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Aviation Accidents – The Effect on Travelling Choices

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Opinnäytetyön tarkoituksena oli tutkia vaikuttavatko lentoalalla tapahtuvat onnettomuudet matkustajien päätöksiin ja jos vaikuttavat niin miten.

Tähän opinnäytetyöhön käytettiin teoriapohjana lentopelkoa ja asiakkaan päätöksenteko prosessia. Näitä siksi, että useimmiten onnettomuksien jälkeisten muutosten taustalla on joko pelko tai ennen ostotapahtumaa saatu informaatio joka muuttaa päätöksenteko prosessia. Tutkimusta varten tehtiin kvalitatiivisia haastatteluita ja haastatteluita oli kahdeksan.

Haastattelut ovat suurimmaksi osaksi kerran tai muutaman kerran vuodessa matkustavia 30-50 vuotiaita. Haastatteluita suoritettiin seurasa, että vaikka ihmiset seurasivat lentoalalla tapahtuvia onnettomuuksia uutisissa ja osa jopa pelkäsi lentämistä, eikä onnettomuuksia estää matkustamista. Ainoastaan yhtiön turvallisuuteen kiinnitettiin tämän johdosta enemmän huomiota.
The aim of this thesis was to find out if the crisis or accidents in the aviation industry affect people’s travel decisions and if they do, how.

For this thesis fear of flying and customer decision making process were used as the theory base. These were chosen because if people make changes in their plans after accidents occur it is mostly either because of fear or the information gathered during the trip buying process or after the purchase that changes the customer’s mind. For this research qualitative research was used through interviews. Eight people were interviewed.

The people interviewed travelled mostly once or twice in a year and they were between 30-50 years old. The interviews showed that people do follow the news about aviation industry and some of the respondents even feared flying, they did not let it stop them from making their trips. Because of the recent crashes and accidents they did, however, pay closer attention to the safety of the chosen airline.
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1 INTRODUCTION

The aim of this thesis is to find out if people have changed their travel plans because of the recent accidents that have happened in the aviation industry. First the basic terms, such as what a traveler is and what kind of air travel exists, will be discussed. Statistics in the aviation industry are researched and the most recent accidents in the industry are brought up. After that the fear of flying, what causes it and how people manage their fears is discussed, as well as the more serious type of fear of flying, aviophobia. Customer decision making process is also included in the theory for this thesis and there the whole process that starts from the need to buy something and ends in the post-purchase decision is explained in that part.

The research study section of this thesis is conducted by doing qualitative research and by interviewing eight persons.

This topic was chosen because the idea that people would cancel their flights because some other company had an accident that was due to circumstances the company cannot control was intriguing. Do people fear flying and change their plans because of that? Or do they feel that the company is untrustworthy because of the accident that happened, whether it happened due to poor maintenance or pilot error or if it was just an unfortunate accident that could not have been prevented?
2 THESIS

This thesis studies the customer decision making process since the aim is to research why and how people make decisions about their travels. The aviation crises is taken to the study to narrow the topic down and in order to get result in the time period given.

In the study the qualitative research method is used by making interviews amongst people who, for example, travel occasionally.

2.1 Research problem and question

The research problem is to find out whether different crises in the aviation world have an effect on people’s travelling behavior and if so, how. The aim is to learn what kind of changes people are willing to make in order to feel safer about travelling or will people just stick to their original plans no matter what happens in the world.

Some kind of results are expected to be found on possibly changing the travel route, the air company, postponing the whole trip or picking a new destination. The study also refers to the fear of flying and are these crises (for example the missing Malaysian aircraft or the airplane that was shot down over Ukraine) reason for some people to develop aviophobia.

Research questions:

1. Do flight accidents affect people’s travelling choices?
2. Do accidents have a harmful effect on airline’s long term reputation?
3. Does flight fear stop people from flying?

2.2 Segmentation

Segmentation is used in for example marketing and research to identify groups with similar needs, wants, attitudes and other characteristics. The goal of segmentation is to satisfy the customers’ needs more specifically and to narrow down the area of research. Segmentation can be divided into two categories; a priori and
post hoc segmentation. A priori segmentation means that the characteristics used to divide the different segments is known in advance. In post hoc segmentation there is no prior knowledge about the segmentation groups. (Rodoula 2012, 44.)

For the research demographic (age, gender and income of the participants) and behavioral (frequency of use) segmentation criteria’s were used.

This thesis focuses on people who are in their thirties and forties. The aim is to interview people who travel approximately once or twice a year. For this segment travelling abroad might not be an everyday occasion but an expected event that is planned carefully. The assumption is that these people might do more detailed planning and do more research about the different companies and safety matters than people who think travelling is not that special and only the destination matters.

People who travel more or travel because of business are not considered since they might be more likely accustomed to flying on airplanes and therefore may not consider the safety issues as much. Also, most of the time business customers do not reserve their flights themselves since they receive the tickets and travel plans directly from the company.

This thesis has ruled out the younger people because the assumption is that they are more concerned on where they travel and not how they travel there. The younger population might not have so much money to focus on the choices available. Also, the elderly people are not considered in this thesis since they might have more time and money to travel but they might use more tour operators and travel agents when they travel and, therefore, they do not make the decision about the air company themselves.

