that individuals who agree that knowledge of a place directly impacts their perception of the distance to that place, would also usually agree that cultural differences also impact the perception of distance. Another relatively strong correlation exists between time and availability. The correlation coefficient here is $r=,517$. Generally, a strong correlation is considered a coefficient that is higher than ,6 and a weak correlation lower than ,3.

In the social sciences it is to be expected that most of the time observable correlations are not as strong as is known from the natural sciences. Moreover, also the significance level of 0.05, as explained earlier, can be used as a measure of significance here as the study evolves around the social sciences (Bryman & Bell, 2015; May, 2011; Saunders et al., 2009). Some other significant correlations can be observed here, although having a moderate to rather weak coefficient around ,3 or lower. These include correlations between time and cost, time and knowledge and cost and availability among others.

Moreover, it is of interest for this social study to analyse whether how much respondents agree to those attributes influencing their distance perception is subject to some demographic factors for instance. In order to test that, some statistical tests to compare the means of different groups were run. The independent samples t-test was employed to compare exactly two groups or samples, such as gender, where data of two groups, namely female and male, was gathered. When more samples or groups needed to be compared, as is the case with the age variable that was grouped into three or education and employment status that were grouped into more, a one-way ANOVA was employed to show variance between the groups' means. The ANOVA calculates variances within the groups compared and between the groups and then gives a F value, which is the ratio between the two. The F-ratio is computed by dividing the mean square of variance between the groups by the mean square within. This means the F-ratio will be higher if variance between groups is higher than within and the higher the F-ratio the stronger the assumption that the groups' means differ significantly. Looking at the ANOVA results of the five attributes at hand by age groups, only one F-ratio is high enough to show significance at the 0.05 level, which is when comparing the means of perceived impact of the knowledge or familiarity variable. The F-ratio here is 3,641 indicating there is more than three times more variance between the age groups answers than within. For this attribute the null hypothesis saying the age groups show no difference can be rejected.

The same analysis was conducted for the different groups of education and employment. The education variable shows significantly different means between the samples or groups for four out of five attributes, while comparing the employment groups shows no significant variances at all. The only attribute that is not influenced by the education of the respondents is cost. The attributes of availability and knowledge both show significance at the 0.01 level and F-ratios of 7,054 and 6,826, showing relatively strong differences between the group means.

ANOVA Distance Attributes by Education completed						
		Sum of Squares	df	Mean Square	F	Sig.
Availability	Between Groups	22,269	5	4,454	6,826	,000
	Within Groups	203,568	312	,652		
	Total	225,836	317			
Time	Between Groups	13,032	5	2,606	4,373	,001
	Within Groups	185,937	312	,596		
	Total	198,969	317			
Cost	Between Groups	5,248	5	1,050	,848	,516
	Within Groups	386,098	312	1,237		
	Total	391,346	317			
Knowledge	Between Groups	44,232	5	8,846	7,054	,000
	Within Groups	391,264	312	1,254		
	Total	435,497	317			
CultureZone	Between Groups	25,501	5	5,100	4,483	,001
	Within Groups	354,977	312	1,138		
	Total	380,478	317			

TABLE 7: ANOVA DISTANCE ATTRIBUTES BY EDUCATION COMPLETED

To compare the means by gender, only two groups needed to be compared, which is why a t-test for independent samples would mostly be employed. In this case though, the dependent variables are ordinal, as they are answers given on Likert scales. Data measured on an ordinal scale is generally not considered sufficiently informative to perform a t-test. Therefore, an alternative was used here, namely the Mann-Whitney U test, which is a non-parametric test that needs to be used here because the data of

the ordinal variables is not normally distributed. The gender of respondents has significant influence on the response for two of the five attributes, namely cost and, again, knowledge or familiarity. Both are significant at the 0.01 level of probability. Group one, in this case females, has a higher mean on the cost scale, while group two, in this case males, has a lower mean. Looking at the knowledge variable the opposite can be observed as for that variable the mean of group one is lower than group two. Nevertheless, the Z values here are rather weak indicators as becomes apparent when looking at the actual difference of the means. For the cost variable the female mean is 3,69 and the male 3,26, while for the knowledge variable the female mean calculates to 3,00 and the male to 3,42. The low differences between the groups for the other three variables are insignificant, meaning they could be caused by chance. As a result, the null hypothesis can be rejected for the two variables cost and knowledge.

Gender Means with Mann-Whitney U Test					
	Gender	N	Mean	Z	Sig. (2-tailed)
Availability	Female	194	4,25	-1,299	,194
	Male	124	4,23		
Time	Female	194	4,41	-1,525	,127
	Male	124	4,53		
Cost	Female	194	3,69	-3,761	,000
	Male	124	3,26		
Knowledge	Female	194	3,00	-3,062	,002
	Male	124	3,42		
CultureZone	Female	194	3,04	-,580	,562
	Male	124	3,11		

TABLE 8: GENDER MEANS WITH MANN-WHITNEY U TEST

Cognitive distance & LCC's

“Low cost air travel is at least partially responsible for changes in travel behaviour regarding travel frequency, as well as for distances to appear smaller today as opposed to before low cost carriers became the most important players in the European market.”

The assumptions, having reviewed large amounts of literature as well as having observed change throughout the past decade, were that the evolution and expansion of LCC's have a tremendous impact on how much and where and how long people travel, partly because it is possible and partly also because the distances are perceived to be smaller than they used to. In order to really grasp whether these assumptions are true, the respondents were asked some final questions directly addressing the concept of distance in connection with low cost travel behaviour.

When asked whether the respondents travel more now as opposed to before the evolution of LCC's, 184 (57,9%) say “yes, i travel more now”. Only four people believe they travel less today, while 110 (34,6%) say that the frequency has not changed and 6,3% are not sure. For this variable Pearson's correlation coefficient proves a negative correlation with the respondents' age, meaning a higher score, in this case higher travel frequency, is given significantly more by people of younger age. The $r = -.145$ shows a rather weak, but significant at the 0.01 level correlation ($p = .010$). These variables are not ordinal, so that Pearson's parametric coefficient was calculated again.

Furthermore, there were three more statements that needed to be reacted to on a five point Likert scale as well. The statements go as follows: 1. “I am influenced by where airlines offer to fly to.”; 2. “I believe that the availability of direct and fast low cost flights makes destinations appear closer to me.”; 3. “I would assume that if more low cost airlines fly to a destination that it is less distant than a destination that more traditional carriers fly to.” Many people and even researchers say that today it is often

the case that people do not think about the destination they would like to visit, but check where the airlines fly to or offer good fares to and take trips without much prior knowledge (Cao et al., 2009). The first statement was meant to test this phenomenon and see whether travellers really place much importance in their decision on the external factor of flight availability. 51,5% of respondents agree with this statement, most people giving the score four. 27,1% disagree and the remaining 21,4% are neutral. The mean is 3,32 with a standard deviation of 1,247 from it.

