

Service failure and recovery in UK airlines



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Abstract

This research has focused on the service failure and recovery of the Airline industry and the impact that has on customer satisfaction along with the task to identify optimal recovery strategies.

It has identified 22 Failure types that occurred during service failure and has expanded the understanding of the impact that several factors such as Severity of Failure, Failure type, Emotion and Justice have on Post Failure Satisfaction (PFS), on Satisfaction with Recovery (SWR), on Post Recovery Satisfaction (PRS) and Loyalty through the use of a suggested model (conceptual framework).

More specific it has found that the factors of Severity of Failure (exclusively for the airline industry) and Failure type have a negative effect on Post Failure Satisfaction (PFS), on Satisfaction with Recovery (SWR), on Post Recovery Satisfaction (PRS) and Loyalty. In addition, the factor of Emotion did not have a significant effect on Post Recovery Satisfaction (PRS) and Loyalty while the factor of Justice has.

It has also identified some recovery strategies that work more effectively after the occurrence of service failure. More particularly the strategies of providing (on behalf of the airline company) : (1) Opportunity to voice my view/feelings, (2) Correction of the problem, (3) Staff empowered to solve the problem, (4) Apology for the service failure), (5) Follow-Up in writing from airline manager, (6) Facilitation for making complain process easier, (7) Appropriate place to explain/handle the complaint, (8) Understanding staff and some others to a smaller extent, work more effectively with regards to the recovery process for the customer.

The research had a quantitative approach and was carried out with multivariate statistics (IBM's SPSS software package) such as Analysis of Variance (ANOVA) and (OLS) Regression analysis. It suggested a model (conceptual framework) where several factors were tested with the above-mentioned statistics.

Further this research has also revealed some service quality models for the airline industry (both industry specific and non) that work better and more specific suggested the use of the Hierarchical model along with industry-based models. In addition, the usage of the SERVPEX and SERVPERF models cannot be totally rejected as there are arguments from both sides.

Overall this research has contributed to theory by demonstrating through a conceptual framework what general impact exist in the whole service failure and recovery process with regards to the factors of Severity of Failure, Failure type, Emotion and Justice. The findings provide a significant contribution to the literature.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This study will focus on service failure in UK airlines. Its main objective is to create a theoretical model in order to develop further our understanding of the impact that airline service failure has on customer satisfaction and to identify optimal recovery strategies.

The research will be focused on the criticality and severity of failure by type and the comparative effectiveness of alternative recovery strategies from the consumer perspective.

The aim of this study is to contribute further to the literature through in-depth analysis of service failure, critical incidents and evaluation of alternative recovery strategies to build a clear understanding of the problem and contribute to the sustainable development of organisations.

A critical review of the service failure literature and in-depth interviews with airline passengers will underpin the design of a conceptual model for a large scale e-survey to examine perceptions of service quality and assess service failure and recovery strategies. The data analysis will employ structural equation modelling and multivariate statistics.

1.2 Study background

The airline industry has been characterized as a highly competitive industry with low profit margins and high fixed costs making it very difficult for some airlines to compete against others with greater financial resources or lower operating costs (Dempsey and Gessel, 2012).

A small reduction on passenger numbers from service failure could have an immediate effect on each airline company's financial situation. Therefore the management of service failure is of vital importance playing a leading role on customer satisfaction.

The economic recession in Europe has had a direct impact on the airline industry. With the cost of fuel rising, the airlines search for more fuel efficient aircraft in order to lower their operating and maintenance costs. The 2008 peak price of \$140 per barrel brought the airline industry to its limit. As there is not

much room for the airlines to transfer the increased costs of fuel to their customers, it is even more important for them to focus more on customer satisfaction. Despite last's year's reduction in oil prices that seem of a temporary situation without further guarantee that this will continue. That endorses further the initial focus that airlines must have on customer satisfaction.

Many airlines have invested in advanced technology and it is expected that they will invest more than \$3.5 trillion on 27,800 new aircraft having a seating capacity of more than 100 over the next two decades (Zacks Investment Research, December 2012). That prediction is still accurate besides some aircraft delays due to internal production problems something which is not related with the airplane marketplace and lately Boeing's chief executive Dennis Muilenburg stated on 27/1/2016 that: *"We continue to see a generally healthy commercial airplane marketplace driven by improving airline profitability, solid passenger traffic growth, and meaningful replacement,"* (BloomBergBusiness, 2016).

The near-future adoption of NextGen, a satellite-based navigation system which will make air travel more efficient as it *"will improve further the accuracy, availability, and integrity needed to support continuous all-weather use"* (Federal Aviation Administration- faa.com, 2015) and also the implementation of numerous technology upgrades such as airline reservation systems, flight operation systems, website maintenance and in-flight entertainment systems will enable companies to reduce their costs further (Zacks Investment Research, August 2012). However, this choice is expensive and many airlines continue to operate with less efficient aircraft showing that the industry is *"hampered by slim margins, focusing carriers to focus on both cost reduction and revenue growth through better customer interactions"* (PwC, 2015).

Within this context, a small reduction in passenger numbers from service failure could have an immediate effect on an airline company's financial situation. Therefore, the management of service failure is of vital importance as superior customer service provides a competitive advantage (Gabbott, *et al.*, 2011).

The latest trend shows that the airline industry has been neglected in terms of service failure in contrast with other industries that focused more in understanding customer's preferences (PwC, 2015). The loyalty programs provided substantial customer data but didn't revealed *"real insights about travel behaviour and choices"* (PwC, 2015).

There are individual airlines who have already focused more time on improving parts of the travelling experience e.g. the reduced time for flight on-board through schemes such as *"Early Valet"* (Delta, 2015) or *"Smart*

Boarding” (KLM, 2013) but the general tendency is that the airline industry has been neglected in terms of service failure and recovery and more particularly on those minor incidents which proves to be the ones that are strongly related (in a negative way) to future market share even from the major ones (Keiningham *et al.*, 2014).

There is literature review which is directly related with the airline industry but not extensively. That literature part has examined the relation that service failure plays on satisfaction (e.g., Anderson, Baggett, and Widener 2009; Bamford and Xystouri 2005; Lapre´ 2011; Lapre´ and Tsikriktsis 2006; McCollough, Berry, and Yadav 2000), the level of loyalty (e.g., Zins 2001), and market share (e.g., Rhoades and Waguespack 2005); the relation of service brand-trust in the brand-customer value/loyalty in relation to the severity of the service failure for air travellers (Sajtos, Brodie, and Whittome, 2010); the relationship between minor-major incidents and the impact they have to customers (Keiningham *et al.*, 2014).

Air travel demand is linked with the economic level of a country. Very quick industrialization in a number of countries overseas led to fast growing of air travellers (Jou, Lam, Kuo, & Chen, 2008). Therefore the provision of superior quality became a priority for the airline industry in order to sustain being competitive (Mustafa *et al.*, 2005).

It is critical apart from understanding the way of how passengers evaluate the service process to identify also the decisive primary and sub dimensions that is being used to measure service quality in the airline industry. Many airlines have faced problems in order to evaluate a proper scale of service quality which led them to further service failures as they could not appropriately assess and improve their service performance (Park, *et al.*, 2004).

Undoubtedly the perception of the customers for service failure has a direct negative impact on their satisfaction. Besides that there are different service failures in terms of importance to passengers. For example some passengers will perceive a 1-hour flight delay as severe in case they miss an important event or business meeting while a lack of a particular desired food item will not be perceived as a severe failure but rather as an annoyance (Sajtos, Brodie, and Whittome 2010).

1.3 Research Rationale

As the literature on service failure and recovery that is directly related with the airline industry is relatively small that gave further motive to the researcher to examine these issues within that particular industry.

The aims and objectives here are to seek the types of service failure that occur in the airline industry and identify the best possible strategies to improve

customer's satisfaction. There is a substantial amount of literature examining these issues and beyond across the service sector in general but not in the airline industry except from very few cases. The researcher therefore identified a gap on that as there is lack of literature with regards to the recovery process in the airline industry specific that has to be followed after a service failure. The purpose consequently here is to seek for more clarity on this area of the airline industry.

As the research took place it managed to identify specific failure types that occur in the airline industry such as "Flight delay", "Baggage lost" and "Bad lever of service" – the three more frequent – and also identified a certain number of recovery strategies such as "An opportunity provided to voice my view/feelings", "Correction of the problem", "Staff empowered to solve the travellers problem", "An apology for the service failure", "Follow-Up in writing from airline manager" and some other to a smaller extent which are met later in the study.

Customer satisfaction plays a vital role in every organisation's strategic plan. As the competition becomes more challenging due to lower switching costs many service brands have difficulties in focusing on the quality of the customer experience (Gabbott, *et al.*, 2011). Not surprisingly, research in this area (Matzler, 2004) has attempted to identify the key determinants of customer satisfaction because the implementation of a new strategy in line with the new research findings will bring sustainable growth to any organisation operating in today's competitive market environment. Further from research the company's complaint handling in relation with the customer responses showed that the relationship between justice perception and satisfaction construct depend on several moderators with one of them being the nature of the industry (Gelbrich and Roschk, 2011).

Given the fact that more than half of the entire airline industry is run by a small number of companies (less than twenty) it is crucial for the rest of the competition that further research must take place on customer satisfaction. By improving a poor performance attribute will bring a prominent improvement to the customer's overall experience perception (Bacon, 2012). This will contribute more and even facilitate the entrance of new competitors as now we are in a crucial crossroad for the whole airline industry. The process of service failure recovery for the customer is critical regardless if there is complaint or not (Vaerenbergh *et al.*, 2012).

At the moment the airline industry stands on a cross road. What levels and standards of customer satisfaction will be adopted for further sustainability and growth? How these related with service failure? These and several other questions will be taken into account and as there is not much research on airline service failure this research seeks to contribute further to that.

One crucial part in the service failure is the condition that the customer will be just after the service failure. This is the Post Failure Satisfaction (PFS) condition which occurs right after the service failure where the customer has most of the times a certain negative amount of satisfaction. Then once the recovery process engages the condition for the customer is called Post Recovery satisfaction (PRS) which means that this recovery action can turn things better for the customer, can leave things remain the same or even can make things even worse. It will depend from the type of recovery strategy that is applied.

Therefore in these conditions with regards to customer level of satisfaction or not has to be shed a light in order to increase clarity and suggest the most appropriate recovery strategies. This can be done through the use of a conceptual framework that will specifically be designed and suggested for this study.

The airline industry is made up of different types of operations such as the full service airlines/or legacy/or premium airlines and the low-cost ones. The former is present since almost the beginning of aviation while the latter appeared firstly in the United States in 1978 and only in short-haul flights, through Southwest airlines. Based in Dallas, Southwest was a pioneer of the low-cost model that entailed the usage of the exact same type of aircraft for the entire fleet – in that case the Boeing 737 – to put maintenance costs level even lower and by having gained savings on that to push for further reduction on fares as much as possible banning at the same time the free offer of food during flight. This low-cost model was quite successful and was copied in the 90's by Ryanair and EasyJet introducing the low-cost format in Europe.

The major differences among those two are the price differentiation of the fares (cheaper in the low-cost airlines providers), the service differentiation during flight (with the legacy airlines to offer free of charge on baggage and free in-flight catering) and also the airport usage with the low-cost airlines choosing to operate from airports that are in the far outskirts of cities in order to avoid paying high airport taxes that central airports have located in close perimeter of cities centres.

Some additional differences exist between those two. In the case of the legacy, airlines if things go wrong (i.e. flight delay or lost baggage) the customer service will provide more options when compared with no frills airlines. If there is a flight cancellation, their alliance partners will provide assist to get passengers home through another aircraft of the alliance without having to stranded passengers for days as this has happened with low-cost airlines. In the case of low-cost airlines there is also some extra cost hidden through the checked-in baggage charges process and in-flight catering. That can be balanced as in most cases the duration of the flight is quite small and therefore

is it simply not a big deal for the majority of the passengers. (globalexplorer.co.uk)

However, in the past these differences between those two modes of operations were quite significant particularly in the amount of fares differentiation and service offered. The last years the gap on fares has been reduced by 30% on average and that is mainly because the legacy airlines have abandoned some policies of free charge on baggage and in-flight catering on short-haul flights (KPMG, 2013).

That situation makes things even more competitive with the legacy ones as the margin of differentiation is smaller. Therefore, the level of service quality (SQ) offered and the levels of service recovery (SR) also in the case of a service failure are vital.

The quality of the service offered is of vital importance particularly when the employee can solve a current problem of a passenger on the spot. Jan Carlzon the CEO of SAS is considered among the pioneers in management training as he introduced in the early 80's as CEO of SAS an ongoing training program called Putting People First that was developed by Claus Moller. That particular program targeted on assigning responsibility directly on customer-facing staff, allowing them to take decisions on the spot and removing the whole process from management hands. Famous moto of Carlzon is the *"Problems are solved on the spot, as soon as they arise. No front-line employee has to wait for a supervisor's permission."* (thinkexist.com)

These changes were very successful when implemented by SAS and led to be copied by other airline carriers. This implementation created a decentralisation of the company and influenced largely the morale of the employees while at the same time created a training methodology called Scandinavian Service School that worked through a joint venture with another company named TMI. Through this approach, a flat organizational structure was created which together with the delegation processes and the employee empowerment adoption for the company led to huge success for SAS during the 80's (Moments of Truth, Harper Perennial, 1987). This approach led the American Management Association in 1998 to declare it as among the most important developments for management in the 20th century.

1.4 Research Questions

1. What is the impact that the Severity of Service Failure has to customer satisfaction of airline passengers and more particularly with regards to their Post Failure Satisfaction (PFS), Post Recovery Satisfaction (PRS) and Loyalty?

2. What are the different Failure types that appear before the actual recovery process begins and how they influence the recovery process? What is their impact on Satisfaction with Recovery (SWR), Post Recovery Satisfaction (PRS) and Loyalty?
3. Is the level of Loyalty different between the Post Failure Satisfaction and the Post Recovery Satisfaction for the customers?
4. What is the impact that the Recovery action has on Satisfaction with Recovery (SWR), Post Recovery Satisfaction (PRS) and Loyalty? Which of the recovery strategies that the airlines use after the occurrence of service failure work better and more efficiently? What's the implication involved?
5. What is the role of Emotion during the service recovery process? Does it partially mediate the impact of Satisfaction with Recovery (SWR) on Post Recovery Satisfaction (PRS) and Loyalty?
6. What is the role of Justice during the service recovery process? Does it partially mediate the impact of Satisfaction with Recovery (SWR) on Post Recovery Satisfaction (PRS) and Loyalty?

1.5 Research Objectives

1. To evaluate the implication that the Severity of Service Failure has on customer satisfaction with regards to their Post Failure Satisfaction (PFS). In other industries the severity of failure does influence more negative the consequences of the service failure, it magnifies them. Here through the research the objective is to find if a similar situation exist in the airline industry as with the other industries.
2. To evaluate customer perceptions of the airline passengers with regards to the different Failure types.
3. To evaluate the difference between the two different conditions of Post Failure Satisfaction (PFS) and Post Recovery Satisfaction (PRS) with regards to the customer.
4. To evaluate the impact that the Recovery action has on Post Failure Satisfaction (PFS), Post Recovery Satisfaction (PRS) and Loyalty and to provide possible implications of which service recovery strategies work more efficiently for the airlines and their relationship with the customers.

5. To evaluate the factor of “Emotion” that has on customer perception about the service recovery and whether it partially mediates the impact that Satisfaction with Recovery (SWR) has on Post Recovery Satisfaction (PRS) and Loyalty.
6. To evaluate the factor of “Justice” that has on customer perception about the service recovery and whether it partially mediates the impact that Satisfaction with Recovery (SWR) has on Post Recovery Satisfaction (PRS) and Loyalty.

1.6 Results of study

The research on service failure that took place after the collection of primary data revealed that there were found twenty two (22) service Failure types. From those twenty two types the first three captivated a percentage of 68.27% in total and more specific they were the “Flight delay” with 46.35%, the “Baggage delay” with 13.10% and the “Poor service” with 8.82%. The remaining nineteen failure types captivated the rest 31.75% (with smaller percentages each ranging from 5.29% the highest to 0.25% the lowest) and all are discussed together with the first three in details in Chapter 4 (Data analysis).

Additionally the suggested conceptual framework research revealed that the Severity of the Failure has a negative impact on Post Failure Satisfaction (PFS), Post Recovery Satisfaction (PRS) and Loyalty. Further the research study revealed that the Failure type has a negative impact on Post Failure Satisfaction (PFS), Post Recovery Satisfaction (PRS) and Loyalty. Additionally some of the recovery strategies work more effectively on customers in the airline industry. Finally during the Recovery action the factor of Emotion didn’t had a great impact as was initially expected (based on the results found which are not statistically significant) whereas the factor of Justice had an impact on Satisfaction with Recovery (SWR), Post Recovery Satisfaction (PRS) and Loyalty.

1.7 Definitions

The section provides a brief introduction to the concepts which are fundamental to the research questions and more detailed discussion will be presented in chapter 2.

1.7.1 Service quality

It can be defined as the consumer’s judgment about the supremacy of a service (Zeithaml 1987). Unlike to quality of goods which can be measured objectively by certain pointers such as number of defects, durability (Crosby 1979; Garvin

1983; Hjorth-Anderson 1984), the service quality has been built on three points unique to services: intangibility, heterogeneity and inseparability of production and consumption (Panasuraman, Zeithaml, and Berry 1985). It is an attitude linked in a way with satisfaction, coming out through a comparison of expectations with performance.

1.7.2 Service failure

It is the situation where the service fails to line up with the customer expectations (Michel, 2001). It can take place in both the process and the outcome of the service delivery (Lewis and McCann, 2004).

According to Bitner *et al.*, (1990) service failure can be categorised with employee's behaviour and is being related to: the core service; requests for customised service; and unexpected employee actions. In a subsequent study Bitner *et al.*, (1994) included a classification of problematic customers with Kelley *et al.*, (1993) and Hoffman *et al.*, (1995) to add product and policy failures.

Furthermore Johnston (1994) classified sources of failure as attributable to the organisation or the customers; Armistead *et al.*, (1995) suggested three types of failure – service provide error, customer error, or associated organisational error (e.g. air-traffic controllers on strike).