As the study of Claudia Rosa Acevedo and Jouliana Nohara “Consumer Behavior in Tourism: a Study with Senior Tourists” (2004) showed that senior citizens are more likely to use package tours because they feel more safe when someone else is organizing the trip for them (Acevedo, 2004. 7). In the Thesis “Young Adults’ Environmental Knowledge, Attitudes and Travelling Behavior” written by Emilia
Hämäläinen (2012) the results showed that for young people money is the most important factor when choosing a destination. The younger population search for the cheapest options and then look for safety and activities in the destination (Hämäläinen, 2012, 39-40).
3 DEFINITIONS

3.1 Traveler

When defining a traveler one must think about the different types of travelers. A traveler is a person who travels to a destination that varies from ones usual surroundings. An international traveler is a person who travels to another country to perform different activities than usual, and stays there anywhere from one night up to 12 months. This thesis focuses on these international travelers and the domestic travelers (people who travel inside Finland for business trips or to get away from their daily activities) are not taken into consideration as much. (Karusaari & Nylund 2010, 21-24.)

3.1.1 Plog’s Psychocentric- Allocentric Model

Stanley Plog has classified tourists into two categories based on their personality and curiosity to visit new places. Because a tourist’s personality determines their travel patterns and preferences he created a model that has a bell curve and at the two ends there are the venture also known as allocentric people and at the other end are the dependables who are psychocentric. (Plog, 2001)

According to Plog all tourist can be fitted into this model. Most people belong to the centre as midcentric, since most people have traits of both ends.
Figure 1 Plog's Typology of Tourists

An allocentric person is intellectually curious and he wants to explore the world around him. He is able to make decisions quickly and easily, they are self-confident and full of energy. Allocentric people are the ones who adapt new products or customs first, they are the ones who arrive to a destination before anyone else and they rarely visit the same places twice. They travel more and specifically prefer places that are less crowded. They want to get out of their comfort zone and immerse themselves in the culture they visit. (Plog, 2001)

Psychocentric people are the ones who travel less and when they do they choose the safe destinations, maybe a place where they can stay in their environmental bubble. They buy product or visit destinations when all other people have done so, they choose well-known products or very touristy destinations because they seem safer. They also fly less; preferring driving a car or a camper because then they can take more things with them and make the trip feel homier. They are likely to travel to the same place time after time after they have once visited it and deemed it safe and good choice. (Plog, 2001)

3.1.2 Tourist

The easiest way to look at travelers is to think about tourists. The definition of a tourist is a person who travels outside their normal lives to a destination (usually
abroad) and stays there for at least one night. For tourists, the reasons to travel are pleasure or recreation. Therefore the people who travel to another country because of work related reasons cannot be called tourists. This thesis is focused on those tourists and the business travelers who use airplanes to reach the destination. (Karusaari 2010, 21-22.)

For the tourism industry these travelers and tourists are the main segment. Understanding the tourists’ needs and decision making process is essential before trying to develop any new destinations, events or activities.

3.2 Air travel

Airplanes and air travel are the most popular way of long distance transportation and travelling to abroad. Since the very first flight in the year 1903 that lasted only less than a minute the aviation industry has grown into a multi-billion business. (Ukkola 2013, 8.)

Air travel covers the transportation vehicles that are using air routes, such as airplanes, helicopters, and hot air balloons. This thesis, however, focuses only on airplanes. Air travel and flights can be divided into two categories; charter –flights and commercial flights. (Karusaari 2010, 116-118.)

3.2.1 Charter-flights

Charter-flights are mainly sold to the clients by travel agents and/or tour operators. The flights are mostly connected to a package tour. There are two types of charter-flights; first is that a tour operator has rented the entire airplane and pilots for their clients, or the tour operator has their own airplanes. The second type is that multiple tour operators buy a quota of seats from the same airplane for their clients. (Karusaari 2010, 118.)
3.2.2 Commercial flights

Commercial flights operate on selected routes throughout the world. On these route flights customers can buy tickets directly from the flight company or via some travel agents. (Karusaaari 2010, 117.)
4 AVIATION STATISTICS

There have been 660 million departures between the years 1959 and 2013 and 1204 flight hours. These departures do not include airplanes used in military services.

Figure 2 Departures, Flight Hours, and Jet Airplanes in Service

4.1 Aviation Accident Statistics

Between the years 1959 and 2013 there have been 1859 accidents of which 612 have been fatal (fatal injury means that death occurred within 30 days of the accident). Of these accidents about 22% happened between the years 2004 and 2013. (Statistical Summary of Commercial Jet Airplane Accidents, 2014)
Between the years 2010 and 2013 there has been on average one accident in five million flights that has led to fatal injuries. Between the years 2000 and 2009 the corresponding number was one in 4.8 million and in the year 1990 one in 2.5 million. The most unsafe continent is Africa where fifth of the accidents happen, even though the continent is responsible for only 3% of the world’s air traffic. Flying on international routes is fairly safe anywhere but the small local airlines might not be so safe (EU has banned 14 African airlines). (Statistical Summary of Commercial Jet Airplane Accidents, 2014)

Flying on a western airplane is five times safer now than in the 1990’s and over ten times safer than in the 1970’s.

Flying is very safe compared to other types of transportation and one would have to fly every day for 32 876 years before there is the statistical probability to die in a plane crash. (Onko Lentäminen maailmalla turvallista? Katso tilastoluvut, 2014)

Statistics in aviation business show that one is more likely to get in to an accident on the way to the airport than in the airplane itself. Despite of this many people still fear flying more than driving a car. These statistics are used in the thesis because it shows that rationally people have no reason to fear flying, but because the accidents that happen are so massive and get so much news coverage, it does not matter. People don’t think of the statistics when they are afraid.
5 AVIATION TRAGEDIES

The main reason for people to avoid airplanes or develop a fear of flying may be the aviation tragedies that have occurred during the recent years. The most well-known aviation disasters in the past few years have been the Malaysian Airlines flights MH17 and MH370, the missing Air Algerie and AirAsia flights, and the Germanwings Flight 9525 in 2015.