The second statement incorporates the three major attributes of distance perception examined previously, namely time, cost and availability, and relates them to LCC's to see whether people would knowingly agree that the presence of LCC's makes a destination appear closer. The mean here is higher than the means of the other two statements, namely a 3,82 and the standard deviation of ,970, which is lower than at the previous statement, highlights that the responses are generally spread closer to the field most clicked, which is the score four again. 69,9% of respondents agree to the statement, 19,5% are neutral and only 10,7% disagree, while less than 2% strongly disagree. As opposed to that 25,2%, every fourth respondent, strongly agree that LCC's serving a route makes the destination in question appear closer in distance.

The following third statement then aimed to compare LCC's with traditional carriers regarding their impact on cognitive distance. The most given score here is a three with 130 responses, which is 40,9% of the total. The mean is still above three (3,28) and with 128 versus 60 more than twice the respondents agree than disagree.

The scores on these three statements positively correlate with each other. As the variables are of ordinal nature, Spearman's rho was calculated as a non-parametric coefficient of correlation. It works the same way as Pearson's coefficient, only that values are used for Pearson and the ranks of the values are used in Spearman's calculation to test the strength and direction of two variables relationship. In this case all relationships between the three variables are significant ($p=,000$) and mostly moderately strong. For instance, Spearman's rho for statements two and three is ,432.

All relationships show a positive direction, meaning a high score on one variable will result in a high score on the other. Moreover, these variables were tested for correlations with other variables described earlier as well using Spearman's rho statistical analysis measure. One variable that correlates significantly ($p=,000$ and $p=,001$) with the first two statements is travel frequency. The coefficient for travel frequency and the first statement is $r=,219$ and for travel frequency and the second statement is $r=,185$, both of which are rather weak in terms of strength and positive in terms of direction. Respondents travelling more often scored higher on being influenced by the airlines offer and also on believing that LCC's impact their perception of distance. The null hypothesis, saying there is no relationship at all between these variables, can be rejected.

Correlations between Travel Frequency and three LCC statements

			Airline Influence	Availability Influence	LCConDistance Perception
Spearman's rho	Travel Frequency2	Correlation	,219	,185	,046
		Coefficient			
		Sig. (2-tailed)	,000	,001	,412
		N	318	318	318

TABLE 9: CORRELATIONS BETWEEN TRAVEL FREQUENCY AND THREE LCC STATEMENTS

Finally, respondents were asked whether they believe that low cost airlines, apart from other factors, are responsible for distances to appear smaller today than before the turn of the century, which is also before the grand success of LCC's came into play. The respondents could choose between three options to answer: "yes", "no" or "I don't know". Out of 318 total respondents, 208, which is 65,4%, clearly state "yes", believing that distances today appear smaller than two decades ago and LCC's playing a significant role in this development. Another 25,2%, which is 80 respondents in total, did not manage to decide and chose to answer neutrally, while only 9,4% (30 individuals) answered this question with a clear "no". The statistics for this variable

show the lowest standard deviation (,864) of the five variables presented in this subsection, highlighting how close the responses are spread around the mean.

Frequencies for LCConLowerCognitiveDistance1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I don't know	80	25,2	25,2	25,2
	No	30	9,4	9,4	34,6
	Yes	208	65,4	65,4	100,0
	Total	318	100,0	100,0	

TABLE 10: FREQUENCIES FOR LCC INFLUENCE ON LOWER COGNITIVE DISTANCE

Estimation of physical distance

“The distance to destinations that have greater availability of low cost flights and are more prominent in terms of tourist numbers and media coverage etc. will be underestimated in relation to destinations with similar physical distance that lack those factors.”

At the very end of the questionnaire followed two questions that required the participants to guess an answer without thinking about the correctness or looking it up. Previous research has led to the identification of several attributes that seem to determine how individuals make sense of and perceive distance subjectively. These are mainly, time, cost, availability, knowledge and cultural differences. The researcher now asked the respondents to guess between two cities the one that is closer to them in distance parameters. It is important to note two things: Firstly, as sampling for this survey took place mainly in the two European cities of Cologne, Germany and Lund, Sweden, that participants were told strictly only to answer the question for the one of the cities they live in or know well and that if they do not know them both well enough

to skip the question. Secondly, the cities, whose distances were to be estimated, were chosen carefully with the previously mentioned attributes in mind. The respondents from Cologne were asked to guess the closer destination between Barcelona, Spain and Zagreb, Croatia, while the respondents from Lund were given the options of London, UK and Minsk, Belarus. Looking at these cities it is evident that Barcelona and London are very prominent cities that are well connected to the cities of the respondents through quick and inexpensive flights. At the same time, these cities do not show generally high differences in culture and basically everyone would know them, perhaps have visited them before, but at least have a general idea from the media for instance or even through other channels such as for example popular sports. Zagreb and Minsk on the other hand are characterised by less available flights and less media coverage as well as less tourists and a higher degree of cultural differences. Barcelona and Zagreb are about the same distance from Cologne, just as London and Minsk have about the same physical distance from Lund. Arguably, it could be assumed that more people would underestimate the distance to Barcelona and London and overestimate the distance to Zagreb and Minsk.

		Statistics	
		BarcelonaZagreb	LondonMinsk
N	Valid	262	236
	Missing	56	82
Mean		1,39	1,31
Median		1,00	1,00
Mode		1	1
Std. Deviation		,489	,465

TABLE 11: STATISTICS FOR THE VARIABLES BARCELONAZAGREB & LONDONMINSK

The statistics table shows that for both comparisons the means are closer to one than two, one being Barcelona and London and two being Zagreb and Minsk. For both variables one is the mode, the most selected answer. Out of 262 people that guessed the first distance, 160 estimated Barcelona to be closer and 102 estimated Zagreb to

be closer to Cologne. The second estimation question was answered by 236 respondents, of which 162 guessed London and 74 Minsk.

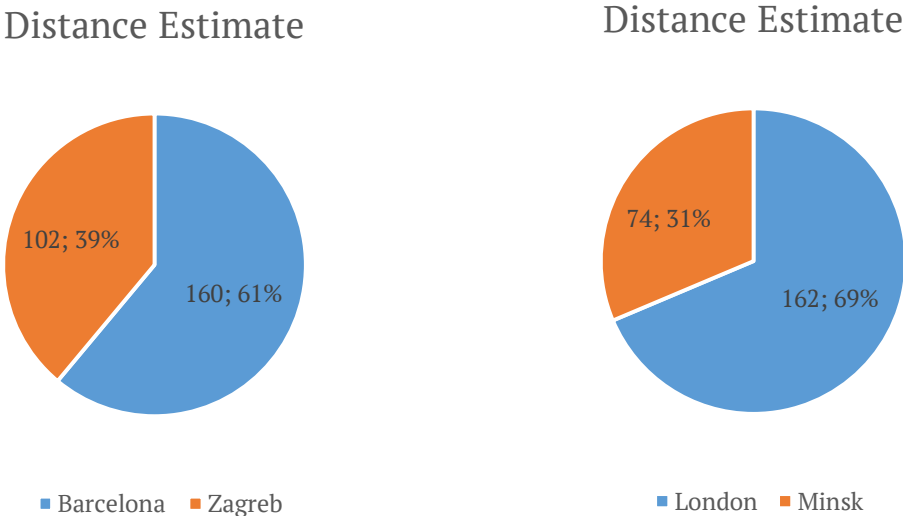


FIGURE 8: FREQUENCIES FOR DISTANCE ESTIMATIONS.