The consequences of service failure include:

- Dissatisfaction (Kelley *et al.*, 1993)
- A decline in customer confidence (Boshoff, 1997; Boshoff and Leong, 1998);
- Negative word-of-mouth behaviour (Bailey, 1994; Mattila, 2001);
- Customer defection (Keaveney, 1995; Millet *et al.*, 2000);
- Loss of revenue and increased costs (Armistead *et al.*, 1995); and
- A decrease in employee morale and performance (Bitner *et al.*, 1994)

1.7.3. Service recovery

It is those actions implemented to solve the occurring problems, to adjust negative attitudes of dissatisfied customers with the scope however to maintain these customers. (Miller *et al.*, 2000, p.38). According to Smith *et al.*, 1999 it involves situations whereas service failures take place but no complaint is being reported by the customers (p.359).

Further according to Johnston (1994) the term service recovery can be interpreted as an order to seek out and deal with service failure stating at the

same time that the term “seeking out” differentiates recovery from complaint handling as many dissatisfied customers have the tendency not to complain directly.

A successful service recovery has important benefits such as the improvement of customer’s perceptions regarding the quality of the service offered which eventually can be lead to a positive word-of-mouth (Lewis and McCann, 2004).

It can also enhance customer’s satisfaction and create stronger bonds on customer relationships, loyalty and have an impact on profits (Bitner *et al.*, 1990; Hart *et al.*, 1990; Spreng *et al.*, 1995; Michel, 2001). Although the extent of success may well be depend on the type of service (Mattila, 2001) or the type of failure (McDougall and Levesque, 1999) and the speed of response (Boshoff, 1997)

1.8 Thesis Outline

The thesis comprises of 4 Chapters. Chapter 1 includes the introduction of this research stating the objectives of this endeavour with necessary justification. On chapter 2 there is the literature review which is related to this subject followed by Chapter 3 which comprises the methodology of this research. Chapter 4 contains the Data Analysis together with the Suggestions and Recommendations.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

In the previous Chapter 1 there was a summary of the underlying principles and aims of this research. This chapter will present a literature review related to the topic area together with an initial statement of the proposed hypotheses study.

2.2 Aims and objectives

The aim of this chapter is to provide a wide review of three fundamentals concepts related with the research and that are the service quality, service failure and service recovery. Additionally through this in-depth analysis the aim is to reveal the existing situation of service failure and recovery rates in the airline industry and how this can be alleviated.

The objective is to reveal the existing situation in those three concepts and to reveal any gap that will emphasize more the need for research justification of this current study.

At the beginning the literature review starts with **service quality** and its existing concepts, definitions and related aspects. It follows a wide review of which particular service quality models exist and which ones are more capable for the airline industry. Further the review proceeds to **service failure**, where the main focus is on the connection of service failure with customer satisfaction and what conceptual models evolved, which ones prevailed, which the discredited ones are and how the existing situation in research is linked with the suggested research thesis. It then proceeds to the literature review of the **service recovery**. Finally the chapter closes with the proposed hypotheses study.

2.3 Service Quality

It is an attitude linked in a way with satisfaction, coming out through a comparison of expectations with performance. Service quality influences directly the customer satisfaction and loyalty (Ganguli & Roy, 2011). It brings customer satisfaction as it is linked to customer perception and expectation subsequently. It can be defined as the comparison result of customer's perception and customer's expectation for the service provided (Oliver 1997). Additionally service quality is mainly described as a customer's judgement

regarding an entity's excellence (Bitner and Hubbert 1994; Boulding *et al.* 1993; Cronin and Taylor 1992; Parasuraman, Zeithaml, and Berry 1985, 1988). If the expectation is higher than perception then the service will be regarded as bad, if it is equal the service will be labelled as good and if it is lower than perception the service will be considered as an excellent one.

Additionally service quality can be defined as the consumer's judgment about the supremacy of a service (Zeithaml 1987). Unlike to quality of goods which can be measured objectively by certain pointers such as number of defects, durability (Crosby 1979; Garvin 1983; Hjorth-Anderson 1984;), the service quality has been built on three points unique to services: intangibility, heterogeneity and inseparability of production and consumption (Parasuraman, Zeithaml, and Berry 1985).

Furthermore customer satisfaction is a judgement of a particular product or service and those satisfied customers tend to be loyal customers and willing to spread positive word of mouth (Gibson, 2005). Having customer loyalty increases the profit for the company as keeping the existing customers is cheaper than finding new ones (Kotler and Armstrong, 2007). In order to retain that loyalty and repurchase intention an overall customer satisfaction is needed. Therefore it is crucial to identify which factors contribute to customer satisfaction in order to create and deliver service that entails them.

A substantial amount of research exist on service quality perceptions (Zeithaml, 2009, Ramsaran and Fowdar, 2007), with most of it to be concentrated on developing generic quality models (Parasuraman *et al.*, 1985; Brady and Cronin 2001). Fairly few studies have concentrated on the development of context – specific service quality models (Dagger *et al.*, 2007) regardless of the fact that service quality evaluations tend to be context dependent (Babakus and Boller 1992; Carman 1990; Dabholkar, Thorpe, and Rentz 1996).

This decision comes out among customer's expectation regarding the service and the actual service performance. Grönroos (1984) gave emphasis on expectation as a standard reference point whereas performance can be evaluated and Parasuraman *et al.*, (1985) placed service quality as a gap among service expected and service perceived. He was actually the first who emphasized more on the quality of the service sector arguing that the quality definitions and descriptions (of that era) were not sufficient enough to understand service quality. Therefore he developed the SERVQUAL model based on the fact that the most common definition of service quality was the gap between customer expectation and perception (Parasuraman *et al.*, 1988).

Chang (2008) argues that service quality must be focused on the customer's side as they do have dissimilar values and their circumstances vary. Kumra (2008) goes beyond and argues that service quality does not include only the

final service but the whole production and delivery process before which entail employee involvement and commitment particularly in tourism services.

Grönroos (2007) emphasizes on the comparison between customer experience of the service and their initial expectation for it through a model called “Total perceived service quality”. Through this process he comes up with two service quality dimensions, the first one that mentions the outcome is the technical quality, and has to do with what is being delivered, and the second dimension is the functional quality which mentions the manner through which the service is being delivered and how. Both dimensions shape the overall quality perception of a service.

While the service quality concept was specified as a second-order factor (Grönroos 1984; Parasuraman, *et al.*, 1988; Rust and Oliver 1994) later is being described as a third-order factor (Brady and Cronin 2001; Dabholkar, Thorpe, and Rentz 1996) which means that service quality consists of many primary dimensions (with sub dimensions also) that are segments of a common theme represented by the higher order global perceived service quality construct. Therefore the effort to modeling service quality identifies that evaluating service quality could be more complex than previous attempts (Dagger *et al.*, 2007).

2.3.1 Linkage of service quality with satisfaction

Service quality and satisfaction have a relationship which is based upon two different perspectives. In the first one it is the transaction perspective in which satisfaction is reflected as an antecedent of a worldwide appraisal of perceived service quality. Here the perceived quality is being built on a gathering of transaction-specific satisfaction judgements to create a wider worldwide evaluation of service quality (Mohr and Bitner 1995)

In the second one service quality leads towards a more sensitive, a more emotional satisfaction concept (Brady and Robertson 2001; Cronin and Taylor 1992; Gotlieb, Grewal, and Brown 1994).

Conclusions that relate to those two different perspectives vary. Research on the one hand for instance has shown an indirect link among service quality and intentions through satisfaction (Cronin and Taylor 1992; Dabholkar, Shepherd, and Thorpe 2000; Gotlieb, Grewal, and Brown 1994). On the other hand it has shown a direct link among these concepts (Cronin, Brady, and Hult 2000).

For the airline industry it is expected for service quality to have a direct effect on intentions and an indirect effect through customer satisfaction.

2.3.2 Linkage of Service Failure (SF) and Service Recovery (SR)

Service quality has been linked with service failure (SF) and service recovery (SR). It has been argued from service quality researchers that because of the distinguished nature of services it cannot be in most cases an error-free service (Fisk, Brown, & Bitner, 1993; Sparks & Bradley, 1997). Therefore increased focus has been given to the recovery part of the service (Chung & Hoffman, 1998; Smith & Bolton, 1998; Sparks & Bradley, 1997; Sundaram, Jurowski, & Webster, 1997; Tax, Brown, & Chandrashekar, 1998).

The linkage of customer satisfaction (CS) with service quality (SQ) has to be pointed out. The question is if customer satisfaction (CS) is an antecedent or consequence of service quality (SQ).

According to Oh (1999) there are no universally agreed definitions for SQ and CS as there is a situation for constant debate between researchers.

For CS it can be referred as the transaction-specific assessment of a consumption experience. Here the disconfirmation model (Oh & Parks, 1997) can be fit in which says that the CS judgements are the evaluations result of expectation against performance (Oliver, 1980, 1993).

For SQ it can be referred as an expectation-performance gap of the consumer – provider encounter (Parasuraman, Zeithaml, & Berry, 1994).

Cronin and Taylor (1992) stated a correlation among CS and SQ of .8175 and McCollough (1995) stated another one ranging from .8208 to .7501.

The suggestion of CS being an antecedent or a result of SQ is also unclear. According to Cronin and Taylor (1992) even though they argued that CS would point out towards SQ at the end they found the opposite.

Parasuraman Zeithaml and Berry (1994) pointed out SQ can actually be an antecedent and not a consequence of CS. On the other hand Oh (1999) argued that SQ was an antecedent of CS. Therefore the difference and causal relationship among CS and SQ still remains unclear.

2.3.3 Service quality models

In recent decades measuring service quality took place through various quality models and researchers came to the conclusion that service quality has an important impact on customer satisfaction and customer loyalty (Ghotbabadi *et al.*, 2012). The core models that formed the basis of other ones are four and they listed here together with another two which are linked particularly with the airline industry. Those six models have advantages and disadvantages with some of them having greater amount of validity and reliability towards the airline industry such as the SERVPEX and the Hierarchical models while some

others not so (Ling, Lin and Lu, 2005). Below are listed and described those six models.

2.3.4 Nordic Model

Grönroos (1984) defined service quality through the outcome that customers will obtain and the process related with it (figure 1). It includes 3 dimensions: Image, Technical quality and Functional quality. The third dimension, the Image of the service provider, moderates both the Technical and the Functional quality which accompanied also with additional factors such as word of mouth, marketing communication, tradition, customer needs and pricing. This moderation takes place in order to reach a perceived level of service (Grönroos 1988).

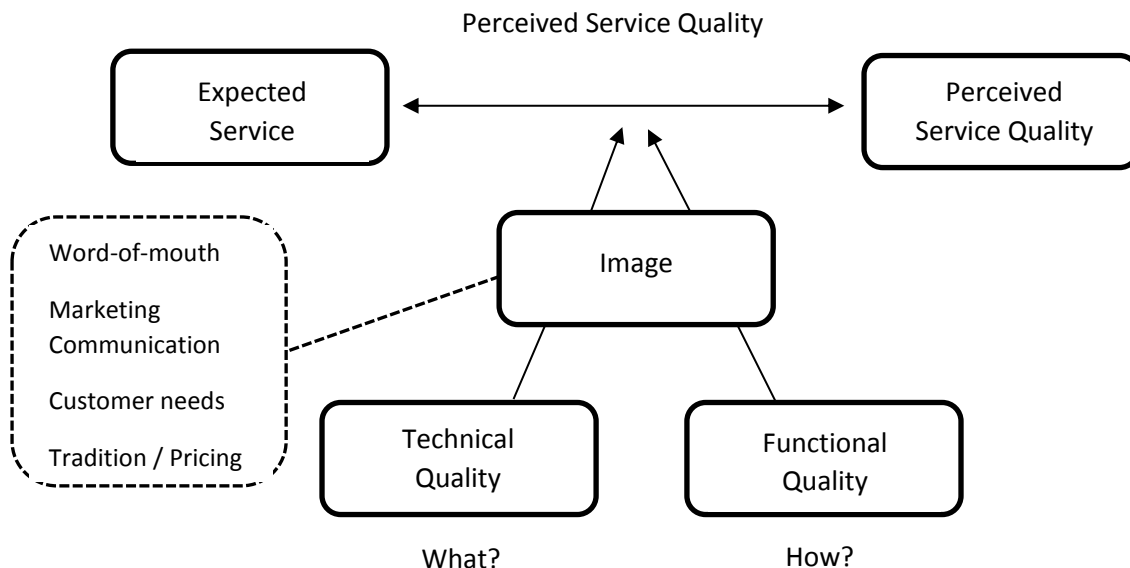


Figure 2.1 – The Nordic model

For Grönroos Technical quality is referred to the “*mere technical outcome of the production process that corresponds to the instrumental performance of the service*” (Grönroos, 1984 p.38). If it is a hotel guest will need a room and a bed, if it is a restaurant it will be a meal, an air traveller will be the process of transportation from one place to another. This technical outcome i.e., what the consumer receives as a result through the interaction he/she has with a service firm can be called the technical quality dimension. It is very important to the consumer’s evaluation for the quality of the service as he/she can often be measured it objectively as any technical dimension of a product (Grönroos, 1984).

The other dimension that Grönroos introduced was the Functional quality and that is due to the fact that through the service interaction that the customer has the technical quality dimension will not be determine the total quality that the consumer receives but rather it will be influenced by the way that is being transferred to the customer functionally (e.g. waiter behaviour in a restaurant, or business consultant on a meeting, or bus driver in a bus etc). Therefore *“the consumer is not only being interested in what he receives as an outcome of the production process, but in the process itself”*. (Grönroos, 1984, p.39) This quality dimension can be called Functional quality as it *“corresponds to the expressive performance of a service”* (Grönroos, 1984, p.39).

Overall the Technical quality dimension answers the question of what the customer gets and Functional quality dimension answers the question of how the customer gets it. Clearly the Functional quality dimension cannot be evaluated as objectively as the Technical dimension. As a matter of fact the functional dimension is perceived in a very subjective way (The customer makes its final judgement regarding the service quality on a bundle of service dimensions (Grönroos, 1984, p.39).

Grönroos showed that both Technical and Functional quality are interrelated, however he argued that the quality of the service was more significant to the Functional quality and that the staff performance in direct contact with customers can compensate for a lower Technical quality (Grönroos, 1990). This Nordic model was the first one that tried to measure service quality through comparativeness of the “expected” and the “perceived” service offered (Ghotbabadi *et al.*, 2012).

Update of this model could have been considered the *“Three-Component model”* from Rust and Oliver (1994) when they conceptualized the measurement of service quality as customers’ perception regarding an organisation’s service product (technical quality), service delivery (functional quality) and service environment. Those were the three items that were suggested (Figure 2.2).

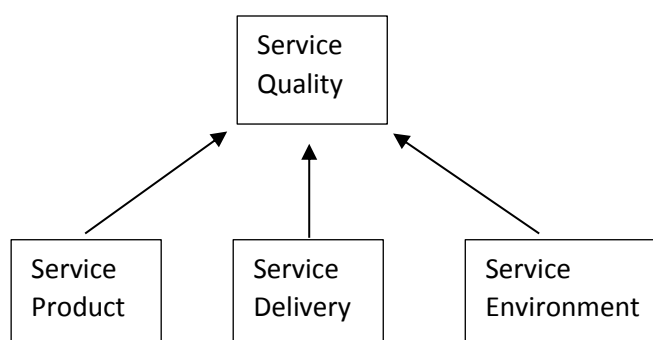


Figure 2.2 – The Three-Component model (Rust and Oliver, 1994)

This model has been supported and has been employed to measure retail banking service quality without however test their model hence lacks of further support as it was giving only generalized picture of service quality without including details of it (Ghotbabadi *et al.*, 2012; Chaipoopirutana, S., 2008). Additionally it was not including the service encounter and service tangibles that could create more specific details about the service quality perception of the customer (Chaipoopirutana, S., 2008).

2.3.5 SERVQUAL model

The Nordic model introduced two dimensions (Technical and Functional) quality which was not sufficient enough to identify customer's perception of service quality. Parasuraman, Berry and Zeithaml (1985) expanded further the Nordic model by concentrating on the discrepancy between customer expectation and perception through the creation of the Gaps Model of Service Quality or otherwise called SERVQUAL model. This model has 5 dimensions (Figures 2.3 and 2.4).

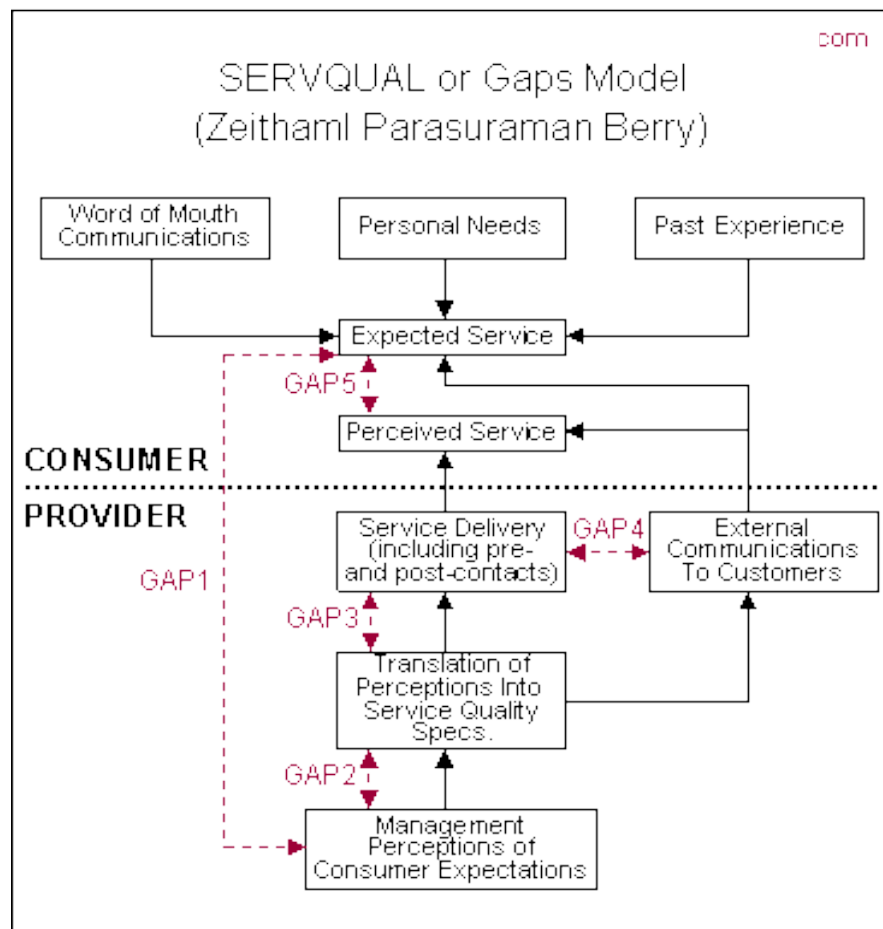


Figure 2.3 – The 5 gaps of the SERVQUAL model (Zeithaml, Parasuraman and Berry, 1985)

The core basis of this model is the gaps1-4 while the gap 5 reveals the discrepancy among consumer expectation and perception (Figure 1). This model was designed to measure the gap between expected and delivered service (Zeithaml, Panasuraman and Berry, 1990).