The year 2014 was a dark year to the Malaysian Airlines, which has been the pride of Malaysia and has played a significant role in the nations’ well-being. During the year 2014 two large tragedies occurred in the aviation world and Malaysian Airlines was involved in both of them. Even though the accidents were not directly Malaysian Airlines fault, the company has had to rebuild the confidence with the customers. (Mohd Rusli 2014)

March 2014 the Malaysian Airline Flight MH370 went missing. The flight was due to travel from Kuala Lumpur to Beijing, but the flight lost contact with the air traffic control shortly after the takeoff. Little is known about the movements of the plane except that the flight vanished along with the 239 people on board. (Smith & Marks 2014)

On July 2014 another horrific accident happened when The Malaysian Airline Flight MH17 crashed with 298 people on board. The flight was headed from Amsterdam to Kuala Lumpur but was believed to have been shot down over Ukraine. The early investigations showed that the airplane exploded in the air because of a surface-to-air missile that was shot from the ground either by the Ukrainian separatists or by the Russians. (Kellman 2014)

One of the most recent accident occurred on March 2015 when the Germanwings Flight 9525 from Barcelona to Düsseldorf crashed. The remains of the plane were found from the French Alps. All 150 people on board lost their lives. The research quickly showed that the reason for the crash was not technical but intentional and caused by the copilot. (Allen 2015)
Even though usually the main reasons for fatal aviation accidents could have been avoided by better maintenance of the planes or by checking into the well-being and training of the pilots and cabin crew, some things still cannot be predicted. Of course, these accidents have a harmful effect on the whole aviation culture, but still they are rare and teaching people the real reasons of the accidents could help the industry.

Tragedies in aviation business were discussed here because these are the things that the common people remember when they think about safety. These are the accidents that make people – especially if they are scared of flying - change or cancel their trips.
6 FEAR OF FLYING

6.1 Fear

Fear is one of the most common feelings people have and it is a natural part of every human’s life. At best fear can keep us alive but at the worst case scenario fear can also lead to big problems.

Fear itself is usually a positive thing because it keeps the human mind alert about everything that is going on around us. Getting frightened is vital because it releases adrenaline in our nervous systems and helps us deal with unexpected or dangerous situations. This adrenaline rush is often the reason why people want to experience new things and even dangerous things (for example skydiving or Bungee jumping). For these adrenaline “junkies” the result of fear is a feeling of pleasure and accomplishment. (Kinnunen 1994, 15 – 18)

For some people fear can also be a negative thing if it is severe. With phobias the fear is usually excessive and irrational. All the feelings of fear are exaggerated in the person’s mind who is suffering from a phobia. Almost everything can create phobias and there are hundreds of different phobias. For example, aviophobia (fear of flying), altophobia (fear of heights) or chemophobia (fear of chemicals and working with chemicals). There are also phobias for even the most ridiculous sounding things, like example euphobia (fear of good news) or consecotaleophobia (fear of chopsticks), but for the person suffering from it, it can make their lives really hard. (Kinnunen 1994, 15 – 18)

The most common symptoms in phobias and fear are the feeling of panic or horror, uncontrollable reactions to the phobia and to the things that trigger the fear and physical reactions, such as shortness of breath and high heartbeat. People with phobias are usually willing to go to extreme measures in order to avoid the things they fear. (Kinnunen 1994, 15 – 18)
6.2 Aviophobia

About 10% of population fears flying (Hellström & Hannell 2000, 60).

Many different types of people fear flying. Some have flown before and experienced something that made them fear. Some have never stepped on a plane and have only heard stories or seen things that convince them against even trying. Aviophobia is not a fear a person has since they were born, it is learned over time and it begins approximately after person has turned 20. The reason for this could be that most people get the chance to fly at an older age. About 70% of people who suffer from aviophobia are women. (Hellström et al. 2000, 59-61)

A person who fears flying knows that the possibility of a plane falling is very small (e.g. Car accidents cause more deaths than plane accidents in total, put still they don't see the same danger there) but they are convinced that exactly the plane that they are riding on or might ride on will plummet to the ground. They are hyperactive and hyper alert if they step on a plane and therefore they think they hear things and sounds that they ”know” are signs for accidents and the plane will fall.

6.3 Controlling fear of flying

There are different ways to approach fear of flying. People can learn to control it by themselves or in severe cases they might need therapy if they want to overcome their fear.

6.3.1 Positive thinking

The first step to controlling the fear is to use positive thinking. Most of the people who suffer from fear of flying are pessimists. Pessimists think about the worst case scenarios and they do not even give a change for something good to happen. During flights pessimists are only thinking about the things that could go wrong and searching for any possible mistakes the staff does. This only feeds the fear and makes the person only more anxious.
When a person suffering from aviophobia tries to think about the positive aspects during the flight and focusing on other people or for example the view from the airplane window, they focus less on the fear itself. Thinking positively may be hard for a person who is already suffering from a severe flight fear. For the people who have these kinds of problems the positive thinking must start from small things, for example by reading only the positive articles from a newspaper and slightly moving towards things that cause the fear. (Kinnunen 1994, 77-79)

6.3.2 Relaxing exercises

“A person cannot be relaxed and fearful at the same time; s/he either fears or relaxes. Because it is our own choice how we approach a scary situation we choose relaxation; by controlling our own body, we can gain the control of the whole situation.” (Kinnunen 1994, 87)

By relaxing the problem of flight fear can be ignored. This method solves the problem only temporarily and the actual issue that cause the fear still has to be taken care of more properly.

6.3.3 Breathing

When people are afraid they usually start breathing only shallowly. By not breathing right the fear only grows and can even lead to a panic attack. When we breathe calmly and focus on the way we breathe, we can prevent the fear from taking hold of us.

6.3.4 Distraction during the flight

Sitting on your seat and trying to find ways of nurturing the fear will only make the situation worse. When there are distractions and things to concentrate on during the flight there will be less chance of getting into the panic mode.