Testing the relationships between these and other variables, travel frequency shows significant correlation with both. The stronger relationship of the two is between travel frequency and the London Minsk question with $r=,303$ and $p=,000$. Both relationships have a positive direction, so as Zagreb and Minsk in this case hold the values two and therefore the higher ones, the result is that people that travel more frequently are more likely to underestimate the less popular destination.

Correlation between Travel Frequency and the City Estimates			
		BarcelonaZagreb	LondonMinsk
Travel Frequency	Pearson Correlation	,130	,303
	Sig. (2-tailed)	,036	,000
	N	262	236

TABLE 12: CORRELATION BETWEEN TRAVEL FREQUENCY AND THE CITY ESTIMATES

The independent samples t-test conducted to compare the means of two independent samples shows no significant variance between the two gender groups for these variables. The test returned p values of ,417 and ,299 showing that any variance between the groups' means could be caused by chance. In the following also a one-way ANOVA was conducted for different grouping variables with more than two independent samples, such as age, education and employment status. With education selected as the grouping variable, the analysis of variances between the groups shows that there are significant differences in means for the different education groups. Both probability scores show significance on the 0.01 level ($p=,000$; $p=,001$) and the F scores of 3,351 and 9,196 illustrate that significantly more variance stems from between than from within the groups.

ANOVA for Distance Estimates by Education						
		Sum of		Mean		
		Squares	df	Square	F	Sig.
Barcelona Zagreb1	Between	3,827	5	,765	3,351	,006
	Groups					
	Within	58,463	256	,228		
	Groups					
	Total	62,290	261			
London Minsk1	Between	8,463	5	1,693	9,196	,000
	Groups					
	Within	42,334	230	,184		
	Groups					
	Total	50,797	235			

TABLE 13: ANOVA FOR DISTANCE ESTIMATES BY EDUCATION

Conclusions & Discussion

This last chapter or section of the study is there not only to discuss or interpret the most important findings and answer the research questions as adequately as possible based on the data analysed, but also to highlight limitations, give recommendations for further research and to conclude what was done based also on the purpose of the study.

Discussion

While the findings were presented and analysed in an objective manner previously, it is the key of any empirical research to discuss and interpret the results based on the data. The study set out to answer two research questions. The first is about the reasons for travellers to perceive distance relatively. Some hypotheses were formulated leading the whole investigation as to what attributes influence the perception of distance in the human mind. The area of interest for this study has only been travel abroad, which as a subject in research has been rather neglected, as cognitive distance was mostly dealt with in regards to daily travelling, such as to and from work for instance. The testing of the hypothesis evolving around what attributes play into the perception of distance when travelling abroad helps and gives suggestions for interpretation as to answer the first research question.

In the next step, the study's purpose is to examine the relationship between low cost air travel and the phenomenon of relatively perceived distance, as previous research obviously points at a certain relationship there and yet it has remained a neglected field of study. The research question asks how developments in the airline industry impact the subjective distance cognition in the mind of European travellers. Hypotheses concerned with the large role the modern airline industry presumably plays in changing distance perception, helped also to answer this research question and fulfil the study's purpose of examining the relationship between these two large

subjects and shed some light into this particular research gap, as the results could have both educational and practical implications.

The empirical data analysed here proves that some factors taken out of previous research really impact how distances are perceived. Most prominently, the time it takes to travel a certain distance will apparently determine how this distance will be perceived and estimated. The availability of flight options correlates positively as well. If the route to a destination is served by different players with direct flights preferably, it will appear closer. Time throughout this study appears to be the most crucial factor in influencing mobility patterns, which is also a logical conclusion to draw here. In fact, time coordinates much more in the modern world than the perception of distance. Talking about travel behaviour it is obvious that individuals also tend to travel further with more time available, although one of the major trends observed in today's life is that people tend to take shorter but more frequent breaks to travel, as again, technology as well as the new cognition of distance have made it so easy to reach further destinations in so little time. We have, still are and most likely will always be undergoing a shift in mobility patterns, but the paradigm shift we have seen throughout the past two decades with the evolution and development of low cost air travel has been enormous. This result is not surprising and was expected previously. Nonetheless, it shows how time will become more and more crucial in how we live our lives in the future, as the modern world is radically short lived generally. Starting with technology and modern work life balance up to institutions evolving around media that are updated continuously, most probably right now as you are reading. Future research will be highly required to focus on the factor time in mobility and trying to understand qualitatively how time affects every step people do also in regards to travelling, which will play a greater role in leisure as well as work activities. I believe time is experienced differently today already and even more so in the future with individuals also requesting velocity. Perhaps it will also be interesting to examine whether time is now generally perceived to be running faster as well, so that even

though a flight within Europe is much faster now, it also appears to be very long to the young generation Y.

The cost also plays a major role, although this study makes clear that it is not such a strong indicator as time and availability are, which is quite surprising here as cost was expected to play a significant role as time. The same goes for cultural difference at a destination or prior knowledge. Especially, the factor of knowing the destination is said to drastically impact how the distance would be estimated, although this does not play out so strong in this research, perhaps being a process that happens subconsciously and would need further examination through in-depth participant interviews. These attributes are also essentially the determinants of destination choice in the sense of “How much time do i have to travel?” and “What is my budget?” Now when there is little time available travellers are not willing to travel too far, but when far appears close because of high availability and low cost, then people increase the maximum distance that they can overcome.

This shows in modern travel behaviour. Individuals seem to travel more frequently and even take very short trips, which is made possible by the developments in the airline industry and especially the evolution and success of LCC's. Therefore, it is now most common to visit other European cities, often just for a weekend, and the fact that people place less importance on distance as they perceive it much lower seems to have a major impact in travel behaviour. It seems like cost is not such a strong indicator as time for how distance is perceived, although i believe that when speaking about mobility in general or travel behaviour and destination choice that cost to most people is as much of a significant determinant as time evidently is. This will also need to be tested in the future through in depth participant observations and interviews, because we can observe already that travellers are willing to spend less money compared to before the turn of the century for instance. Why is that? Perhaps because they know that cheaper flights are available today, or perhaps it plays into the general trend around the globe of requesting services and products to be available

increasingly faster and less expensive. Both of these factors probably play into the phenomenon amongst others, such as the fact that flying has become a basic need, so that we do no longer see it as a luxury, which it was at its birth. Developments in the perception of distance are clearly only a fragment of what is happening today in the field of mobility. We move more, faster, cheaper and further already, but what we want is to be able to do it even more, even faster, even cheaper and even further.

The ways in which the described attributes influence distance cognition is also dependent on factors such as education. This has been a popular theme in travel research, that more educated individuals would travel more and further, perhaps as they are more likely to have the monetary means and perhaps as they are more likely to possess an open mind or interest towards strange places. In this case, the results show that education impacts how all attributes of distance are perceived, with the exception of cost, which is a factor that everyone can commonly agree upon. On the other hand, it is also travel frequency that seems to play a role in how people would estimate distances, as with more experience people seem to have a more realistic view, although when the scope is smaller the opposite is often the case. You are more likely to underestimate the way to work you know very well, than the distance to the capital of your neighbouring country.