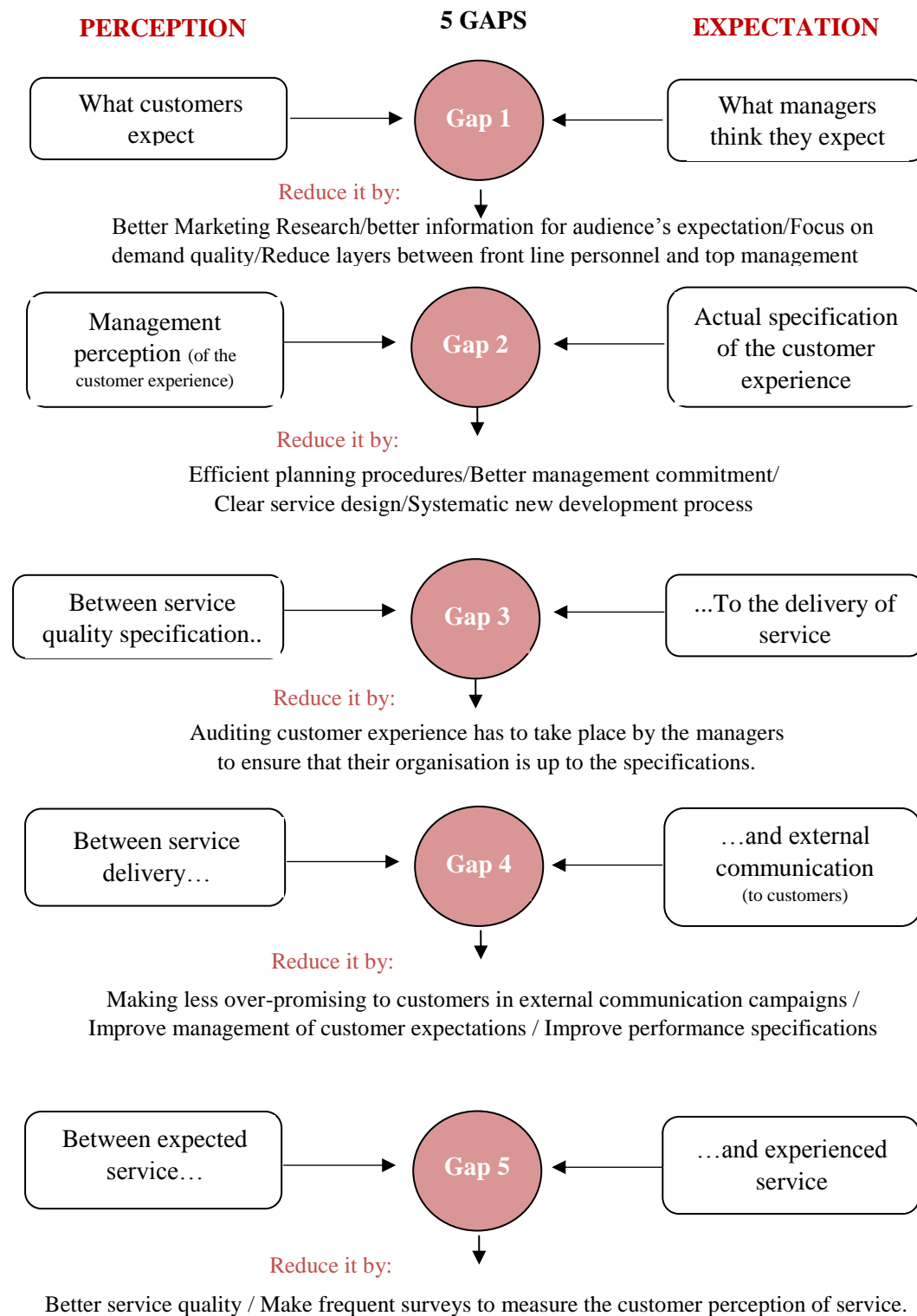
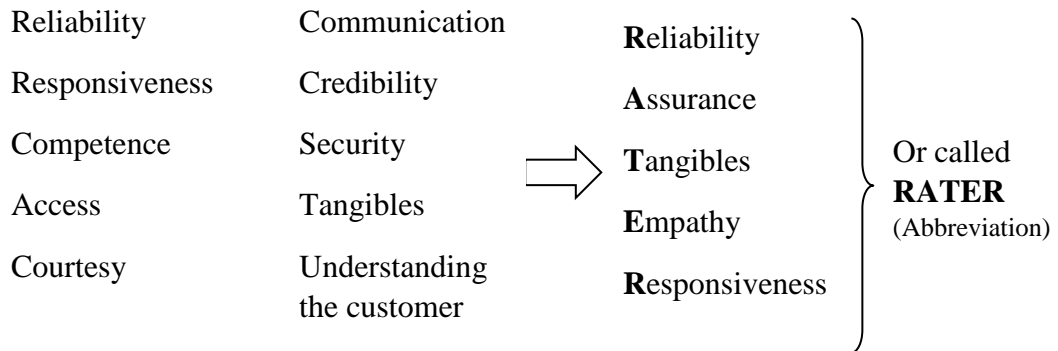


Figure 2.4 – The 5 gaps of the SERVQUAL model (ii) (Zeithaml, Panasuraman and Berry, 1985)

According to Parasuraman *et al.*, (1985) that gap included a double administration of 22 dimensions instrument and a scale of initially ten characteristics of service quality which by the early nineties was reduced to five (RATER **1985** **1988**)



These five characteristics are being described as follows:

Reliability: The capability of performing the required service dependably, accurately and consistently;

Assurance: The knowledge background of employees, their courtesy and skill to express trust and confidence;

Tangibles: The existing equipment, facilities and the personnel appearance;

Empathy: The consideration of the customers individually under caring and helpful conditions;

Responsiveness: The enthusiasm to offer service on time and assist customers;

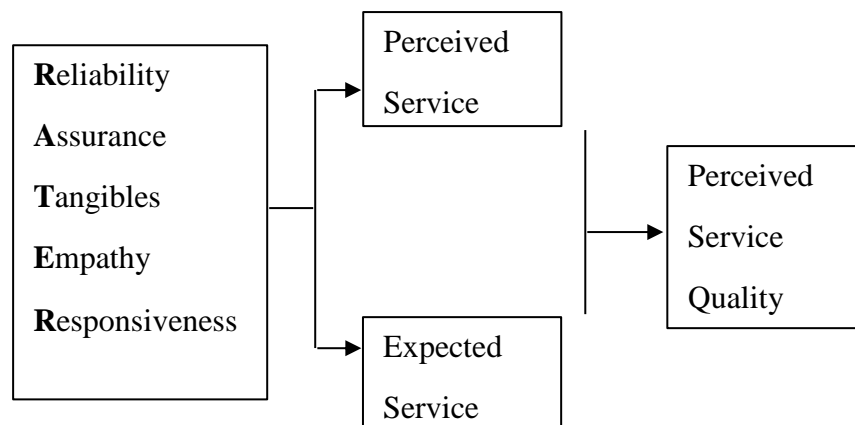


Figure 2.5 - The RATER characteristics (Zeithaml, Parasuraman and Berry, 1988)

Parasuraman *et al.*, (1985) classified the differences among Expected Service (ES) and Perceived Service (PS) through a “PS-ES framework measurement”. According to him if the expectation of service quality is lower than the perceive service ($PS > ES$) it means that there is customer satisfaction. If both are equal ($PS = ES$) it means customer’s mere satisfaction. If expectation of service quality is higher that perceived service ($PS < ES$) it means that there is customer dissatisfaction.

The complication of evaluating service quality can be reflected through the various failed efforts to reproduce the dimensional structure of service quality perception (Ghotbabadi *et al.*, 2012). The application of the SERVQUAL model shows an integrated view among the customer – company relationship. The major point of this model emphasize on the point that service quality depends on the size and direction of the five gaps that were identified in the service delivery procedure. The SERVQUAL model is still being considered by many as a capable measuring tool applicable to a numerous of service industries (Nyeck, Morales, Ladhari & Pons, 2002; Ghotbabadi *et al.*, 2012).

Even though this approach has been criticized heavily (e.g. Matzler’s (2002) view that the SERVQUAL model needs to be revised), still this view was regarded and to some extent still is for many the traditionally concept of service excellence based on customer perceptions (Nyeck, Morales, Ladhari & Pons, 2002; Ghotbabadi *et al.*, 2012).

However, Babakus and Boller (1992) argued that the expectations measurement does not provided enough information from what is gained if the service perceptions measured alone, something which is similar with the findings of Dabholkar *et al.*, (2000). Additionally Cronin and Taylor (1992) and later Brady and Cronin (2001) when studied the service quality model they focused only on perceptions rather than expectations. This model can assist in identifying the gaps that exist among variables that influence the quality of service (Seth, Deshmukh and Vrat, 2005). Through years there are inconsistencies in the SERVQUAL factors as it is not comprehensive for different applications (Dabholkar, *et al.*, 1996; Shahin and Samea, 2010).

2.3.6 Critique of the SERVQUAL model

The SERVQUAL model has been tested to the airline industry (Gilbert & Wong, 2003; Park *et al.*, 2004) and through its scale has been negatively appraised. It was Fick and Ritchie (1991) that came to the conclusion that the mean scores of customer’s perception and expectation of service performance failed to determine the impact that SERVQUAL items could had on service quality and satisfaction. Many researchers argue that the model is flawed due

to its ill-judged implementation of the disconfirmation model which stems its force from the disconfirmation paradigm (Cronin & Taylor, 1992, 1994).

Cronin and Taylor (1992) argued that the concept and operationalization of service quality (SERVQUAL) are inadequate measures among the relationship of customer satisfaction – service quality – purchase intentions. They made an analysis and tested a performance based model based on the SERVQUAL measurements and what they found is that there is significance in service quality (SERVQUAL) effects in two industries (banking and fast food) out of four (banking, pest control, dry cleaning and fast food).

Through this paradigm the customers assess an offered service by comparing their expectations with their perceptions (Robledo, 2001). The SERVQUAL's five dimensions together with the 22 item scales have a problematic application in the airline industry due to the fact that this scale has not included additional and quite significant characteristics of the airline service quality such as food during the flight, seat space, comfort and leg room (Park *et al.*, 2006).

There are other researchers who put the SERVQUAL model under direct doubt among which is Francis Buttle (1996) who enlisted a number of critics of the model that had been made in both theoretical and operational terms.

In theoretical terms Buttle (1996) came with the argument that the model's five dimensions are not universal and that the model is unsuccessful in terms of economic, statistical and psychological theory. There is small amount of evidence that customers assess the service quality in terms of the five mentioned gaps of 'Perception' and 'Expectation'. The SERVQUAL model focuses on the process of service rather than the results of the service encounter and there is a difficulty of its mentioned five dimensions to be replicated in varied service circumstances (Buttle, 1996). In addition to that Brown, Churchill, and Peter (1993) found the appliance of SERVQUAL's five dimensions appliance on service quality to be one-dimensional.

By comparison other researchers have criticized the model (Babakus and Boller 1992; Carman 1990; Cronin and Taylor 1992, 1994; Teas 1993; Buttle, 1996). Buttle (1996) argues that the five dimensions are not universal, the model is unsuccessful, and there is little evidence that customers assess the service quality in terms of the five mentioned gaps of 'Perception' and 'Expectation'. Further, he argues that the SERVQUAL model has face and construct validity issues and focuses on the process of service rather than the results of the service encounter and the dimensions have not been replicated in a range of service sectors. He suggests that "SERVQUAL's dimensionality would be regarded as more stable if individual items loaded on to the dimensions to which they belong" (Buttle, 1996 p.25).

In operational terms Buttle found that the SERVQUAL model fails to measure the absolute service quality expectation whereas customer's feedback of service quality may be different from one moment of truth to another (Buttle, 1996). Each service quality dimensions are multilayered and cannot capture the whole variability even if there are five different quality dimensions in total in this model.

There is also difference in each customer's feedback as at one moment of truth the feedback differs when compared with another moment of truth from the same person. It also showed that the seven-point Likert's scale is flawed while the double administration of the instrument creates confusion to the customer. Therefore, the SERVQUAL model has both conceptual and empirical flaws. Conceptually, there is a gap of the perceived service quality during operations, an uncertainty of the expectations concept and the inappropriateness of using only one measure of service quality for a diverse range of businesses. Empirically, the use of different scores when calculating SERVQUAL creates unreliable results (Van Dyke, Kappelman and Prybutok 1997).

These results indicate that the SERVQUAL model should be used with caution and further research is necessary to achieve more accurate service quality measurement. Many other researchers have serious doubts about the 22 variables that are used in the instrument concept and the psychometric properties that are being accompanied in the SERVQUAL scale (Carman, 1990; Babakus and Boller, 1992; Brown *et al.*, 1993; Peter, Churchill and Brown, 1993; Teas, 1993; 1994; Lam and Woo, 1997). It appears that the instrument has a generic base which might not be suitable for measuring several service sectors according to Finn and Lamb (1991), suggesting further adaptation of the 22 instrument items. Another group of researchers suggested that the customisation of the instrument has to take place by including additional related questions (Carman, 1990; Babakus and Boller, 1992; Brown *et al.*, 1993).

In the literature a series of problems that arise from the SERVQUAL model have been discussed (Babakus and Boller 1992; Carman 1990; Cronin and Taylor 1992, 1994; Teas 1993). The findings of measuring service quality indicate that SERVQUAL undergoes both conceptual and empirical complications.

On the conceptual part there is a gap of the perceived service quality during operations, an uncertainty of the expectations concept and the inappropriateness of using only one measure of service quality to all the diverse businesses (Van Dyke, Kappelman and Prybutok 1997).

On the empirical part the usage of different scores when calculating SERVQUAL creates unreliable results and invalid validity (Van Dyke,

Kappelman and Prybutok 1997). These results indicate that further caution has to take place with the SERVQUAL model usage, and additional work is necessary for more accurate quality of information of service measurement.

The critique continues as Chan *et al.* (2003) states that in SERVQUAL's dual nature ("instrument" and "five dimensions"), the "instrument" does not have established psychometric properties (Chan *et al.* 2003). Babakus and Mangold (1992), Carman (1990) and Orwing *et al.*, (1997) came to the conclusion that the SERVQUAL's five dimensions (RATER) are actually only one dimension instead of five. That means that it cannot depict the whole picture of service quality perception of the customer.

Cronin and Taylor (1992) have indicated that the usage of different score in the SERVQUAL measure (expectation of service quality minus perception of service quality) can result in customer's exaggerated expectations due to possible previous bad incident(s) with the organisation. They further doubted whether the SERVQUAL model is valid and they suggested different models. Alternatively they indicated usage of either the perception scale or the expected scale but not the difference between them (Cronin and Taylor, 1994).

The approach that the SERVQUAL model used at first was based on four different scores. These were the importance score (on customer's service priorities), the expectation score (on customer's service expectation), the perception score (on customer's acceptance that something was provided) and the gap score (difference between customer expectation score and customer perception score). Kaldenberg *et al.*, (1997) argued that this form was problematic. The questionnaire was excessively long, there were unreliable results on gap scores and neither the expectation nor importance score added considerably in explaining the differences in service quality (Cronin and Taylor, 1992). To a certain extent it was the critique of Buttle (1996) and later of Matzler (2004) that suggested a major revision of the SERVQUAL model.

2.3.7 SERVPERF model

While SERVQUAL remains a respectable measurement for a number of industries, Dabholkar *et al.*, (1996) argued that this model is not appropriate for the retail industry. Several other debates of researchers stated that there are different applications in which SERVQUAL model is not comprehensive (Brady & Cronin, 2001a; Dabholkar *et al.*, 1996; Shahin & Samea, 2010).

Four years prior to Babholkar's argument regarding SERVQUALS' unsuitability, Cronin and Taylor (1992) developed a redesigned version of the SERVQUAL model. They argued that service quality is a consumer's attitude

and the performance of the service was the only measurement for service quality (Ghotbabadi *et al.*, 2015). By researching service quality relationship with customers' satisfaction and purchase intention, they argued that service quality is an antecedent of customer satisfaction. Therefore they suggested a new model where they replaced the Expectation factor with Performance as they considered that Performance is the only measurement for service quality, called this model SERVPERF.

This model measures service quality on the basis of customer perception in relation to the performance offered by the service provider (Cronin and Taylor, 1994). As explained above (2nd paragraph of SERVQUAL Critique) Cronin and Taylor (1992) found inconsistent measures between Perception and Expectation that the SERVQUAL model entails particularly for the retail industry.

They continued (Cronin and Taylor) in 1992, like Parasuraman's SERVQUAL model to measure performance with the same dimensions as SERVQUAL model did (Reliability – Assurance – Tangibles – Empathy – Responsiveness) except of the Expectation – Perception difference.



Therefore based on the SERVQUAL model they replace the Expectation with Performance and the tests they did in all four industries (banking, pest control, dry cleaning and fast food) proved valid as there is adequate measurement of consumer's perception through this model (Chaipooipirutana, 2008). Additionally there was found that SERVPERF had more accurate measurement in relation to SERVQUAL (Cronin & Taylor, 1994; Seth *et al.*, 2005).