6.3.5 Right information

Flying is one of the safest ways of travelling, and most people already know that. The issue about flying for most of the people is that if a plane starts to crash dur-
ing a flight for some reason, there is only a really small chance of surviving. (European Aviation Safety Policy, 2013)

There are strict rules that regulate the aviation world. Each continent has its own policies but all in all the rules stay the same no matter where you go. Each airplane has to be inspected before each flight and the aircraft has to be maintained properly (For example, if you compare to a car, which is only inspected once a year and repaired only after there is a problem). (Kinnunen 1994, 95)

For people with aviophobia it might be a good idea to try and find statistics about the actual incidents in the aviation world and also if it eases their mind, try to find an air company that has high statistics on flight safety. For example JACDEC (http://www.jacdec.de Jet Aviator Crash Data Evaluation Center) publishes information about the latest accidents and statistics about the safety of different airlines. The 2014 evaluation showed that Air New Zealand was the most reliable air company when thinking about crashes, technical problems and safety regulations the company follows. The second place went to Cathay Pacific Airways and in the third place was Finnair. (Top 60 Airline Ranking, 2014)

By doing research about the aviation safety and how the aircrafts actually work, people who suffer from flight fear may be able to ease their anxiety. Some of the fear people are experiencing is created by false information and assumptions.

Fear of flying and phobias were researched and used as theory basis for this thesis because fear is one of the main reasons why people cancel or change their plans. Some people are afraid of flying and follow the current events of aviation industry to beat the odds and make the best possible choice. Some people might be so afraid that they decide to not fly at all, instead they use alternative ways of transport or wait for a safer time.
7 CUSTOMER DECISION MAKING PROCESS

Figure 4 Consumer Decision Making Process

7.1 Five stages of consumer buying decision process

Consumer buying decision process is the steps a buyer goes through when he decides to buy a product or service. In 1968 Engel, Blackwell and Kollat developed a five step process that shows what consumers go through in their decision making process. These five steps are problem or need recognition, information search, evaluation of alternatives that meet the need, purchase decision and post-purchase behavior. (Engel, 1982. 23-24)

7.1.1 Need/ Problem recognition

The recognition of a need, want or a problem is the first and probably the most important step in buying process; without a need to buy the buying process will not start at all. This recognition happens when the consumer notices there is a gap between the real situation and the ideal or desired situation. This does not mean that the need will develop as a buying process. The gap needs to be important enough and the way to get it (price, destination, time) is perceived as acceptable enough by the consumer based on the importance of the need. (Engel, 1982. 25)
The recognition of a need can be caused in different ways. Internal stimuli is a physiological need like hunger or thirst, and external stimuli is caused by exposure to an advertisement. Needs can be classified into different categories: Functional (need to buy something with a specific function of a feature to answer the problem, like buying a dishwasher to not wash dishes by hand anymore), social (the need to get recognition and belong into a society, e.g. Buying a new designer bag or expensive car), and the need for change (desire from the consumer to change, like buying new furniture to change the decoration.) (Engel, 1982. 30-31)

Maslow's hierarchy of needs is also used a lot to describe how consumers are guided by needs that they want to achieve before focusing on the following ones.

1. Physiological needs
2. Safety needs
3. Need of love and belonging
4. Need of esteem (for oneself and from the others)
5. Need of self-actualization

7.1.2 Information search

After the consumer has identified the need or problem he will start looking for information on how to solve it. Depending on how complex the choices are and how involved the consumer is he will seek a lot or not that much information. There are different types of information the consumer will use. (Engel, 1982. 26-27)

**Internal information** is something the consumer already possesses in his memory. It comes from previous experiences with a product or a brand in general, and the opinion he has of a brand. Internal information is mostly used when buying everyday items (food, cleaning chemicals) but when the consumer needs to make a bigger decision or he does not know the product well, he uses another source of information. (Engel, 1982. 26)
**External Information** is received or obtained by friends and family who have used/bought the product. Other customer reviews, advertising, seller's speech and press also offer external information. (Engel, 1982. 26)

During this stage the consumer will pay more attention to his own internal information and external information gained from friends, family and other customer reviews, because these will be regarded as more objective than information from adds, sellers or commercials.

### 7.1.3 Alternative evaluation

Once all relevant information has been collected the customer can evaluate the alternatives offered and find out the most suitable one for his needs. To do so he will evaluate the solutions attributes on two aspects; objective (things like features and functionality of the product) and subjective (perception and perceived value of the brand by consumer or its reputation). (Engel, 1982. 27-28)

Based on the information and consumers' perceptions or images of a brand he will then set evaluation criteria and classify the different products available. This way he can evaluate which one has the biggest chance of satisfying him. This will create an *evoked set* or *consideration set* (set of brands/products with high chance of being purchased because of good image or positive collected information), *inert set* (set of brands/products with no chance of being purchased because of bad experience or negative collected information) and *inert set* (set of brands/products which the consumer has no specific opinion about). (Perreau, 2013)

For everyday products the number of solutions will be smaller than for the products that require a greater level of involvement or are more important to the consumer.

### 7.1.4 Purchase decision

Now that the different solutions and products available have been evaluated the consumer can choose a product/brand that is the most appropriate for his needs and buy it. But just finding the product and knowing it is the best solution will not
always guarantee that the product is bought. The buying process can be interrupted by the quality of a shopping experience or store (e.g. Online shopping might prove to be surprisingly difficult), terms and conditions of the sale or availability. Some consumers will not buy a product even if it is the best solution if they have an unpleasant experience with the sellers in the store. (Engel, 1982. 32-33) (Perreau, 2013)

7.1.5 Post-purchase decision

After the consumer has bought and used the product he will evaluate if it met his original needs and if he made the right choice by purchasing the product.