So, to answer the research question, why do travellers perceive distance so subjectively and describe it through such relative terms? Distance, as a physical term or number is not only unknown most of the time, but has also lost importance in today's world. If you have two days off work and you want to travel, it is obviously not the distance to somewhere you think about, but whether you can get there quickly and inexpensively and the distance will automatically appear smaller than it might actually be. The five factors examined throughout this study all turn out to really have an impact on how distance is perceived and presumably there are even more. Travellers today perceive distance in relative terms rather than objective or physical

terms, because physical distance does not indicate properly anymore whether it is possible to reach a place in a certain time for instance. Better indicators are flight options, duration and price and these can all be completely different for two places of the same distance. The research also shows how individuals are influenced by where airlines offer to fly to for instance, highlighting that not distance but the described factors are what makes people take decisions and evidently, when asked to estimate the distance between two places that are similar in distance, travellers underestimate the distance to the place they know will be easier to reach, quicker to reach, cheaper to reach and that is generally as well as subjectively more well known.

At the same time, the modern airline industry is responsible or at least is what enables such development. What the evolution of LCC's and the low cost business model have brought is most importantly to save time and cost and make air travel accessible to almost anyone, especially in Europe. Travellers have adjusted their behaviour, most people travel much more today than ever before, and also distance is perceived very differently. When decades ago it took days or at least hours of flying with traditional airlines with stops in between to reach a certain destination that today is reachable through a two-hour direct flight for 50€, it seems obvious that distance would be underestimated now.

Respondents in this study do believe that LCC's hold a major part of the responsibility for these developments, as do other technological advances, for instance in the sector of telecommunication that have really made the world smaller as many like to say figuratively. The outcomes of this study point in the same direction and perhaps make believe that the airline industry with its technological advancements that are still undergoing has a similar impact and can definitely still grow this impact throughout the future. Respondents already acknowledge that they perceive distance as smaller when they have direct, fast and cheap flight options available or when they know places or also when cultural differences at destinations are lower.

Now different developments under the flag of globalization influence all these factors and air travel is at the forefront of reducing time needed to travel to distant places as well as reducing costs and tremendously increasing accessibility, so to say putting unknown destinations on the map. This particular development is likely to follow the same direction in the future as well, as sensitivity to distance will decrease more and more. This makes for thought on future trends or perhaps a paradigm shift concerning mobility, which will be of interest to further research for educational as well as practical purposes. Is it possible, for instance, that air travel will develop to be even more of a daily necessity, so that individuals will travel further simply to get to work or see their friends and families, perhaps using a sort of monthly ticket to fly as we do today on the public trains? This study also shows that more and more people already need to travel to visit other people as they live and work abroad and it is likely that these numbers will increase.

As the second research question and the overall purpose of this study are concerned with examining the relationship of developments in the airline industry and the subjective perception of distance, it can be said that especially the evolution of LCC's that dominate especially the European market today, brings advantages related to access, time and cost that have significantly influenced mobility patterns and can do so more and more throughout the future. In fact, some researchers argue that we could be entering an era of so-called hypermobility, where the world as we know it could undergo a shift of paradigm to become increasingly borderless and travel more and more enhanced by technology and communication. Today, we have for instance combined land travel options that are based on the modern sharing economy that incorporate next to advantages of cost and availability also the ecological concern that has been up and coming as well. Air travel is set to incorporate more and more of such principles as well and will need some breakthrough innovations in this regard. It is not too hard to imagine today that in the future passengers could be standing up in the plane travelling short distances or maybe even acquiring monthly tickets as they

might have to cross international borders on a daily to work or see their families. Moreover, air travel could even become part of public transport one day when flying will be as much necessary as traveling by bus or train.

Generally, today's time is characterised by being extremely short-lived. When I can send a message or an idea or an image to someone in the matter of seconds, then I want to get an object or even myself somewhere quick as well. The citizen of the modern world needs to stay connected at all times and cannot afford to be taken out of daily routine for many hours in transit, as so many things happen within minutes. The requirement towards travel to be faster and cheaper and available at all times goes hand in hand with trends in technologies, electronic communication and mobilities. Distances will most probably decrease more and more in the minds of people as technology advances and as they become experienced travellers and citizens of the world as borders and especially boundaries could diminish more and more. The subject of study throughout this research, the perception or cognition of distance in the age of LCC's, has proven to be a crucial phenomenon in mobility that both influences trends and developments in mobility and general travel behaviour and at the same time is largely impacted by them as well.

Limitations

Research always suffers from limitations that often stem from shortcomings in the research design and the common issue of justifying that the findings adequately answer the research questions formulated in advance and the tested hypotheses developed out of the theory review. Some major limitations of the employed research design and methods in general is described in the "Methodology" chapter already. These were kept in mind when designing the study to ensure that it would later on be possible to use the findings as much as possible to generalise and answer the research

questions. The conclusions drawn, as well as the following discussion, were formulated with great care in order to avoid logical leaps.

The major limitations to this study, as described previously, are imposed by the quantitative and deductive research design, as well as the mostly non-random sampling techniques. These decisions made result in some problems with generalising results for instance as the sample cannot necessarily be representative enough of the population. On the other hand, this study aims at examining the relationship between low cost air travel developments and the general perception of distance or cognitive distance. While some hypotheses related to the subject could be tested successfully, it is not possible for every phenomenon identified, to make assumptions or generate knowledge about the psychological background that is well grounded in theory. In fact, it is very challenging to analyse data on a subject of such psychological background that would require deep insights into the human mind to really be understood in sufficient detail.

In terms of validity, some of the measures employed might not measure perfectly what and how they were supposed to. This becomes apparent when looking at the collected data for analysis. For instance, the question whether travel frequency has changed with the evolution of low cost carriers in the past decade can seem redundant when looking at a sample with an average age of 27. Most of the respondents were most probably not travelling much before the evolution of low cost travel and can subsequently not adequately answer this question, although they did. Another limitation that stems from the survey is also that perhaps the title of the questionnaire reveals too much about the intention of the author and creates some bias that could ultimately be leading some respondents into a certain direction.

It was important for this study though, to design the research as it was designed and executed, as it should be understood as an initial guide to further research on the

matter that is rather neglected in the theory, although it seems obvious that knowledge should be generated on this topic. As distances are perceived smaller today and modern air travel stands in a close relationship to that phenomenon, it is important to further examine this relationship, its backgrounds and possible implications. Therefore, it is necessary to conduct qualitative research on the matter as well, to be able to really grasp in much more detail how the attributes identified here play in the travellers' minds to impact how they cognize the concept of distance. In order to observe significant changes over time it is also necessary to employ a longitudinal study and compare different points in time, which was not allowed by the scope of this particular study.

Reflecting on this study, it is very important also for the researcher to acknowledge any bias brought into the collection as well as analysis and interpretation of data. Seeing that the study is based on the assumption that distances appear smaller today as low cost carriers have changed Europe's accessibility drastically, it is very hard for the researcher to blend out his own beliefs to objectively treat the data. Therefore, it is possible that for instance some questions that were asked in the survey, imply a certain direction too much, although it was tested and designed not to be leading.

