Table of Contents

1. Introduction

This chapter has an aim to introduce the reader to the topic of airline service failure. It highlights some theory on the consequences coming from service failures. Additionally, the purpose of this thesis is discussed and research questions are formulated.

1.1. Background

The airline industry could be considered as one of the largest business sectors in the world with the International Air Transport Association (IATA) predicting that global airline net profits will increase to an estimated value of 38.4 billion dollars in 2018 (IATA, 2017). The industry's main focus is on keeping costs low while still maintaining high net profits. As the economic environment becomes more demanding and challenging, the airline companies should continuously strive for progressive growth within the sector, in order to maintain their competitive advantage. Company's competitive advantage could be majorly influenced by superior customer service. In order to sustain the competitive advantage, it is necessary for airlines to focus on the quality of the customer experience (Gabbott, Tsarenko, & Mok, 2010).

The current competitive nature of the sector has seen a number of airlines going out of business in the recent years, such as Monarch Airlines in 2017 (Martin, 2017). Many different incidents could cause an airline to bankrupt or decide to leave the industry. Examples include tragic accidents, drastic sales drops, and massive public criticism which could make people avoid a specific company. In the past few years, there have been multiple incidents where negative word-of-mouth (NWOM) may have had a financial and reputational impact on several major airline companies such as 2014's Malaysia Airlines Flight 370, and more recently 2017's United Airlines Flight 3411 (Kottasova, 2017; "Malaysia Airlines losses worsen", 2014).

Airline service failure procedures should take into consideration not only the causes of negative feedback, but also the emotional factors that influence customers to spread NWOM. A service failure is a negative incident that occurs because the customers' expectations were not met (Zeithamel, Bitner, Gremler, & Wilson 2016). There is a number of different emotions that

customers experience when it comes to a service failure such as: anger, frustration, irritation, disappointment, and regret (Wetzer, Zeelenberg, & Pieters, 2007). Wetzer et al., (2007) claim that customers who experience these types of emotions are more likely to engage in NWOM, whether it is with their family members and friends, or the online community.

However, not all service failures lead to NWOM. It all depends on whom the customer attributes the failure to, meaning, who is guilty for it (Chan & Wan, 2008). Controllability and stability during a negative incident impact the customers' behavior intentions post service failure, including the desire to use NWOM (Nikbin, Hyun, Baharum, & Tabavar, 2015). This is especially true for service environments because service consumption must be done at a specific time and place (Bitner, 1992). Certain environments, such as airline services, are multifaceted which can make the customer feel that they lack complete control during the consumption of the service (Migacz, Zou, & Petrick, 2018).

Little research is done in the area of controllability and customer behavior in regards to service failure situations. Nikbin et al. (2015), and Nikbin and Hyun (2017) are so far the only researchers that come up when looking for this relationship in the industry of airlines. The topic of airline service failure connected to control, emotions, and NWOM is underdeveloped and the research is limited, though it can be important and helpful for the industry. The interest for this matter has peaked in the past years with the increasing criticism over the industry and with additional new issues occurring such as overbooking of flights, leading to security staff dragging people out of the planes. The reasons and patterns of airline service failures are diverse and interesting to research, thus intriguing us to do further investigation on it. Airline service failures are personally interesting to us because as international students, we often have to use the services. Additionally, interest in a future career in the airline industry has been expressed among us.

1.2. Problem

Service failure within the airline industry is most likely occurring on a daily basis at airports across the globe, thus making it very difficult to observe the consumer behavior that results from such a failure (Jafarkarimi, Sim, Saadatdoost, & Hee, 2016). Customers may encounter different negative incidents within one trip, and each of these incidents belongs to a different kind of

service failure. Even if the same failure happens twice, the end results may vary depending on what staff from the service provider the individual interacts with. This is due to the fact that when travelling, customers are required to engage in multiple points of service (Maxham, 2001; Migacz et al., 2018).

In the research of cases like service failure, one possibility is to conduct a scenario-based questionnaire, because of the limited ability researchers have in observing the behaviors that occur after a service failure (Jafarkarimi et al., 2016). However, according to Jafarkarimi et al. (2016), guidelines for creating a scenario-based questionnaire are limited, but it should not be a method that is overlooked in service management. It is a method most commonly used in other areas of behavioral studies, particularly in ethics. Up to our knowledge is that a scenario-based questionnaire has only been utilized in one other service failure study, but that study is within the restaurant industry (Ortiz, Chiu, Wen-Hai, & Tsu, 2017).

This thesis will explore a scenario-based questionnaire design, but unlike Ortiz et al. (2017), the chosen empirical grounding will be within the aviation industry with negative emotions as the main theoretical concept. Emotional responses are focal to handling service failure (Taylor, 1994; Harrison-Walker, 2012). The longer the delay of the reaction, the greater the likelihood that the customer will give the service provider a more negative evaluation (Taylor, 1994). During the time between service failure and service recovery, there is a period of uncertainty. It is this uncertainty, mixed in with various causal attribution dimensions, that heightens negative emotions in an environment that a customer already feels like they have limited control (Folkes, 1984; Migacz et al., 2018; Taylor, 1994;).

Controllability, which is one of the main characteristics within attribution theory, is positively related to negative emotions experienced after a service failure (Nikbin & Hyun, 2017). People are constantly seeking out the cause for their failure. This type of processing is called causal attribution. Within causal attribution theory, Weiner (1980) posits that there are three dimensions: locus of control, stability and control. There is currently only one study written by Nikbin and Hyun (2017) that specifically studies the mediating relationship between negative emotions and behavioral intention. However, their study only focuses on negative emotions in general. We wish to contribute to the service management research by looking at Nikbin and

Hyun's (2017) study from a different angle. While control and NWOM are critical within their study and must be discussed within the literature review, the contribution that our study will give is the study of negative emotions based on a scenario-based questionnaire.

Customer behavior has many avenues to explore but few of the studies harness scenario survey questions as a tool in understanding service failures. The main focus of the thesis is the relationship between feelings of lack of control that a customer has over a service failure situation and the emotions felt by the customer in the situation, together with the research if certain emotions may influence the customer's intentions to engage in NWOM. This research can be categorized as being part of the service management sector within business administration. The choice of aiming the attention at the airline industry comes from the personal interest we have towards the industry and the insignificant amount of research on the specific topic. Adding the fact that the industry's public relations have been highly criticized over the past years shows us that there is an arising interest towards the industry and people may benefit from more scientific research on it. The thesis aims to be valuable for the airlines by helping them gain more awareness of which emotions are prominent after negative incidents in their industry, in order to improve their service failure handling and decrease the level of negative feedback from customers.

1.3. Purpose

The purpose of this research is to understand if there is an association between customers' lack of control over the airline service failure situation and negative emotions, and if the negative emotions felt lead to NWOM intentions. Specific negative emotions are proposed after consulting theory (see section 2.3) to understand which ones drive people into engaging in negative behavior intentions, more specifically NWOM. Unlike Nikbin et al. (2015), and Nikbin and Hyun (2017) who previously research the relationship between control, emotions and NWOM, in this thesis the emotions are divided into different scenarios which customers might have been through if they have experienced an airline service failure. They are studied in this way in order to try to fill an existing gap that has been created, which is that emotions are being generalized by previous studies. The emotions are considered generalized because they have only been explored for the whole service failure category, rather than for different types of

service failures within the airline industry. The attempt is to analyze each emotion separately in order to give real and more reliable results for each of them individually. Not all service failures provoke the same feelings in people. By dividing the research variables into scenarios, the emotions can be better understood in specific cases. Knowing which emotions are felt in a different scenario can be used to help companies handle emotionally charged customers in a way that does not lead customers to engage in negative behavior intentions.

1.4. Research Questions

What is the relationship between customer's lack of control over the situations and customer's negative emotions after a service failure? Which emotions lead to the engagement in NWOM within the situations?

The first research question aims to figure out what is the kind of relationship that the two variables have - positive, negative, or no association, meaning how strong the relationship between lack of control and emotions may be. The second question examines if these emotions cause the individuals to use NWOM.

1.5. Perspective

The focal point of the thesis is what emotions do the customer feel after experiencing a service failure, whether customer's lack of control over the situation influences these emotions, and if they affect customers' decision to engage in NWOM. For this reason, the research is only taking the customer's perspective of the service failure aspect, and companies' perspective is disregarded.

1.6. Delimitation

Data about the airlines and airports is not taken into consideration. The focus of the research is strictly on the customers and any information about the airlines and airports can be considered inapplicable.

Regarding the temporal dimension of the service failure, the reason why the focus is strictly on after service failure, rather than during, is because of the limitation to surveying people who are

currently experiencing a service failure. The emotions might be considered more clear and in greater intensity during the experience, but the aspect concerning NWOM logically follows after the moment of affection. Moreover, there is memory bias in regards to feelings during the moment of service failure. When recalling emotions in the heat of the moment customers tend to exaggerate their feelings, therefore the result might not be as accurate as needed, in order for companies to actually be able to benefit from it.

There are two groups of defined failures - non-catastrophic and catastrophic. A non-catastrophic failures are failures that do not cause physical harm whereas a catastrophic failure is seen as failures that lead to physical harm or even worse, death (Dawar & Pillutla, 2000; Smith, Bolton, & Wagner, 1999). This thesis will only focus on non-catastrophic incidents such as luggage handling failures or cancelled flights. Catastrophic failures within the airline industry are considered extreme cases and will be disregarded.

Positive emotions are not examined in this study, as this research is tightly correlated with NWOM engagement, which is assumed to not be arisen from positive emotions. Also, it is rare that positive emotions are felt during service failure in the first place.

The focus of this research also does not cover service recovery. Even though most of the literature available for service failure and emotions, and airline service failure, also includes recovery, maintaining the focus around three variables - emotions, lack of control, and NWOM gives a better chance in going to greater depth into the research. In addition, considering the current word limit, the large topic of service recovery will not be covered in enough details to actually result in helpful information.

2. Theoretical Background

In this chapter, we present existing theory on causal attributions, emotions, and NWOM. Furthermore, a conceptual model has been developed through the previous findings and presented at the end of the paragraph.

2.1. Causal Attributions

2.1.1. Causal attribution theory

Causal attribution theory has three main dimensions: locus of control, stability and controllability (Weiner, 1980). Whenever there is a failure during the service consumption, customers are usually looking to blame someone. In their search for someone to blame, they use causal attribution processing to determine the cause of that failure and through their own conclusions, they allocate responsibility towards those they believe caused the failure (Albrecht, Hattula, Bornemann, & Hoyer, 2016; Bitner, 1990; Folkes, 1984; Weiner, 2000). Each dimension contributes to the causal inferences. Locus of control is about who the cause of the failure is and it is usually the customer or the service provider (Hess, Ganesen, & Klein, 2003). Stability in causal attribution theory describes the likelihood of an incident happening again. There are temporary or permanent causes. Permanent causes are the incidents that concern companies the most (Weiner, 2000). Finally, there is controllability which is the amount the customer believes they or the service provider can influence the situation (Weiner, 2000).

2.1.2. Controllability

This research will be focusing on the controllability dimension within attribution theory, because researchers tend to only focus on one or two of the three causal attribution dimensions (Hess, 2008). Complaining during a service failure happens when perceived controllability and stability are compromised (Folkes, Koletsky, & Graham, 1987). Customers will blame the firm if a failure should happen more than once. Longer periods between failures also increase the likelihood that the firm will receive an unsatisfactory rating, should a failure arise (Maxham & Netemeyer, 2002). All of the above mentioned factors play a crucial part during a service failure and

contribute to the service failure literature. Triggers in the environment, especially employee interactions, are what affect service failure and service recovery (Albrecht et al., 2016). People are natural information processors who draw conclusions about a causal connection of an event based on the environment around them (Folkes, 1984). This is true for both negative and positive incidents, but negative events tend to garner the highest attribution activity because people are constantly looking for someone other than themselves to take the responsibility for the mishap (Bitner, 1990; Folkes, 1984; Weiner, 2000).

Control of a situation can be very powerful, especially when negative feelings are involved. According to a meta-analysis done by Van Vaerenbergh, Orsingher, Vermeir, and Larivière (2014), controllability has the most influence over customer behavior post service failure. In regards to recovery satisfaction, controllability has a direct negative effect on the customers' perception of the firm. If the customer believes that the firm is in control over the failure and they fail to act in a timely manner, the customer will blame the firm for the negative incident (Choi & Mattila, 2008; Nikbin, Marimuthu, Hyun, & Ismail, 2014). If the controllability is unknown then their satisfaction is more likely to be unaffected (Choi & Mattila, 2008). People tend to blame others when there is failure, but take credit for themselves when there is no issue (Maxham & Netemeyer, 2002).

Emotions can sway the intensity of the event, they can make an event unforgettable, and they can be either proactive or reactive choices. In other words, they can be seen as markers, mediators and moderators (Bagozzi, Gopinath, & Nyer, 1999). Emotions as mediators and moderators has been studied in regards to controllability attribution (Nikbin et al., 2015; Nikbin & Hyun 2017). Nikbin and Hyun (2017) posit that the stability and controllability causal attribution dimensions are related to negative customer intentions and the stronger the negative emotions, the more likely they are to act on those negative customer intentions such as switching and NWOM. However, controllability has a stronger influence on negative emotions and negative customer intentions than stability does (Van Vaerenbergh et al., 2014). Nikbin et al. (2015) find that controllable causes not handled properly will lead to negative customer intentions. Emotions as markers has been studied by Bagozzi, Wong, and Yi (1999). They posit that it is the state of one's well-being and emotions that matter most, regardless of the situational factors.

2.2. Emotions

According to Bagozzi, Gopinath, and Nyer (1999, p. 1), emotions are "positive or negative reactions, or mental stages of readiness that arise as a consequence of specific events or circumstances". They are known to be present and play an important role in the context of service failure (Zeelenberg & Pieters, 1999). There has been an enormous diversity of research in the topic of customers' emotions with numerous defined ways of putting them into different categories and groups. There are also many researchers who claim that different emotions should not be combined and be recognized by common emotional signs, because each emotion has different direction and expression, and therefore different way to perceive (Laros & Steenkamp, 2005). Furthermore, many authors focus only on one emotion in their research such as anger (Bougie, Pieters, & Zeelenberg, 2003), hate (Aumer-Ryan & Hatfield, 2007), regret (Inman & Zeelenberg, 2002), and others.

In order to categorize and quantify emotions later on in the research, certain ways to group them have to be specified. Shaver, Schwartz, Kirson, and O'Conner (1987), and Storm, C. and Storm, T., (1987) laid down the base of the hierarchical structure of emotions, starting from classifying them as positive or negative. The next step is to put those emotions in a category called "basic emotions". Basic emotions have been observed from many different angles by researchers: facial, biosocial, and brain, although there are some who do not agree with the existence of this term (Laros & Steenkamp, 2005). Ortony and Turner (1990), suggest, after a thorough research, that there are 38 different emotions that more or less belong in the category of most researches available for categorizing basic emotions. A few examples would include acceptance, anger, anticipation, anxiety and others.

Since the focus of this thesis is on service failure, the emotions category needs to be more concise, which is achieved by focusing on customer emotions. Smith and Bolton (2002) research the role of customer emotions with the focus of service failure. Their research investigates how customers' emotional responses to service failure could influence their satisfaction perception, and finds that if there is a failure in considering and measuring the emotional responses to service failure, they can lead to inability to understand customers' evaluations and to misunderstand the level of their satisfaction. They also argue that if a service provider is unable to decode the negative emotions expressed from a customer after a service failure, their emotions

might be accountable for lower satisfaction levels in the end. If the service provider decodes the emotions correctly, the customer might receive higher levels of service encounter satisfaction (Dubé and Menon, 1998).

The paper of Laros and Steenkamp (2005) suggests that customer emotions can be arranged in three levels of generality. The distinguishment between positive and negative affect of these emotions is on superordinate level. This is considered as the most abstract level of defining emotions (Diener, 1999). Then, on the level of basic emotions for customers, the emotions proposed by Laros and Steenkamp (2005) are divided into the groups of four of positive and negative effect as it follows: contentment, happiness, love, pride and sadness, fear, anger, shame. At subordinate level, based on the research of Richins' (1997), who created the Consumption Emotion Set (CES), 41 emotions are included. Richins (1997) proposed a scale that includes emotions which can be felt during consumption situations. The negative emotions included in the research of Laros and Steenkamp (2005) and which are based on Richins' (1997) can be seen in the bottom of *Figure 1* on the third, subordinate level.