The opinion about the product will influence consumers' future decisions and buying behavior. If the consumer thinks that the product is good and he feels satisfied about his choice, he will spend less time in the stages of information search and alternative evaluation to buy the same brand next time. This produces customer loyalty. (Engel, 1982. 32-33) (Perreau, 2013)

Then again if the experience was less than satisfactory, the customer will go through all five stages during his next purchase but the disappointing brand isn't in his evoked set anymore. (Engel, 1982. 32-33) (Perreau, 2013)

Customer decision making process is described in this thesis because it explains how the process of for example buying a plane ticket happens and it shows why and where the customer might make the decision to change their plans. Some companies might go to the inept set right away because of recent accidents, some might be in the evoked set but because of negative experience they are put to the inept set after post-purchase. Sometimes the decision has been made but during the purchasing process something happens - like an accident - and the process is interrupted.
8 QUALITATIVE RESEARCH

When conducting a research or a study one should first determine the research method. The research methods are usually presented as two different research methods; qualitative and quantitative research. The research method is linked to the research question and what is the aim of the study/research.

In quantitative research approach a high number of variable participants is important in order to get information on the whole population. The results are then analyzed statistically and the answers should show a consistency in the results all over again and show possible differences clearly. The quantitative method is mostly carried out as questionnaires. This allows anonymity to the replier and it allows the researchers to analyze the results based on statistics. By using this method the researcher can gain relatively small amount of information from the participants, but, all the information gathered is relative. (Glenn 2010, 103)

The qualitative research, on the other hand, tries to understand the human nature more deeply. Because the qualitative method usually studies decision making by why and how, rather than where, what and when, a smaller group of participants is needed. If the qualitative research method is used the study should only focus on a small, and a very limited segment. The research is usually conducted as interviews and this gives the researcher a lot of information and lets the participant answer more freely and explain the answers. (Glenn 2010, 95)

For this thesis qualitative research is used because for this topic more valuable information can be gathered through personal interviews. In this case, qualitative research allows more open conversation with the interviewees than quantitative research would. The aim of this study is not to get an overall picture of flying behavior but to understand more deeply about the reasons for the fears and anxieties people may suffer regarding flying.
8.1 Semi-structured interview

A semi-structured interview means that the interviewer and the interviewee engage in a formal interview. There are pre-developed questions or topics that the interviewer will ask during the conversation in a specific order. Even though the questions are already formed in advance the interviewer will have the change to stray from the guidelines if there is need to. (Cohen, 2006)

The guidelines for semi-structured interviews are not strict and this allows the usage of open-ended questions. Open-ended questions will permit the interviewee to think about the question and answer more thoroughly with their own words. The idea for the semi-structured interviews is to allow free conversation between the interviewer and the interviewee without compromising the main idea and being able to retrieve the information needed from the interview. (Cohen, 2006)

8.2 Coding

The qualitative research needs a way of interpreting the answers. Transcribing the interviews is important part of the analyzing. Depending on the study/ the research it is not necessary to transcript the whole interviews but to find the key sentences and the highlights that are relevant to the question asked. (Saldaña 2011, 95)

Coding is a method of discovering the most important data from the interview transcripts, observations, and other relevant resources. Coding is used to turn qualitative data into quantitative data (for example codes that help us to categorize the answers). Coding helps the researchers to reduce the data they get from the interviews and summarize the collected data in a way that it is easier to start analyzing the answers. (Saldaña 2011, 95)

8.3 Research questions and implementation

For the research both men and women were interviewed in order to get information on the differences between genders. There is a possibility that women are more affected by the accidents and tragedies regarding the aviation culture.
The segment for the research were people in their thirties and forties who travel approximately once a year. For this study eight interviews were conducted mostly by doing face-to-face interviews that were recorded. The interviews were semi-structured with open ended questions in order to have more free conversation with the interviewees and maybe get more detailed answers. Three of the answers were gathered by email correspondence. All the interviews were made into transcripts and then specific key-words were categorized.

8.3.1 Basic questions

The basic questions were formed in order to get basic information from the interviewees. The questions asked were:

- How many times have you traveled during the last five years?
- Do you have any fears related to flying?
  - If yes, what kind of fears? How do you manage them?
- Have you planned the trip by yourself or have you used a package tour
  - What where the main reasons for using a package tour/ planning the trip yourself?

The first question made sure that the interviewee was suitable for the research. The second question figured out whether the participant had any fears regarding flying and what kind of fears to see if there was a variety of fears, not just the actual fear of flying or crashing, and what causes these fears to occur.

For the next questions the main idea was to learn whether package tours were regarded as the more safe option or does the planning of the tour by themselves help in any of the fears since that allows the traveler to choose also the airline by themselves.

8.3.2 Specialized questions

The specialized questions were formed in order to get more detailed information about the awareness of the participants and the actual measures they have had to
go to in order to be and feel more safe while traveling by airplane. The following questions were asked to get more specific information:

- Have you followed the news about the travel industry and current events?
- Have you ever had to change your travel plans because of safety issues? How?
- Do accidents in a specific airline affect your travel decisions? If yes, how?
- Do you avoid certain airlines due to their reputation/accident history? What were the main reasons?
- What should be done so that you would feel safer regarding your travels?

For the research it was important to know whether the interviewee was aware of the current situations and events in the world to see if these factors influences the decision to travel. The question regarding changing the travel plans was asked in order to find out if the recent events in the world has affected in the previous travel plans of the participants. The aim was to see if the plans were changed because of fear or because the company itself had changed the flights or travel for safety issues.