In summary, limits are obviously set to this research by the decision to execute it in a deductive and quantitative manner, as results as well as interpretations naturally can only go so far. This particular study set out not to create entirely new theory or deep insights into the topic, but rather to test what is known in a new context and examine the relationship of cognitive distance with the layer of LCC's that has not been prevalent in previous research. Even though deep understanding of the matter could not be gained, the study builds the foundation to do so in the future, which is not only necessary but highly relevant for tomorrow's society and academia.

Conclusion

Air travel today is accessible to more individuals than ever before, as it is faster, cheaper, but also much safer than ever through large ongoing technological advancements. At the same time, it is a major factor impacting the perception of distance of travellers and especially responsible for the fact that individuals place little importance on distance to determine where and how to travel. The importance is replaced onto attributes such as time, availability and cost, while cognitive distance is also influenced by knowledge of destinations and perceived cultural distances travellers find. The estimation of physical distance is increasingly influenced by all such relative factors, while the actual physical distance almost seems redundant. On the other hand, the results show that physical distance still has an effect on travellers' minds and to get to a point where it is completely neglected in travel is yet a long way. Distances are perceived lower today than they were just a decade ago, partly through major technological development concerning telecommunication and through globalization, but also through developments in air travel that will continue to impact how we view distance. Further research is necessary to create deeper insights in the travellers' minds and how they are influenced by airlines, as well as to gain more educational and practical knowledge regarding why and how the world shrinks in our minds.

Bibliography

- Ankomah, P. K., Crompton, J. L., & Baker, D. (1996). *Influence of cognitive distance in vacation choice*. *Annals of tourism research*, 23(1), 138-150.
- Barnes, J. (2017). *Measuring service quality in the low-cost airline industry*.
- Baxter, M. (1979). *The interpretation of the distance and attractiveness components in models of recreational trips*. *Geographical Analysis*, 11(3), 311-315.
- Bows, A., Anderson, K., & Peeters, P. (2009). *Air Transport, Climate Change and Tourism*. *Tourism and Hospitality Planning & Development*, 6(1), 7-20.
- Brady, T. (2000). *The American Aviation Experience: A History*. Southern Illinois University Press.
- Bryman, A., & Bell, E. (2015). *Business research methods*. Oxford University Press, USA.
- Cao, X., Mokhtarian, P. L., & Handy, S. L. (2009). *No particular place to go: an empirical analysis of travel for the sake of travel*. *Environment and Behavior*, 41(2), 233-257.
- Chiang, C.-C., Wang, M.-Y., Lee, C.-F., & Chen, Y.-C. (2015). *Assessing Travel Motivations of Cultural Tourists: A Factor-Cluster Segmentation Analysis*. *Journal of Information and Optimization Sciences*, 36(3), 269-282.
- Christidis, P. (2016). *Four shades of Open Skies: European Union and four main external partners*. *Journal of Transport Geography*, 50, 105-114.
- Cohen, E. (1974). *Who is a tourist?: A conceptual clarification*. *The sociological review*, 22(4), 527-555.
- Crompton, J. L. (1979). *Motivations for pleasure vacation*. *Annals of tourism research*, 6(4), 408-424.
- Doganis, R. (2009). *Flying Off Course IV: Airline Economics and Marketing*. Taylor & Francis.
- Doswell, R. (2009). *Tourism: How effective management makes the difference*. Routledge.

- Duval, D. T. (2007). *Tourism and transport: Modes, networks and flows*. Channel View Publications.
- Fageda, X., Suau-Sanchez, P., & Mason, K. J. (2015). *The evolving low-cost business model: Network implications of fare bundling and connecting flights in Europe*. *Journal of Air Transport Management*, 42, 289-296.
- Fisher, R., & Price, L. L. (1991). *International pleasure travel motivations and post-vacation cultural attitude change*. *Journal of Leisure Research*, v23(3), p193.
- Fridgen, J. D. (1984). *Environmental psychology and tourism*. *Annals of tourism research*, 11(1), 19-39.
- Green, S. B., & Salkind, N. J. (2016). *Using SPSS for Windows and Macintosh*. Books a la Carte: Pearson.
- Hall, C. M. (2005). *Tourism: Rethinking the social science of mobility*. Pearson Education.
- Hanlon, J. P. (2007). *Global Airlines: Competition in a Transnational Industry*. Oxfordshire, United Kingdom of Great Britain & Northern Ireland : Routledge.
- Hsu, C.-J., Yen, J.-R., Chang, Y.-C., & Woon, H. K. (2016). *How do the services of low cost carriers affect passengers' behavioral intentions to revisit a destination?* *Journal of Air Transport Management*, 52, 111-116.
- ICAO. (2016). *Freedoms of the Air*. Retrieved the 15th of April 2018 from: <https://www.icao.int/Pages/freedomsAir.aspx>
- Jain, J., & Lyons, G. (2008). *The gift of travel time*. *Journal of Transport Geography*, 16(2), 81-89.
- Jakle, J. A., Brunn, S. D., & Roseman, C. C. (1976). *Human spatial behavior: a social geography*. Duxbury Press.
- Janelle, D. G. (1968). *Central place development in a time-space framework*. *The Professional Geographer*, 20(1), 5-10.
- Knowles, R. D. (2006). *Transport shaping space: differential collapse in time-space*. *Journal of Transport Geography*, 14(6), 407-425.

- Larsen, G. R., & Guiver, J. W. (2013). *Understanding tourists' perceptions of distance: a key to reducing the environmental impacts of tourism mobility*. *Journal of sustainable tourism*, 21(7), 968-981.
- Lehrer, H. R. (2000). *U.S. Air Carriers After World War II*. In T. Brady, *The American Aviation Experience* (pp. 218 - 240).
- Lin, C. H., & Morais, D. B. (2008). *The spatial clustering effect of destination distribution on cognitive distance estimates and its impact on tourists' destination choices*. *Journal of Travel & Tourism Marketing*, 25(3-4), 382-397.
- MacEachren, A. M. (1980). *Travel time as the basis of cognitive distance*. *The Professional Geographer*, 32(1), 30-36.
- May, T. (2011). *Social research: issues, methods and process*. Maidenhead, Berkshire, England : McGraw Hill, Open University Press, 2011.
- Mazanec, J. A., Wöber, K., & Zins, A. H. (2007). *Tourism destination competitiveness: from definition to explanation?* *Journal of Travel Research*, 46(1), 86-95.
- McKercher, B., Chan, A., & Lam, C. (2008). *The impact of distance on international tourist movements*. *Journal of Travel Research*, 47(2), 208-224.
- Neuman, W. L. (2013). *Social research methods: Qualitative and quantitative approaches*. Pearson education.
- Nicolau, J. L. (2008). *Characterizing tourist sensitivity to distance*. *Journal of Travel Research*, 47(1), 43-52.
- Omelia, J. (2003). *Come Fly with Us! A Global History of the Airline Hostess*. Collectors Press.
- Peeters, P., & Eijgelaar, E. (2012). *Modelling tourist travel behaviour for a global tourism flow model*. Paper presented at the Presentation at the conference: Psychological and Behavioural Approaches to Understanding and Governing Sustainable Tourism Mobility.
- Pirie, G. (2009). *Distance*. Elsevier.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Pearson education.