SERVPERF proved to be valid as far as concerning service quality measurement in the airline industry (Wu, H.C., and Cheng, C.C., 2013). However there are two limitations to this appliance with the first one being that the SERVPERF model measures satisfaction that relates only to a specific transaction whereas quality supposed to have a “lasting global attitude” in relation to service (Wu, H.C., and Cheng, C.C., 2013). The second is that the nature of the SERVPERF has a generic background (Wu, H.C., and Cheng, C.C., 2013). Furthermore Cunningham *et al.*, (2004) came to the conclusion that SERVPERF has failed to capture industry-specific dimensions that

underlying passengers' perception of quality in the airline industry. Therefore as mentioned above this model is not considered valid for the airline industry.

2.3.8 Multilevel model

Apart from the redesigned version of the SERVQUAL that Cronin and Taylor did in 1992 ending up with the SERVPERF model, further inconsistencies that the SERVQUAL model entailed led in 1996 Dabholkar, Thorpe and Rentz to suggest the multilevel model for service quality.

Even though the SERVQUAL model had validity in testing several service sectors (e.g., banking, telephone service, credit card service) there were no adaptation for the retail store environment (Dabholkar *et al.*, 1996). This proposal based on the SERVQUAL and SERVPERF models involved changes in the structure of service quality in order to become a three-stage model: “overall perception” of service quality, “primary dimensions” and “sub dimensions” (Figure 1). Although this proposal involved a new structure still the model had to generalize for dissimilar areas and had to take under consideration some additional factors such as environment and price. (Ghotbabadi *et al.*, 2012). Further there was no attributes found that defined sub dimensions. For the construct validity of the model there was only measurement of the customer perception to avoid psychometric problems with different scores (Ghotbabadi *et al.*, 2015).

The model construction and factors involved have as a basis the disconfirmation way to define the gaps in service quality. As far as concerning validity this model has an improved structure with more detailed factors. Nevertheless it needs further evidence to make it applicable to other industries of the service sector (Ghotbabadi *et al.*, 2015). Some researchers in later years tested and suggested some development for this model in other industries apart the retail one. No evidence was found about the usage of this model in the airline industry.

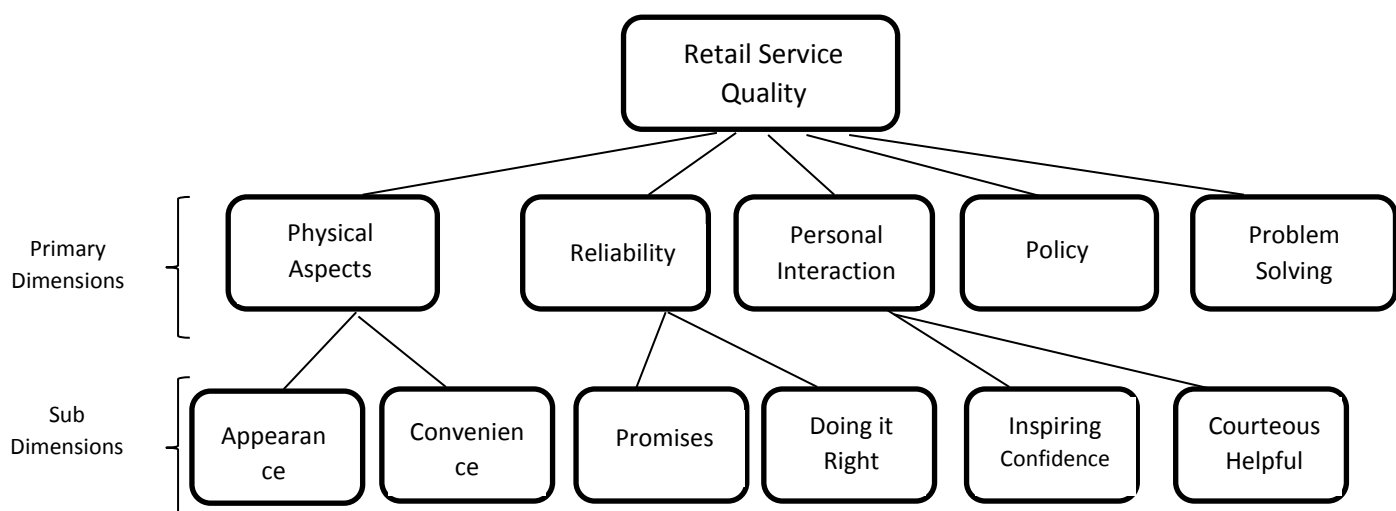


Figure 2.6 – The Multilevel model (Dabholkar, Thorpe and Rentz, 1996)

2.3.9 SERVPEX model

This model has been identified as the measurement scale to describe the airline service quality (Ling, Lin and Lu, 2005). This proposal measurement includes perceptions and expectations into a single scale with the range to be varied from much worse than expected to much better than expected.

PERCEPTION

+



PERFORMANCE

EXPECTATION

Robledo (2001) argues that SERVPEX measure disconfirmation in a single questionnaire and includes three dimensions: tangibles, reliability and customer care. Lu and Ling (2008) argue that through this measurement it is better understandable for the passengers when they evaluate airline service quality based on their expectations and experiences.

The SERVPEX model in general is more advanced than the SERVQUAL and SERVPERF models particularly in its validity and reliability (Robledo, 2001). Through this measurement a better explanation is being provided regarding service quality in terms of its predictive validity (Wu, H.C., and Cheng, C.C., 2013). It clarifies in a more advanced level the variation of the service quality variable in comparison to SERVQUAL and SERVPERF models according to Robledo's study (Robledo, 2001). The reason is that in that study the predictive validity of it correlates each measurement scale separately with the three contrasted questions that are being used there (questions 27, 28 and 29) and also the study is using a fourth variable which is the mean of the three questions (Robledo, 2001). In this way the SERVPEX clearly performs better than the others because it explains in a higher proportion the variation of the service quality variable (Robledo, 2001).

Overall Robledo (2001) argues that the SERVPEX model brings the most suitable results for the airline industry. In a comparison between SERVPEX and SERVQUAL models there are no major differences found (Lee, Kim, Hemmington, & Yun, 2004). Instead there is an argument from data analysis that the SERVPEX model is superior to SERVQUAL but inferior to SERVPERF (Dabholkar, Shepherd, and Thorpe (2000). Dabholkar *et al.*, (2000) argues that SERVPERF explains in a better way the variation of the variable "overall satisfaction" than of "service quality" which gives an indication that SERVPERF can be more appropriate to measure customer satisfaction than service quality.

There are numerous studies as far as concerning the airline industry which indicate that the current measurement of service quality through the SERVQUAL, SERVPERF and SERVPEX model scales are inadequately complete (Cunningham *et al.*, 2004; Dabholkar *et al.*, 2000; Lee *et al.*, 2004; Park *et al.*, 2006). Consequently quite a few other researchers suggested that another model, the hierarchical one, should be the core ground base of service quality in the airline industry (Brady & Cronin, 2001; Clemes, Gan, & Kao, 2007; Clemes, Wu, Hu, & Gan, 2009; Clemes, Brush, & Collins, 2011; Clemes, Gan, & Ren, 2011; Dabholkar *et al.*, 1996; Ko & Pastore, 2005; Wu, Lin, & Hsu, 2011; Wu & Hsu, 2012a, b).

2.3.10 Hierarchical model (Brady and Cronin, 2001a)

The Hierarchical model is an improved version of the SERVQUAL model. It was first introduced by Brady and Cronin (2001) and it consists of three components in relation to Grönroos' Nordic model with two. It uses a more advanced method to measure service quality by combining several models through strong literature support (Ghotbabadi *et al.*, 2015). It has the ability to be valid for several service industries and quite flexible as it includes diverse elements for a variety of business (Brady & Cronin, 2001a; Pollack, 2009).

It is more improved from the SERVQUAL model as it describes what is necessary to be reliable, responsive, empathic, assured and tangible (Ghotbabadi *et al.*, 2012). On the top of this model (as shown on figure 1) stands the “Service quality” perception which is based on customer’s three dimensions criteria: “Interaction Quality” (i.e. functional quality), “Physical Environment quality” and “Outcome quality” (i.e. technical quality).

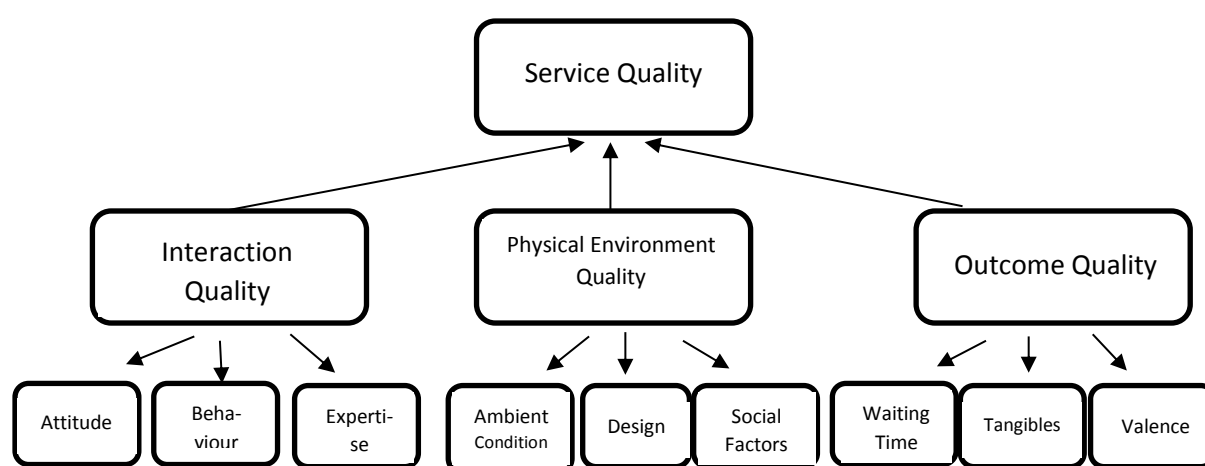


Figure 2.7 – The Hierarchical model (Brady and Cronin, 2001a)

Further each of the three dimensions has three sub dimensions and the customers aggregate their evaluations on those sub dimensions to conclude

their perception about the overall performance of the service quality in all of the three primary dimensions of the provided service. Through this way the customers' evaluation of the service performance takes place in multiple levels combining at the end all these evaluations to reach their final perception about the service quality (Brady and Cronin, 2001a). According to Dabholkar, *et al.*, (1996), the customers accept multi-level service quality perceptions being at the same time multidimensional.

This format has improved the service quality framework as it defines more clearly both the service quality perception and the service quality measurement (Ghotbabadi *et al.*, 2012). Pollack (2009) suggests that this model fills better the service outcome measurement in comparison with the SERVQUAL model. Furthermore it demonstrates the customer experience in dissimilar levels and several dimensions of service (Figure 2.7). As with all measurements this model has differences regarding the factors and the importance of the sub dimensions in relation to different services that can be applied, e.g. Health care (Chahal & Kumari, 2010; Dagger, Sweeney, & Johnson, 2007), Sport (Ko, 2000), Mobile health (Akter, D'Ambra, & Ray, 2010), phone service subscribers (Pollack, 2009).

The Hierarchical model can assist firms to identify problems at the initial stage of a provided service in order to improve the service quality perception through higher quality service delivery (Pollack, 2009). This model demonstrates improved understanding regarding customer perception of service quality until today (Ghotbabadi *et al.*, 2012). Nevertheless there is no absolute consensus on one final concept and measurement of service quality with the majority of the researchers to agree on the fact that quality is multidimensional (Ghotbabadi *et al.*, 2012).

Brady and Cronin's (2001) findings together with Dabholkar *et al.*, (1996) revealed that the customer's perception regarding service quality indicates that it is (service quality) a multidimensional hierarchical construct which includes the overall perception of the customer together with the primary dimensions of it and their sub dimensions. The sub dimensions of are regarded as first-order factors of service quality construct with the primary dimensions to be considered as second-order factors of the service quality construct.

Several researchers have adopted this model and made further developments by modifying dimensions or/and sub dimensions in order to adapt specific industries as mentioned above (Health care, Sport, Mobile health, phone service subscribers). Through the use of different stages (multilevel) and multi-dimensions this model can enhance companies to identify service quality problems in the primary service stage and identifying customer's needs and weaknesses of the provided service to assist customers' perception of service quality through providing high service quality (Ghotbabadi *et al.*, 2015).

This hierarchical approach has been accepted and used by several academics for measurement of service quality in areas such as airport services (Fodness and Murray, 2007), agribusiness (Gunderson, Gray, and Akridge, 2009), education (Clemes, Gan, and Kao, 2007), electronic services (Fassnacht and Koese, 2006), health services (Dagger, Sweeney, and Johnson, 2007), mobile communication services (Lu *et al.*, 2009; Kang, 2006), recreational sport industries (Alexandris, Kouthouris and Meligdis, 2006; Ko and Pastore, 2005), transport services (Martínez and Martínez, 2007), travel services (Martínez and Martínez, 2008), and several other service businesses (Liu, 2005).

Overall the model is a generic one as it needs different factors to include which depend from the nature of the industry that is being applied. It has the capability to include different dimensions and sub-dimension according to specific service industries and because it can be adapted to different service sectors to measure service quality, it is therefore being suggested from several researchers (Akter *et al.*, 2010; Chahal & Kumari, 2010; Dagger *et al.*, 2007). To date the Hierarchical model is the best suitable and applicable model for the measurement of service quality (Ghotbabadi *et al.*, 2015).

2.3.11 Industry-specific service quality models

Even though there is strong validity among several of the above models and can be applied to many industries still there is lack of homogeneity for all business to use one common model (Seth *et al.*, 2005). Some researchers argue that it is better for the businesses to have a context-specific service quality measurement in order to understand better customer's perception on that particular industry as the dimensions that are suggested by generic models are not covering all the needs for specific service industries (Dagger *et al.*, 2007). Through this approach there is suggestion for a band of models to be applied on specific service businesses.

For example in the IT service sector according to the specific IT business they were suggested: the IT alignment model (Berkley and Gupta, 1994), the overall affect model with attribute (Dabholkar, 1996), the IT-based model (Zhu, Wymer and Chen, 2002), the e-service quality model (Santos, 2003), the internet banking model (Broderick and Vachirapornpuk, 2002). Another example is that for the Health care industry the Hierarchical model was suggested which included some special dimensions and sub-dimensions which were related to the health care industry (Dagger *et al.*, 2007). Another version of the Hierarchical model for the mobile health services was introduced to measure service quality there (Akter *et al.*, 2010).

Tsaur's *et al.*, airline model (2002)

For the airline industry Tsaur *et al.*, (2002) appraised a detailed model that is based on SERVQUAL with numerous attributes included based on the airline services through the use of fuzzy set theory. Through this model there is initially a series of steps as shown in Figure 2.8 where there is first identification of the service quality aspects and attributes that are more important to customers (Tsaur *et al.*, 2002). Then there is an evaluation of the service criteria hierarchy through the Analytic Hierarchy Process method (AHP) where there is calculation of the weights of criteria. After that step there is usage of Fuzzy theory in order to measure the performance and finally through the “Technique for Order Preference by Similarity to Ideal Solution” (TOPSIS) the final ranking results are achieved.

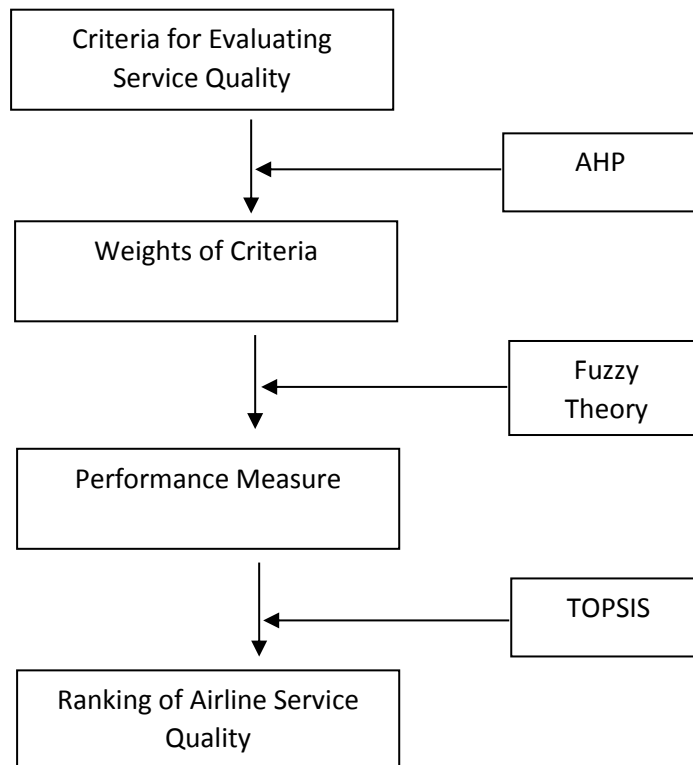


Figure 2.8 Evaluation framework of airline service quality (Tsaur *et al.*, 2002)

Through this process they came up 15 criteria attributes (depicted on Table 2.1) which through the use of the SERVQUAL model with its 5 aspects (RATER: Reliability, Assurance, Tangibility, Empathy and Responsiveness), a ranking was created for the service quality of the airline industry. Here has to be mentioned the fact that in the airline industry there is an inconsistency in measuring service quality as to which attributes will be used bearing in mind

that for the most researchers this inconsistency was considered among the airline manager's perception and the air travellers (Tsaur *et al.*, 2002).

This inconsistency in the airline industry can be seen as several researchers prior to Tsaur's *et al.*, (2002) used different attributes to measure service quality. For example Gourdin (1988) classified that airline service quality is based on three factors: "price", "safety" and "timelines". Elliot and Roach (1993) indicated instead: "timelines", "luggage transportation", "quality of Food & Beverages (F&B)", "seat comfort", "check in process" and "inboard service" as the major six factors while Ostrowski, O'Brien and Gordon's (1993) took "timeliness", "Food & Beverages (F&B) quality", and "seat comfort" and finally Truitt and Haynes (1994) took "check-in process", "transit convenience", "luggage process", "timeliness", "seat clearness", "Food & Beverage (F&B) quality", and "customer's complaints handling".