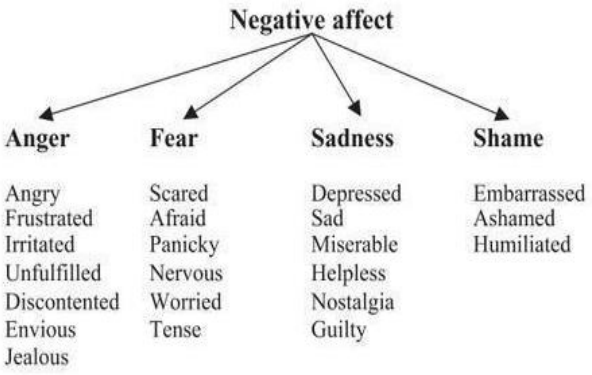

Figure 1: Basic negative emotions of customers according to Laros and Steenkamp (2005)

A company that allows service failure to occur, gives the customers an external target for their negative emotions (Svari & Erling Olsen, 2012). Negative emotions that can be felt after experiencing a service failure can be anger, frustration, helplessness, nervousness, panic and worry (Laros & Steenkamp, 2005). Goussinsky (2011), and Laros and Steenkamp (2005) argue that customer emotions, which are usually aggressive after a service failure, include anger and frustration. Nikbin and Hyun (2017) confirm that anger is an aggressive emotion that is felt after a service failure. Additionally, McColl-Kennedy, Patterson, Smith, and Brady (2009) claim that

frustration is a main emotion following service failure. Common emotions that are felt are also nervousness, panic and worry, which belong to the Fear group (Laros & Steenkamp, 2005). Choraria (2013) states that nervousness and worry are both felt in a service failure situation. Additionally, panic is based on the Richins' (1997) consumption emotion set. Helplessness, which is a part of the Sadness category of the Laros and Steenkamp's (2005) study, is claimed as an emotion with negative effect that can accompany the effects of service failure as well. Gelbrich (2010) confirms that helplessness has a correlation to service failure. Since this research is focusing on service failure in situations that a customer is unable to control, the Shame category is reckoned as inapplicable and will not be further discussed. Based on the previous mentioned studies, the six emotions connected to service failure that are picked to be further tested in the thesis are Anger, Frustration, Helplessness, Nervousness, Panic and Worry.

Emotions felt after a service failure is the core of this research paper. This leads to the first set of hypothesis aiming to answer the first research question:

H1: There is a positive association between at least one negative emotion and lack of control over the situation in the *luggage handling service failure* scenario
H2: There is a positive association between at least one negative emotion and lack of control over the situation in the *delayed/cancelled flight* scenario
H3: There is a positive association between at least one negative emotion and lack of control over the situation in the *missed flight due to factors beyond customers' control* scenario
H4: There is a positive association between at least one negative emotion and lack of control over the situation in the n*egative customer service at the airport* scenario
H5: There is a positive association between at least one negative emotion and lack of control over the situation in the *negative service experience during the flight* scenario

According to Svari and Erling Olsen (2012), the majority of customers experiencing service failure prefer to engage in NWOM, rather than complaining to the service provider. Chebat, Davidow, and Codjovi, (2005), and White and Yu (2005) argue that this pattern is tightly related to the emotions felt during the negative experience.

2.3. Negative Word-of-Mouth

NWOM is the action that occurs when customers are dissatisfied with a purchase or a company, which leads them in informing their social circle about the experience, and advising their family and friends to avoid it (Day, 1978; Leonard-Barton, 1985). The forms of NWOM can be of verbal, as in in person, or online sources (Balaji, Khong, & Chong, 2016). Since NWOM tends to arise when large numbers of customers experience the same problem with a company or a product, this could lead to potentially serious consequences for organizations (Richins, 1984). NWOM can cause the problem to be reported by mass media, meaning that the information may reach the competitors, as well as the potential new customers who might choose to avoid that certain company. Many studies have shown that once customers experience a dissatisfaction, NWOM can be extensive since most customers do not only tell one person about the issue, but to several others as well (Richins, 1984).

According to Richins (1984), NWOM involves dynamic, two-way communication, consisting of a communicator and a receiver. The action of communicating and sharing information will only take place if the communicator is willing to speak, and the receiver is willing to listen (Lau & Ng, 2009). In order to understand how the procedure works, it is important to first look into the motives that drive customers to make their voice heard. Some of the factors that may have an influence on the individual's willingness to speak include: their personality such as self-confidence (Cox & Bauer, 1964) and sociability (Lawther, 1978), their willingness to help others (Richins, 1984), and their involvement with the product or company (Richins & Root-Shaffer, 1988).

The impact of NWOM is a serious issue that should not be ignored since it comes from a non-marketing dominated source and thus, is not controlled by the companies. Companies cannot control what people share with one another especially when it comes to customer negative experiences and dissatisfaction. Research on negative information has proven that negative information has more influence on customers in comparison to positive information. There are many occurrences whereby people would avoid certain companies after receiving negative rumors about the company's product or service, even when they reported that they did not believe the rumor (Richins, 1984). Furthermore, NWOM may lead to serious consequences such as affecting customer's attitudes and purchasing intentions, brand dilution, volatility in stock

returns, and the overall firm's image and reputation (Balaji et al., 2016). The most effective way to minimize or hinder customers from spreading NWOM is to minimize negative emotions, and ensure that customers are satisfied (Keiningham, Rust, Lariviere, Aksoy, & Williams, 2018).

2.3.1. Individual factors influencing NWOM

When it comes to individual factors that may have an influence on NWOM, Lau and Ng (2009) state that when experiencing a service failure, some individuals are more willing to express their opinion than others. After encountering a negative service experience, customers might have an urge tell others about it in order to release the frustration that they are feeling at the moment. Personality characteristics play a significant role in whether the customer would be motivated to share their negative experience with the audience. For example, people who possess quiet traits may not speak up whereas the sociable individuals may readily engage in NWOM. According to Lau and Ng (2009), a person who is more sociable will have a wider circle of contacts, increasing their likelihood of sharing negative service experience with others. Self-confidence is one of the personality characteristics that has a straight connection with NWOM behavior (Lau & Ng, 2009). According to Day (1978), customers who complain tend to be more self-confident. Thus, there is a higher chance that self-confident individuals are more likely to engage in NWOM compared to those who are less confident.

Another reason why customers engage in NWOM is due to their sense of social responsibility. People who are socially responsible tend to help other people despite the fact that they might not get anything in return. It is suggested that since socially responsible customers are concerned about the welfare of people surrounding them, they would be more likely to tell and warn the others about their dissatisfaction with a service in order to prevent them from experiencing the same unsatisfactory situation. In addition, individuals who are highly involved in their purchase decision tend to use NWOM (Lau & Ng, 2009). This is due to the fact that the level of purchase decision involvement can influence the level of dissatisfaction with a product or service and the likelihood of customers complaining once a service failure occurs (Landon, 1997).

2.3.2. Negative emotions and NWOM

Negative emotions are encountered when a large gap between the customers' expectation of service quality and the service provided by the company is present (Nikbin et al., 2015). Past

studies have shown that when it comes to the relationship between emotions and behavioral intentions, customers tend to speak negatively to other people about their experiences in the marketplace to seek for social support as well as emotional release (Nyer & Gopinath, 2005). Numerous studies have shown that there are various negative emotions that would lead to customers engaging in NWOM after experiencing a service failure. These emotions include anger, frustration, helplessness, worry, nervousness, and others (Diener, Smith, & Fujita, 1995; Tronvoll, 2011). According to Damasio (1999), every decision made by a person is influenced by the set of emotions and thus, influencing one's intention to complain depending on which emotion is dominating at that moment. Nikbin and Hyun (2017) suggest that the stronger the negative emotion after encountering a failure, the more likely customers intend to talk and share the negative experience with others.

According to various researchers, anger seems to be the most common emotion studied in regards to NWOM (Bougie et al., 2003; Choraria, 2013; Nikbin & Hyun, 2017). Frustration and helplessness are the next negative emotions studied in terms of NWOM. Customers feel helpless when they believe that no one, including the service provider, can provide a solution to the problem (Lazarus, 1991; Weiner, 1985). Gelbrich (2010) state that customers who feel frustrated and helpless would turn to their social circle in order to vent their frustration. Furthermore, customers who experience anger with high level of helplessness tend to engage themselves in vindictive NWOM (Gelbrich, 2010). This means that customers attempt to castigate an organization by private actions taken in their own social circle (Singh & Pandya, 1991; Wangenheim, 2005). Some of the other negative emotions that play a crucial role in influencing customers' complaining behavior include worry and nervousness (Choraria, 2013). According to Choraria's (2013) study, some of the negative emotions are grouped under different categories namely Anger (anger, frustration, and irritation), and Unhappiness (unhappiness, worry, and nervousness). The reason behind having these negative emotions under these categories is because frustration can be grouped with anger whereas worry and nervousness can be grouped with unhappiness, meaning that these emotions can be felt by a customer simultaneously (Choraria, 2013).

The theory presented above highlights the current findings of NWOM and emotions. Thus enabling the formulation of a second set of hypothesis:

H6: At least one negative emotion leads to NWOM in the *luggage handling service failure* scenario.

H7: At least one negative emotion leads to NWOM in the *delayed/cancelled flight* scenario.

H8: At least one negative emotion leads to NWOM in *missed flight due to factors beyond customers' control* scenario.

H9: At least one negative emotion leads to NWOM in *negative customer service at the airport* scenario.

H10: At least one negative emotion leads to NWOM in the *negative service experience during the flight* scenario.

2.4. Theoretical framework

One of the main papers that the research will be used as a basis for the thesis comes from Nikbin and Hyun (2017). In their research they study on the relationship between causal attribution, pre-recovery emotions and negative behavioral intentions after a service failure in the airline industry. While their work looked at control and stability attribution dimensions, this research will only look at the control dimension. Nikbin and Hyun (2017) have studied multiple negative behavioral intentions, but here only NWOM will be studied. The conceptual model shown in *Figure 2* is based off of Nikbin and Hyun's (2017) model found in their report. The figure provides the link between control and emotions as well as emotions and NWOM. The arrows indicate where the hypotheses stand in terms of the model.

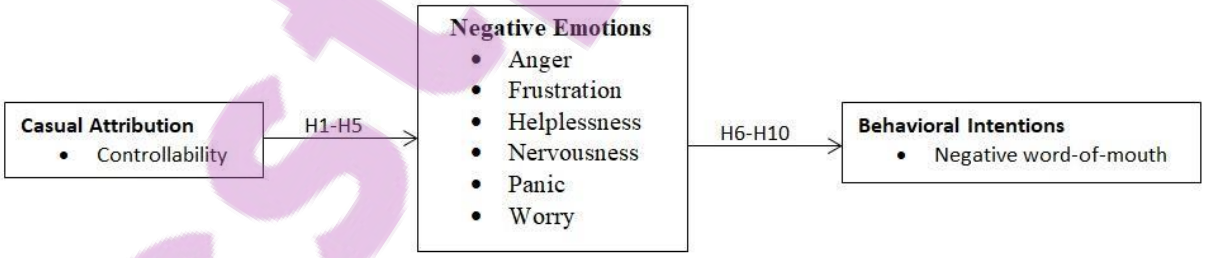

Figure 2: Conceptual Model based off of Nibkin & Hyun (2017) model

To summarize the theoretical framework, controllability is presented as one of the main factors from causal attribution that can influence negative customer behavior intentions. Control is put in the beginning of the model, as it tightly correlates to negative emotions that customers can feel after a service failure (Nikbin & Hyun, 2017). These specific emotions are chosen based off of Richins (1997), and they can trigger customers to engage in NWOM (Nikbin et al., 2015; Nikbin & Hyun, 2017). The hypotheses will test the relationship between lack of control and negative emotions as well as negative emotions and NWOM.

3. Methodology

The beginning of this chapter justifies the choice of our research method. Additionally, we provide a summary of our searching parameters. Furthermore, a reasoning why a survey has been conducted is stated, together with explaining the process of gathering the data and what the content of the survey is about. Lastly, the methodological limitations of the thesis are discussed.

3.1. Choice of Method

The choice of method is a quantitative deductive research approach. It is used to answer the research questions regarding the relationship between lack of control over the situation, and negative emotions as well as testing the relationship between emotions and NWOM.

Quantitative research is a part of the positivist paradigm because it adopts a highly precise, logical mathematical approach to collecting and observing numerical data (Collis & Hussey, 2014). A quantitative method analyzes the data through various statistical tests. The methods are well structured and often times aim to draw conclusions about hypotheses (Saunders, Lewis, & Thornhill, 2009). The research question at hand is seen as quantitative because it does not wish to draw conclusions about why negative emotions change when the customer's control is limited, nor will the study describe the phenomenon from a subjective point of view. Those two types of studies are seen as an interpretivism approach, because of the methods required to conduct the studies (Saunders et al., 2009). The major setback to doing quantitative is that the research will not be able to answer *why* someone feels the way they do which is what interpretivism is able to do (Collis & Hussey, 2014). This lack of deeper interpretation may be seen as a negative factor when working with psychological customer behavior such as emotions.

The goal is to quantify data through the use of methodologies that classify under the positivism approach. Certain hypotheses are examined which is done by inspecting the statistical correlations thus, exploring about why and how is not the subject matter of this research. Therefore, a survey is a practical method of inquiry. The theories used will provide a base for establishing causal relationship between the controllability, negative emotions and NWOM

variables (Collis & Hussey, 2014). Through survey collection, the data will be collected and analyzed.

3.2. Searching parameters

The theoretical framework is gathered from various existing sources such as academic articles and books in order to obtain relevant studies to this topic, and keywords are used during the research process. All the scientific articles are found from Jönköping University Library, Primo, ScienceDirect and others. Some of the older articles referenced can still be considered relevant, as they are mentioned in more recent scientific articles and research and are mainly used for expressing definitions. All articles and books are published in English. The summarized information about the searching parameters can be seen below in *Table 1: Searching parameters.*

Database and search engines	Jönköping University Library, Primo, ScienceDirect, SAGE Journals, Emerald, ProQuest
Key words	service failure in the airline industry, service failure AND emotions, service failure AND negative word-of-mouth, negative emotions AND negative word of mouth, service failure AND control, control AND emotions, causal attribution theory AND service failure, scenario-based questionnaire AND service failure, controllability AND service failure, controllability AND negative word-or-mouth
Literature types	Academic articles, Books, Internet
Publication period	1954-2018
Languages of publication	English

Table 1: Searching parameters

3.3. Reasoning of choice to conduct a survey

In order to reach the purpose of this thesis and obtain answers to the research questions, a survey was created. The survey was generated through Jönköping International Business School Qualtrics, which is a website created for designing surveys.

Emotions are multifaceted and this is why there are multiple studies in academia that study specific emotions from different angles. The survey includes more than one emotion because as shown in the theory, various authors have connected the emotions in the survey to control or NWOM in some way. Additionally, like emotions, service failure may also be seen as multifaceted and all the participants may not feel the same way in a given scenario. In order to connect emotions to lack of control and NWOM, a quantifiable method must be utilized. A cross-sectional study survey was seen as the most feasible option because of the time constraint to collect data. This type of survey helps explaining whether there is or is not a correlation, which is the aim of the study (Collis & Hussey, 2014). Additionally, experiments and longitudinal studies allow for more researcher controls, compared to cross-sectional surveys, but again, due to time constraints and financial means, these two methods were rejected as the final choice of method (Vazquez-Casielles, Rio-Lanza, & Diaz-Martin, 2007).

There were several other reasons why a survey was the chosen method to gather data. Firstly, it is cost and time effective as well as it allows to reach a large number of participants without depending on geographic locations. Secondly, various types of questions, regarding the subject, can be asked and designed in a way that would deliver a relevant outcome. Moreover, after the survey is complete, SPSS Statistics can be utilized in order to analyze survey data to discover statistical significance and therefore, provide the answers to the research questions.

However, there are also several disadvantages when it comes to choosing a research survey as the key method to gaining an outcome. Some of the disadvantages may include unclear data because the participants may understand and interpret the questions and answers differently. Also, it is unknown whether participants think the questions through before answering. Furthermore, the feelings and emotions of participants cannot be observed through a questionnaire compared to, for example, conducting an interview.