- Stradling, S., Hine, J., & Wardman, M. (2001). *Physical, cognitive and affective effort in travel mode choices*. Paper presented at the international conference on traffic and transport psychology - ICTTP 2000.
- UNWTO. (2008). *International Recommendations for Tourism Statistics*.
- Urry, J. (1999). *Sociology beyond Societies*. Taylor & Francis Ltd / Books.
- Urry, J., & Larsen, J. (2011). *The Tourist Gaze 3.0*. London: SAGE Publications Ltd.
- Walmsley, D. J., & Jenkins, J. M. (1992). *Cognitive Distance: A Neglected Issue in Travel Behavior*. *Journal of Travel Research*, 31(1), 24-29.
- White, N. R., & White, P. B. (2007). *Home and away: Tourists in a connected world*. *Annals of tourism research*, 34(1), 88-104.
- Yeoman, I., Munro, C., & McMahon-Beattie, U. (2006). *Tomorrow's World: consumer and tourist*. *Journal of Vacation Marketing*, 12(2), 174-190.

Appendix

Survey Questionnaire

Cognitive Distance & Air Travel

Hello!

Thank you for spending a couple of minutes on this questionnaire.

My name is Luca, i'm a master's student at Lund University at the programme MSc Service Management. I am currently busy researching how travellers perceive distance and how especially low cost air travel has an impact on that, in order to finish my master thesis.

In the following you will find some questions and statements that you will have to answer on multiple choice basis or give a score to on a simple scale. Please read all instructions carefully and answer the questions to your best knowledge or estimation. Do not hesitate to contact me in case you need further explanations. I will not record any personal data and therefore ensure complete anonymity.

***Required**

1. Age? *

2. Gender? *

Mark only one oval.

- Female
- Male
- Other: _____

3. Level of education? (Choose the education you have last graduated from) *

Mark only one oval.

- no schooling completed high
- school graduate
- trade/technical/vocational
- training bachelor's degree
- master's
- degree
- doctorate
- degree

4. Employment status? *

Mark only one oval.

- employed for
- wages
- self-employed
- unemployed
- student
- retired
- Other: _____

Travel behaviour.

Please choose one answer that is most right in your particular case for the questions with a round box, which means only one answer can be given. If the answer possibilities have a square box you are free to select one or more answers. You can also use the "other" option to specify in case you don't feel represented through the given options.

5. How regularly do you fly to a foreign country? (leisure & business) *

Mark only one oval.

- once a year
- every other
- month once a
- month every
- other week
- once a week

6. What kind of trips do you engage in mostly? *

Mark only one oval.

- city trips
- beach
- vacation
- sports trips
- business
- travel road
- trips
- Other: _____

7. How long are your trips on average? *

Mark only one oval.

- a day
- two to three days (weekend)
- a week
- two weeks

8. What is your preferred mode of transport? *

Mark only one oval.

- flying
- train or
- bus car

9. If you chose flying: What is the main motive for you to prefer air over land transport?

Tick all that apply.

- saving
- time
- saving
- cost
- Other: _____

10. If you chose train, bus or car: What is the main motive for you to prefer land transport?

Tick all that apply.

- comfort
- want to experience the scenery
- only prefer flying when traveling far (more than
- 1.000km) Other: _____

11. What are the factors you consider when choosing a destination to visit? *

Tick all that apply.

- Time
- Money
- Availabil
- Distanc
- Prior knowledge
- Other: _____

Cognitive Distance.

12. What attributes define distance for you? *

Tick all that apply.

- The time to reach a place
- The price to reach a place
- The availability of transport options to the place
- Cultural differences at a
- place How well i know a
- place Actual physical distance
- Other: _____

13. How long are you willing to fly to a destination about 1.000km away? *

Mark only one oval.

- About an hour
- One to two hours
- More than two hours

14. What do you consider the maximum acceptable price to reach that destination? *

Mark only one oval.

- Less than 50€
- 50€ to 100€
- 100€ to 150€
- More than 150€

Relative and physical distance:

Travellers often speak of distance in relative terms rather than physical terms. Many people are influenced for instance by how long a flight takes to a destination, what it costs and if there even are direct connections. On the other hand people also tend to underestimate distance when they are familiar to a place or it lies within their cultural zone, meaning the people there might speak the same language or follow the same religion etc.

The following statements are designed to create understanding of what factors influence your personal perception of distance. Please indicate how strongly you agree or disagree with the statements. The scale can be understood as follows: 1=strongly disagree; 2=disagree; 3=neither agree nor disagree; 4=agree; 5=strongly agree.

15. A destination appears closer to me if it's easy to get to. (direct flight options for instance) *

Mark only one oval.

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

16. A destination appears closer to me if i can get there quickly. *

Mark only one oval.

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

17. A destination appears closer to me if the ticket isn't too expensive. *

Mark only one oval.

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

18. A destination appears closer to me if i know it well. *

Mark only one oval.

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

19. **A destination appears closer to me if it lies within my "cultural zone". ***

Mark only one oval.

1 2 3 4 5

Strongly disagree Strongly agree

20. **I am influenced by where airlines offer to fly to. ***

Mark only one oval.

1 2 3 4 5

Strongly disagree Strongly agree

21. **I believe that the availability of direct and fast low cost flights makes destinations appear closer to me. ***

Mark only one oval.

1 2 3 4 5

Strongly disagree Strongly agree

22. **I would assume that if more low cost airlines fly to a destination that it is less distant than a destination that more traditional carriers fly to. ***

Mark only one oval.

1 2 3 4 5

Strongly disagree Strongly agree

23. **Ever since the evolution of low cost airlines; would you say that your travel frequency has changed? ***

Mark only one oval.

- Yes, i travel more
- now Yes, i travel less now No, it
- hasn't changed
- I don't know

24. **Do you believe that low cost airlines (amongst other factors) are responsible for distances to appear lower today as opposed to before the turn of the century? ***

Mark only one oval.

- Yes
- No
- I don't know

Estimate the distance!

As this survey has been sent out to people around the following two locations, it is likely that you live or have lived in one of the two or their direct vicinity. Therefore, please decide for the city you know and answer the question accordingly. You can skip the second one in that case. If you know both well enough you are free to answer both as well. In case you happen to fill out this survey and don't know either of the cities, please feel free to skip both questions.

Cologne, Germany:

In the following we will use the specific example of the city of Cologne in Germany. Please answer only if you live or have lived close to there. Do not look up the actual distance, just make a guess!

25. **What city would you estimate to be closer in distance, Barcelona in Spain or Zagreb in Croatia?**

Mark only one oval.

Barcelona

Zagreb

Lund, Sweden:

In the following we will use the specific example of the city of Lund in Sweden. Please answer only if you live or have lived close to there. Do not look up the actual distance, just make a guess!