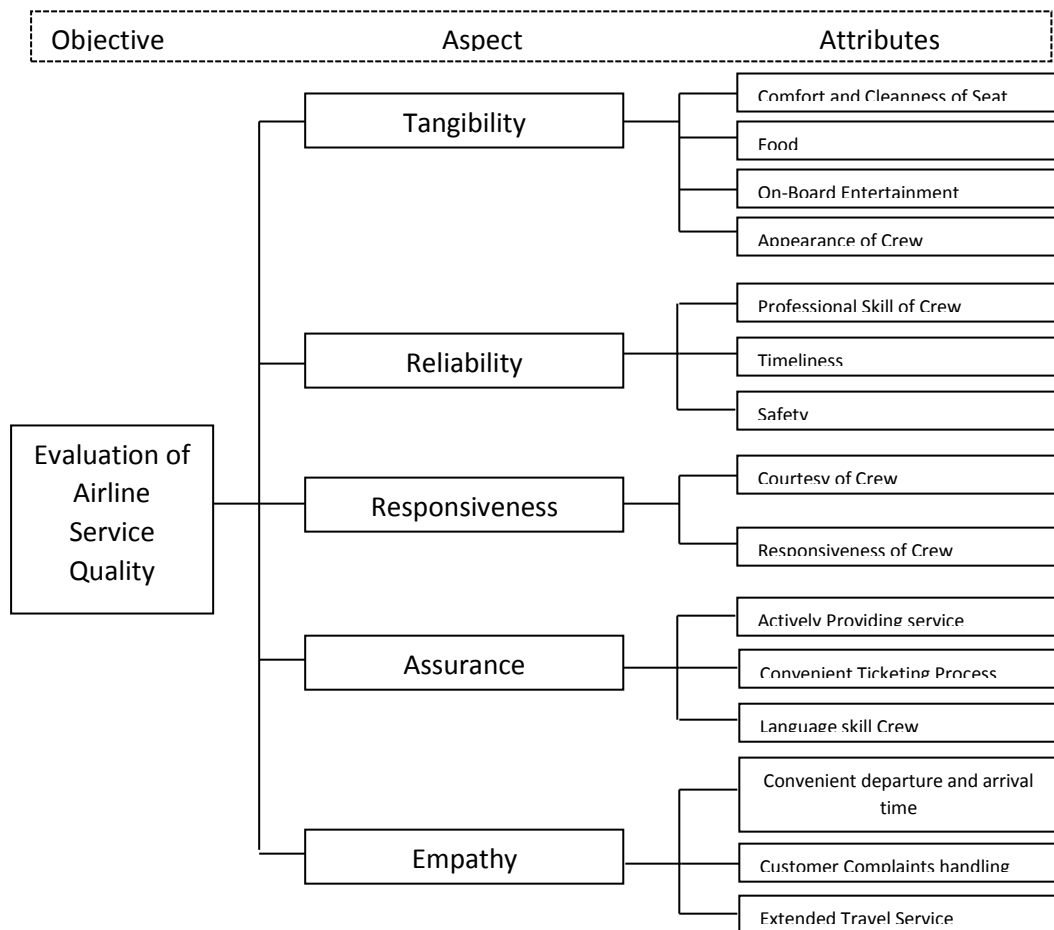


Table 2.1: Weights of the 15 criteria (Tsaur *et al.*, 2002)

The findings of Tsaour's *et al.*, (2002) study revealed that customers has as major concern the physical aspect of the service and worried less about the empathy factor. Additionally the findings indicated that airlines must keep the physical features they have at a certain level and apply further innovation. From the 15 criteria factors the "courtesy of attendants", "safety", "comfort and cleanness of seat" and "responsiveness of attendants" were the most important. Further the study revealed that the airline manager has to devote more time to management improvement and be aware of the consequences that poor management has to service quality.

Chang and Yeh's airline model (2002)

Chang and Yeh (2002) argue that quality in airline service is difficult to describe and measure due to its heterogeneity, intangibility, and inseparability, and only the customer can truly define service quality in the airline industry.

They suggested a new model for the airline industry with specified category's criteria and made an evaluation for the industry through the fuzzy set theory. The results from this model showed that in that particular study a more customer-orientated service quality was found. That to certain extend was related with the fact that this study took place in Thailand's domestic airline market at a period where the deregulation rules of the domestic airline industry was started to apply (Chang and Yeh, 2002).

Cunningham, *et al.*, airline model (2002) (based on SERVPERF)

Cunningham, *et al.*, (2002) suggested their own industry-base model for the airline industry which included the dimensions of "handling", "bumping procedures", "operations and safety", "in-flight comfort" and "connections" with several items scaling for each dimension. Furthermore they did the same quality measurement but instead of their own model they used the SERVPERF model for the same study and they came up with strong reliability and validity for both models. The final result showed that both their industry-based model and a generic model (SERVPERF here) were applicable and acceptable for the measurement of the service quality in the airline industry (Cunningham Lawrence F, Young, & Lee, 2004; Cunningham *et al.*, 2002). The study demonstrates the applicability of the SERVPERF model as a cross-cultural tool (Cunningham, *et al.*, 2002).

Criteria category		Evaluation criteria
On-board comfort	C1	Cleanliness and noise level of aircraft
	C2	On-board facilities including seat comfort and spaciousness
	C3	On-board services including meals, drinks and newspapers
Airline employees	C4	Helpful attitudes and courtesy of check-in personnel
	C5	Attention by stewardesses
	C6	Appearance and courtesy of airline personnel
	C7	Service efficiency of airline personnel
Reliability of service	C8	Security-related accidents
	C9	Airline flight safety and security measures
	C10	On time performance
Convenience of service	C11	Service frequency and schedule convenience
	C12	Convenience of preflight and post flight services
Handling of abnormal conditions	C13	Handling of customer complaints or under-performance liability
	C14	Handling of flight delays
	C15	Handling of luggage loss or damage

Fig 2.9 – Criteria used for service quality evaluation of Taiwan’s domestic airlines (Chang and Yeh, 2002)

Huang’s model (2009)

Huang’s model that is based on the SERVQUAL model used the following conceptual framework (Figure 1 below) which makes usage of four attributes that is “Satisfaction”, “Behavioural intention”, “Service value” and “Perceived sacrifice”.

This model of the airline industry through the use of Structural Equation Modeling (SEM) showed that “Service value” is the most significant factor that influences the “Behavioural intention”. Additionally through the use of the Importance Performance Analysis (IPA) the model showed that Responsiveness is considered as the major factor for the travelers in the airline industry.

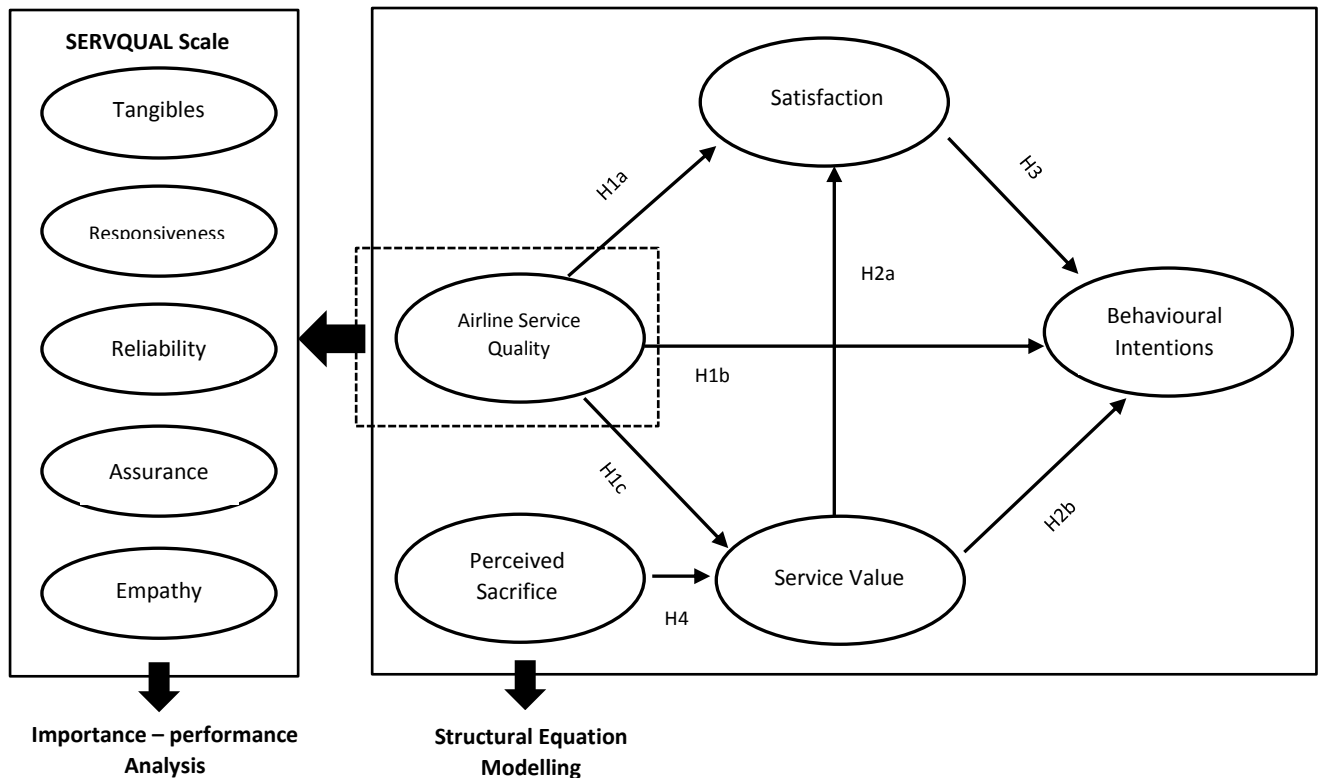


Figure 2.10 – Huang’s conceptual model (2009)

Overall, for measuring service quality, the industry-specific models measurement differ in each business as they are specific criteria that have to be taken into account from one industry to other. The generic models also are applicable even though they are more theoretical (Ghotbabadi, *et al.*, 2015).

Measuring service quality is a crucial thing as through it there can be an understanding of consumer needs and wants and also can provide assistance to firms in identifying their weaknesses. As high quality influences strongly positive consumer’s satisfaction it can also influence their loyalty and repurchase intention (Ghotbabadi, *et al.*, 2015).

As there is no consensus on one specific model, there are some quite efficient and effective service quality models either more generic or more specific that has been proposed the last 4 decades with advantages and disadvantages on each. Even though the SERVQUAL and SERVPERF models were the most famous in more recent year’s researchers are focusing more on the Hierarchical model for measuring service quality (Ghotbabadi, *et al.*, 2015). They emphasized on the fact that measuring the perception of the service provided is more effective from comparing expectations and perceptions of the consumers for the provided service (Ghotbabadi, *et al.*, 2015).

The industry-specific models are effective for measuring service quality in those specific industries which is the basis of what they offer. The generic models are also effective for measuring customer’s perception on the quality of

services. Yet in some occasions the result that is provided from the generic models is not complete and there is additional need for another more applicable model.

Both generic and industry-specific models are suitable in terms of validity and can assist the company to identify problems in services provided. The result that occurs from the service quality measurement depends on the types of service settings, situations, time, needs and additional factors which make more complex the subject (Ghotbabadi, *et al.*, 2015).

2.3.12 Suggested Service Quality model/s for the Airline industry

For the airline industry the literature review has indicated that so far both generic and industry-specific models are acceptable. However because of the industry's nature there is an inconsistency (mentioned above in Tsauro's *et al.*, model) with regards to measuring service quality as to which attributes will be used bearing in mind that for the most researchers this inconsistency was considered among the airline manager's perception and the air travellers (Tsauro *et al.*, 2002). The factor of culture plays a decisive role to this.

That makes things more complex and therefore both generic and industry based model can be accepted. Besides the Nordic model which has been replaced by the SERVQUAL model and the lack of testing of the Multilevel model for the airline industry all the rest have been examined and tested.

The literature indicates that the SERVQUAL model is not ideal for usage in the airline industry (Fick and Ritchie (1991; Gilbert & Wong, 2003; Park *et al.*, 2004) for reasons explained above (first paragraph of the "Critique of the SERVQUAL model", scales negative appraised and more)

The SERVPERF model has some contradictory results. There are some supporters of it (Cunningham *et al.*, 2002; Cunningham Lawrence F., Young, & Lee, 2004; and some deniers (Dabholkar *et al.*, 2000; Lee *et al.*, 2004; Park *et al.*, 2006).

The same situation applies for the SERVPEX model with supporters of it (Robledo, 2001; Ling, Lin and Lu, 2005; Lu and Ling 2008; Wu, H.C., and Cheng, C.C., 2013) and deniers at the same time (Cunningham *et al.*, 2004; Dabholkar *et al.*, 2000; Lee *et al.*, 2004; Park *et al.*, 2006).

Additionally here has to be mentioned the fact that the SERVQUAL and the SERVPERF models are considered as valid therefore they are both used and included into two industry-specific models for the airline, one is Tsauro's *et al.*, model (2002) which uses the assistance of the SERVQUAL model and the

second is Cunningham's model (2002) for the airline industry through the assistance of SERVPERF.

Therefore regarding those 3 generic service quality models there isn't an absolute consensus to reject them as in fact there are many that support the exact opposite.

However there are at the same time several studies as far as concerning the airline industry which indicate that the current measurement of service quality through the SERVQUAL, SERVPERF and SERVPEX model scales are inadequately complete (Cunningham *et al.*, 2004; Dabholkar *et al.*, 2000; Lee *et al.*, 2004; Park *et al.*, 2006). That creates a contradictory particularly with the SERVPEX model and Robledo's (2001) argument that it is quite applicable for the airline industry.

Nevertheless there is a consensus as to the usage of the Hierarchical model (Fodness and Murray, 2007) due to the reason that measuring the perception of the service provided is more effective from comparing expectations and perceptions of the consumers for the provided service (Ghotbabadi, *et al.*, 2015).

Overall the Hierarchical model is a generic one as it needs different factors to include which depend from the nature of the industry that is being applied. It has the capability to include different dimensions and sub-dimension according to specific service industries and because it can be adapted to different service sectors to measure service quality, it is therefore being suggested from several researchers (Akter *et al.*, 2010; Chahal & Kumari, 2010; Dagger *et al.*, 2007). To date according with the existing suggestions the Hierarchical model is the best suitable and applicable model for the measurement of service quality (Ghotbabadi *et al.*, 2015).

Additional reasons that can support the Hierarchical model is that it has improved the service quality framework as it defines more clearly both the service quality perception and the service quality measurement (Ghotbabadi *et al.*, 2012). Also as mentioned earlier the Hierarchical model can assist firms to identify problems at the initial stage of a provided service in order to improve the service quality perception through higher quality service delivery (Pollack, 2009). This model demonstrates improved understanding regarding customer perception of service quality until today (Ghotbabadi *et al.*, 2012).

Nevertheless as stated above there is no absolute consensus on one final concept and measurement of service quality with the majority of the researchers to agree on the fact that quality is multidimensional.

Therefore it is suggested also that beside the usage of the Hierarchical as a generic model for the airline industry, it is suggested also the usage of specific industry models. All four that have been examined above (Tsaor's model 2002,

Chang and Yeh's model 2002, Cunningham's model 2002 and Huang's model 2009) bring valid results.

Tsaur's model (2002) provided some valid results despite the general problem that the airline has with its inconsistency in measuring service quality with regards to which attributes to be used. Some of the results here are in alliance (such as the "Poor service provided") with the researcher's findings that are presented later in the Data analysis (Chapter 4). The same counts for the Chang and Yeh's model (2002) despite being tested only in domestic Thailand's environment during a deregulation period.

Cunningham's model (2002) view argues that both his industry specific airline model brought similar valid results with the SERVPERF something which is in contrast with some previous arguments about the incapability of the SERVPERF generic model in the airline industry.

Huang's model (2009) also has some valid results which are in alliance with the researcher's findings that are presented later in the Data analysis (Chapter 4).

Overall it is suggested that there is no absolute consensus as to which model is the absolute superior regarding measuring service quality in the airline industry.

The usage of the Hierarchical model fits better the circumstances to be used along with the industry specific models as both can bring much accurate results. Also the usage of the SERVPEX and SERVPERF cannot be totally rejected as there are arguments from both sides.

2.4 Service Failure

Service failure occurs when the performance of a service provider fails to meet customer expectations. In that situation compensation normally will be followed to meet customer's inconvenience and that will be negatively linked with customer retention and profit loss for the company (Robinson *et al.*, 2011). Additionally service failure can be interpreted as failure to respond to customer requirements (Bitner *et al.*, 1990). Bitner has classified it in three ways in relation to employee behaviour and the service offered: The first way involves the core service; the second involves a customised service and the third involves an unexpected employee action (Bitner *et al.*, 1990).

Service failure can also be expressed as either process failure (Smith *et al.*, 1999; Gronroos, 1988; Strauss, 2002) or outcome failure (Bitner *et al.*, 1990; Strauss, 2002). Process failure involves the way in which the service is being delivered while outcome failure involves failure in terms of the end result of the service i.e. it is not delivered (Gronroos, 1988). The appearance of service

failure creates two options for the organisation, either to re-establish customer satisfaction or to ignore the failure and see the customer switching to another company (Smith *et al.*, 1999). The marketing literature also differentiates service failure not only by type but also by the degree of severity (Smith *et al.*, 1999; Weun *et al.*, 2004).

2.4.1 Service Failure Impact on Customer Satisfaction

Frequently after the service failure customer complaint behaviour is followed, with previous studies showing that those complaints are often mishandled from the service providers (Homburg and Fürst, 2005). That further has the effect of creating negative word-of-mouth and makes customers to switch their provider. This negative impact has been identified further having a direct loss on firm's financial performance (Hess, Ganesan, and Klein 2003; McCollough, Berry, and Yadav 2000; Smith and Bolton 1998; Smith, Bolton, and Wagner 1999; Zeithaml, Berry, and Parasuraman 1996).