3.4. Content of the survey

In the survey, five scenarios are designed to investigate the variables (lack of control, emotions, and NWOM) in more depth. In order to create the five scenario questions, a set of criteria has to be made during the creation of the survey. In this case, the set of criteria is a set of guidelines of what a service failure should entail in order to be considered one. Lind (2007) has proposed a list of criteria for an ethics study, but no such criteria has been made for service failures. The first criteria is that the scenario has to be a common occurrence within the airline industry and the second one is that it has to be a non-catastrophic failure. The third criteria is that the scenario must be clearly defined in one sentence in order to maintain organization during the analysis process. Finally, the scenario should have the possibility of eliciting some kind of negative emotion from the customer. Based off of those four criteans, five scenarios are made. The survey emphasizes on several service failure scenarios that are more common including: luggage handling service failure, delayed/cancelled flight, missed flight due to factors beyond passenger's control, negative customer service at the airport, and negative service experience during the flight.

Data is collected through the survey which consists of nine questions of which five questions require further expansion from the participants. Five out of nine questions provide specific service failure scenarios that may elicit NWOM and negative emotions that might be felt after the encounter (Laros & Steenkamp, 2005; Richins, 1997; Svari & Erling Olsen, 2012).

Scenario one describes luggage handling service failures. In this kind of scenario, the failure can be anything from lost luggage, to poor handling of luggage that leads to damage of one's' property. The second scenario is delayed or cancelled flights. The most common reason for this is natural weather occurrence as well as technical and logistical problems of the aircraft. In the third scenario, missed flight due to factors beyond passenger's control, can also be due to weather and technical difficulties, but it also focuses on customers missing connecting flights. Scenario number four encompasses negative customer service at the airport. This can be defined as any ground interactions with any given service at the airport. Common encounters may occur at the check-in counter, interactions at security checkpoints and many more. The fifth and final scenario is negative service experience during the flight. It has to do with any negative interactions with the inflight crew while the passenger is onboard the aircraft.

The participants are also asked about their feelings about the degree of control of the situation (Nikbin & Hyun 2017; Sengupta, Balaji, & Krishnan, 2015). Participants are asked to respond to this statement: "I felt like I was in control of the situation", which is rated using a 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). They are then asked to evaluate how they would feel within each scenario and are required to rate a number of emotions using a 5-point Likert scale with a rating from 1 (does not describe my feelings) to 5 (clearly describes my feelings). The negative emotions in the questionnaire include anger, frustration, helplessness, nervousness, panic, and worry. Lastly, the participants are asked whether they have participated in NWOM and with whom.

3.5. Gathering data

The first step of starting the process of conducting a survey was to create a trial survey with a few questions regarding five airline service failure scenarios that at the time were named as lost luggage, delayed/cancelled flight, missed flight due to factors beyond customer's control, negative customer service at the airport, and negative inflight experience. The names were later on changed for the main survey in order to be more clear and easily understandable for non-native speakers. The trial survey was first sent to family and friends where they needed to choose which scenario they have already encountered before, and then list the emotions that they have felt after either of those incidents. This was done in order to discover which emotions were the most experienced ones in regards to airline service failure, and then apply these emotions to the final survey. The most common emotions that were taken from the trial survey were anger, frustration, helplessness, nervousness, panic, and worry. With this information, the final survey was designed.

In order to make more people take participation in the final survey, we first asked close friends and family to fill it out, and then we encountered the students in our school. The snowballing technique was also used by suggesting to all those participating to spread the survey if they knew someone else who has experienced a service failure. The respondents were also asked to recommend other participants who might be able to partake in the study.

On the 11th of April, we went to Jönköping University, looking for people who would consider filling the survey on the spot. Each of the participants were given candies as an

acknowledgement for taking the survey. On the same day, the questionnaire was also uploaded online on Survey Tandem in order to generate more responses. Survey Tandem is an online platform where a user can upload their survey free of charge and get other users fill out the survey by completing other user's surveys in exchange. The website allows the setting of conditions before the participants are able to open the survey, and the only condition was, that they had to have been experienced a service failure in the airline industry. We also sought assistance from the International Relations office at the Student Union building, asking them to send out the questionnaire to exchange students studying at Jönköping University. However, the request was processed too slowly, thus no data was retrieved through them.

To increase the reliability of the data, customers who have utilized airline service providers and experienced a service failure were the targeted audience of the survey. The survey was completed by individuals above the age of 16 as this is the minimum age required to fly alone without parental consent.

3.6. Sample derivation and size

Our sample contains in total of 152 participants coming from different continents including Europe, North America, and Asia (see Appendix 1, Figure 3.1). However, there are 22% of participants whose locations are unknown due to people not having their location tracked. There are 59% of participants taking the survey in Europe including countries such as: Sweden, United Kingdom, Netherlands, Scotland, Bulgaria, Ireland, Wales, Spain, Czech Republic, Belgium, Austria, Romania, and Greece. Fourteen percent of participants come from United States, and five percent of participants come from Asian countries such as Japan, Vietnam, Malaysia, Oman, and India.

However, 51 survey participants out of the total 152 are excluded from the sample. This is due to the fact that these participants did not follow the instructions correctly, quit the survey in the middle of filling it in, or had not experienced an airline service failure but were still answering the questionnaire. The outcome is a sample of 101 participants.

We wished to have diversity in the data since we believe that focus on one country might produce biased results. This is because participants might express the negative emotions

differently depending on their demographic, geographic, and cultural traits (Choraria, 2013). Hence, the survey participants were not limited to a specific geographic location.

3.7. Limitations

The survey has certain limitations that have had a considerable influence on the outcome of this study. Firstly, the amount of participants taking the survey is not significant enough in order to provide well-grounded results for every scenario. Thus, only 3 scenarios went on for further testing. One hundred and fifty-two participants are collected at the beginning however, 51 cases are considered invalid due to participants not following the instructions in the correct way thus, leading to incomplete and inconsistent results. However, it is important to look at the survey from the participants' perspective. This is because the survey can be perceived as clear and easy to understand in the eyes of the survey creators but some questions might appear as unclear and confusing to some participants.

Secondly, after all of the data has been gathered and analyzed, it has become apparent that the survey is poorly designed, specifically around the emotions and NWOM section. In the survey, all of the emotions are listed first and the question, regarding whether or not the participants have engaged in NWOM comes last. This is a severe flaw since the way that the emotions and NWOM questions are designed has affected the outcome of the correlation between emotions and NWOM further in the analysis. This is because the question regarding NWOM should have been put under each emotion listed in the survey in order to see a proper relationship between each emotion in regards to NWOM, rather than having it under all of the emotions as a group.

Finally, there are several less serious flaws in the NWOM question design, but they can still be confusing and therefore altered the results. In the section, there are three statements: "I forgot about the incident and did nothing", "I complained about the experience to my friends/family", and "I voiced my displeasure with other parties (online communities, third parties etc.)". The last two questions are removed from the analysis process since it was decided that the purpose is to discover whether the participants have engaged in NWOM, and not with whom did they engage. For the first question, it is crucial to note that if the participants check "No" as their answer, this means that they did not forget about the incident, and therefore they state that they did engage in NWOM. If they check "Yes", this means that they forgot about the incident and did not engage

in NWOM. However, this was not a problem for the SPSS Statistics program, since it just showed the results in the “No” rather than the “Yes” paragraph, which is the most commonly seen way in other survey test results. Still, the use of double negatives could be considered as confusing to the survey participants who might have given the wrong answer in result of the poor survey design. The use of double negatives in surveys such as answering with “No” to a negative statement when meaning to say “Yes” to a normal positive statement seems to be complicated and unnecessary. The most efficient way to address the issue would have been to simply ask “Did you engage in NWOM” instead of providing three statements, two of which are not applicable, nor resourceful to the findings.

Although some of these limitations were out of our control, several of them were controllable. We cannot control the way participants perceive the survey and the questions, as well as how they answer them. The survey design, on the other hand, was controlled by us and it is something that needed more considerations put into it. It could have been executed more efficiently and effectively. It is also important to consider that participants may have different personalities thus, they may differ in terms of complaining. Some individuals might be more willing to engage in NWOM and voice their opinion after encountering a service failure whereas others might not.

4. Data Analysis

In this section, the data coming from the survey results is analyzed and described. Thereafter, the results are interpreted and connected to theory. Finally, the result of the hypothesis testing is presented. The section is structured so that each test is discussed completely separately before moving on to the next one.

4.1. General profile of the survey

Table 2, presented at the bottom of the paragraph, shows in more details the types of service failures asked about within the questionnaire as well as the percentage of respondents that have experienced a specific service failure. In the 101 remaining surveys after excluding the invalid ones, each participant has experienced at least one or more of the scenarios listed. The first scenario asks about luggage handling service failure in which 66 of the participants answer positively to having experienced it. The next negative experience is about delayed or canceled flights. This scenario has the highest "yes" frequency of all the scenarios, with 88 people saying they have been through a delayed or a canceled flight situation. The third scenario asks questions about missed flights due to factors beyond the customers' control and 34 people from the survey have experienced a missed flight. The fourth scenario is about negative customer service at the airport. This service failure could include any service experience with the airlines themselves as well as any negative interactions with the ground personnel. In this case, over half of the participants, 51 people, have had a negative airport service experience. The final scenario is about negative service experience during the flight. This one is defined as all service interaction during the customers' flight. Of all the scenarios, this one has the lowest "yes" frequencies with only 22 people having gone through it.

Variable	Frequency	Percent
Luggage Handling	66	65.4
Delayed/Cancelled flights	88	87.1
Missed flight due to factors beyond customers' control	34	33.7
Negative customer service at the airport	51	50.5
Negative service experience during the flight	22	21.1

Table 2: Profile of scenarios and their frequency

4.2. Factor Analysis and Reliability Test

The exploratory factor analysis is used for exploring the data set. It is not used for reaching conclusions about the hypothesis (Costello & Osborne, 2005). There are different types of factor analyses, but regardless of the chosen method, all types of factor analyses help take the total number of variables and their values, and reduce them to groups of variables called components (Costello & Osborne, 2005; Laerd Statistics, 2015). The components are interpreted from a value called eigenvalue found in the rotated components matrix. Eigenvalues represent the total variance of all the data (Hair, Black, Babin, Anderson, & Tatham, 2006). The variance measures how far a value is from the mean (Laerd Statistics, 2018). Eigenvalues that have values greater than or equal to 1.00 are considered to carry the most variance in the data and are therefore given the most attention (Hair et al., 2006). The components in this research are extracted based on the rotated components matrix table that is created during the factor analysis test. Rotated components are also referred to as factor loadings. These loadings show how each variable within a component group correlates to each other within that component (Laerd Statistics, 2015). However, components should not correlate with each other. The varimax rotation function in SPSS prevents that from happening. A varimax rotation is a rotation that produces components that are not related to each other (Costello & Osborne, 2005). It is cautioned by Costello and Osborne (2005) that there are no official guidelines when doing a factor analysis and it can be quite subjective which is why it is only used for descriptive purposes.

The chosen factor analysis to be conducted is a principal components factor analysis because it is believed that multiple variables (individual emotions) are highly correlated to the control of the situation. The goal of the test is to see the optimal number of components from the original set of variables in order to validate further hypothesis testing. A varimax rotation is used to see if the components in the rotated components matrix would be grouped by individual scenario. The test was done through the factor analysis function in SPSS.

With the absence of reliability, there can be no validity of the scales (Litwin, 1995). Therefore, alongside the factor analysis, a reliability analysis using the Cronbach's Alpha (α) is also conducted. Cronbach's alpha is an estimate of the internal consistency (Litwin, 1995; Vaske, Beaman, & Sponarski, 2017). The Cronbach's Alpha is a good indicator on how well items measure the same issue (Litwin, 1995). According to Sekaran (2003), Cronbach's Alpha below a .6 is considered poor, while a .7 is acceptable and a .8 is good. Reliability analysis has at least 3 general assumptions. The first assumption is that errors should be uncorrelated (Zimmerman & Williams, 1977). In other words, an error that occurs in variable A, cannot occur in variable B (Erikson, 1982). Since this study is based on participants' own experiences, it is assumed that there are no errors in the participants' answers thus, having no effect on the variables. The second assumption is that coding should be consistent across all variables of data. The final assumption is that all observations should be independent of each other (Cureton, 1963). With the data set meeting all the basic assumptions, a reliability analysis can be conducted. The test is created in SPSS's reliability analysis function and all data is interpreted from the results.

4.1.1. Factor Analysis and Reliability test results

Table 3, which is situated in the bottom of section 4.1.1., shows multiple values organized under each scenario. The top of the table shows factor loading values for each specified emotion and controllability of the scenario. The results of the factor loading value show that components contain controllability over the situation and the various emotions based on their respected scenario. The emotions are ordered in the way they are presented in the questionnaire. To see the order that the variables are in within the components rotation matrix, appendix 1, table 4.1 should be consulted. The crucial point to take from this is that all factor loadings group well within their component. There are no gaps between emotions and controllability.

There are 5 components in total found from the factor analysis. The first factor component expressed on the rotated component matrix is missed flight due to factors beyond the customers' control scenario which has panic being the closest emotion to interact with controllability during that situation. Helplessness is the closest item to interact with controllability of the scenario during a negative service experience during the flight. The third scenario in the matrix is control during a negative customer service at the airport scenario. There are two items that correlate well with the control in the situation and those items are anger and frustration. Both items are only .04 points away from control. The fourth scenario is the luggage handling service failure, and there anger has the closest interaction with controllability. The final component is cancelled or delayed flight with panic again being the highest emotion interacted to the control of the situation. Finally, the eigenvalue of each situation is also given to express how much variance is in the total data that service failure carries.

The mean and standard deviation of control over the situation are also expressed above each emotion. Those are placed there because control is considered the independent variable in later hypothesis testing and perhaps these descriptive figures may play a crucial part in later analysis.

In appendix 1, table 4.2, the Cronbach's alpha for the entire data set is shown. The entire set has a .904 alpha which is excellent in accordance to the scale. Cronbach's alpha for each scenario is given in the table. All of them meet the acceptable criteria for reliability analysis thus, further strengthening the reliability of the data. The reliability test and factor analysis infer that it is acceptable to continue with hypothesis testing. The table below has gathered all the data from the reliability test and factor analysis from all scenarios, but after performing these tests to check which data is valid, three out of five scenarios will be included in the subsequent tests - the luggage handling service failure scenario, the delayed/cancelled flight scenario, and the negative customer service at the airport scenario. Only these three are valid, because after the modification, they are the only ones that have over 50 answers, and 50 is the minimal number of answers that need to be present in order for a sample to be considered as valid. After excluding all this data, the three remaining scenarios are tested.

	Loadings	Eigenvalues	Reliability	Mean	SD
Luggage Controllability	0.905	8.6	0.969	2.64	2.091
Anger	0.907				
Frustration	0.937				
Helplessness	0.919				
Nervousness	0.896				
Panic	0.897				
Worry	0.942				
Delay Controllability	0.800	6.6	0.931	3.60	1.779
Anger	0.786				
Frustration	0.869				
Helplessness	0.880				
Nervousness	0.847				
Panic	0.805				
Worry	0.849				
Missed Flight Controllability	0.973	4.0	0.984	1.36	2.076
Anger	0.932				
Frustration	0.971				
Helplessness	0.960				
Nervousness	0.959				
Panic	0.935				
Worry	0.964				
Airport Service Controllability	0.895	4.4	0.952	1.89	2.088
Anger	0.899				
Frustration	0.891				
Helplessness	0.915				
Nervousness	0.920				
Panic	0.915				
Worry	0.914				
Inflight Controllability	0.946	4.1	0.963	0.89	1.76
Anger	0.907				
Frustration	0.909				
Helplessness	0.950				
Nervousness	0.919				
Panic	0.905				
Worry	0.934				

Table 3: Factor Analysis and Reliability

4.1.2. Interpretation of the Factor Analysis and Reliability test

These descriptive tests only check a specific data set for validity and reliability. It produces a holistic idea of the results from the survey (Costello & Osborne, 2005). Only the factor analysis will be looked at for further interpretation to the literature because the factor analysis structure is partly designed after Nikbin and Hyun's (2017) study, and their use of emotions in their own work. The factor analysis in this research has all scenarios grouped into five separate components with the emotions in that scenario correlating positively with the controllability over that situation. Nikbin and Hyun (2017) also use a factor analysis to help validate their study which describes the relationship between control, emotions, and negative behavior intentions. Within their analysis they also test their emotions and controllability. Even though no conclusions can be drawn from either their analysis or this work's analysis, both factor analyses show that emotions are positively correlated in their respected component group.

In the following section, the descriptive test will continue with a general summary of the emotions data only for the three approved scenarios.