26. **What city would you estimate to be closer in distance, London in the UK or Minsk in Belarus?**

Mark only one oval.

London

Minsk

SPSS Output

Frequency Tables

AgeGrouped

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Generation Y	280	88,1	88,1	88,1
	Generation X	28	8,8	8,8	96,9
	Baby Boomers	10	3,1	3,1	100,0
	Total	318	100,0	100,0	

Gender1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	194	61,0	61,0	61,0
	Male	124	39,0	39,0	100,0
	Total	318	100,0	100,0	

Education1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	bachelor's degree	128	40,3	40,3	40,3
	doctorate degree	10	3,1	3,1	43,4
	high school graduate	68	21,4	21,4	64,8
	master's degree	86	27,0	27,0	91,8
	no schooling completed	4	1,3	1,3	93,1
	trade/technical/vocational training	22	6,9	6,9	100,0
	Total	318	100,0	100,0	

Employment1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	employed for wages	136	42,8	42,8	42,8
	student	126	39,6	39,6	82,4
	self-employed	24	7,5	7,5	89,9
	unemployed	16	5,0	5,0	95,0
	other	16	5,0	5,0	100,0
	Total	318	100,0	100,0	

TravelFrequency1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	every other month	124	39,0	39,0	39,0
	every other week	8	2,5	2,5	41,5
	once a month	28	8,8	8,8	50,3
	once a week	6	1,9	1,9	52,2
	once a year	152	47,8	47,8	100,0
	Total	318	100,0	100,0	

TripLength1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	a day	20	6,3	6,3	6,3
	a week	92	28,9	28,9	35,2
	two to three days (weekend)	124	39,0	39,0	74,2
	two weeks	82	25,8	25,8	100,0
	Total	318	100,0	100,0	

TripTypes1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid city trips	154	48,4	48,4	48,4
beach vacation	86	27,0	27,0	75,5
sports trips	6	1,9	1,9	77,4
business travel	30	9,4	9,4	86,8
road trips	12	3,8	3,8	90,6
other	30	9,4	9,4	100,0
Total	318	100,0	100,0	

TransportMode1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid car	40	12,6	12,6	12,6
flying	248	78,0	78,0	90,6
train or bus	30	9,4	9,4	100,0
Total	318	100,0	100,0	

FlyingMotive1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid saving time	190	59,7	59,7	59,7
saving cost	18	5,7	5,7	65,4
other	110	34,6	34,6	100,0
Total	318	100,0	100,0	

LandTransportMotive1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	comfort	34	10,7	10,7	10,7
	want to experience scenery	18	5,7	5,7	16,4
	only when travelling far	70	22,0	22,0	38,4
	other	196	61,6	61,6	100,0
	Total	318	100,0	100,0	

DestinationChoice1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	time	22	6,9	6,9	6,9
	money	56	17,6	17,6	24,5
	availability	18	5,7	5,7	30,2
	distance	8	2,5	2,5	32,7
	prior knowledge	14	4,4	4,4	37,1
	other	200	62,9	62,9	100,0
	Total	318	100,0	100,0	

DistanceAttributes1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	time	42	13,2	13,2	13,2
	price	14	4,4	4,4	17,6
	availability	8	2,5	2,5	20,1
	culture	14	4,4	4,4	24,5
	knowledge	6	1,9	1,9	26,4
	physical distance	20	6,3	6,3	32,7
	other	214	67,3	67,3	100,0
	Total	318	100,0	100,0	

WillingnessFlight1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	About an hour	54	17,0	17,0	17,0
	More than two hours	64	20,1	20,1	37,1
	One to two hours	200	62,9	62,9	100,0
	Total	318	100,0	100,0	

MaximumFlightPrice1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	100€ to 150€	86	27,0	27,0	27,0
	50€ to 100€	142	44,7	44,7	71,7
	Less than 50€	34	10,7	10,7	82,4
	More than 150€	56	17,6	17,6	100,0
	Total	318	100,0	100,0	

Availability1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	2	,6	,6	,6
	disagree	10	3,1	3,1	3,8
	neutral	42	13,2	13,2	17,0
	agree	120	37,7	37,7	54,7
	strongly agree	144	45,3	45,3	100,0
	Total	318	100,0	100,0	

Time1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly disagree	4	1,3	1,3	1,3
disagree	4	1,3	1,3	2,5
neutral	24	7,5	7,5	10,1
agree	96	30,2	30,2	40,3
strongly agree	190	59,7	59,7	100,0
Total	318	100,0	100,0	

Cost1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly disagree	14	4,4	4,4	4,4
disagree	46	14,5	14,5	18,9
neutral	86	27,0	27,0	45,9
agree	104	32,7	32,7	78,6
strongly agree	68	21,4	21,4	100,0
Total	318	100,0	100,0	

Knowledge1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly disagree	28	8,8	8,8	8,8
disagree	72	22,6	22,6	31,4
neutral	78	24,5	24,5	56,0
agree	100	31,4	31,4	87,4
strongly agree	40	12,6	12,6	100,0
Total	318	100,0	100,0	

CultureZone1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	24	7,5	7,5	7,5
	disagree	76	23,9	23,9	31,4
	neutral	104	32,7	32,7	64,2
	agree	82	25,8	25,8	89,9
	strongly agree	32	10,1	10,1	100,0
	Total	318	100,0	100,0	

AirlineInfluence1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	34	10,7	10,7	10,7
	disagree	52	16,4	16,4	27,0
	neutral	68	21,4	21,4	48,4
	agree	106	33,3	33,3	81,8
	strongly agree	58	18,2	18,2	100,0
	Total	318	100,0	100,0	

AvailabilityInfluence1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strongly disagree	6	1,9	1,9	1,9
	disagree	28	8,8	8,8	10,7
	neutral	62	19,5	19,5	30,2
	agree	142	44,7	44,7	74,8
	strongly agree	80	25,2	25,2	100,0
	Total	318	100,0	100,0	

LCConDistancePerception1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid strongly disagree	10	3,1	3,1	3,1
disagree	50	15,7	15,7	18,9
neutral	130	40,9	40,9	59,7
agree	96	30,2	30,2	89,9
strongly agree	32	10,1	10,1	100,0
Total	318	100,0	100,0	

LCConTravelFrequency1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid I don't know	20	6,3	6,3	6,3
No, it hasn't changed	110	34,6	34,6	40,9
Yes, i travel less now	4	1,3	1,3	42,1
Yes, i travel more now	184	57,9	57,9	100,0
Total	318	100,0	100,0	

LCConLowerCognitiveDistance1

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid I don't know	80	25,2	25,2	25,2
No	30	9,4	9,4	34,6
Yes	208	65,4	65,4	100,0
Total	318	100,0	100,0	

BarcelonaZagreb1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Barcelona	160	50,3	61,1	61,1
	Zagreb	102	32,1	38,9	100,0
	Total	262	82,4	100,0	
Missing	3	56	17,6		
Total		318	100,0		

LondonMinsk1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	London	162	50,9	68,6	68,6
	Minsk	74	23,3	31,4	100,0
	Total	236	74,2	100,0	
Missing	3	82	25,8		
Total		318	100,0		