As a big part of the research on service failure has been targeted on the positive features of the customer experience (Kumar, Batista, and Maul 2011; Luo 2007; Salvador-Ferrer 2010), there is another part, small though, but nevertheless quite significant that argues that customer experience's negative side can create more damage to the organisation in relation to the positive one (Chevalier and Mayzlin 2006; Luo and Homburg 2008; Mahajan, Muller, and Kerin 1984; Rust and Oliver 2000). The greater the severity of the service failure is the greater is the effect on customer satisfaction (Weun, Beatty, and Jones 2004).

An excessive amount of research examined the link between service failure on minor incidents and customer satisfaction (Smith, Bolton, and Wagner 1999), in several areas such as retail (Brown, Cowles, and Tuten 1996), banking (Duffy, Miller, and Bexley 2006), e-commerce (Hsin-Hui, Yi-Shun, and Li-Kuan 2011), mobile phone (Shapiro and Nieman-Gonder 2006), and health care (Mittal, Huppertz, and Khare 2008). In all of these studies the general tendency is that when service failure occurs it reduces customer satisfaction during the time that the customer experiences the service.

Similarly, research on major incidents showed that there is a measurable impact on customer satisfaction there and on the market share right after the incident, but, the endurance of the impact is rather short (Cleeren, Dekimpe, and Helsen 2008; Vassilikopoulou *et al.*, 2009).

Regarding customer satisfaction and market share this relationship is a complex one as several studies suggest a positive link between service quality and market share (Kordupleski, Rust, and Zahorik 1993; Parasuraman, Zeithaml, and Berry 1985; Reeves and Bednar 1994) while other showing the opposite, a negative link (Anderson, Fornell, and Lehman (1994); Fornell (1992); Griffin and Hauser (1993); Gronhøldt, Martensen, and Kristensen 2000).

Another major reason in this customer satisfaction – market share complexity is the degree of customer heterogeneity and market heterogeneity subsequently with both of them having a moderate effect on the customer satisfaction – market share relationship (Keiningham *et al.*, 2014). Markets with low switching costs and monopoly conditions have a negative effect on the customer satisfaction – market share relationship (Fornell, *et al.*, 2006), whereas this negativity remains and grows further when the service provider gains further market share in one market (here the U.S. market) with higher degree of customer heterogeneity as satisfying them becomes more difficult (Rego, Morgan, and Fornell 2013).

2.4.2 Service Failure in the Airline Industry

In the airline industry service failure occurs and even the best airlines occasionally suffer from failures such as delayed flights or overbooking (Chang and Chang, 2010). The issue is that these failures are quite costly for the airline provider and often passengers switch to other airlines.

In that industry the literature has covered mainly the impact that service failure has on satisfaction (e.g., Anderson, Baggett, and Widener 2009; Bamford and Xystouri 2005; Lapre´ 2011; Lapre´ and Tsikriktsis 2006; McCollough, Berry, and Yadav 2000), on loyalty (Zins 2001) and market share (Rhoades and Waguespack 2005). Furthermore it has been examined the relation among service brand – trust – loyalty in conjunction to the severity of the service failure with severity playing a major role (Sajtos, Brodie, and Whittome, 2010). Also Anderson, Peraro and Widener (2008) have found that minor incidents have a significant impact on overall customer satisfaction and Steven, Dong and Dresner (2012) have found that the minor incidents are connected to customer satisfaction. Keiningham *et al.*, (2014) found that eventually minor incidents play a more major role in service failure in regards to the major ones. More specific:

Service Failure in the Airline Industry on customer satisfaction

Anderson *et al.*, (2009) when they examined the U.S. airline industry they researched customers who experienced:

- (1) Routine service,
- (2) Flight delays of external origin (i.e. weather) and
- (3) Flight delays of internal origin

The research found that key components of customer satisfaction are different among delayed and routine flights only when customers put the blame on the service provider for the failure.

More specific what they found can be depicted in the following diagram:

External origin:

Satisfaction level of customer:

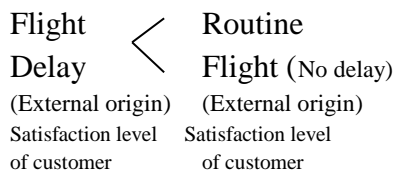


Diagram 2.1 – Impact of satisfaction level to External origin

Internal origin:

Satisfaction level of customer:

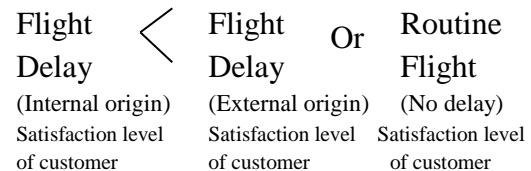
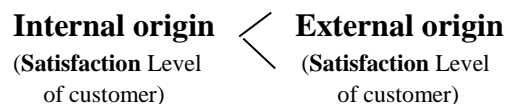


Diagram 2.2 – Impact of satisfaction level to Internal origin

Here Diagram 2.1 shows that when there is Flight delay from External origin (i.e. weather) the satisfaction level of the customer is lower in comparison with Routine Flight (with no delay).

Now when there is a Flight delay from Internal origin (Diagram 2.2) the satisfaction level of the customer for that Flight delay is lower compared to a Flight delay from external origin or compared to a Routine flight (with no delay) and the employee interactions have a considerably reduced role in customer satisfaction evaluations (Anderson *et al.*, 2009).

Diagram 1c below represents the overall ranking among External and Internal origin.



Satisfaction level of customer:

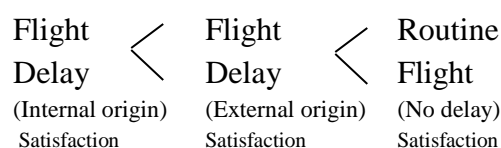


Diagram 2.3 – Overall ranking among Internal & External origin

The popular belief that the employee interaction has a superior role in the decisive customer satisfaction decision during service failure is in contrast with Anderson *et al.*, (2009) view and in fact this study (Anderson *et al.*, 2009) argues exactly the opposite if the customer attributes put the blame on the service provider. This study highlighted how important is the role of customer attributions during service failures.

As a big proportion of customers to a certain extent are still dissatisfied with the way that companies handle their complaints (Tax and Brown 1998), Lapre' and Tsikriktsis (2006) tried to find out the extent to which learning to reduce service failure in the airline industry reduce customer dissatisfaction and how these reductions remain sustainable.

One reasonable explanation that they provided for the absence of learning curve on service failure and customer dissatisfaction of the airline industry customers could be that such learning-curve research has to come out from two other areas: marketing and organizational learning (Lapre' and Tsikriktsis, 2006). They focused more on studying organizational learning-curves for air travellers' dissatisfaction. Their findings are depicted in the following diagram.

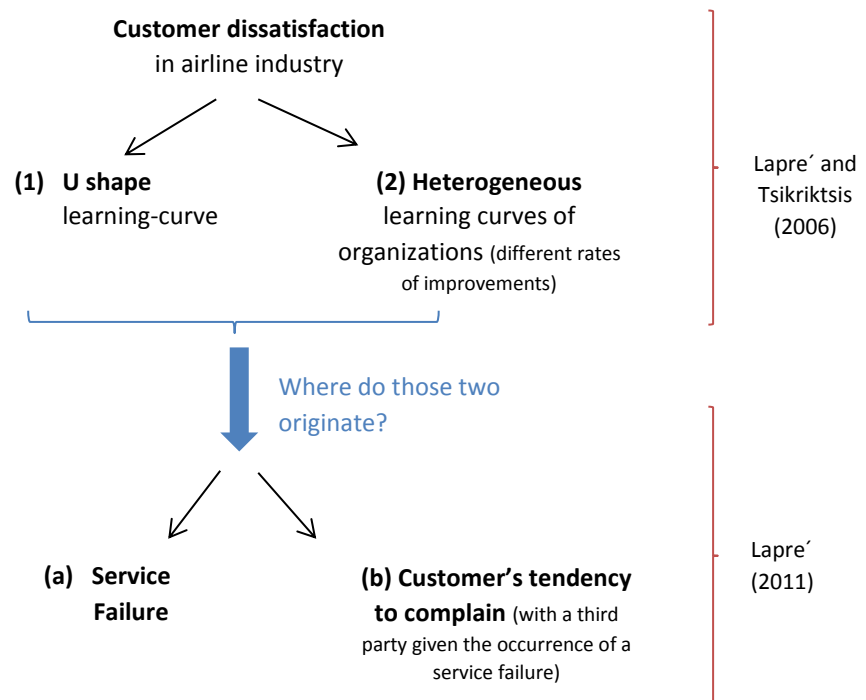


Diagram 2.4 – Adapted from Lapre' and Tsikriktsis (2006) / Lapre' (2011)

Those findings (Lapre' and Tsikriktsis, 2006) indicated that:

- (1) Customer dissatisfaction followed a U-shape learning curve of operating experience (Firstly customer dissatisfaction went down but later on it went back up)

- (2) Organizational learning curves across airlines were heterogeneous with different rates of improvements.

Later on Lapre' (2011) showed that those two earlier findings (U-shape and Heterogeneous learning curves) regarding Customer dissatisfaction in the airline industry were originated from:

- (a) Service Failure
- (b) Customer's tendency to complain (with a third party given the occurrence of a service failure)

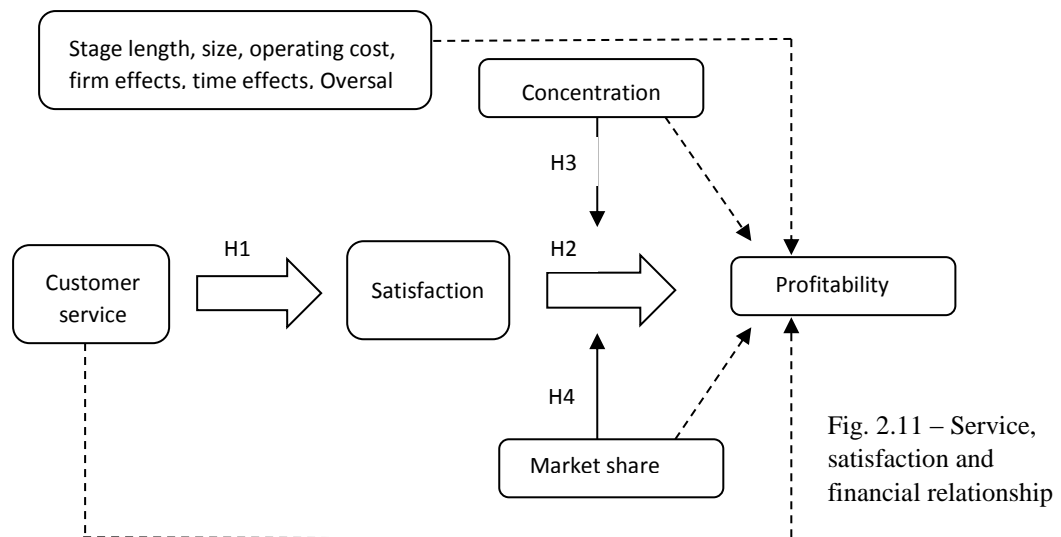
Further, Lapre' (2011) found out that in the long run reductions in Service failure did not accompanied with reductions in customer's dissatisfaction and customer's tendency to complain went up finally. He argued that the capability in managing the tendency to complain brings additional chances for an organization to differentiate from the others.

Service Failure on customer loyalty

Steven *et al.*, (2012) argued that market concentration decreases the linkage among customer satisfaction and airline profitability. Even though through research similar moderating relationship didn't came up for market power, the outcomes revealed according to Steven *et al.*, (2012) that the airline companies can raise profits in concentrated markets without having to add for the same relationship, combined increases in customer satisfaction due to the fact that airlines operate in more competitive markets. Additionally Steven *et al.*, (2012) points out that the level of customer satisfaction may result in even lower levels due to the increased level of further market concentration from further merging and alliance tactics, pointing out the importance of regulator monitoring mechanism for these kinds of tactics.

More specific:

Steven *et al.*, (2012) based on Dresdner's and Xu model (1995) as shown on Figure 2.11 developed it further by adding additional factors.



The dashed arrows indicate control variables

Service failures happen in several areas and involve flight cancellations, delays or diversions;

Ground and cabin staff attitude; strikes; Reservation problems; and flight overbooking; (Bamford & Xystouri, 2005). Additionally in the US Airline industry three major service failures were founded – mishandled baggage, ticker over-sales, and on-time performance (Steven *et al.*, 2012). All three were positively linked with customer complaints. More specific the effort to decrease mishandled baggage and ticket over-sales lead to lesser bumped passengers. Also the increase of on-time flight performance contributed to less customer complaints, recorded by the US Department of Transportation (Steven *et al.*, 2012). Similar results were found some years earlier on the Korean airline industry by Park *et al.*, (2004). Additionally Yee *et al.*, (2008, 2010) in two airline studies found that there is an important positive relationship between customer satisfaction and firm performance.

As service failures will occur in this industry the airlines have to reduce any potential damage through developing service recovery strategies. The way in which the airlines respond to service failures could possibly impact the decision of a customer to stay or to switch the airline carrier. As switching costs are reducing further the major objective for the airline through service recovery implementation is to improve customer satisfaction, reinforce customer relationships and eventually diminish customer failure (Steyn *et al.*, 2011).

For example Mazzeo (2003) examined route-level concentration of the airlines and related it to on-time performance. He discovered that flight delays are more predominant on concentrated routes. Mayer and Sinai (2003) revealed that airport concentration is linked with the length of airline delays. Those carriers that have dominance over a hub airport can schedule numerous flights to land or leave at the same time hence leading to schedule delays. Forbes

(2008) discovered that prices drop on average when there is escalation in delays with the response to delays being larger in more competitive markets.

Steven *et al.*, (2012) argued that the relation between customer satisfactions – firm performance in terms of profitability be determined by the amount of competition in the market. In less competitive markets the relation is weaker as the firms that doing business there can operate profitably regardless of providing low customer satisfaction levels. The opposite counts and the customer satisfaction – firm performance relationship is stronger in a less concentrated market.

Even though airlines cannot completely remove service failure they can acquire skills to react efficiently to such incidents through service recovery procedures. Justice theory is one method that has been used extensively to clarify how service recovery attempt is being perceived by customers. Three types of justice are being outlined interactional, procedural and distributive. Interactional justice mentions the objectivity through which the interpersonal communication and treatment are being received by customers through the employees while procedural justice measures the policy fairness of the service provider that is being carried out to remedy a service failure. (Voorhees and Brady, 2005). Lastly distributive justice emphasises to the compensation that the customer obtains in relation to the result of the recovery process (Sparks and McColl-Kennedy, 2001).

As stated above Keingham *et. al.*, (2014) found that eventually minor incidents play a more major role in service failure in regards to the major ones. More specific the research in the airline industry concentrated more on the positive conditions of customer's experience (Kumar, Batista, and Maul 2011; Luo 2007; Salvador-Ferrer 2010), leaving the negative conditions which was found to be more harmful for companies than the positive ones (Chevalier and Mayzlin 2006; Luo and Homburg 2008; Mahajan, Muller, and Kerin 1984; Rust and Oliver 2000).

The more harmful result that the negative conditions of a service failure bring to the company is further being back-up by the prospect theory (Kahneman and Tversky, 1979) which argues that the impact and weighting of negative conditions is higher than the positive ones. The same theory argues also that negative conditions oppose travellers of taking risk and lead them in avoiding further unpleasant outcomes. Overall the general interpretation given is that the higher level of severity in service failure, the higher the negative impact will be on customer satisfaction (Smith, Bolton, and Wagner 1999; Weun, Beatty, and Jones 2004)

Regarding minor incidents (often followed by consumer complaints and/or compensation enquiries) research showed that there is influence in customer satisfaction and market share (Luo 2007; Smith, Bolton, and Wagner 1999). Equally on the major incidents research showed that they do influence as well on customer satisfaction and market share mainly after the incident without having the negative permanence in the long term (Cleeren, Dekimpe, and Helsen 2008; Vassilikopoulou *et al.*, 2009)

Keingham *et al.*, (2014) also argued that the service failure – market share relationship should be supposed to be negative. Their findings designate that there is no pattern regarding the impact that service failure has on customer satisfaction and market share. Nevertheless there is a general accepted argument that the higher the severity in service failure the higher the negative impact on customer satisfaction (Smith, Bolton, and Wagner 1999; Weun, Beatty, and Jones 2004).

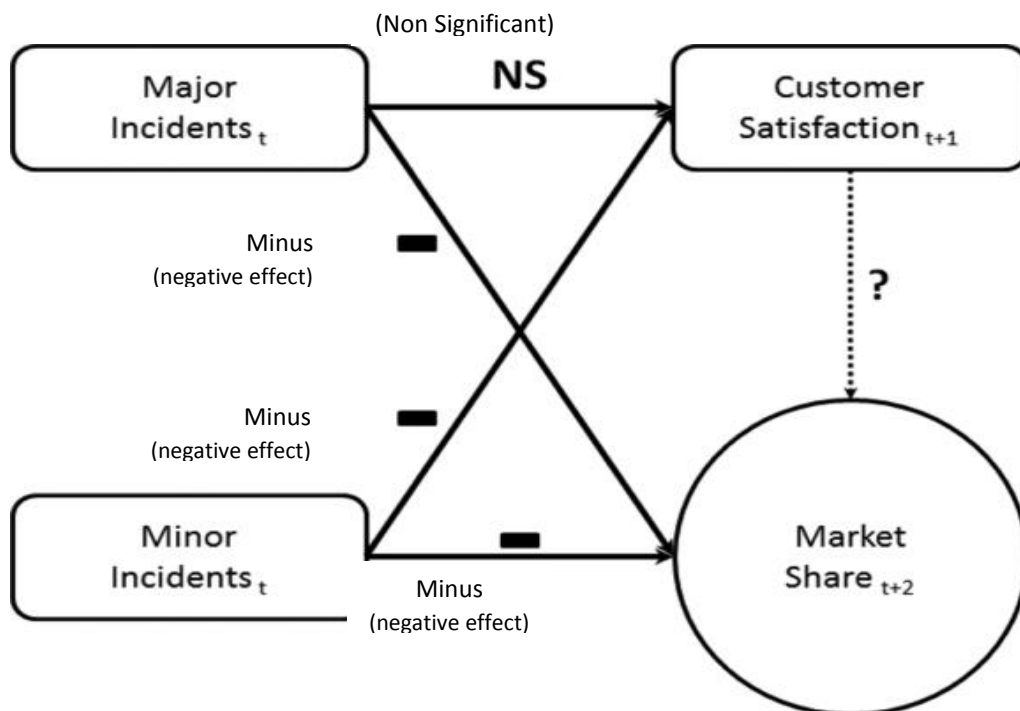


Figure 2.12 – Structure of incidents-customer satisfaction-market share linkage (Keingham *et al.*, 2014)

Keingham *et al.*, (2014) found that product-harm crises do not appear to have similar impact level on customer's perceptions or behaviour in the airline industry. Major incidents (accidents, injuries, fatalities) showed a lesser level of linkage with market share in comparison with the minor incidents (e.g. flight cancellations and airline load factor). Furthermore the major incidents revealed no significant relation with customer satisfaction while the minor ones revealed a strong and negative relation to future customer satisfaction.