4.2. Descriptives of emotions

Descriptive statistics gives a summary of the data from the survey in order to show patterns that may occur within the data. It can be seen as a raw visual representation of the questions put together in a way that is easy to understand (Laerd Statistics, 2018). However, descriptives cannot be used to draw conclusions beyond the hypothesis in that particular report. This is because often times the methodology used cannot be replicated again in future studies (Collis & Hussey, 2014). The analysis used within descriptives is a univariate analysis, and it measures spread and central tendency. This analysis can only look at one variable at a time. The central tendency looks at the mean, median and mode of the variable. The mean is the most common method when describing central tendency. It can also be called the average of that variable. The measure of spread summarizes the spread of the scores within the data set. These spreads can be seen through the standard deviation, range, quartiles and variance. Descriptive statistics can be represented through graphs and tables.

The descriptive data tables and graphs have been created in both SPSS and Microsoft Excel. The questions regarding all the emotions in each scenario were first organized into frequency tables.

Then those tables were copied into an Excel file and placed in a bar graph with each graph representing a scenario and the level of emotions felt during it. The level of emotion is based off of a Likert 5-point scale which can be found on the Y axis, and the number of participants are presented on the X axis. There are six emotions in total that are color coated within the graph.

4.2.1. Results of descriptive data

Luggage Scenario

From all participants, 66 people stated that they have experienced a luggage handling service failure. The best described emotion for this scenario is helplessness with 32 people stating that this clearly describes their emotions. The emotion that does not describe people's' feelings during this instance was panic which had 19 participants. The emotion that was most moderately felt was anger with 20 people saying that this moderately describes their feelings.

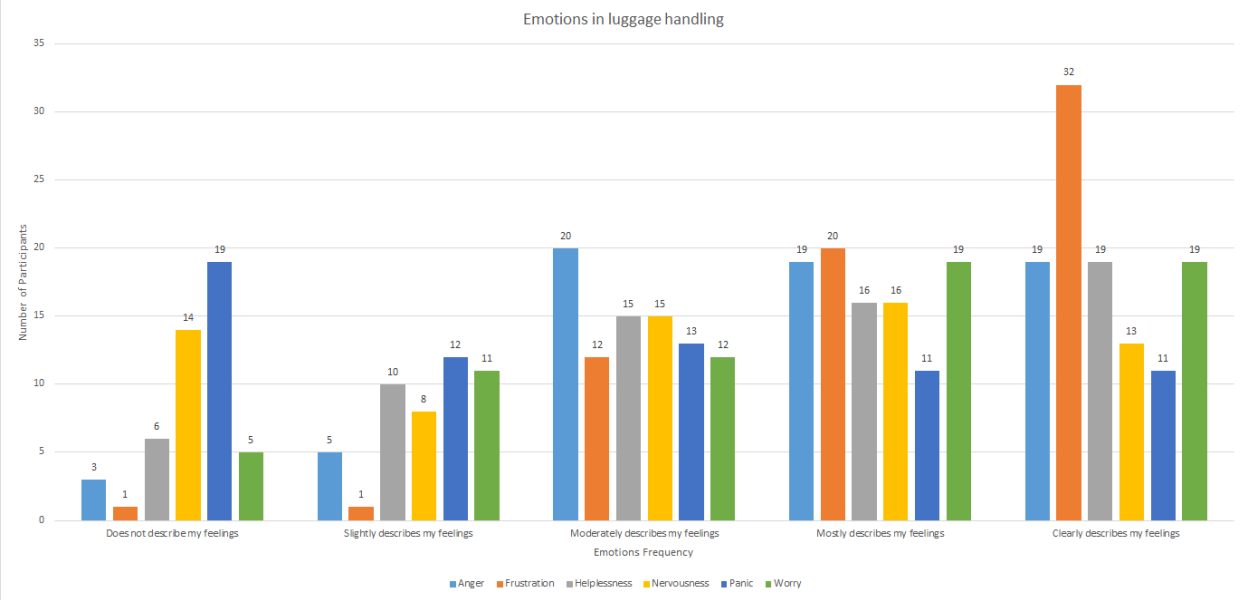

Figure 3: Emotions frequency in the luggage handling scenario

Delayed/Cancelled Flight Scenario

This was the scenario that was the most experienced by the participants, 88 people stated that they have experienced a delay or cancellation service failure. The best described emotion for this scenario is frustration with 37 people stating that this clearly describes their emotions. The emotion that does not describe people's' feelings during this instance is panic with 37

participants answering with this response. The emotion that is most moderately felt is anger with 20 people saying that this moderately describes their feelings.

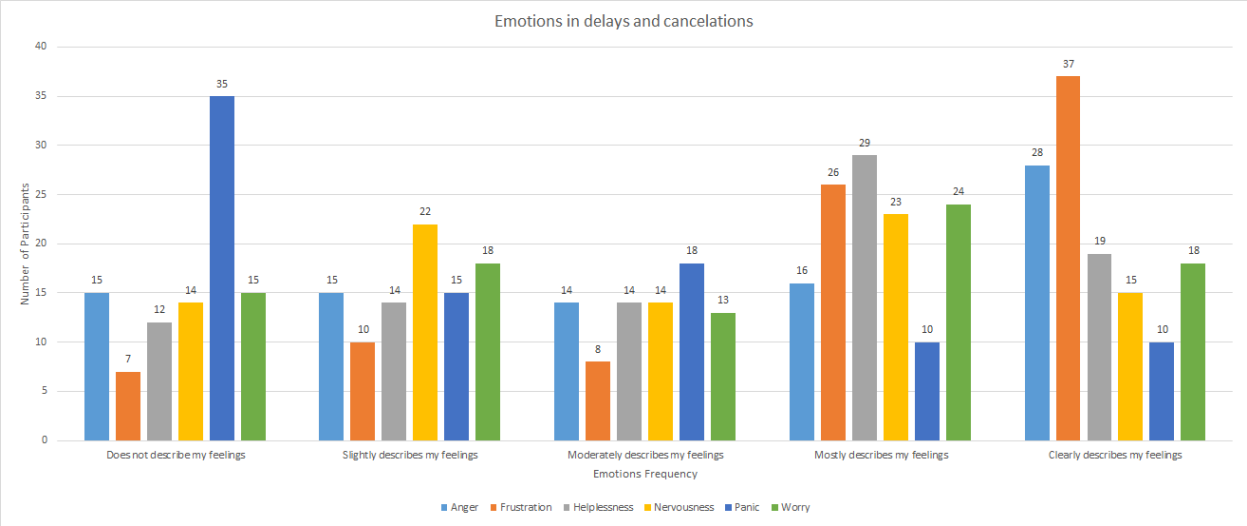

Figure 4: Emotions frequency in the delays and cancellation scenario

Negative Customer Service at the Airport

Only 51 people state that they have experienced a service failure within customer service at the airport. The strongest felt emotion for this scenario is frustration with nearly half (21) of the people stating that this clearly describes their emotions. What is interesting about this particular data set is that participants clearly feel some level of frustration during an airport service failure because 0 people checked “does not describe my feelings” for frustration. The emotion that is most moderately felt is worry with 12 people saying that this moderately describes their feelings.

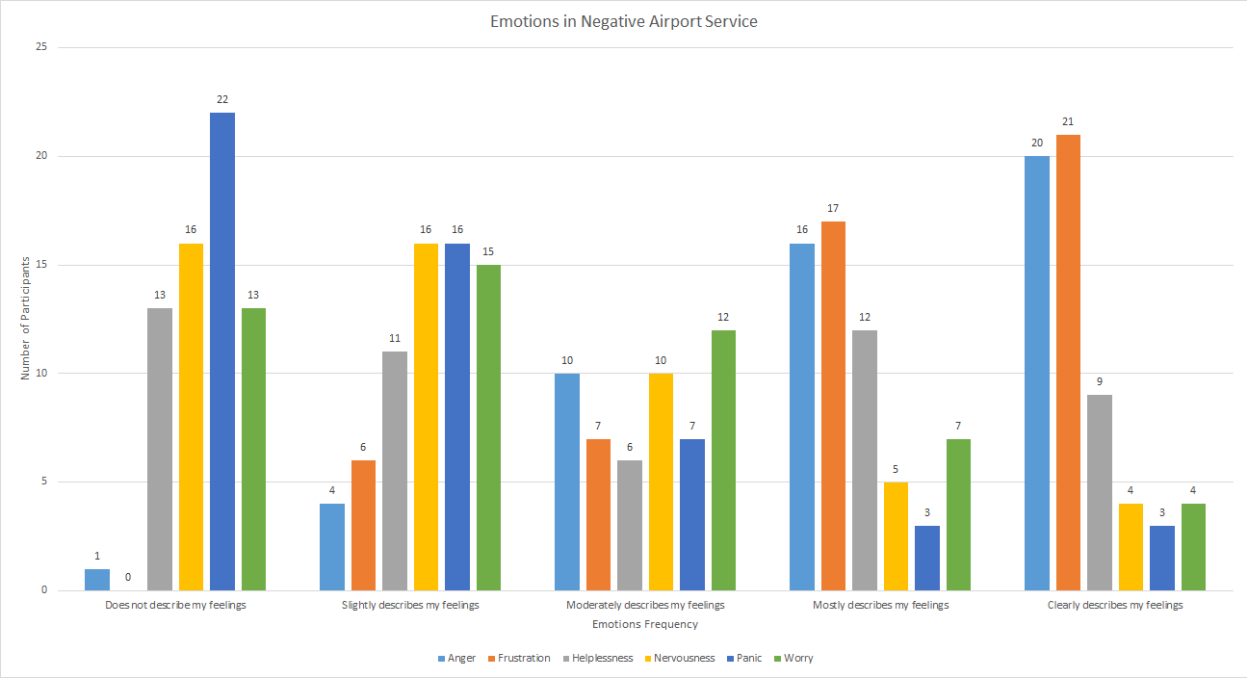

Figure 5: Emotions frequency in the negative customer service at the airport scenario

4.2.2. Interpretation of the descriptive data

Frustration can be seen as the emotion that moves between the two ends of the Likert scale. In the delay and negative customer service at the airport service scenarios, it is the dominant emotion, but it is also seen as the least felt emotion in the negative customer service at the airport scenario. Along with that emotion, panic is also described as not being felt. The moderately described emotions is between worry and anger as the dominating emotions. Helplessness, nervousness and worry are also felt during the scenarios, but they are never dominant in the "not felt, moderately felt or clearly felt" points on the Likert scale.

4.3. Spearman Correlation

Spearman rank-order correlation, which is often just called Spearman correlation, is a nonparametric test that measures the strength of the association between two ordinal variables (Spearman, 2010). It can also measure whether the direction of the two variables is positive or negative (Chen & Popovich, 2011). There are three assumptions that need to be taken into consideration before doing a Spearman correlation. The first assumption is that the two variables

have to either be continuous or ordinal type variables. Ordinal is a type of variable that has two or more categories with clear ordering or rank. The second assumption is that there has to be a monotonic relationship. A monotonic relationship is one in which if variable A increases then variable B will increase as well. It can also go the opposite direction - as A decreases then B must also decrease. This can be tested by looking at the scatter plots of the data (Laerd Statistics, 2017). When looking at the final results, one should look at the correlation coefficient in the Spearman rho table. A +1 means a perfect positive correlation and a -1 is a perfect negative correlation. Finally, a zero means no association at all (Chen & Popovich, 2011; Laerd Statistic, 2017).

The entire process of conducting the test is done in SPSS. Emotions and controllability are the variables that are tested for the Spearman Correlation. Before the test can be done, assumptions are checked. The part of the survey being analyzed for this particular test contains only ordinal type questions that uses the 5-point Likert scale. Testing the monotonic relationship is done through graph interpretation in SPSS. With the two assumptions met, the Spearman correlation is conducted. The reason why this test is done is to see if there is any association between negative emotions and the participants' feeling of lack of control over the service failure situation. The level of statistical significance has an α of .05. This is looked at to see if there is any significance between the two variables. Emotions that have a p-value over .05 are instantly rejected for further testing in the Spearman correlation because they do not meet the required significance level. If the significance level is above a .05 then the test runs the risk of getting a type 1 error. A type 1 error is when the research incorrectly rejects the null hypothesis. During the correlation test, each of the six emotions are tested individually against that scenarios' controllability. Results are interpreted from the tables produced from the tests.

4.3.1. Interpretation of results of Spearman Correlation

Luggage Scenario

Anger, frustration, panic, and nervousness are instantly eliminated from further testing based off of the interpretations of significance levels which requires a $p<.05$. In other words, these emotions cannot be further tested for their relationship with lack of control, since they cannot show any significant results (see Appendix 1, Table 4.3). Thus, hypotheses can be neither rejected nor accepted in relation to these emotions based off of that first requirement of

interpretation. The remaining emotions meet the significance level needed. There is a weak positive correlation between helplessness and feelings of lack of control over the situation, rs(98)=.312, p< .05. There is also a weak positive correlation between worry and feelings of lack of control over the situation, rs(98)=.234, p<.05.

Delay Scenario

Panic is the only emotion rejected based off of having no statistical difference in the level (see Appendix 1, Table 4.4). There is a weak positive correlation between anger and feelings of lack of control over the situation, rs(98)=.244, p<.05. There is a weak positive correlation between frustration and feelings of lack of control over the situation, rs(98)=.299, p<.05. There is a moderate positive correlation between helplessness and feelings of lack of control over the situation, rs(98)=.410, p<.05. Finally, there is a weak positive correlation between worry and feelings of control over the situation, rs(98)=.299, p<.05.

Airport Scenario

All negative emotions except for helplessness are rejected due to having no statistical significance difference (see Appendix 1, Table 4.5). This means that the analysis shows that the null hypotheses for anger, frustration, nervousness and worry can neither be rejected nor accepted. This scenario also finds a weak positive correlation between helplessness and feelings of lack of control over the situation, rs(98)=.318, p<.05.

Panic is rejected in all the scenarios while helplessness is the only one that is accepted for further interpretation across all of the scenarios based on the significance levels. Within all the scenarios the data shows that null hypotheses for every emotion that went on for further interpretation would fail to reject the null hypotheses H1-H5 because they all have levels of positive correlation between emotion and lack of control over the situation. All of these results have positive correlations, but the Somers' d is also conducted for cross referencing purposes to look for any discrepancies between the two tests.

Interpretation of results from the Spearman Correlation and the Somers' D are tied together, since they are testing the same hypotheses. Both tests were done to see if at least one of the negative emotions is felt if the customer does not have control over the situation in the luggage handling, delayed/missed flight, and negative customer service at the airport scenarios.

Essentially they show the same results, so in order to avoid repetition, both will be interpreted and connected to literature together under section.

4.4. Somers' delta

Somers' delta, or also known as Somers' d, is a nonparametric asymmetric statistical test which measures the strength and direction of association between two ordinal variables (Somers, 1962). There are other tests that can also be used for the criteria of two ordinal variables, such as Goodman and Kruskal's Gamma and Kendall's tau-b, but in comparison to them, Somers' d is the most applicable when testing asymmetric variables. Asymmetricity is when there is a distinction between a dependent and an independent variable. Somers' d is a measure of agreement between two pairs of ordinal variables. The connection can be concordant, when the pairs match, or discordant, when they do not match. Asymmetric Somers' d measures how the dependent variable moves based on the independent variable (Glen, 2017). When running Somers' d, two assumptions have to be considered: having two ordinal variables, one dependent and one independent, and having a monotonic relationship between those two variables (Laerd Statistics, 2016b).

The range when interpreting Somers' d is from -1 to +1. At -1 all pairs disagree and at +1, all pairs agree. The predictive ability is better the further away the values are from 0. When the numbers are around zero, this is an indication that the model does not predict well (Glen, 2017).

In this thesis, Somers' d is used in order to check the validity of hypotheses H1, H2, H3, H4 and H5. The variables that are tested are emotions and control, where emotions are the dependent variables and control is the independent variable. The respect to order has also been taken into consideration when choosing the statistical test, meaning there should be rank order such as the Likert scales. Several other different tests exist that show similar results to Somers' d but they do not consider respect to order for the variables. In this paper the intensity of the emotions is important, as well as the level of control. Therefore, respect to order is needed in order to accept or reject the hypotheses.

The test is done through SPSS and the first step is to check if there is any missing data. When conducting the tests for the first time, an error was constantly showing, indicating that there is missing data. This has been fixed by excluding, all of the cases coming from people who have

stated that they have not experienced service failure for a specific scenario. For this reason, each scenario is tested in a different SPSS file, since there are conditions that have to be met, which can only be applied to one scenario at a time. When excluding the insufficient data for one scenario, all of the data from this person gets eliminated. Therefore, in order to test each scenario correctly, the tests have to be conducted separately. The test is done with cross tabulation where it is indicated that control is the independent variable and emotions depend on it. All of the emotions are tested at the same time and the program automatically shows the results for them separately giving some significant and some insignificant results.