Statistics Table

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
AgeGrouped	318	1,00	3,00	1,1509	,43778
Gender1	318	1	2	1,39	,489
Education1	318	1	6	2,67	1,575
Employment1	318	1	5	1,90	1,073
TravelFrequency1	318	1	5	3,17	1,870
TripLength1	318	1	4	2,84	,881
TripTypes1	318	1	6	2,21	1,641
TransportMode1	318	1	3	1,97	,469
FlyingMotive1	318	1	3	1,75	,940
LandTransportMotive1	318	1	4	3,35	,992
DestinationChoice1	318	1	6	4,69	1,867
DistanceAttributes1	318	1	7	5,65	2,235
WillingnessFlight1	318	1	3	2,46	,768
MaximumFlightPrice1	318	1	4	2,19	1,024
Availability1	318	1	5	4,24	,844
Time1	318	1	5	4,46	,792
Cost1	318	1	5	3,52	1,111
Knowledge1	318	1	5	3,16	1,172
CultureZone1	318	1	5	3,07	1,096
AirlineInfluence1	318	1	5	3,32	1,247
AvailabilityInfluence1	318	1	5	3,82	,970
LCConDistancePerception1	318	1	5	3,28	,954
LCConTravelFrequency1	318	1	4	3,11	1,081
LCConLowerCognitiveDistance1	318	1	3	2,40	,864
BarcelonaZagreb1	262	1	2	1,39	,489
LondonMinsk1	236	1	2	1,31	,465
Valid N (listwise)	202				

Correlate & Compare Means Tests

Correlations

			Availability1	Time1	Cost1	Knowledge1	CultureZone1
Spearman's rho	Availability1	Correlation Coefficient	1,000	,517	,264	,150	-,044
		Sig. (2-tailed)	.	,000	,000	,007	,433
		N	318	318	318	318	318
Time1		Correlation Coefficient	,517	1,000	,316	,291	,124
		Sig. (2-tailed)	,000	.	,000	,000	,028
		N	318	318	318	318	318
Cost1		Correlation Coefficient	,264	,316	1,000	,164	,236
		Sig. (2-tailed)	,000	,000	.	,003	,000
		N	318	318	318	318	318
Knowledge1		Correlation Coefficient	,150	,291	,164	1,000	,546
		Sig. (2-tailed)	,007	,000	,003	.	,000
		N	318	318	318	318	318
CultureZone 1		Correlation Coefficient	-,044	,124	,236	,546	1,000
		Sig. (2-tailed)	,433	,028	,000	,000	.
		N	318	318	318	318	318

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Availability1	Between Groups	22,269	5	4,454	6,826	,000
	Within Groups	203,568	312	,652		
	Total	225,836	317			
Time1	Between Groups	13,032	5	2,606	4,373	,001
	Within Groups	185,937	312	,596		
	Total	198,969	317			
Cost1	Between Groups	5,248	5	1,050	,848	,516
	Within Groups	386,098	312	1,237		
	Total	391,346	317			
Knowledge1	Between Groups	44,232	5	8,846	7,054	,000
	Within Groups	391,264	312	1,254		
	Total	435,497	317			
CultureZone1	Between Groups	25,501	5	5,100	4,483	,001
	Within Groups	354,977	312	1,138		
	Total	380,478	317			

Ranks

	Gender1	N	Mean Rank	Sum of Ranks
Availability1	Female	194	164,44	31901,00
	Male	124	151,77	18820,00
	Total	318		
Time1	Female	194	154,03	29881,00
	Male	124	168,06	20840,00
	Total	318		
Cost1	Female	194	174,47	33847,00
	Male	124	136,08	16874,00
	Total	318		
Knowledge1	Female	194	147,26	28569,00
	Male	124	178,65	22152,00
	Total	318		
CultureZone1	Female	194	157,19	30495,00
	Male	124	163,11	20226,00
	Total	318		

Test Statistics

	Availability1	Time1	Cost1	Knowledge1	CultureZone1
Mann-Whitney U	11070,000	10966,000	9124,000	9654,000	11580,000
Wilcoxon W	18820,000	29881,000	16874,000	28569,000	30495,000
Z	-1,299	-1,525	-3,761	-3,062	-,580
Asymp. Sig. (2-tailed)	,194	,127	,000	,002	,562

Correlations

		Age	LCConTravelFrequency1
Age	Pearson Correlation	1	-,145
	Sig. (2-tailed)		,010
	N	318	318
LCConTravelFrequency1	Pearson Correlation	-,145	1
	Sig. (2-tailed)	,010	
	N	318	318

Correlations

			AirlineInfluence1	AvailabilityInfluence1	LCConDistancePerception1	TravelFrequency2
Spearman's rho	AirlineInfluence1	Correlation Coefficient	1,000	,386	,242	,219
		Sig. (2-tailed)	.	,000	,000	,000
		N	318	318	318	318
	AvailabilityInfluence1	Correlation Coefficient	,386	1,000	,432	,185
		Sig. (2-tailed)	,000	.	,000	,001
		N	318	318	318	318
	LCConDistancePerception1	Correlation Coefficient	,242	,432	1,000	,046
		Sig. (2-tailed)	,000	,000	.	,412
		N	318	318	318	318
	TravelFrequency2	Correlation Coefficient	,219	,185	,046	1,000
		Sig. (2-tailed)	,000	,001	,412	.
		N	318	318	318	318

Correlations

		TravelFrequency2	BarcelonaZagreb1	LondonMinsk1
		2	1	
TravelFrequency2	Pearson Correlation	1	,130	,303
	Sig. (2-tailed)		,036	,000
	N	318	262	236
BarcelonaZagreb1	Pearson Correlation	,130	1	,149
	Sig. (2-tailed)	,036		,034
	N	262	262	202
LondonMinsk1	Pearson Correlation	,303	,149	1
	Sig. (2-tailed)	,000	,034	
	N	236	202	236

Group Statistics

		Gender1	N	Mean	Std. Deviation	Std. Error Mean
BarcelonaZagreb1	Female		152	1,37	,484	,039
	Male		110	1,42	,496	,047
LondonMinsk1	Female		148	1,34	,475	,039
	Male		88	1,27	,448	,048

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig. (2-tailed)
BarcelonaZ	2,364	,125	-,813	260	,417
agreb1			-,810	231,725	,419
LondonMi	4,685	,031	1,041	234	,299
nsk1			1,056	191,429	,292

Independent Samples Test

		t-test for Equality of Means			
		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
				Lower	Upper
BarcelonaZagreb1	Equal variances assumed	-,050	,061	-,170	,071
	Equal variances not assumed	-,050	,061	-,171	,071
LondonMinsk1	Equal variances assumed	,065	,063	-,058	,188
	Equal variances not assumed	,065	,062	-,057	,187

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
BarcelonaZagreb1	Between Groups	3,827	5	,765	3,351	,006
	Within Groups	58,463	256	,228		
	Total	62,290	261			
LondonMinsk1	Between Groups	8,463	5	1,693	9,196	,000
	Within Groups	42,334	230	,184		
	Total	50,797	235			