The next two questions regarding airlines were asked to get more detailed information about the awareness and prejudice people may have regarding some specific airlines and were there really good, justified, reasons for avoiding certain airlines. The last question made it possible for the interviewee to tell about the things they think are important for traveling safely and what they would like to see in every company so that traveling would be easier for them regardless of the fear.
9 RESULTS

After all the interviews were conducted the answers were analyzed by using coding and trying to find similar key-words from the interview transcripts. The interviewees were between 30 to 50 years old and two of them flew more frequently and the rest flew only once or less in a year. Half of the respondents were female and half male, two of them were foreigners. Two of the respondents travelled both outside and inside of Europe and the rest only inside of Europe.

Do you have any fears related to flying? If yes, what kind? How do you manage your fears? Five of the interviewees had at least some degree of flight fear and three said they felt safe during their travels by airplane. Even though the statistics say that 70% of people who fear flying are women, the interviews did not back up this information as three out of five who had flight fear were men. The most common fear was that the plane was going to crash (three out of five). The interviews showed that there were also fears unrelated to the research such as luggage being lost or bad seating.

Two of the respondents did not really manage their fears; instead they accepted that if the plane was going to crash then it was out of their hands. One managed his fear by drinking to calm his nerves and one only made her fears worse by watching plane accident investigation programs. One said that the knowledge that Finnish commercial flights have not crashed since the 1960’s helps to calm her fears. All in all the fears were mostly managed by distractions and acceptance that if something was going to happen, it was meant to be.

Have you planned the trip by yourself or have you used a package tour? What where the main reasons? For this question the interviewees were divided in half. 50% of the respondents preferred package tours and 50% wanted to plan the trip by themselves. One of the interviewees used both. The reasons were also clear for the package tour users; the package vacations that were bought via a travel agent were regarded easier and safer than self-planned trips. One interviewee said that the guides in the destination brought security because if something would happen there would be Finnish speaking personnel to help them.
The rest of the interviewees who preferred the self-planned trips had more varying reasons. The freedom to plan the whole trip themselves, the schedules and to change the trip even during the trip was the main reason for three of the respondents. One said that he felt that the package tours were more expensive and the value for the money was not the same as in self-planned tours. The one interviewee who used both types of tours said that they use package tours when they just want to go somewhere and relax because it is the easiest way, and they plan their trips themselves if they want to experience something different and see things.

Here the replies indicated that half of the interviewees were allocentric and half were psychocentric travelers. The respondents who only used package tours are considered as more psychocentric travelers since they are more comfortable when they know that the whole trip is planned for them and someone else is in charge of organizing and managing the trip and the safety issues. These travelers look for easiness and familiarity when they travel. The other half of the respondents were more allocentric. They like to plan their trips themselves since they don’t want to be restricted by plans made by others. They actively seek new experiences and they are eager to try new things. Only one of the interviewee could have been categorized in both, allocentric and psychocentric, traveler types, as midcentric traveler.

**Have you followed the news about the travel industry and current events?**
Three of the participants said that they actively followed the news and events regarding the tourism industry. The rest said that they do not follow the news as much but still were aware of the resent accidents and restlessness. A common factor for all the participants were that they only remembered the negative news and none of them mentioned any positive cases from the industry. There was not any specific division between genders in this question since an equal number of men and women followed/ did not follow the news about the travel industry.

**Have you ever had to change your travel plans because of safety issues? How?** Only one of the interviewees had had to change his travel plans because of safety issues due to the Eyjafjallajokull –volcano eruption in Iceland 2010. The
same respondent had also decided to change the flight routes after the plane was shot down in Ukraine so that they did not have to fly over the area. The rest of the attendees never have had to or felt the need to change their plans. This was unexpected since the expectation was that people would have changed their plans because of so many plans crashes and disappearances during the past few years. Two of the interviewees said that they have had to change plans because of strikes in the airports but this was not because of safety reasons since the employees went to strikes to improve their collective agreements. The people who have not had to change their travel plans assumed that the travel agencies and the airlines would cancel the trips if it was unsafe to travel.

Do accidents in a specific airline affect your travel decisions? If yes, how? Only one of the eight participants answered that he does not think about the safety issues or accident history of a specific airline when traveling. He also admitted that he does not really think about the countries he flies over. The rest of the interviewees had various concerns about the airlines and how they choose them, and they said that they would avoid or change the company if they found out that there had been accidents in recent history. For one participant the reason to avoid specific airlines was that the fear of flying increases if there have been accidents. One participant said that she checks the airline she is going to use but she was not going to change her plans or cancel the trip if the airline had had accidents in the past.

Do you avoid certain airlines due to their reputation/ accident history? What were the main reasons? All of the repliers said they avoided certain airline companies at least to some extent. At least half of the participants mentioned Malaysian airlines and small Russian airlines to the list of companies they would avoid or could not fly with. Two said that they would avoid any airline that had had accidents and one said that if the accident had happened due to poor maintenance or flight safety he would avoid it in the future. One interviewee also pointed out that he does not feel the need to avoid the companies that have had accidents since they have usually learned from their mistakes. However, he also mentioned that he avoids airlines that are only interested in making profit and being on schedule
since this often leads to negligence of maintenance procedures and the wellbeing of staff, thus leaving room for bigger accidents. He focuses more on the equipment the airline uses rather than the airline itself.

Our results showed that there was a difference between the genders. Women only looked for the accident history and if there had been accidents they would avoid the airline no matter what had been the reason. Men, on the other hand, wanted to know more about the reasons behind the accidents and make the decision to use the airline based on the information found.