The steps for checking the results in Somers' d include: checking the case processing summary, looking at the contingency table, and consulting the directional measures table which provides the result of Somers' d. All three steps have a table that corresponds to them accordingly. In the case processing summary, the number of valid and missing data is presented, as well as the total number of values. The next component is the contingency table, which can be used to provide descriptive statistics, so that readers who are not familiar with SPSS can understand the results in a tabular appearance. The last component is interpreting the Directional Measures table where the Somers' d test is shown. Here, the focus is on the last row of the table, where it is stated that emotions are the dependent variable. The columns that provide the needed statistical data are the Value and the Approximate Significance ones. Value shows the results of the Somers' d test - if there is correlation between the variables, if the pairs agree or disagree. Approximate Significance shows if the Somers' d test is significant if the values there are low enough ($p<.05$).

In the luggage handling service failure scenario, there are 66 valid answers for all of the emotions. Out of the 101 participants in the survey, 35 have not experienced luggage handling service failure. Anger, frustration, nervousness and panic are concluded to be not applicable emotions due to their insufficient level of significance, which is over .05 (see Appendix 1, Table 4.6, 4.7, 4.8 and 4.9). This means that they are not considered as felt after this service failure scenario by most of the participants in the survey. Helplessness is approved with .011 level of approximate significance and shows fairly low positive correlation in the Somers' d test. The value of .261 means that if the customer does not feel in control over the service failure situation, this influences the intensity of the emotion by 26.1% (see Appendix 1, Table 4.10). The results of the Somers d' test for worry are the same, with .011 approximate significance and a 26.1%

influence over the intensity of the emotion, if the customer does not have control over the situation (see Appendix 1, Table 4.11). This concludes that during the luggage handling scenario, only *worry* and *helplessness* are valid in both tests.

In the delayed/cancelled flight scenario, there are 88 valid answers, showing that only 13 people out of the 101 participants have not had a delayed or cancelled flight. In this scenario, only panic has shown insignificant results, with approximate significance of .054, stating that people do not panic when they have a delayed or cancelled flight (see Appendix 1, Table 4.12). Judging by the directional measures table for anger (see Appendix 1, Table 4.13), the intensity of the emotion in this scenario is increased by 24.7% if the customer does not have control over the situation, with an approximately significant value by .021. For frustration (see Appendix 1, Table 4.14), the test shows highly significant results and it proves that emotions increase by 29.4% if the customer does not have control over the situation. Helplessness also has an approximate significance under $p<.05$, and the Somers' d test shows that 40.5% of the people feel more helpless if they do not have control over the situation after having a delayed or cancelled flight (Appendix 1, Table 4.15). The test for nervousness in this scenario has proven to be significant with approximate significance of .003, and there is a 29.7% increase of the emotion if people do not have control over the situation (see Appendix 1, Table 4.16). Lastly, worry has also been approved as significant with approximate significance of .004, and the intensity of the emotion is increased by 30.4% when the customer feels like not being in control (see Appendix 1, Table 4.17). According to the data, the conclusion is that for the delayed/cancelled flight scenario, only *panic* shows insignificant results thus, making anger, frustration, helplessness, nervousness, and worry valid in the scenario.

Lastly, according to the data, there are 51 people who have experienced negative customer service at the airport. In this scenario, all of the emotions except helplessness fail to show any significance of the results (see Appendix 1, Table 4.18, 4.19, 4.20, 4.21, 4.22). Helplessness has an approximate significance of $.026<.05$ and the test proves that 28.7% of the people feel the emotion more intensely if they do not have control over the situation (see Appendix 1, Table 4.23).

4.4.1. Interpretation of results of Spearman's correlation and Somers' d

Spearman's correlation and Somers' d are some of the most commonly used measures of association (Goktas & Isci, 2011). These two tests are cross referenced with each other in order to decide which emotion(s) are most prominent in a given scenario.

Customers who perceive the airline to be in control over the service failure situation, are more likely to feel anger (Nikbin & Hyun, 2017). Our research cannot agree nor disagree with all the tests done by Nikbin and Hyun (2017) because the tests we ran, did not test for perceptions of control. These perceptions are defined as who was the one in control of the situation and could it have been prevented. Still, in one of the scenarios, anger shows a weak positive correlation between lack of control and the emotion, and therefore our test can support the associations testing of Nikbin and Hyun (2017). Based on the tests, we can confirm their findings of a positive correlation between emotions and controllability for at least one emotion.

Since there is no other research focusing on control, emotions, and negative customer intentions, the following emotions are tested by us, and the results can only be supported by theory for the emotions and service failure variable. Since they cannot be supported by theory for the reasons stated above, the results for control will only be acknowledged for each emotion in order to prove the hypotheses.

Frustration is recognized by McColl-Kennedy et al. (2009) as a rage-associated emotion following service failure. Frustration in our study was accepted as a valid emotion only in the delayed/cancelled flight scenario which still leads to agreeing with McColl-Kennedy et al. (2009) that the emotion is felt after experiencing service failure. The relationship between the lack of control and emotions exists and it is a weak positive one.

Gelbrich (2010) claims that helplessness has a tight relation to service failure. This is the only emotion which was accepted in all three of the researched scenarios, indirectly showing that customers cannot have a control over the situation. The results of Somers d' and Spearman correlation present a weak to a moderate positive relationship between lack of control and emotions.

Nervousness, which is confirmed by Choraria (2013), is accepted on at least one scenario, namely the delayed/cancelled flight scenario, for a positive relationship between the emotion and service failure. Furthermore, nervousness also shows a weak positive correlation between the emotion and lack of control.

Worry is accepted in both the luggage handling and the delayed/cancelled flight scenarios, and the relationship between the emotion and service failure is confirmed by Choraria (2013). In both scenarios, the tests prove a relatively weak relationship between lack of control and worry.

Finally panic, which was tested according to Richins' (1997) consumption emotions set, and did not have previous studies researching the emotion within service failure, failed all of the tests. It did not show any significant results, proving that panic is not an emotion felt in airline service failure cases.

The positive correlation results between lack of control over the situation and emotions prove that causal attributions can be an influence on negative emotions. This relationship is looked at closely within Nikbin et al. (2015), and Nikbin and Hyun (2017) studies on causal attributions and negative intentions behavior. They state that there is a positive relationship between more than one causal attribution and certain negative intentions behavior. While this study focuses only on controllability and negative emotions, the analysis obtains similar results as the two studies, namely in the direction of the relationship between the two variables. However, what the two studies lack in are specificity of the emotions. The Nibkin et al. (2015), and Nikbin and Hyun (2017) studies only focus on anger, feeling offended and disappointment. Anger is the emotion that is similar between this thesis and their studies.

Both Spearman correlation and Somers' tests were consistent with the end results. Each emotion which was accepted as significant in every scenario leads to a positive correlation. The level of positive correlation ranged from weak to moderate. The results from the two tests reflect well on Bagozzi, Wong, and Yi's (1999) research on the assessment of the cause of the service failure and the emotions that occurred during it. Bagozzi, Wong, and Yi's (1999) conclude that the type of failure does not matter, it is the individual's well-being combined with which factors they attribute the blame to that matters the most.

4.4.2. Hypothesis H1, H2 and H4 approval:

The survey results, test results and interpretations lead to failing to reject all three of our remaining hypothesis. The hypotheses that were neither rejected nor accepted were hypothesis 3 (H3) and hypothesis (H5) during testing. Hypothesis 1 (H1) is accepted with having two emotions showing up as significant in a luggage handling service failure scenario and proving a rather weak, but still valid positive relationship between worry and lack of control, and helplessness and lack of control. Hypothesis 2 (H2) is also accepted with all except one of the emotions showing significance in a service failure scenario. Anger, frustration, helplessness, nervousness and worry all had relatively low to moderate positive relationship with lack of control, which proves our H2 that at least one of the emotions in the delayed/cancelled flight scenario is felt if the customer does not have control over the situation. Lastly, hypothesis 4 (H4) is also approved with helplessness showing a positive relationship between lack of control and the emotion.

4.5. The Cochran-Armitage test of trend analysis

The Cochran-Armitage (Armitage, 1995; Cochran, 1954) test of trend is employed in order to test the validity of hypotheses H6-H10. The Cochran-Armitage test of trend is used to discover whether or not a linear trend (i.e., a linear relationship/association) is present between an ordinal independent variable and a dichotomous, also known as nominal, dependent variable (Agresti, 2010). It is used to examine further a linear trend between the presented negative emotions and whether these emotions lead to NWOM based on the three previously accepted airline service failure scenarios which are: luggage handling service failure, delayed/cancelled flight, and negative customer service at the airport. In order to run the Cochran-Armitage test, three assumptions need to be considered (Laerd Statistics, 2016a). The first assumption requires an ordinal independent variable to be present. In this case, the ordinal variable are the negative emotions which are presented on a Likert scale. The second assumption requires a dichotomous dependent variable, which in this case is the NWOM. A dichotomous dependent variable is measured on either an ordinal or nominal scale. In this case, the term “nominal scale” is used due to the fact that NWOM has two categories “Yes” and “No”. The final assumption needs to consider that there is a linear relationship (Laerd Statistics, 2016a).

Once all the data is exported into SPSS Statistics, the first step is to eliminate the cases whereby the participants have not experienced the given service failure scenarios before. Because SPSS Statistics does not have a dedicated process for running the Cochran-Armitage test of trend, the outcomes can still be generated through the binomial logistic regression procedure which is the next step after the elimination of inapplicable cases (Agresti, 2013). Each emotion in relation to NWOM is tested separately from each other. The final step is to run descriptive statistics for the Cochran-Armitage test by using the Crosstabs procedure, which then lead to the findings.

4.5.1. The findings for the luggage handling service scenario:

Out of 101 cases, 66 are kept in the luggage handling scenario in order to analyze them further. There are 63 participants who engaged in NWOM in this scenario. For anger, the Cochran-Armitage test of trend does not show a statistically significant linear trend between anger and NWOM since p>.05 (i.e., .961>.05) (see Appendix 1, Table 4.24). Frustration's test does not show a statistically significant linear trend between frustration and NWOM since p>.05 (i.e., .270>.05) (see Appendix 1, Table 4.24). When it comes to helplessness, there is a statistically insignificant linear trend between the emotion and NWOM because p=.836 (see Appendix 1, Table 4.24). The same goes for nervousness with p=.171 (see Appendix 1, Table 4.24), meaning there is not any significance between the nominal and the ordinal variable. Both panic and worry do not have a statistically significant linear trend in relation to NWOM since a p-value for panic is .188 (see Appendix 1, Table 4.24), and a p-value for worry is .091 (see Appendix 1, Table 4.24).

According to the Cochran-Armitage test of trend, none of six negative emotions lead to participants engaging in NWOM in this specific scenario. All of the p-values for these emotions are >.05, meaning that there is no statistically significant linear trend between these emotions and NWOM in the luggage handling service failure scenario.

4.5.2. The findings for the delayed/cancelled flight scenario:

Eighty-eight cases out of 101 in the delayed/cancelled flight scenario are approved for further testing. Out of 88 participants, there are 80 people who engaged in NWOM in this scenario. For

anger, the test shows a statistically significant linear trend between the emotion and NWOM since p<.05 (i.e., .035<.05) (see Appendix 1, Table 4.25). There is also a statistically significant linear trend between frustration and NWOM with a p-value being lower than 0.5 (i.e., .004<.05) (see Appendix 1, Table 4.25). The same goes for helplessness with p=.017 (see Appendix 1, Table 4.25). For nervousness, the test does not show a statistically linear trend between the emotion and NWOM because p= .085 (see Appendix 1, Table 4.25), meaning it is higher than .05. Panic shows insignificance with a p-value being .062 (see Appendix 1, Table 4.25), whereas a p-value for worry is .032(see Appendix 1, Table 4.25), meaning there is a correlation between the emotion and NWOM.

According to Cochran-Armitage test of trend, anger, frustration, helplessness, and worry lead the participants in engaging in NWOM after experiencing a delayed/cancelled flight. The p-values for these emotions are lower than .05, meaning there is a statistically significant linear trend between these emotions and NWOM in the delayed/cancelled flight scenario. Nervousness, and panic, on the other hand, does not lead to NWOM since the p-values for these emotions are higher than .05.

4.5.3. The findings for negative customer service at the airport:

For further analysis, 51 responses in the negative customer service at the airport scenario are kept. There are 48 people who engaged in NWOM in this scenario. The test does not show a statistically significant linear trend between anger and NWOM since p=.266 (see Appendix 1, Table 4.26), which is higher than .05. However, there is a statistically significant linear trend between frustration and NWOM with frustration having a p-value of .015 (see Appendix 1, Table 4.26). Finally, the test does not show a statistically significant linear trend between the rest of the emotions and NWOM. The p-value for helplessness is .812 (see Appendix 1, Table 4.26), for nervousness it is .977 (see Appendix 1, Table 4.26), for panic .303 (see Appendix 1 Table 4.26), and for worry .819 (see Appendix 1, Table 4.26).

According to Cochran-Armitage test of trend, the negative emotion that leads to NWOM in this scenario is frustration, with a p-value lower than .05. Anger, helplessness, nervousness, panic, and worry do not lead participants in engaging in NWOM with p-values higher than .05,

meaning the test does not show a statistically significant linear trend between these emotions and NWOM.

To summarize the findings of the Cochran-Armitage test of trend for all of the tested scenarios, none of the negative emotions lead the participants of the survey to engaging in NWOM in the luggage handling service failure scenario. Anger, frustration, helplessness, and worry lead to NWOM due to delayed/cancelled flights. Frustration is the only emotion that resulted in NWOM in the negative customer service at the airport scenario.

4.5.4 Interpretation of the Cochran-Armitage test of trend

The interpretation for the Cochran-Armitage test of trend is presented differently compared to the Spearman's correlation and Somers' d interpretation due to the fact that the Cochran-Armitage test is used in order to test different set of hypothesis (H6-H10). These hypotheses have different variables than the ones tested in Spearman's and Somers' d thus, the interpretation of the findings is delivered in a different order.

Results from the Cochran-Armitage test of trend are testing hypotheses H6-H10. This was utilized in order to see if at least one out of six negative emotions would lead to participants engaging in NWOM in the luggage handling service failure, delayed/missed flight, and negative customer service at the airport scenarios. Since both of the scenarios *Missed flight due to factors beyond customers' control* as well as *Negative service experience during the flight* were eliminated due to lack of data, the hypotheses H8 and H10 can neither be accepted or rejected in the analysis.

The results from the test, dedicated to luggage handling service scenario, do not reflect on Choraria (2013) study on the role of negative emotions on customer's intention to complain. According to Choraria (2013), when customers experience negative emotions such as anger, frustration, helplessness, nervousness, and worry, they are more likely to talk and spread complain to others. However, the test shows negative correlation among all of six negative emotions and NWOM in this specific scenario. Therefore, we reject H6: *At least one negative emotion leads to NWOM in the luggage handling service failure scenario*.

Delayed/missed flight scenario, on the other hand, shows different results. During this scenario, four emotions are valid and prove that customers talk about their experience to other individuals, meaning that anger, frustration, helplessness, and worry lead to a positive correlation between these emotions and NWOM. Nervousness, and panic, on the other hand, do not result in any correlation to NWOM intentions. However, since there are four emotions that show a statistical significance, we accept H7: *At least one negative emotion leads to NWOM in the delayed/cancelled flight scenario.*

When it comes to the last scenario analyzed in the Cochran-Armitage test of trend, *Negative customer service at the airport*, there is one negative emotion that has a positive correlation to NWOM. Thus, we accept the H9.