2.4.3 Service failure and Priorities for Service Attribute Improvement

In order to have effective service management a clear appreciation of the attribute utility function has to be developed among customer's perceived performance with their overall evaluation for the service (Mittal, Ross, and Baldasare 1998).

Research showed that one specific attribute might considerably rise customer's overall evaluation of the service when that moves from an actual low level to a moderate performance level; additionally further improvements to that attribute can have small influence on the overall service perception with the shapes of attribute utility functions to differ slightly by attribute (Bacon 2003; Bartikowski and Llosa 2004; Mikulic and Prebezac 2011).

Therefore managers have to find out which attributes should be of the highest priorities score for improvement and in what way these priorities will change when the attribute performance will be improved. The current methods for that job have considerable limitations. One well known method was the Importance – Performance analysis (IPA).

2.4.4 The IPA Analysis model and its successors

The IPA was considered a successful method at that time (1977) for analysing customers' satisfaction as it showed initially that performance is independent from importance and also that quality attribute performance is linear with overall performance (Martilla and James, 1977). It was used for identifying current priorities for improvement.

That model was using the x and y axis grid whereas on the x-axis the performance was plotted leaving on the y-axis the importance. Priorities for improvement are incidentally based on the location that the points have on the grid. High in importance attributes but with low performance are represented on the top left quadrant and they are considered as high priorities for improvement. If the same attributes are at a higher level they are plotted on the top right quadrant and that means that they are lower priorities for improvement (Martilla and James, 1977).

FIGURE 1
THE ORIGINAL IPA FRAMEWORK

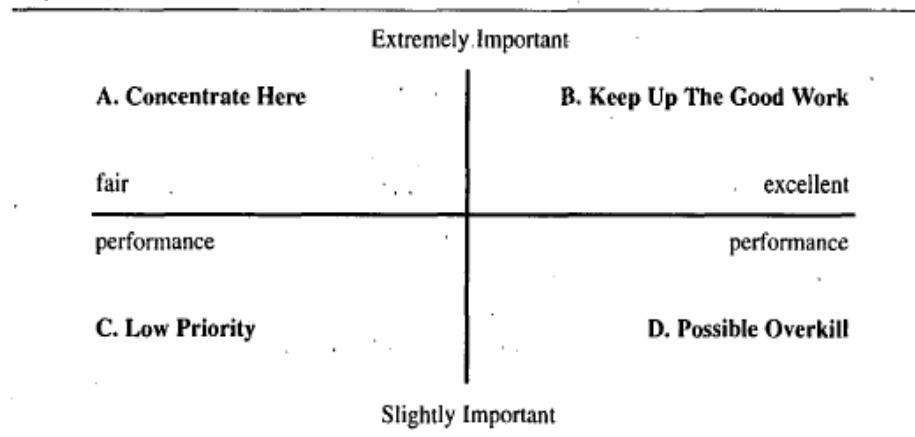


Figure 2.13 – The original IPA Framework by Martilla and James (1977) p.78

The IPA which consisted of a two-dimensional grid on attributes performance and customer-perceived quality attribute failed to provide a symmetric relationship between those two dimensions which put into question its applicability as its managerial implications was misleading and the model needed to be revised (Matzler, 2004). More specific the reason was that due to the fact that IPA accepts that as priority declines with the rise of the performance, this prototype suggests diminishing marginal returns to improvements and therefore nonlinear concave attribute utility functions (Bacon, 2012).

The years that followed Martillas' and James work several variations of the model came out such as Kano's model (1984), Slack's model (1994) and Vavra's model (1997). During the 1980s, Kano's model (1984) introduced the three factor theory (3F) which is a more sophisticated measure of importance performance. The model distinguishes three factor types with each one having a different influence on customer satisfaction. Those types are: basic factors (dissatisfiers), excitement factors (satisfiers) and performance factors (hybrid factors).

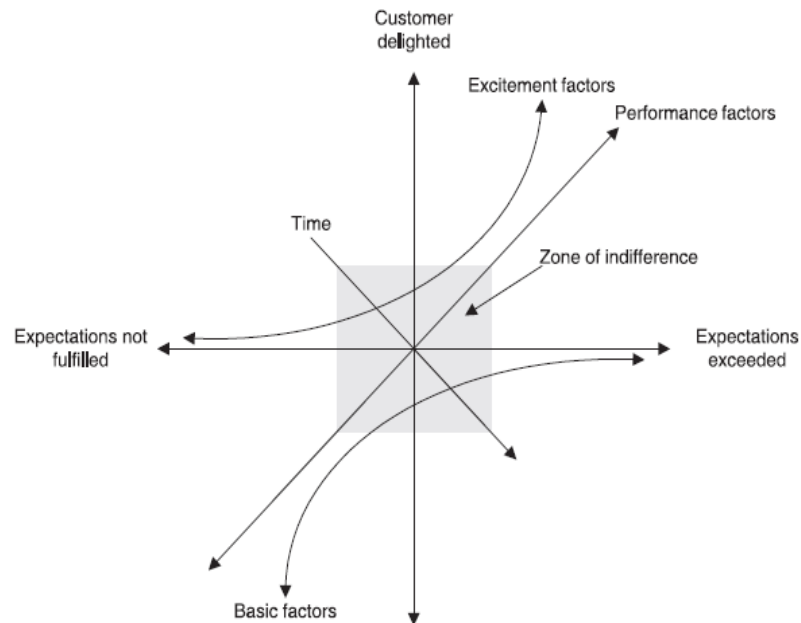


Fig. 2. Three-factor theory (adapted from Kano, 1984).

Fig. 2.14 – Three-factor theory (adapted from Kano, 1984)

There is a plethora of researchers that identified as determinants of customer satisfaction two factors in either successful way (Swan and Combs, 1976; Maddox, 1981) or unsuccessfully (Leavitt, 1977), while other researchers identified successfully a further third factor through the usage of different research methods. (CIT) (Johnston, 1995; Strauss and Hentschel; 1992, Bitner *et al.*, 1990;) and others

Slack in 1994 challenged successfully the boundaries in the relationship between importance and performance as he described this relation “prescriptive” in comparison with the work of Martilla and James back in 1977. According to him the introduction of the term “prioritization” was vital as it is a continuous function between importance and performance (Sampson and Showalter, 1999). He proved this transition as he moved from the following figure 1 (Matilla and James’ work) to his suggestion depicted on figure 2. Sampson and Showalter in 1999 went one step further from Slack showing actually that not only the performance relates to importance but “...the specification of importance is a function of attribute performance” (Sampson and Showalter, 1999 p.5).

FIGURE 2
SLACK'S IPA MATRIX

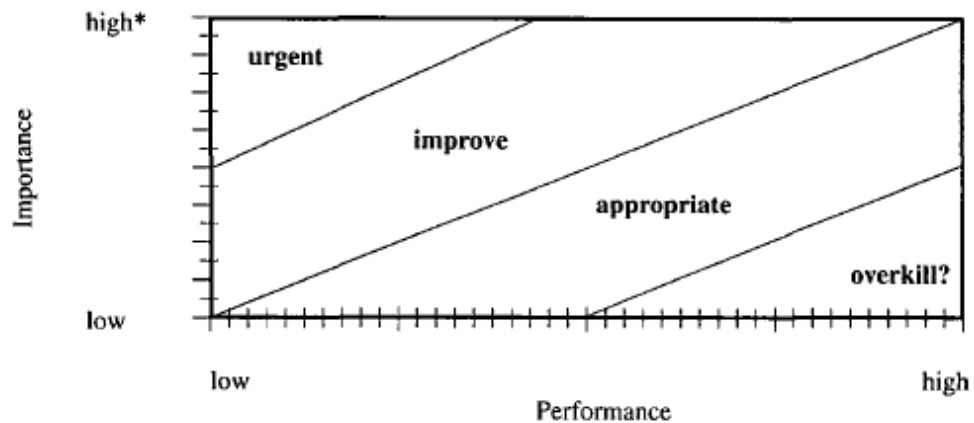


Figure 2.15 – Slack's IPA Matrix (1994) p.74 interpreted in Sampson and Showalter's (1999) version, p.5.

The work of James and Martilla (1977), Samson and Showalter (1999) and Matzler (2002, 2004) addressed historically in the best way the situation of customer satisfaction in the areas of performance and importance as they linked each other revealing the progress that has been made over the last 30 years.

2.5 Service Recovery

Service recovery is the activities that take place when service failure occurs (Gronroos, 1988; Smith *et al.*, 1999). Zeithalm *et al.*, (1993) defined service recovery as the performance of an employee's service effort that resulted on a customer's perception after the initial service delivery that was below customer's zone of tolerance.

"Zero-defect" service is the ideal objective of every service marketer but problems are everywhere and that is because of the unique characteristics they carry (Berry and Parasuraman, 1991). As a result service failures occur and extra activities have to take place with main objective to reduce the failure and its negative impact on the customer. A good service recovery is vital for creating ongoing relationships with customers who expressed unhappiness through their initial encounter (e.g. Maxham, 2001; Smith *et al.*, 1999; Tax *et al.*, 1998). Previous research showed steadily the significant part that service recovery has in obtaining satisfaction after a service failure (Bitner *et al.*, 1990; Smith *et al.*, 1999; Tax *et al.*, 1998).

One area that has a great amount of research is the part of perceived justice in service recovery. Research results here showed that the outcome after the service recovery plays a vital role in customers' minds and also the way of interpersonal treatment they obtain through the recovery process (McCollough *et al.*, 2000; Smith *et al.*, 1999; Tax *et al.*, 1998; Blodgett *et al.*, 1997). A lesser amount of knowledge has been acquired as to how the customers evaluate the response of the firm after their complaints or to what extent these efforts impact their satisfaction level (Tax, Brown and Chandrashekar 1998; Ambrose, Hess and Ganesan 2007).

Another area with great amount of research has emphasized on the results of service recovery with linkage among improved service recovery with greater satisfaction (Maxham, 2001; Smith *et al.*, 1999; Goodwin and Ross, 1992), trust (Tax *et al.*, 1998), commitment (Tax *et al.*, 1998), and word-of-mouth (Maxham, 2001; Blodgett *et al.*, 1997).

In service recovery literature two recovery dimensions are critical for a successful recovery service: the "outcome" and the "process". The "outcome" is the tangible end result that was delivered in a dissatisfied customer at the first place ("what" is delivered). The "process" is the way through which the service provider deals with a service problem during the course of service recovery ("how" it was delivered) (Berry *et al.*, 1985; Blodgett *et al.*, 1997; McCollough *et al.*, 2000; Mohr and Bitner, 1995; Smith *et al.*, 1999; Tax *et al.*, 1998)

Both those two recovery dimensions, outcome – ("what" is delivered) and process – ("how" it is delivered), have been found to be significant influences on customer outcomes (e.g. Smith *et al.*, 1999; Tax *et al.*, 1998). Research has shown that most dissatisfied consumers want a refund, replacement, or compensation when they complain (Morrisson and Huppertz, 2010), theoretically, this would preserve the equity of their relationship with the company.

Consumer response to service recovery has been explained with reference to equity theory (Lapidus and Pinkerton, 1995; Blodgett *et al.*, 1995; Tax *et al.*, 1998; DeRuyter and Wetzels, 2000; Alexander, 2002; Susskind, 2002) such that service failure and recovery creates an exchange; the former represents a loss to the consumer and the latter is the organisation's attempt to restore balance and a benefit equitably makes up for the loss his or her loss (Deutsch 1985; Grewal *et al.*, 2008). When the customer suffers from inequalities of the exchange (i.e. service failure) he/she will ask for compensation (i.e. service recovery) or possibly take the option of retaliation (e.g. negative word-of-mouth, switching behaviour). The view of equity theory is that the dissatisfied customer is the victim that has been damaged through the service provider and therefore is asking for amendment.

The service providers from their side try to reduce the negative consequences of the service failure but their financial resources many times are a major constraint in applying a successful service recovery. Major role in service recovery play the existence of recovery mechanisms and their effective implementation (Homburg and *Fürst*, 2005). The correct strategy on service recovery can decrease customer's complaints and can provide a positive outcome on customer's evaluation regardless on the initial service failure incident (Bitner *et al.*, 1990). It has to be effective as it is a critical step to avoid overall failure (Miller *et al.*, 2000) and loss of customer confidence (Boshoff and Leong, 1998).

Appropriate post-failure recovery strategies can have a positive effect on customer perception and reduce harmful judgment (Bitner *et al.*, 1990; Kelly *et al.*, 1994; Blodgett *et al.*, 1997; Boshoff and Leong, 1998; Miller *et al.*, 2000; Tax and Brown, 2000; Davidow, 2003; Lewis and McCann, 2004; Chebat and Slusarczyk, 2005) on customer satisfaction (Kelly *et al.*, 1993) and on keeping customers loyal (Blodgett *et al.*, 1997; Smith and Bolton, 1998; Miller *et al.*, 2000; Tax and Brown, 2000; Boshoff and Staude, 2003; De Jong and de Ruyter, 2004).

When service failure occurs, the degree of service recovery efforts varies (Andreassen, 2001; Morrison and Huppertz, 2010). Non satisfactory efforts frequently lead to customer dissatisfaction accompanied by negative word-of-mouth publicity, which results in customers switching service provider and reducing long-term profitability levels (Robinson *et al.*, 2011).

2.5.1 Service recovery Compensation types

Compensating dissatisfied customers is the most influential method to balance a company's failure (Gelbrich and Roschk, 2014). Several studies state the positive aftermath of compensation on customer responses such as satisfaction, word-of-mouth and loyalty (Bonifield and Cole 2008; Mattila and Patterson 2004; Wirtz and Mattila 2004). Nevertheless these positive reactions can vary from a non-significant one (Garrett 1999) to a small/medium one (Grewal, Roggeveen, and Tsiros 2008), up to a large one (Hess, Ganesan, and Klein 2003).

Several types of compensation have been studied and they do differ in kind, e.g. exchange/re-performance (Blodgett, Hill, and Tax 1997), discount/money back (Webster and Sundaram 1998), apology (Liao 2007). Additionally these types alter in relation to the time that actual compensation is activated, e.g. a next flight coupon is a future compensation (Grewal, Roggeveen, and Tsiros 2008) whereas a free dinner is an immediate one linked to the current purchase (Bonifield and Cole 2008).

Roschk and Gelbrich (2014) delivered a compensation type that covers both the “kind” and the “point in time” in the most effective way through the use of the resource exchange theory from Foa and Foa, (1974) and (1976). Based on their theoretical model which is depicted in Figure 2.16 they managed three things. First to match the type of compensation to type of failure based on exchanged resources uncovered an adequate remuneration package for each failure situation. Second to compare these resource-based classifications to current classifications and thirdly to show more clearly the fluctuating effect sizes that compensation has on customer responses.

Built on these three contributions it is clearer that the recovery from a failure can be achieved in a different way, apart from boosting compensation amount as previous research indicated (Gelbrich and Roschk 2014). Alternately by selecting the right time and a kind of remuneration it may assist the initial purpose and reduce further recovery.