**What should be done so that you would feel safer regarding your travels?** For five of the participants there was not anything that could be done to make them less scared of flying. One said that even though she was afraid and nothing could be done to prevent the fear, she still would not stop traveling. If something bad happens then it is meant to be. The rest found some small improvement ideas that could help them and the people traveling with them. For example, one of the participants said that more distractions during the flight (better movies etc.) could help people get their mind of the fact that they are flying. One pointed out that the staff should always be professional and they should receive more training in safety issues. It is also important that the cabin crew is not nervous or show it to the passengers since they often look at the crew for clues if something is wrong. Cleanliness was also mentioned because if the plane was untidy or poorly cleaned it made the customer wonder if something else was neglected as well.

The interviews pointed out that the women felt that there was nothing that could be done to make them feel safer or less afraid of flying but the men offered some improvement ideas.
10 CONCLUSIONS

When this thesis was started the assumption was that because of the recent big accidents and restlessness in the tourist destinations people would be more aware and concerned regarding air travel. The expectation was that people have felt the need to change their travel plans or even cancel their trips more. The research questions this thesis wanted to answer were:

1. Do flight accidents affect people’s travelling choices?

2. Do accidents have a harmful effect on airline’s long term reputation?

3. Does flight fear stop people from flying?

**Do flight accidents affect people’s travelling choices?** When doing the interviews the reality turned out to be quite different than what was assumed. People remember the big accidents and they might be more concerned because of them but most customers will not let it affect their travelling. None of the interviewees had made changes concerning their flights or destinations because they did not feel unsafe even though they recognize the risk.

**Do accidents have a harmful effect on airline’s long term reputation?** For this question the research showed that accidents do have an effect on the reputation of an airline but mostly the effect is only short term. Long term harmful effect can be gained if there has been blatant safety violations or neglect of maintenance. The bad conditions and treating of staff can also drive customers away.

**Does flight fear stop people from flying?** The assumption was that the people who suffer from flight fear try to avoid traveling and especially air travel. The interviews on the other hand showed that fear did not prevent any of the participants from flying. The reason for most of them was that the trip and the destination was worth the risk and if anything happened during the flight it was out of their hands.

When the interviews were analyzed it was clear that there are differences between men and women when it comes to managing their fears and choosing the airline.
For women there was nothing that could be done to ease the fears but they all still choose to fly because they know that the fear is only temporary. Women might not be that concerned about specific airlines but they tend to prefer airlines that are domestic or well-known. If they avoid some airlines it is because they have had accidents during the recent years.

The men who suffered from flight fear tried to manage their fears and make the flight more comfortable for them by distracting themselves. Men mostly avoid airlines they know have had accidents due to neglect of maintenance or other safety issues. Men are also prepared to pay some extra for a comfortable flight with newer equipment and they are more aware of the technical aspects than women.
11 VALIDITY AND RELIABILITY

11.1 Validity

Validity is the indicator of how well a test measures what it is supposed to measure. Study is successful if it measures what the researcher set up to measure in the first place. The biggest threats for validity are all the internal and external factors that could stop the researcher from measuring what they want. Also, when making questions for the respondents, they may answer differently if they know what is being studied and if the questions are leading to a certain direction. (Shuttleworth, 2012)

Researchers should consider both internal and external validity. Internal validity refers to whether the study has been done the right way. Only the one variable you are studying should give you the result and the other variables should not cause the result. A research is better and more valid if at the end the researcher can say that there was only one, independent, variable that lead the result. The idea in most researches is to eliminate the possibility of all the other variables that could affect to the result. In long term researches it is hard to prove and find the internal validity since people can change their opinion about things when they get older and think about the world differently. The change in opinion may not be a result of some other variable except that the person has just grown up. (Shuttleworth, 2012)

External validity refers to the generalization and transferability of the results. External validity can be reached if the result and the study can be generalized in the field of study or the result can be transferred to other studies. Both validity and reliability can be transferred to qualitative and quantitative research. Validity is commonly used in quantitative research by using the triangulation. (Shuttleworth, 2012)

Triangulation means that more than one approach has been used in order to demonstrate the validity or reliability of a research. Validity in qualitative research is harder to define since the results are harder to analyze and the research-
ers own opinion of validity may affect the results. In this case the validity can be proved by quality, rigor and trustworthiness of the research. (Shuttleworth, 2012)

11.1.1 Different types of validity

**Face validity** is about whether or not the measure or procedure is a reasonable way for the researcher to obtain the information, does it seem well designed and will it work reliably. (Phelan, 2006)

**Content validity** makes sure that the measure covers enough areas of the domain of content (e.g if there was a test about different art styles but the questionnaire only included questions from renaissance period, the results would not be content valid since the other important areas were left out). (Phelan, 2006)

**Construct validity** is used to make sure that the measure/procedure measures what it was intended for and no other variables (e.g a test about wine varieties becomes a reading comprehension test because the wording is too hard for the test takers). (Carmines, 1976. 22-25)

**Criterion-related validity** means that a measure or a procedure is compared to another one that is proved valid to measure the first ones accuracy. The accuracy can also be tested multiple times over time. The measurement tools used need to be related in theoretical basis. Criterion related validity can also be looked from concurrent validity and predictive validity perspectives. (Phelan, 2006)

**Predictive validity** means that the results of a study can be proven with another measurement tool after a period of time (month or even a year) has passed. So, the results should be related (predicted).