According to Choraria (2013), and Gelbrich (2010), the majority of negative emotions such as anger, frustration, helplessness, nervousness, worry, and more, are identified as a basis for customer complaining intentions. Nikbin and Hyun's (2017) study also proves that negative emotions are positively related to NWOM behavior after encountering a service failure. However, our study produces mixed outcomes, meaning that some negative emotions do cause individuals to complain whereas some do not. Nevertheless, it is crucial to keep in mind that Choraria (2013), and Gelbrich (2010) focus on emotions in a slightly different direction compared to this research. Gelbrich (2010) studies anger as well as frustration, and helplessness being a contributing factor to anger/frustration, whereas Choraria (2013) studies the negative emotions categorized in groups. This research, on the other hand, studies specific emotions separately and in particular service failure scenarios, and whether these emotions lead to NWOM in those scenarios. This indicates that even though a customer might feel one specific emotion in one particular scenario, this does not necessarily mean that they would feel the same emotion while experiencing a different scenario. This can also be implied for NWOM intentions. A customer might share their negative experience after encountering one scenario but they might not do the same for other scenarios. One example of this would be the outcomes of the Cochran-Armitage test of trend, where it shows that there is a negative correlation between anger and NWOM in regards to luggage handling service failure however, there is a positive correlation in regards to anger and NWOM in a delayed/cancelled flight scenario. This means that in the case

of a delayed/cancelled flight scenario, our result correlates with Nikbin and Hyun's (2017) study where they prove that anger has a significant relation in regards to NWOM intentions.

According to Gelbrich (2010), frustrated and helpless customers are more inclined to turn to their social circle and share their negative experience. This also proves as accurate in the delayed/cancelled flight scenario where the test shows that both frustration and helplessness have a positive relationship in regards to NWOM as well as frustration leading to NWOM in regards to negative service experience at the airport. According to Choraria (2013), worry also leads to customers' complain intentions, which in our case is accurate in regards to a delayed/cancelled flight scenario.

There is not research found that touches upon the relationship between panic and NWOM. However, the reason behind including this emotion in the analysis is that according to Richins' emotions scale (1997), panic belongs to one of the common emotions that can be felt during consumption situations. Furthermore, panic is also one of the dominant and common emotions discovered during the trial survey thus, influencing us to include and study this emotion further. However, the results have proven that panic does not cause customers to share and talk about their negative service experience to others in any of the given scenarios.

5. Conclusion

In this chapter we present the concluding text for our thesis which includes the empirical results and analysis in relation to the purpose. Additionally, we provide answers to our research questions.

Previous research written by Nikbin et al. (2015) and Nikbin and Hyun (2017), discusses emotions in relations to control and NWOM. The two studies look at negative emotions from different angles and find that there is a positive correlation between control and emotions as well as emotions and NWOM. They state in both studies that research in relation to causal attribution (control, locus of control, and stability) and emotions has not been done by others.

In this thesis, data on lack of control, negative emotions, and NWOM is collected, statistically analyzed, and interpreted based on theoretical background. The data is collected through separating the emotions into different scenarios that can happen when using airline services, in order to get more specific characteristics of these emotions. Based on the outcome of the statistical analysis, we obtain the answers for our research questions:

What is the relationship between customer's lack of control over the situation and customer's negative emotions after a service failure? Which emotions lead to engaging in NWOM?

The test provides all positively correlated results to some certain degree in regards to the correlation between customer's lack of control and negative emotions. This leads to the conclusion that customers' lack of control over the situation increases the intensity of the emotions. In terms of the negative emotions and NWOM, the results depend on the given scenario. The three scenarios that went on for subsequent testing appear to play a role in determining which emotions are felt given the circumstances. The most reasonable interpretation for the second research question is that four out of the six tested negative emotions lead to NWOM, namely anger, frustration, helplessness, and worry.

In conclusion, we can posit that emotions play at least a minor role during a service failure. This can be seen by evidence of the scenarios. Hypotheses H1, H2, H4, H7, and H9 have all been

accepted, whereas H6 has been rejected. In other words, there is a positive association between at least one negative emotion and lack of control over the situation in the *luggage handling service failure* scenario, *delayed/cancelled flight* scenario and *negative customer service at the airport* scenario. At the same time, at least one negative emotion leads to NWOM in the *delayed/cancelled flight* scenario and the *negative customer service at the airport* scenario. None of the tested emotions lead to NWOM in the *luggage handling service failure* scenario. Meanwhile hypotheses H3, H5, H8 and H10 are excluded from the tests and cannot be rejected or accepted from the tests, due to insignificant amount of participants who have experienced the two scenarios which correspond to these hypotheses. The test results further show that customers' intention of engaging in NWOM may vary, depending on which negative emotion is felt in certain scenarios. Results are that two out of three scenarios produce at least one emotion that had a positive correlation in regards to NWOM.

6. Discussion

This chapter focuses on the strengths and weaknesses of the thesis, along with suggestions for future research and tips for improvement if this study was to be replicated.

This thesis is one of the few scientific papers existing that discusses causal attributions, emotions and NWOM simultaneously. The research design (scenario-based survey) that is used to explore these characteristics is not commonly applied, but it fits the purpose to study six specific emotions under different circumstances in relation to lack of control and NWOM. The current existing studies on causal attributions, emotions and NWOM after experiencing service failure all only focus on the airline industries (Nikbin & Hyun, 2017), but other industries could benefit from a deeper understanding of the relationships between these variables too. One such example is the tourism industry, where just like in the aviation industry, it is hard to observe customer behavior that results from service failures, therefore testing of these three variables may contribute to better understanding of customers' emotions and intentions towards engaging in negative intentions.

The findings from this research can by no means form conclusive claims on the airline industry. Still, the end results should be taken with caution due to methodological design. While there is correlation within the empirical findings, these research questions can benefit from a more thoroughly thought out approach, and the criteria used in creating the scenarios should be scrutinized and tested from other angles. We utilize a scenario-based survey, the answers are based off of participants' memories. One suggestion for a different approach would be to do an experiment with three variables using different scenarios. There can be two groups - one group with some level of control and another group with no control within the experimental scenario. This would eliminate any memory bias that may occur during a survey. Furthermore, parametric tests should be done to further show the strength of the correlation.

We suggest that a practical approach to explore this topic further could be to utilize a qualitative analysis. An interview could be conducted, asking several participants who have experienced an airline service failure about their encounter. A face-to-face encounter would hinder any misunderstanding of the questions thus, preventing the researchers from receiving unreliable

answers. Furthermore, a personal interaction would make it easier to convey the feelings, emotions, and expressions of the participants.

Another angle within qualitative methods, but also in quantitative methods would be to look at this study from a culture perspective. While our study did manage to successfully gather data from participants with different cultural backgrounds, Nikbin & Hyun's (2017) looks at the topic from a Malaysian perspective, which according to Chan and Wan (2008) is seen as collectivistic culture, meaning they look at situations as a group, rather than how individuals feel towards the situation. Another study may consider looking at it from an individualistic perspective. This include Western countries such as America or Canada. Utilizing this study in order to look at failure from a culture perspective will serve to strengthen service failure management strategies that can be catered to a specific region.

References

Albrecht, C., Hattula, S., Bornemann, T., & Hoyer, W. D. (2016). Customer response to interactional service experience. *Journal of Service Management,27*(5), 704-729. doi:10.1108/josm-07-2015-0215

Armitage, P. (1955). Tests for linear trends in proportions and frequencies. *Biometrics, 11*, 375–386.

Agresti, A. (2010). *Analysis of ordinal categorical data* (2nd ed.). Hoboken, NJ: Wiley.

Agresti, A. (2013). *Categorical data analysis* (3rd ed.). Hoboken, NJ: Wiley.

Aumer-Ryan, K. & Hatfield, E. (2007). The Design of Everyday Hate: A Qualitative and Quantitative Analysis. *Interpersona: An International Journal on Personal Relationships,* 1(2), pp.143-172.

Bagozzi, R.P., Gopinath, M. & Nyer, P.U. (1999), The role of emotions in marketing. *Journal of the Academy of Marketing Science, 27*(2), pp. 184-206.

Bagozzi, R. P., Wong, N., & Yi, Y. (1999). The Role of Culture and Gender in the Relationship between Positive and Negative Affect. *Cognition & Emotion,13*(6), 641-672. doi:10.1080/026999399379023

Balaji, M., Khong, K. & Chong, A. (2016). Determinants of negative word-of-mouth communication using social networking sites. *Information & Management*, *53*(4), pp.528-540.

Bitner, M. J. (1990). Evaluating service encounters: The effects of physical surroundings and employee responses. *Journal of Marketing, 54*, 69–82. doi:10.2307/1251871

Bitner, M. (1992). Servicescapes: The Impact of Physical Surroundings on Customers and Employees. *Journal of Marketing, 56*(2), 57-71. doi:10.2307/1252042

Bougie, R., Pieters, R. & Zeelenberg, M. (2003) Angry customers don't come back, they get back: the experience and behavioral implications of anger and dissatisfaction in services. *Journal of the Academy of Marketing Science*, *31*(4), 377 – 393.

Chan, H., & Wan, L. C. (2008). Consumer Responses to Service Failures: A Resource Preference Model of Cultural Influences. *Journal of International Marketing,16*(1), 72-97. doi:10.1509/jimk.16.1.72

Chebat, J.-C., Davidow, M. & Codjovi, I. (2005). "Silent voices: why some dissatisfied consumers fail to complain." *Journal of Service Research, 7*, 328-42.

Chen, P. Y., & Popovich, P. M. (2011). Correlation: Parametric And Nonparametric Measures. *Correlation*, 2-87. doi:10.4135/9781412983808.n1

Choi, & Mattila. (2008). Perceived controllability and service expectations: Influences on customer reactions following service failure. *Journal of Business Research, 61*(1), 24-30.

Choraria, S. (2013). Exploring the Role of Negative Emotions on Customer's Intention to Complain. Vision: The Journal Of Business Perspective, 17(3), 201-211. doi: 10.1177/0972262913496725

Cochran, W. G. (1954). Some methods for strengthening the common chi-squared tests. *Biometrics, 10*, 417–451.

Collis, J., & Hussey, R. (2014). *Business research: A practical guide for undergraduate & postgraduate students* (4th ed.). Basingstoke: Palgrave Macmillan.

Costello, A. B., & Osborne, J. W (2005). Best Practices in Exploratory Factor Analysis. *Best Practices in Quantitative Methods,* 86-99. doi:10.4135/9781412995627.d8

Cox, D.F,. Bauer, R.A. (1964). Self-confidence and persuasibility in women. *Public Opinion Quarterly, 28*, 453-466.

Cureton, E. E. (1965). Reliability and Validity: Basic Assumptions and Experimental Designs. *Educational and Psychological Measurement, 25*(2), 327-346. doi:10.1177/001316446502500204

Damasio, A. (1999). How the Brain Creates the Mind. *Scientific American, 281*(6), 112-117.

Dawar, N. & Madan, M.P. (2000). ''Impact of Product-Harm Crises on Brand Equity: The Moderating Role of Consumer Expectations.'' *Journal of Marketing Research, 37*(2), 215-226.

Day, D.S. (1978). Are consumers satisfied? In D.A. Aaker & G.S. Day (3rd Ed.), *Consumerism: Search for the consumer interest, 3rd Edition (pp. 406-417).* New York: Free Press.

Diener, E., Smith, H. & Fujita, F. (1995). The personality structure of affect. *Journal of Personality and Social Psychology, 69*(1), 130-141.

Diener E. (1999). Introduction to the special section on the structure of emotion. *Journal of Personality and Social Psychology, 76*(5), 803 – 4.

Dubé, L & Menon, K. (1998). Why would certain types of in-process negative emotions increase post-purchase consumer satisfaction with services. *Advances in Services Marketing and Management, 7*, 131-158. Hochschild A.R. (1983)

Erikson, R. S. (1982). The Uncorrelated Errors" Approach to the Problem of Causal Feedback. *The Journal of Politics,44*(3), 863-881. doi:10.2307/2130522

Folkes, V. S. (1984). Consumer reactions to product failure: An attributional approach. *Journal of Consumer Research, 10*, 398–409. doi:10.1086/208978

Folkes, V. S., Koletsky, S., & Graham, J. L. (1987). A field study of causal inferences and consumer reaction: The view from the airport. *Journal of Consumer Research, 13*, 534–539. doi:10.1086/209086

Gabbott, M., Tsarenko, Y., & Mok, W. H. (2010). Emotional Intelligence as a Moderator of Coping Strategies and Service Outcomes in Circumstances of Service Failure. *Journal of Service Research, 14*(2), 234-248. doi:10.1177/1094670510391078

Gelbrich, K. (2010). Anger, frustration, and helplessness after service failure: coping strategies and effective informational support. *Journal of the Academy of Marketing Science, 38*(5), 567-585.

Glen, S. (2017). Somers' D: Simple Definition. Retrieved from http://www.statisticshowto.com/somers-d/

Goktas, A., & Isci, O. (2011). A Comparison of the Most Commonly Used Measures of Association for Doubly Ordered Square Contingency Tables via Simulation. *Metodoloski Zvezki, 8*(1), 17-37. Retrieved May 6, 2018 from https://search-proquest-com.proxy.library.ju.se/docview/1037680970?rfr_id=info:xri/sid:primo.

Goussinsky, R. (2011). Customer aggression, emotional dissonance and employees well-being. *International Journal of Quality and Service Sciences*, *3*(3), 248-66.

Hair, J., Black, B. Babin, B., Anderson, R., & Tatham, R. (2006). Multivariate data analysis (6th ed.). Upper Saddle River, NJ: Prentice-Hall.

Harrison-Walker, L. J. (2012). The role of cause and affect in service failure. *Journal of Services Marketing, 26*(2), 115–123. doi:10.1108/08876041211215275

Hess, R. L., Ganesan, S., & Klein, N. M. (2003). Service failure and recovery: The impact of relationship factors on customer satisfaction. *Journal of the Academy of Marketing Science*. doi:10.1177/0092070302250898

Hess, R. L. (2008). The impact of firm reputation and failure severity on customers' responses to service failures. *Journal of Services Marketing, 22(*5), 385–398. doi:10.1108/08876040810889157

IATA. (2017). *Fact Sheet: Industry Statistics* [Fact Sheet]. Retrieved February 25, 2018 from http://www.iata.org/pressroom/facts_figures/fact_sheets/Documents/fact-sheet-industry-facts.pdf

Inman, J. & Zeelenber, M. (2002). Regret in repeat purchase versus switching decisions: the attenuating role of decision justifiability. *Journal of Consumer Research, 29*(1), 116 – 28.

Jafarkarimi, H., Sim, A. T., Saadatdoost, R., & Hee, J. M. (2016). Designing a Scenario-Based Questionnaire to Assess Behavioral Intention in Social Networking Sites' Ethical Dilemmas. *Lecture Notes in Information Systems and Organisation Blurring the Boundaries Through Digital Innovation,*145-159. doi:10.1007/978-3-319-38974-5_12

Keiningham, T.L., Rust, R.T., Lariviere, B., Aksoy, L. & Williams, L. (2018). A roadmap for driving customer word-of-mouth. *Journal of Service Management*, *29*(1), 2-38.

Kottasova, I. (2017). United loses $250 million of its market value. [online] *CNNMoney*. Retrieved from: http://money.cnn.com/2017/04/11/investing/united-airlines-stock-passenger-flight-video/index.html

Laerd Statistics (2015). *Statistical tutorials and software guides*. Retrieved May 13, 2018 from https://statistics.laerd.com/

Laerd Statistics (2016a). Cochran-Armitage test of trend. *Statistical tutorials and software guides*. Retrieved May 7, 2018 from https://statistics.laerd.com/

Laerd Statistics (2016b). Somers' *d* using SPSS Statistics. *Statistical tutorials and software guides*. Retrieved May 5, 2018 from https://statistics.laerd.com/

Laerd Statistics (2017). Spearman's correlation using SPSS Statistics. *Statistical tutorials and software guides*. Retrieved May 2, 2018 from https://statistics.laerd.com/

Laerd Statistics (2018). *FAQs about Descriptive and Inferential Statistics*. Retrieved May 1, 2018 from https://statistics.laerd.com/

Landon, E.L. (1997). A model of consumer behavior. In A.R.L. Day (Ed.), *Consumer satisfaction, dissatisfaction and complaining behavior* (pp. 31-35). Bloomington, IN: Indiana University.

Laros, F. & Steenkamp, J. (2005). Emotions in consumer behavior: a hierarchical approach. *Journal of Business Research*, *58*(10), 1437-1445.

Lau, G. & Ng, S. (2009). Individual and Situational Factors Influencing Negative Word-of-Mouth Behaviour. *Canadian Journal of Administrative Sciences / Revue Canadienne des Sciences de l'Administration*, *18*(3), 163-178.

Lawther, K. (1978). Social integration of the elderly consumer: Unfairness, complaint actions, and information usage. In *Proceedings of the 1978 educators' conference* (pp. 342-345). Chicago: American Marketing Association.

Lazarus, R.S. (1991). Emotion and adaptation. Oxford, U.K.: Oxford University Press.

Leonard-Barton, D. (1985). Experts as negative opinion leaders in the diffusion of a technological innovation. *Journal of Consumer Research, 11,* 914-927.

Lind, G. (2007, February 5). Constructing New Dilemmas for the Moral Competence Test (MCT). Retrieved May 17, 2018, from http://www.uni-konstanz.de/ag-moral/mut/mjt_new_dilemma_construction.htm

Litwin, M. S. (1995). *How to measure survey reliability and validity*. Thousand Oaks, CA: Sage.

Malaysia Airlines losses worsen. (2014). *BBC News*. Retrieved from http://www.bbc.com/news/business-27435455

Martin, W. (2017). What brought down Monarch, the UK's biggest ever airline collapse. *Nordic.businessinsider*. Retrieved February 20, 2018, from http://nordic.businessinsider.com/monarch-airlines-collapse-what-happened-explained-2017-10

Maxham, J. G. (2001). Service recoverys influence on consumer satisfaction, positive word-of-mouth, and purchase intentions. *Journal of Business Research, 54*(1), 11-24. doi:10.1016/s0148-2963(00)00114-4

Maxham, J.G., & Netemeyer, R.G. (2002). A longitudinal study of complaining customers' evaluations of multiple service failures and recovery efforts. *Journal of Marketing, 66*(4), 57-71.

McColl-Kennedy, J., Patterson, P., Smith, A. & Brady, M. (2009). Customer Rage Episodes: Emotions, Expressions and Behaviors. *Journal Of Retailing, 85*(2), 222-237. doi: 10.1016/j.jretai.2009.04.002

Migacz, S., Zou, S., & Petrick, J. (2018). The "Terminal" Effects of Service Failure on Airlines: Examining Service Recovery with Justice Theory. *Journal of Travel Research, 57*(1), 83-98.

Nikbin, D., Marimuthu, M., Hyun, S., & Ismail, I. (2014). Effects of Stability and Controllability Attribution on Service Recovery Evaluation in the Context of the Airline Industry. *Journal of Travel & Tourism Marketing, 31*(7), 817-834.

Nikbin, D., Hyun, S., Baharun, R. & Tabavar, A.A. (2015) The Determinants of Customers' Behavioral Intentions after Service Failure: The Role of Emotions. Asia Pacific. *Journal Of Tourism Research, 20* (9), 971-989. ISSN 1094-1665.

Nikbin, D. & Hyun, S. (2017). Does travellers' casual attribution affect pre-recovery emotions and behavioural intentions? A field study of airline travellers in Malaysia. *Current Issues in Tourism, 20*(1), 80-93. doi:10.1080/13683500.2014.898618

Nyer, P. &Gopinath, M. (2005). Effects of complaining versus negative word of mouth on subsequent changes in satisfaction: The role of public commitment. *Psychology and Marketing,* 22(12), .937-953.

Ortiz, J., Chiu, T., Wen-Hai, C., & Hsu, C. (2017). Perceived justice, emotions, and behavioral intentions in the Taiwanese food and beverage industry. *International Journal of Conflict Management*,*28*(4), 437-463. doi:10.1108/ijcma-10-2016-0084

Ortony, A. & Turner, T.J. (1990). What's basic about basic emotions? *Psychological Review, 97*(3), 315 – 31.

Richins, M. L. (1984). Word of Mouth Communication As Negative Information in NA - *Advances in Consumer Research Volume 11*, eds. Thomas C. Kinnear, Provo, UT : Association for Consumer Research, Pages: 697-702.,

Richins, M.L., & Root-Shaffer, T. (1988). The role of involvement and opinion leadership in consumer word-of-mouth: An implicit model made explicit. In M.J. Houston (Ed.), *Advances in consumer research*,*15*, (pp. 32-36). Provo, UT: Association for Consumer Research.

Richins M. L. (1997). Measuring emotions in the consumption experience. *Journal of Consumer Research, 24*(2), 127 – 46.

Saunders, M. N., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed.). Harlow, Essex, England: Pearson Education Limited.

Sekaran, U. (2003). Research methods for business: A skill building approach. New York, NY.: John Wiley and Sons.

Sengupta, A.S., Balaji, M., & Krishman, B. C. (2015). How customers cope with service failure? A study of brand reputation and customer satisfaction. Journal of Business Research, 68(3), 665-674. doi: 10.1016/j.jbusres.2014.08.005

Shaver, P., Schwartz, J., Kirson, D. & O'Conner, C. (1987). Emotion knowledge: further exploration of a prototype approach. *Journal of Personality and Social Psychology, 52,* 1061 – 86.

Singh, J., & Pandya, S. (1991). Exploring the effects of consumers' dissatisfaction level on complaint behaviours. *European Journal of Marketing, 25,* 7–21.

Smith, A. & Bolton, R. (2002). The Effect of Customers' Emotional Responses to Service Failures on Their Recovery Effort Evaluations and Satisfaction Judgments. *Journal of the Academy of Marketing Science*, *30*(1), 5-23.

Smith, A.K., Bolton, R.N. & Wagner, J. (1999). A Model of Customer Satisfaction with Service Encounters Involving Failure and Recovery. *Journal of Marketing Research 36* (3), 356-372.

Somers, R. H. (1962). A new asymmetric measure of association for ordinal variables. *American Sociological Review, 27,* 799-811.

Spearman, C. (2010). The proof and measurement of association between two things. *International Journal of Epidemiology, 39*(5), 1137-1150.

Storm, C. & Storm, T. (1987). A taxonomic study of the vocabulary of emotions. *Journal of Personality and Social Psychology, 53*, 805 – 16.

Svari, S. & Erling Olsen, L. (2012). The role of emotions in customer complaint behaviors. *International Journal of Quality and Service Sciences*, *4*(3), 270-282.

Taylor, S. (1994). Waiting for service: The relationship between delays and evaluations of service. *Journal of Marketing, 58*(2), 56–69. doi:10.2307/1252269

Tronvoll, B. (2011). Negative emotions and their effect on customer complaint behaviour. *Journal of Service Management*, *22*(1), 111-134.

Van Vaerenbergh, Y., Orsingher, C., Vermeir, I., & Larivière, B. (2014). A meta-analysis of relationships linking service failure attributions to customer outcomes. *Journal of Service Research, 17*(4), 381–398. doi:10.1177/1094670514538321

Vaske, J. J., Beaman, J., & Sponarski, C. C. (2017). Rethinking Internal Consistency in Cronbachs Alpha. *Leisure Sciences, 39*(2), 163-173. doi:10.1080/01490400.2015.1127189

Vazquez-Casielles, R., del Rıo-Lanza, A. B., & Dıaz-Martın, A. M. (2007). Quality of past performance: Impact on consumers' responses to service failure. *Marketing Letters*, *18*, 249–264.

Wangenheim, F. V. (2005). Postswitching negative word of mouth. J*ournal of Service Research, 8*, 67–78.

Weiner, B. (1980). *Human motivation.* New York, NY: Holt, Rinehart & Winston.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, *92*, 548–573.

Weiner, B. (2000). Attributional thoughts about consumer behavior. *Journal of Consumer Research, 27*(3), 382–387. doi:10.1086/317592

Wetzer, I., Zeelenberg, M. and Pieters, R. (2007). "Never eat in that restaurant, I did!": Exploring why people engage in negative word-of-mouth communication. *Psychology and Marketing*, *24*(8), 661-680.

White, C. & Yu, Y.-T. (2005), Satisfaction emotions and consumer behavioral intentions. *Journal of Services Marketing, 19*(6), 411-20.

Zeelenberg, M. & Pieters, R. (1999). Comparing service delivery to what might have been. *Journal of Service Research, 2*(1), 86 – 97.

Zeithaml, V. A., Bitner, M. J., Gremler, D. D. & Wilson, A. (2016). *Services marketing: Integrating customer focus across the firm* (3rd ed.). Boston.: McGraw-Hill/Irwin.

Zimmerman, D. W. & Williams, R. H. (1977). The theory of test validity and correlated errors of measurement. *Journal of Mathematical Psychology,16*(2), 135-152. doi:10.1016/0022-2496(77)90063-3

Appendix 1

The survey:

Q1 Have you experienced a service failure within the airline industry?

- ○ Yes
- ○ No

Q2 The cause of the service failure was controllable by the airline

- ○ Yes
- ○ No

Q3 The cause of the service failure could be predicted by the airline

- ○ Yes
- ○ No

Q4 The airline could have done something to avoid the service failure

- ○ Yes
- ○ No

The following scenarios are examples of service failures (negative experiences) within the airline industry. Please, fill in the answers to only the failures that you have experienced. For all the other scenarios, answer with "No" to the statements and move on. With each scenario answered, please fill in all emotions that apply

Q5 I have experienced luggage handling service failure:
(If not applicable please check "No" and move to question 6)

- ○ Yes
- ○ No

Q5.1 I felt like I was in control of the situation.

- ○ Strongly agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Strongly disagree

Q5.2 Luggage handling service failure

	Does not describe my feelings	Slightly describes my feelings	Moderately describes my feelings	Mostly describes my feelings	Clearly describes my feelings
Anger	○	○	○	○	○
Frustration	○	○	○	○	○
Helplessness	○	○	○	○	○
Nervousness	○	○	○	○	○
Panic	○	○	○	○	○
Worry	○	○	○	○	○

Q5.3 Please, answer Yes/No to the following questions:

	I forgot about the incident and did nothing		I complained about the experience to my friends/family		I voiced my displeasure with other parties (online communities, third parties etc.)	
	Yes	No	Yes	No	Yes	No
Negative word-of-mouth actions	○	○	○	○	○	○

Q6 I have had a delayed/cancelled flight:

(If not applicable please check "No" and move to question 7)

- ○ Yes
- ○ No

Q6.1 I felt like I was in control of the situation.

- ○ Strongly agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Strongly disagree

Q6.2 Delayed/Cancelled flight

	Does not describe my feelings	Slightly describes my feelings	Moderately describes my feelings	Mostly describes my feelings	Clearly describes my feelings
Anger	○	○	○	○	○
Frustration	○	○	○	○	○
Helplessness	○	○	○	○	○
Nervousness	○	○	○	○	○
Panic	○	○	○	○	○
Worry	○	○	○	○	○

Q6.3 Please, answer Yes/No to the following questions:

	I forgot about the incident and did nothing		I complained about the experience to my friends/family		I voiced my displeasure with other parties (online communities, third parties etc.)	
	Yes	No	Yes	No	Yes	No
Negative word-of-mouth actions	○	○	○	○	○	○

Q7 I have missed a flight due to factors beyond my control: (If not applicable please check "No" and move to question 8)

- ○ Yes
- ○ No

Q7.1 I felt like I was in control of the situation.

- ○ Strongly agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Strongly disagree

Q7.2 Missed flight due to factors beyond your control

	Does not describe my feelings	Slightly describes my feelings	Moderately describes my feelings	Mostly describes my feelings	Clearly describes my feelings
Anger	○	○	○	○	○
Frustration	○	○	○	○	○
Helplessness	○	○	○	○	○
Nervousness	○	○	○	○	○
Panic	○	○	○	○	○
Worry	○	○	○	○	○

Q7.3 Please, answer Yes/No to the following questions:

	I forgot about the incident and did nothing		I complained about the experience to my friends/family		I voiced my displeasure with other parties (online communities, third parties etc.)	
	Yes	No	Yes	No	Yes	No
Negative word-of-mouth actions	○	○	○	○	○	○

Q8 I have experienced negative customer service at the airport:
(If not applicable please check "No" and move to question 9)

○ Yes

○ No

Q8.1 I felt like I was in control of the situation.

- ○ Strongly agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Strongly disagree

Q8.2 Negative customer service at the airport

	Does not describe my feelings	Slightly describes my feelings	Moderately describes my feelings	Mostly describes my feelings	Clearly describes my feelings
Anger	○	○	○	○	○
Frustration	○	○	○	○	○
Helplessness	○	○	○	○	○
Nervousness	○	○	○	○	○
Panic	○	○	○	○	○
Worry	○	○	○	○	○

Q8.3 Please, answer Yes/No to the following questions:

	I forgot about the incident and did nothing		I complained about the experience to my friends/family		I voiced my displeasure with other parties (online communities, third parties etc.)	
	Yes	No	Yes	No	Yes	No
Negative word-of-mouth actions	○	○	○	○	○	○

Q9 I have experienced negative service experience during the flight:
(If not applicable please check "No" and finish the survey)

- ○ Yes
- ○ No

Q9.1 I felt like I was in control of the situation.

- ○ Strongly agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Strongly disagree

Q9.2 Negative service experience during the flight

	Does not describe my feelings	Slightly describes my feelings	Moderately describes my feelings	Mostly describes my feelings	Clearly describes my feelings
Anger	○	○	○	○	○
Frustration	○	○	○	○	○
Helplessness	○	○	○	○	○
Nervousness	○	○	○	○	○
Panic	○	○	○	○	○
Worry	○	○	○	○	○

Q9.3 Please, answer Yes/No to the following questions:

	I forgot about the incident and did nothing		I complained about the experience to my friends/family		I voiced my displeasure with other parties (online communities, third parties etc.)	
	Yes	No	Yes	No	Yes	No
Negative word-of-mouth actions	○	○	○	○	○	○

Figure 3.1 Geographic Distribution of Survey Responses

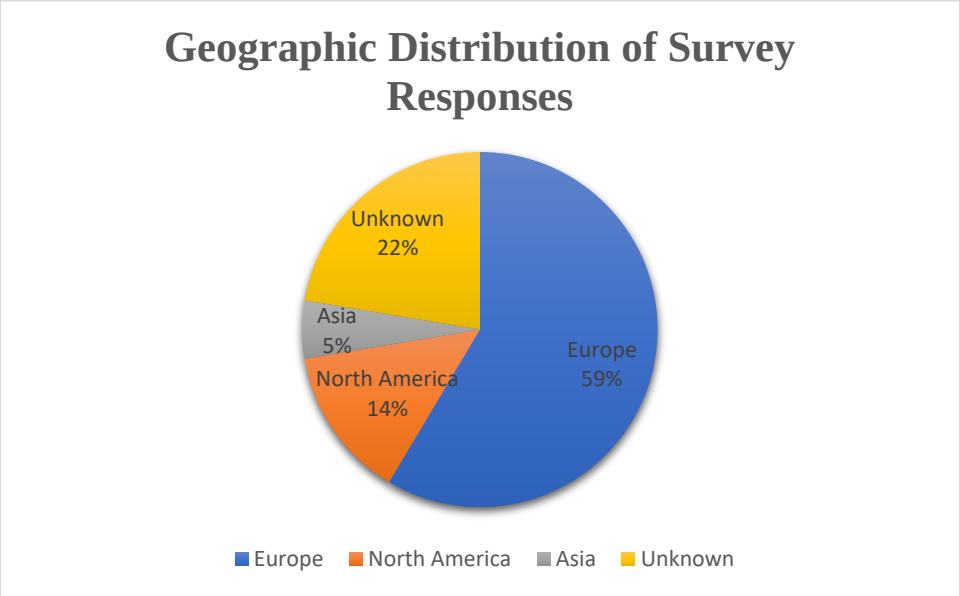

Table 4.1 Factor Analysis Rotated Matrix Table of Components

Rotated Component Matrix[a]

	Component				
	1	2	3	4	5
Missed flight due to factors beyond your control – Frustration	0.971	0.003	0.011	0.011	0.064
Missed flight due to factors beyond your control – Worry	0.964	0.048	0.003	0.058	0.048
Missed flight due to factors beyond your control - Helplessness	0.960	0.031	0.050	0.039	0.083
Missed flight due to factors beyond your control - Nervousness	0.959	0.024	0.000	0.063	0.063
I felt like I was in control of the situation (Missed).	0.937	0.058	0.068	0.067	0.152
Missed flight due to factors beyond your control – Panic	0.935	0.023	-0.028	0.111	0.090

Missed flight due to factors beyond your control – Anger	0.932	0.031	0.047	0.027	0.047
Negative service experience during the flight - Helplessness	0.048	0.950	0.106	0.034	0.056
I felt like I was in control of the situation (inflight).	0.007	0.946	0.096	-0.025	0.046
Negative service experience during the flight - Worry	0.035	0.934	0.165	-0.020	0.084
Negative service experience during the flight - Nervousness	0.000	0.919	0.160	-0.010	0.075
Negative service experience during the flight - Frustration	0.088	0.909	0.026	-0.040	0.092
Negative service experience during the flight - Anger	0.043	0.907	0.117	-0.038	0.060
Negative service experience during the flight - Panic	-0.007	0.905	0.150	-0.041	0.094
Negative customer service at the airport - Nervousness	0.015	0.113	0.920	0.024	0.080
Negative customer service at the airport - Helplessness	-0.068	0.115	0.915	0.095	0.094
Negative customer service at the airport - Panic	0.030	-0.019	0.915	0.084	0.119
Negative customer service at the airport - Worry	0.009	0.121	0.914	0.074	0.056
Negative customer service at the airport - Anger	0.037	0.151	0.899	0.064	0.073
I felt like I was in control of the situation (In airport).	0.061	0.221	0.895	0.007	-0.052
Negative customer service at the airport - Frustration	0.065	0.124	0.891	0.095	0.064

Luggage handling service failure - Worry	0.085	-0.017	0.084	0.942	-0.022
Luggage handling service failure - Frustration	0.112	-0.026	0.131	0.937	0.018
Luggage handling service failure - Helplessness	-0.037	-0.080	0.103	0.919	0.093
Luggage handling service failure - Anger	0.013	0.015	0.055	0.907	0.030
I felt like I was in control of the situation (luggage).	0.072	0.008	0.118	0.905	-0.075
Luggage handling service failure - Panic	0.094	-0.051	-0.049	0.897	0.062
Luggage handling service failure - Nervousness	0.027	0.010	0.004	0.896	-0.060
Delayed/Cancelled flight - Helplessness	0.068	0.052	0.083	-0.039	0.880
Delayed/Cancelled flight – Frustration	0.033	0.065	0.086	-0.031	0.869
Delayed/Cancelled flight – Worry	0.109	0.071	0.033	0.059	0.849
Delayed/Cancelled flight - Nervousness	0.057	0.110	0.082	-0.021	0.847
Delayed/Cancelled flight – Panic	0.112	0.028	0.014	0.071	0.805
I felt like I was in control of the situation (Delay).	0.085	0.146	0.028	-0.045	0.800
Delayed/Cancelled flight – Anger	0.025	-0.005	0.069	0.039	0.786

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.[a]
a. Rotation converged in 6 iterations.