**Concurrent validity** means that two different measurement procedures are done at the same time. The validity can be proven if the results of both of the measurements are related and the other measurement procedure has already been proven to be valid.
11.2 Reliability

Reliability means that something has been tested, experienced or measured in any way repeatedly and ended up to the same result. A research cannot be generalized if it has not been proven to be reliable in more than one occasion. If reliability could not be proven at all it would be almost impossible to make any theories and to believe in them. Anyone can write anything and make assumptions but if the reliability has not been proven all the theories and conclusions would be just peoples own opinions. For scientific researchers there are four main types of reliability; equivalency reliability, stability reliability, internal consistency and interrater reliability. (Shuttleworth, 2012)

Threats to reliability are all the factors that can cause fault in the results. Researches own error can occur when the judgment of the researcher fails or for example a human error is made during the measurement process. There can also be some small changes in the environment that can cause errors in the results; such as temperature or anything that could affect the respondents’ answers. The participants may also chance a bit, for example their opinion can change during the tests or they may be hungry etc. (Shuttleworth, 2012)

11.2.1 Different types of reliability

Test-retest reliability means that the same test is given to the same control group on different occasions. The time between these tests since short time gap has a higher correlation whereas long time has lower. This means that the shorter the time between the tests the more similar the factors that affect the error. (Phelan, 2006)

Inter-observer reliability is the extent to which two or more observers agree. This takes into consideration the consistency of the implementation of the used rating system and it is useful because when two different people look at the same thing, they will always have different opinions about it. (Trochim, 2006)
Parallel forms reliability means that different versions of e.g. a same test are given to the same sample of people. The more similar the results of these tests are, the more reliable it is. (Phelan, 2006)

Internal consistency means that a test compares two different versions of the same instrument to ensure that they measure the same thing. There are three techniques that are commonly used in measuring internal consistency; Split-Halves Test, Kuder-Richardson Test and Cronbach’s Alpha Test. (Phelan, 2006) (Carmines, 1976. 41-42)

The Split-Halves test is the easiest way of testing the internal consistency of a research by randomly dividing the test into two different halves. The results between the two halves are statistically analyzed and if there is not enough similarity between the halves, there is a problem in the internal consistency. (Carmines, 1976. 41-42)

The Kuder-Richardson test is a slightly more advanced and complex version of the Split-Halves test. In this version the test finds out the average correlation between the halves. In both Split-Halves and Kuder-Richardson tests the questions must be simple yes or no (or one to five for example) questions in order of the test to work out. (Carmines, 1976. 41-42)

The Cronbach’s Alpha test allows also multi-level answers and it is best to leave to the computer to calculate the results. (Trochim, 2006)

11.3 Validity and reliability in qualitative research

Validity in qualitative research is affected firstly by the interviewer himself. Sometimes interviewer might be biased to certain topic in the study, taking better care to form better questions about it and collecting the data about certain sections more carefully. A researcher might also overlook certain small details if he/she thinks of themselves as expert on the field or if they are familiar with the setting and/or the people. (Golafshani, 2003. 601-602)
To measure validity in qualitative research the researcher can use a process known as reflexivity which means to reflect openly on their own ability, to try to be unbiased to see the effect of this on their research and on themselves as a researcher. The reduction of bias can also be done by respondent validation, meaning that the researcher shares information and theorizing with the participants. They can then check the work, offer improvements and give feedback to the researcher. This allows the researcher to think again about their test and its nature. (Golafshani, 2003. 601-602)

Qualitative research is often done in form of interviews, there are fewer answers but they examine more in depth into the topic at hand. That is when inter-observer reliability is important to measure, especially if there are two interviewers. Sometimes the interviewer can affect the opinion of the people who take part in the study. They might choose people who they know will give them certain answers, or some people might start to wonder what the interviewer wants and answer based on that instead of their own opinion. The interviewer might also consciously or unconsciously lead the person on my wording the questions in a certain way. (Golafshani, 2003. 601-602)

Testing reliability in qualitative research might involve sending the test or questionnaire to a different researcher who then analyses and tests it to see if he/she gets the same results. The reliability of a test should never depend on the people who do the test. It is also important to do the qualitative research in different situations and recording and transcribing the possible interviews. This way no data is compromised by the interviewer’s memory or other accidents, and if something is unclear it can be revisited. (Golafshani, 2003. 601-602)

11.4 Validity and reliability in thesis research

Before the interviews the participants were briefed about the theoretical frame and the reasons for the research. This improves validity since the interviewees had the chance to give feedback and their own ideas on what direction the research could be directed to. After the interview there was open conversation about what kind of data had been collected and how many participants were needed.
The validity could’ve been improved by pretesting the questionnaire and changing or adding questions if needed. However the interviews showed that there was no need for additional questions and all the needed data could be gathered from the existing questions.

Concerning reliability, all of the interviews were recorded and saved so that when they were transcript no information was forgotten and if something was unclear during the interview it could be revisited many times if needed. The interviewees were chosen based on how much they travel and not based on what kind of information they could give. The interviewees were not chosen from the vicinity of the researchers and they presented many different cultures and social classes. The interviews were done in a way that was not leading for the respondents and they were allowed to answer freely based on their feelings and experiences.

However, the interview questions were formed rather narrowly and that might have led to a certain types of answers. There was also no testing used to see if the results could be more reliable.

11.5 Suggestions for further research

One way to do further research on this subject is to interview only people who suffer from flight fear or has been diagnosed with aviophobia. Since these are the people who made more conscious effort to stay away from the airlines that had had crashes or accidents, this could lead to a more detailed results on how flight fear affects customers’ choices.

The research could also be conducted by using a quantitative research method to see if the answers differ when a larger number of respondents participate in the study.
REFERENCES


APPENDICES

Questionnaire

- How many times have you traveled during the last five years?
- Do you have any fears related to flying?
  - If yes, what kind of fears? How do you manage them?
- Have you planned the trip by yourself or have you used a package tour
  - What were the main reasons for using a package tour/ planning the trip yourself?
- Have you followed the news about the travel industry and current events?
- Have you ever had to change your travel plans because of safety issues? How?
- Do accidents in a specific airline affect your travel decisions? If yes, how?
- Do you avoid certain airlines due to their reputation/ accident history? What were the main reasons?
- What should be done so that you would feel safer regarding your travels?