Table 4.2: Cronbach's Alpha for all emotions and scenarios

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.901	0.902	28

Table 4.3: Spearman Correlation - Luggage

Correlations

			I felt like I was in control of the situation.	Luggage handling service failure - Anger	Luggage handling service failure - Frustration	Luggage handling service failure - Helplessness	Luggage handling service failure - Nervousness	Luggage handling service failure - Panic	Luggage handling service failure - Worry
Spearman's rho	I felt like I was in control of the situation.	Correlation Coefficient	1.000	0.078	0.155	,292*	0.075	0.239	,293*
		Sig. (2-tailed)		0.534	0.214	0.017	0.551	0.054	0.017
		N	66	66	66	66	66	66	66
	Luggage handling service failure – Anger	Correlation Coefficient	0.078	1.000	,373**	,312*	,327**	,347**	0.234
		Sig. (2-tailed)	0.534		0.002	0.011	0.007	0.004	0.059
		N	66	66	66	66	66	66	66
	Luggage handling service failure - Frustration	Correlation Coefficient	0.155	,373**	1.000	,463**	,299*	,349**	,374**
		Sig. (2-tailed)	0.214	0.002		0.000	0.015	0.004	0.002
		N	66	66	66	66	66	66	66
	Luggage handling service failure - Helplessness	Correlation Coefficient	,292*	,312*	,463**	1.000	,265*	,466**	,400**
		Sig. (2-tailed)	0.017	0.011	0.000		0.031	0.000	0.001
		N	66	66	66	66	66	66	66
	Luggage handling service failure - Nervousness	Correlation Coefficient	0.075	,327**	,299*	,265*	1.000	,530**	,609**
		Sig. (2-tailed)	0.551	0.007	0.015	0.031		0.000	0.000
		N	66	66	66	66	66	66	66
	Luggage handling service failure – Panic	Correlation Coefficient	0.239	,347**	,349**	,466**	,530**	1.000	,733**
		Sig. (2-tailed)	0.054	0.004	0.004	0.000	0.000		0.000
		N	66	66	66	66	66	66	66
	Luggage handling	Correlation Coefficient	,293*	0.234	,374**	,400**	,609**	,733**	1.000

	service failure – Worry	Sig. (2-tailed)	0.017	0.059	0.002	0.001	0.000	0.000	
		N	66	66	66	66	66	66	66

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.4: Spearman Correlation - Delay

Correlations

			I felt like I was in control of the situation.	Delayed/Cancelled flight - Anger	Delayed/Cancelled flight - Frustration	Delayed/Cancelled flight - Helplessness	Delayed/Cancelled flight - Nervousness	Delayed/Cancelled flight - Panic	Delayed/Cancelled flight - Worry
Spearman's rho	I felt like I was in control of the situation.	Correlation Coefficient	1.000	,244*	,299**	,410**	,300**	0.201	,299**
		Sig. (2-tailed)		0.022	0.005	0.000	0.004	0.060	0.005
		N	88	88	88	88	88	88	88
	Delayed/Cancelled flight - Anger	Correlation Coefficient	,244*	1.000	,599**	,391**	,241*	,356**	0.202
		Sig. (2-tailed)	0.022		0.000	0.000	0.024	0.001	0.059
		N	88	88	88	88	88	88	88
	Delayed/Cancelled flight - Frustration	Correlation Coefficient	,299**	,599**	1.000	,476**	,397**	,342**	,435**
		Sig. (2-tailed)	0.005	0.000		0.000	0.000	0.001	0.000
		N	88	88	88	88	88	88	88
	Delayed/Cancelled flight - Helplessness	Correlation Coefficient	,410**	,391**	,476**	1.000	,616**	,428**	,496**
		Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000	0.000
		N	88	88	88	88	88	88	88
	Delayed/Cancelled flight - Nervousnes	Correlation Coefficient	,300**	,241*	,397**	,616**	1.000	,570**	,597**

	s	Sig. (2-tailed)	0.004	0.024	0.000	0.000		0.000	0.000
		N	88	88	88	88	88	88	88
	Delayed/Cancelled flight - Panic	Correlation Coeffic ient	0.201	,356**	,342**	,428**	,570**	1.000	,668**
		Sig. (2-tailed)	0.060	0.001	0.001	0.000	0.000		0.000
		N	88	88	88	88	88	88	88
	Delayed/Cancelled flight - Worry	Correlation Coeffic ient	,299**	0.202	,435**	,496**	,597**	,668**	1.000
		Sig. (2-tailed)	0.005	0.059	0.000	0.000	0.000	0.000	
		N	88	88	88	88	88	88	88

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.5: Spearman Correlation – Airport

Correlations

			I felt like I was in control of the situation.	Negative customer service at the airport - Anger	Negative customer service at the airport - Frustration	Negative customer service at the airport - Helplessness	Negative customer service at the airport - Nervousness	Negative customer service at the airport - Panic	Negative customer service at the airport - Worry
Spearman's rho	I felt like I was in control of the situation.	Correlation Coefficient	1.000	0.039	0.136	,318*	0.220	0.203	0.208
		Sig. (2-tailed)		0.788	0.341	0.023	0.120	0.153	0.143
		N	51	51	51	51	51	51	51
	Negative customer service at the airport – Anger	Correlation Coefficient	0.039	1.000	,672**	0.208	0.099	0.021	-0.042
		Sig. (2-tailed)	0.788		0.000	0.143	0.491	0.882	0.770
		N	51	51	51	51	51	51	51
	Negative customer service at the airport – Frustration	Correlation Coefficient	0.136	,672**	1.000	0.093	-0.111	-0.056	-0.197
		Sig. (2-tailed)	0.341	0.000		0.517	0.438	0.698	0.165
		N	51	51	51	51	51	51	51

	Negative customer service at the airport – Helplessness	Correlation Coefficient	,318*	0.208	0.093	1.000	,721**	,653**	,538**
		Sig. (2-tailed)	0.023	0.143	0.517		0.000	0.000	0.000
		N	51	51	51	51	51	51	51
	Negative customer service at the airport – Nervousness	Correlation Coefficient	0.220	0.099	-0.111	,721**	1.000	,665**	,682**
		Sig. (2-tailed)	0.120	0.491	0.438	0.000		0.000	0.000
		N	51	51	51	51	51	51	51
	Negative customer service at the airport – Panic	Correlation Coefficient	0.203	0.021	-0.056	,653**	,665**	1.000	,712**
		Sig. (2-tailed)	0.153	0.882	0.698	0.000	0.000		0.000
		N	51	51	51	51	51	51	51
	Negative customer service at the airport – Worry	Correlation Coefficient	0.208	-0.042	-0.197	,538**	,682**	,712**	1.000
		Sig. (2-tailed)	0.143	0.770	0.165	0.000	0.000	0.000	
		N	51	51	51	51	51	51	51

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.6: Directional Measures of Anger – Luggage

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.063	0.110	0.577	0.564
		I felt like I was in control of the situation. Dependent	0.061	0.106	0.577	0.564
		Luggage handling service failure - Anger Dependent	0.066	0.115	0.577	0.564

Table 4.7: Directional Measures of Frustration – Luggage

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.145	0.117	1.239	0.215
		I felt like I was in control of the situation. Dependent	0.151	0.121	1.239	0.215
		Luggage handling service failure - Frustration Dependent	0.140	0.115	1.239	0.215

Table 4.8: Directional Measures of Nervousness – Luggage

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.063	0.107	0.588	0.557
		I felt like I was in control of the situation. Dependent	0.059	0.100	0.588	0.557
		Luggage handling service failure - Nervousness Dependent	0.068	0.115	0.588	0.557

Table 4.9: Directional Measures of Panic - Luggage

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.202	0.106	1.911	0.056
		I felt like I was in control of the situation. Dependent	0.189	0.099	1.911	0.056
		Luggage handling service failure - Panic Dependent	0.217	0.114	1.911	0.056

Table 4.10: Directional Measures of Helplessness - Luggage

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.245	0.097	2.534	0.011
		I felt like I was in control of the situation. Dependent	0.231	0.091	2.534	0.011
		Luggage handling service failure - Helplessness Dependent	0.261	0.105	2.534	0.011

Table 4.11: Directional Measures of Worry - Luggage

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.246	0.096	2.536	0.011
		I felt like I was in control of the situation. Dependent	0.233	0.091	2.536	0.011
		Luggage handling service failure - Worry Dependent	0.261	0.102	2.536	0.011

Table 4.12: Directional Measures of Panic – Delay

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.177	0.091	1.931	0.054
		I felt like I was in control of the situation. Dependent	0.158	0.082	1.931	0.054
		Delayed/Cancelled flight - Panic Dependent	0.199	0.103	1.931	0.054

Table 4.13: Directional Measures of Anger – Delay

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.213	0.092	2.302	0.021
		I felt like I was in control of the situation. Dependent	0.187	0.082	2.302	0.021
		Delayed/Cancelled flight - Anger Dependent	0.247	0.105	2.302	0.021

Table 4.14: Directional Measures of Frustration – Delay

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.268	0.096	2.738	0.006
		I felt like I was in control of the situation. Dependent	0.246	0.090	2.738	0.006
		Delayed/Cancelled flight - Frustration Dependent	0.294	0.105	2.738	0.006

Table 4.15: Directional Measures of Helplessness – Delay

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.350	0.080	4.198	0.000
		I felt like I was in control of the situation. Dependent	0.309	0.072	4.198	0.000
		Delayed/Cancelled flight - Helplessness Dependent	0.405	0.092	4.198	0.000

Table 4.16: Directional Measures of Nervousness – Delay

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.255	0.085	2.950	0.003
		I felt like I was in control of the situation. Dependent	0.223	0.075	2.950	0.003
		Delayed/Cancelled flight - Nervousness Dependent	0.297	0.099	2.950	0.003

Table 4.17: Directional Measures of Worry – Delay

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.260	0.089	2.856	0.004
		I felt like I was in control of the situation. Dependent	0.227	0.079	2.856	0.004
		Delayed/Cancelled flight - Worry Dependent	0.304	0.104	2.856	0.004

Table 4.18: Directional Measures of Anger – Airport

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.032	0.115	0.282	0.778
		I felt like I was in control of the situation. Dependent	0.033	0.116	0.282	0.778
		Negative customer service at the airport - Anger Dependent	0.032	0.113	0.282	0.778

Table 4.19: Directional Measures of Frustration – Airport

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.111	0.121	0.924	0.355
		I felt like I was in control of the situation. Dependent	0.114	0.124	0.924	0.355
		Negative customer service at the airport - Frustration Dependent	0.108	0.118	0.924	0.355

Table 4.20: Directional Measures of Nervousness – Airport

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.188	0.117	1.598	0.110
		I felt like I was in control of the situation. Dependent	0.186	0.115	1.598	0.110
		Negative customer service at the airport - Nervousness Dependent	0.191	0.120	1.598	0.110

Table 4.21: Directional Measures of Panic – Airport

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.172	0.113	1.513	0.130
		I felt like I was in control of the situation. Dependent	0.177	0.115	1.513	0.130
		Negative customer service at the airport - Panic Dependent	0.168	0.111	1.513	0.130

Table 4.22: Directional Measures of Worry – Airport

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.174	0.113	1.518	0.129
		I felt like I was in control of the situation. Dependent	0.169	0.110	1.518	0.129
		Negative customer service at the airport - Worry Dependent	0.178	0.117	1.518	0.129

Table 4.23: Directional Measures of Helplessness – Airport

Directional Measures

			Value	Asymptotic Standard Error[a]	Approximate T[b]	Approximate Significance
Ordinal by Ordinal	Somers' d	Symmetric	0.276	0.125	2.222	0.026
		I felt like I was in control of the situation. Dependent	0.265	0.120	2.222	0.026
		Negative customer service at the airport - Helplessness Dependent	0.287	0.131	2.222	0.026

Table 4.24: Cochran-Armitage test of trend – Luggage handling service failure

Variables not in the Equation

			Score	df	Sig.
Step 0	Variables	Luggage handling service failure - Anger	,002	1	,961
	Overall Statistics		,002	1	,961
Step 0	Variables	Luggage handling service failure - Frustration	1,216	1	,270
	Overall Statistics		1,216	1	,270
Step 0	Variables	Luggage handling service failure - Helplessness	,043	1	,836

	Overall Statistics		,043	1	,836
Step 0	Variables	Luggage handling service failure - Nervousness	1,878	1	,171
	Overall Statistics		1,878	1	,171
Step 0	Variables	Luggage handling service failure - Panic	1,732	1	,188
	Overall Statistics		1,732	1	,188
Step 0	Variables	Luggage handling service failure - Worry	2,865	1	,091
	Overall Statistics		2,865	1	,091

Table 4.25: Cochran-Armitage test of trend – Delay/Cancelled flight

Variables not in the Equation					
			Score	df	Sig.
Step 0	Variables	Delayed/Cancelled flight - Anger	4,442	1	,035
	Overall Statistics		4,442	1	,035
Step 0	Variables	Delayed/Cancelled flight - Frustration	8,117	1	,004
	Overall Statistics		8,117	1	,004
Step 0	Variables	Delayed/Cancelled flight - Helplessness	5,732	1	,017
	Overall Statistics		5,732	1	,017
Step 0	Variables	Delayed/Cancelled flight - Nervousness	2,959	1	,085
	Overall Statistics		2,959	1	,085
Step 0	Variables	Delayed/Cancelled flight - Panic	3,475	1	,062
	Overall Statistics		3,475	1	,062
Step 0	Variables	Delayed/Cancelled flight - Worry	4,596	1	,032
	Overall Statistics		4,596	1	,032

Table 4.26: Cochran-Armitage test of trend – Negative customer service at the airport

Variables not in the Equation					
			Score	df	Sig.
Step 0	Variables	Negative customer service at the airport - Anger	1,238	1	,266
	Overall Statistics		1,238	1	,266
Step 0	Variables	Negative customer service at the airport - Frustration	5,898	1	,015
	Overall Statistics		5,898	1	,015
Step 0	Variables	Negative customer service at the airport - Helplessness	,057	1	,812
	Overall Statistics		,057	1	,812
Step 0	Variables	Negative customer service at the airport - Nervousness	,001	1	,977
	Overall Statistics		,001	1	,977
Step 0	Variables	Negative customer service at the airport - Panic	1,063	1	,303
	Overall Statistics		1,063	1	,303
Step 0	Variables	Negative customer service at the airport - Worry	,052	1	,819
	Overall Statistics		,052	1	,819