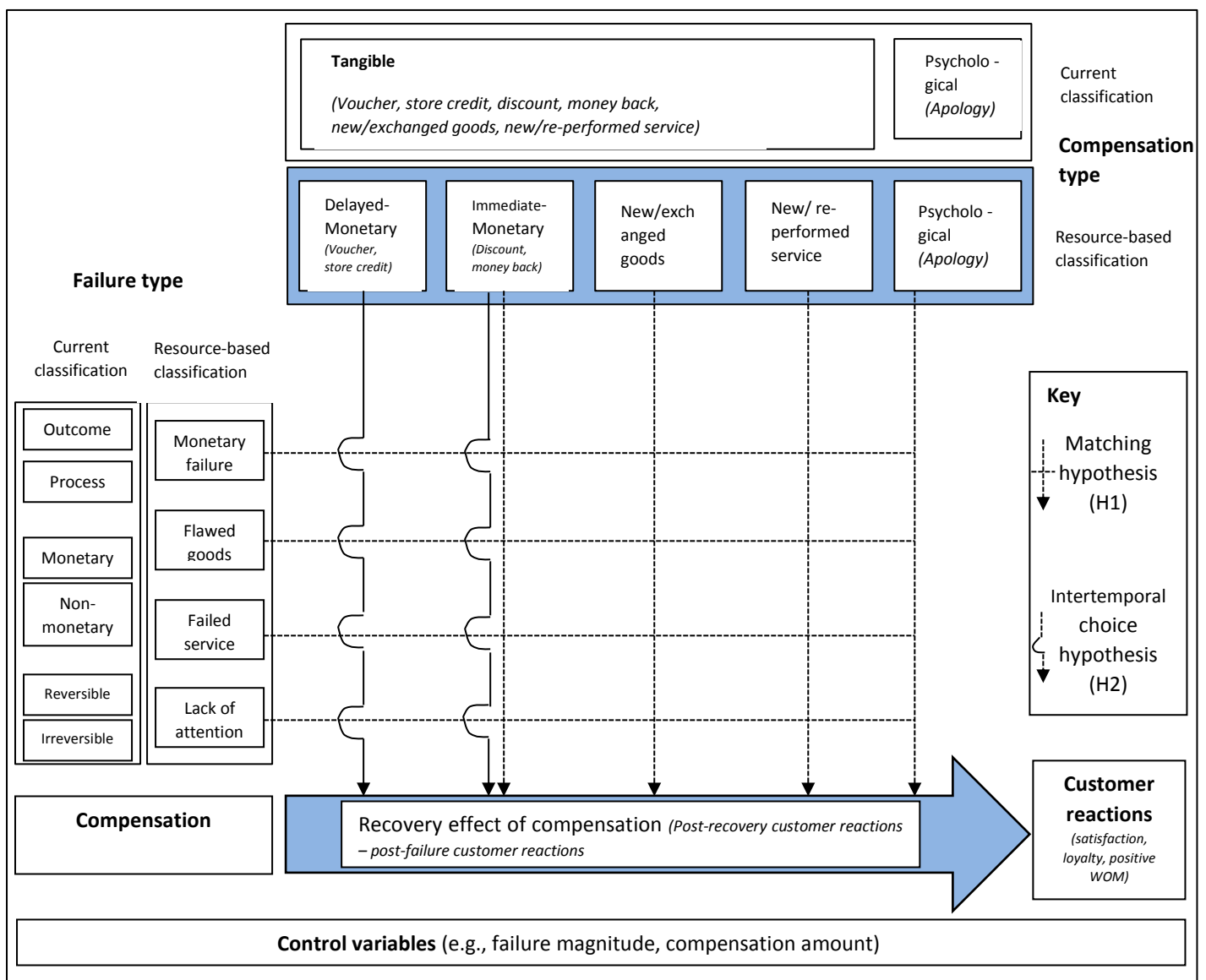


Figure 2.16 – Roschk’s and Gelbrich’s theoretical framework (2014)

At the bottom of Figure 1 it is depicted the Recovery effect of compensation indicated by the relationship among compensation and customer reaction. The reactions that customers had in post-complaint research were customer satisfaction, customer loyalty and positive Word-of-Mouth (Maxham and Netemeyer 2002a; Orsingher, Valentini, and de Angelis 2010; Smith, Bolton, and Wagner 1999). The compensation Recovery effect can be defined as the customer response after and before compensation has been provided (Boshoff 1997; Maxham and Netemeyer 2002b).

The upper part of Figure 1 shows the Compensation type which can be defined as the form of benefit complainants obtain from the company after a failure happens. The literature differentiates between tangible and psychological compensation (Gelbrich and Roschk 2011a), with the tangible being a voucher/coupon (Weaver, Garcia, and Schwarz 2012), store credit (Lee and Park 2010), discount (Sparks and McColl-Kennedy 2001), money back (Estelami 2000), exchange/replacement (Kelley, Hoffman, and Davis 1993), or re-performance (Hess, Ganesan, and Klein 2003), and the psychological compensation being an apology (Davidow 2003).

The left part of Figure 1 depicts the Failure type which is being defined as the form of failure that a company has through the delivery of a product/service. The current Failure type categorizations are outcome versus process failure (Smith, Bolton, and Wagner 1999; Zhu, Sivakumar, and Parasuraman 2004) and monetary versus nonmonetary failure (Gelbrich and Roschk 2011a; Gilly and Gelb 1982). Outcome failure such as an overcooked steak is linked to the outcome of a product/service delivery; Process failure such as undue preference in a restaurant is linked to the way or the product/service delivery (Smith, Bolton, and Wagner 1999; Zhu, Sivakumar, and Parasuraman 2004). Monetary failure is linked to financial loss (e.g. faulty umbrella) whereas nonmonetary failure (e.g. delayed flight) does not (Gilly and Gelb 1982). Finally Irreversible failure (e.g. an unavailable meal) is linked to something which is not available whereas reversible failure is something which can be corrected (e.g. incorrect restaurant).

Further in Figure 1 on the upper part (Compensation type) there is a new classification which is Resource-based including five different types which are monetary compensation delayed, monetary compensation immediate, new/exchanged goods, new/re-performed service, and psychological compensation. On the first two types of this (monetary compensation delayed and immediate) included are four monetary forms that are voucher, store credit, discount and money back.

Additionally there is classification of new/exchanged goods as separate which links it with the resource “goods” in exchange theory and that is because this

resource (“goods”) is more concrete than “money” as it requires the exchange of a concrete object for example a pair of shoes (Foa and Foa, 1974). Further to this in contrast with “money” the new/exchanged goods have no exchange value per se as their financial value has been materialized in a particular product.

The new/re-performed service (e.g. replace an existing meal with a new) falls into the category of “services” in resource exchange theory. In a similar way as new/exchange goods it is more concrete than money because a concrete activity is exchanged and additionally there is no exchange value included per se due to the fact that its financial value is materialized in a particular service.

Finally the psychological compensation is linked with “love” in resource exchange theory as it describes some affectionate concern. Here psychological compensation comes in the form of an apology. It is an expression of regret and empathy for the customer’s distress (Liao, 2007), and also there is a linkage with “status” because the apology rebuilds self-esteem as this might have suffer due to company’s failure (Roschk and Kaiser 2013).

Resource-Based Compensation Type Classification

The research on monetary benefits comes out with incentives (Roehm and Roehm 2011), rebates (Pyone and Isen 2011), or compensation (Noone and Lee 2011) and it can be given in current time immediately or delayed or in the future. As is being shown in Figure 1 voucher and store credit are a delay form of compensation which are connected to a future purchase and can only be redeemed, when there is repurchasing from the customer from the same company. The immediate monetary with discount and money back is in contrast with the delayed monetary as they are connected to present purchase and are been given directly in the case of the failure (Kim and Ulgado 2012). The rest new/exchanged goods, new/re-performed service, and psychological compensation are not being considered of temporal aspects for e.g. storing even though goods can be theoretically stored but that will tie the supplier of a new product or service in a future transaction something which makes no sense. Additionally an apology cannot be stored as it acknowledges the distress complainants experience during the focal transaction (Davidow 2003).

On the Resource-Based Failure Type classification there is differentiation among “monetary failure”, “flawed goods”, “failed service” and “lack of attention” (Figure 1). The monetary failure represents “money” in resource exchange theory and indicates financial loss such as charging consumers for unsubscribed features (Liao, 2007). Flawed goods are a representation of the resource class “goods” and it means a defective, malfunctioning product (Blodgett, Hill, and Tax 1997). There might be a financial loss in it but generally its monetary value is hard to quantify. For example what devaluation

can bring a stain over a garment? Therefore there is a differentiation as far as concerning monetary failure as the flaw is present, tangible in the product itself.

Failed service comprises of the resource “services” and it involves a failure in service, e.g. a less cooked steak (Hess, Ganesan, and Klein 2003). In a similar way as goods this failure type category has a concrete loss which is difficult to interpret in monetary terms. In contrast with flaw goods the failed service involves a more particularistic resource that requires delivery of interpersonal interactions (Zeithaml, Parasuraman, and Berry 1985).

The last one Lack of attention comprises of the resource “love” and meant the unfriendly and impatient way that companies treat their customers (Bitner, Booms, and Tetreault 1990).

The “lack of status” can be included here due to the bad-mannered treatment that is often perceived by the customers having as a result the damage of the person’s prestige (Cropanzano *et al.*, 2001).

The findings of Roschk and Gelbrich’s study (2014) can be depicted in the following diagram 1:

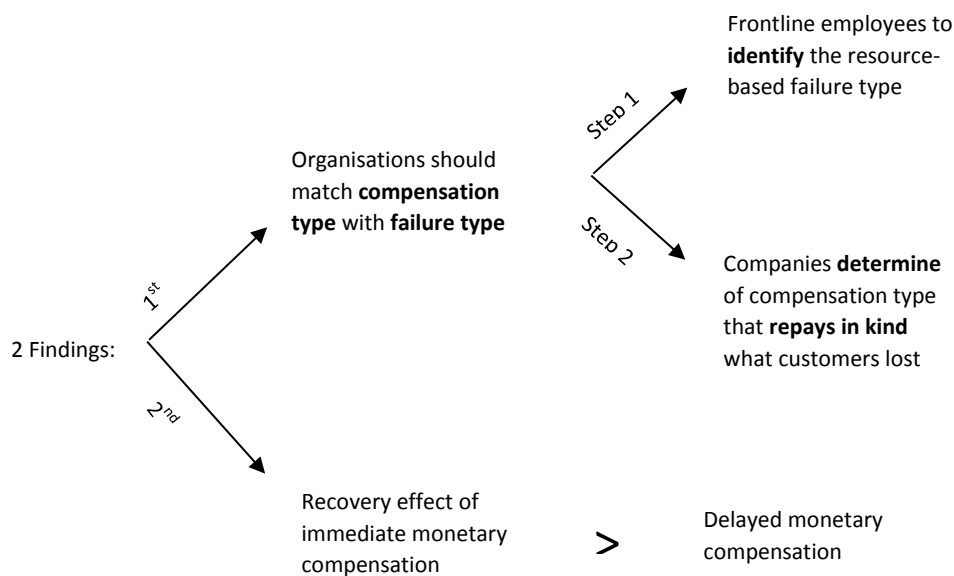


Diagram 2.5 – Representation by the author of Roschk and Gelbrich’s (2014) findings

Two major findings evolved, the first one is the recommendation is that organizations have to match compensation type with failure type. That involves two steps:

The first one is that the frontline employees have to classify the resource-based failure type. “Monetary failures” here signify a mere financial loss for customers. “Flawed goods” signify a loss that detracts the product benefits, while a failed service appears in the case where customers cannot make full or any use of the aspired service benefit. “Lack of attention” signifies a psychological loss, which detracts customers and creates a threat to their status and self-esteem.

The second step is where companies determine the compensation type that provides payment in kind of what customers lost. “Monetary failure” here is best rectified by financial compensation (money). “Flawed goods” has to be exchanged whereas a failed service has to be re-performed. “Lack of attention” can be rectified through an apology for the failure to re-establish self-esteem but as the recovery effect here does not provide very large efficient results it is suggested that companies maybe is better to provide as an extra apart from the apology a new service offered for free.

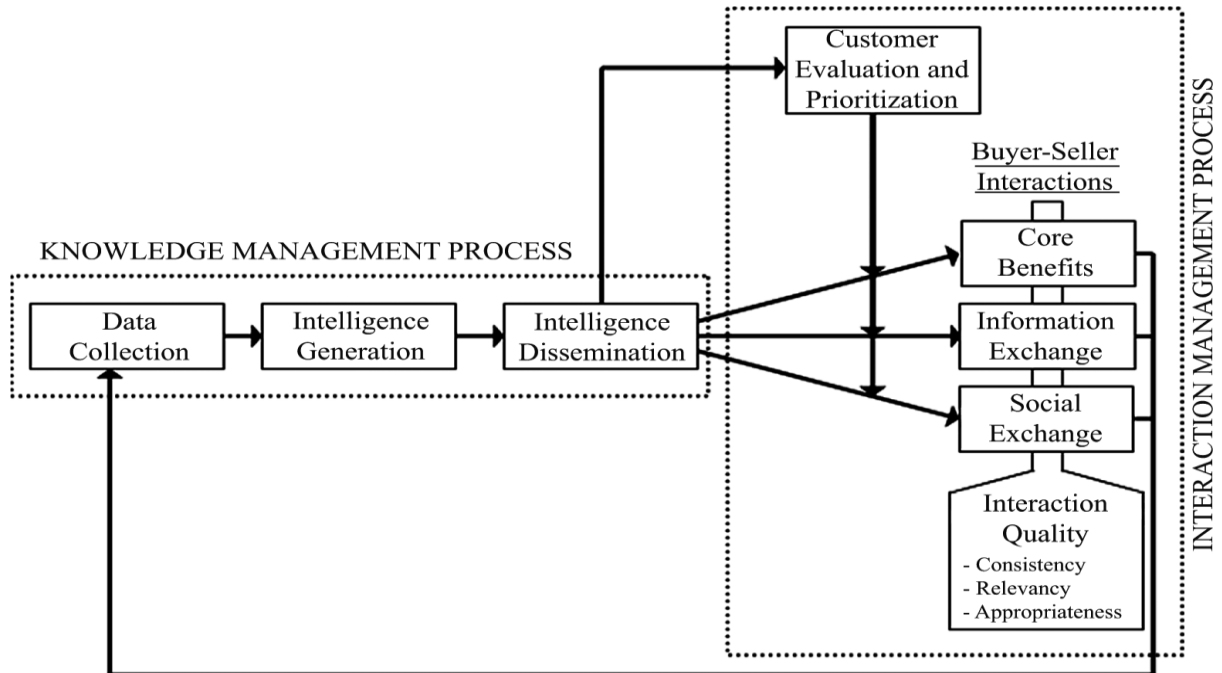
The second recommendation is that the recovery effect of immediate monetary compensation is stronger in comparison with the delayed monetary compensation; however this effect depends also on failure type. “Monetary failures” have to be rectified immediately through a discount on the current bill or through a case refund. In the situation where “Flawed goods” or “failed service” appears the companies who don’t provide an exchange or re-performance can either maximize customer satisfaction through immediate monetary compensation or they can also maximize loyalty through delayed compensation. The latter solution has to be cautious however, as it creates lock-in effects and thus spurious loyalty. Lastly for “Lack of attention” delayed monetary compensation can be alternative to immediate monetary compensation as it induces greater customer loyalty.

2.5.2 Service recovery through the CRM process model

When service failure occur the probability of having a positive service recovery increases if the first employee that has been contacted after the failure had appropriate authorisation in order to deal with the incident in a suitable way (Miller *et al.*, 2000). As the front-line employees are involved to the 65 percent of complaint initiation they play a central role to service recovery strategy time plan (Maxham and Netemeyer, 2003). Their key position during the service recovery process can prevent minor complaints from becoming major ones. Previous research highlighted that front-line employee empowerment has to accompany with certain knowledge and capability to arrange successfully service failures (Bowen and Lawler, 1995; Miller *et al.*, 2000). Therefore to become more effective, real-time contextual information can play a major role in dealing with the situation.

Robinson *et al.*, (2011) suggest a service recovery model based on Zablah's *et al.*, (2004) CRM process model.

The literature for CRM recognizes five main viewpoints: process, strategy, philosophy, capability, and technology (Zablah *et al.*, 2004). He has created features of those viewpoints and put those into a process as seen in the following figure 2.17:



Source: Zablah *et al.* (2004)

Figure 2.17 – Customer relationship management process

This process creates market intelligence as the firms can use it to manage customer interaction and build long-term relationships (Robinson *et al.*, 2011). It has two major mechanisms, *knowledge management* and *interaction management*.

In the knowledge management part the firm is developing intelligence about the likelihood of the prospects, customer's interest, needs and preferences that is being disseminated to the second part (interaction management). The latter mechanism receives this information in order to make customer evaluation and prioritization and to improve the quality of the interaction that employees have with customers. Consequently the interaction management powers the existing knowledge for better quality customer interaction. Both two mechanisms are highly reliant on the quality of the human resources of the firm (Zahay and Griffin, 2003).

The service recovery process through CRM can create a big variety of customer information that is accessible to front-line employees, a great benefit in implementing service recovery actions.

Robinson *et al.*, (2011) combined parts of previous research that was based on service recovery strategies and modules from the CRM process in order to establish a decisive impact achievable from the service providers.

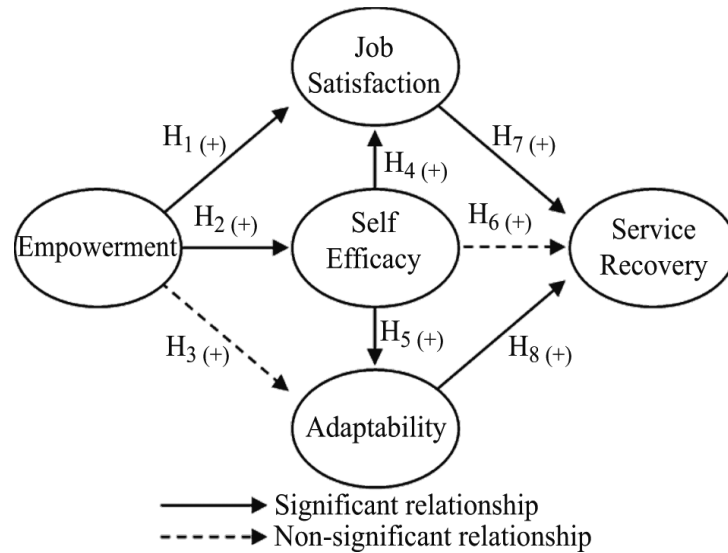


Figure 2.18 – Hypothesized service recovery model

The results revealed that when employee's self-efficacy is higher and their job satisfaction as well, both are related to higher customer perception of service quality (Robinson *et al.*, 2011). Also higher adaptability of the employees was not as important to direct to a higher perception of service quality, nor was higher self-efficacy linked to higher job satisfaction. Further hotel managers' argued that empowerment use was not linked to employee ratings of job satisfaction but was linked certainly to the self-efficacy ratings of the employees (Robinson *et al.*, 2011).

Overall this model suggested that the above mentioned three variables (self-efficacy, adaptability, job satisfaction) are positively linked to employee ratings of the firm's service failure recovery practices. Those three variables can be found when front-line employees evaluate themselves all the variables. The above highlighted figure 2 revealed a significant gap in the literature by linking those three variables with measures of service failure recovery; it showed that organizations who value customers have to diagnose that timely resolution of service recovery is an essential point for customer retention (Robinson *et al.*, 2011). As service recovery tactics are implement through the front-line employees' discretionary practices, they acquire higher levels of self-assurance in their job performance which at the end leads to greater organizational achievements.

2.5.3 Service Recovery Communication impact on Customer satisfaction

After a service failure action has to take place to make unsatisfied customers to return to a state of delight. (CR; Johnston and Michel 2008). This action has several schemes and it can be an apology, empathy, financial compensation and that can effect satisfaction, repurchase intent and word-of-mouth intent (Gelbrich and Roschk, 2011). Further it has to be analysis from the customer service department of the customer feedback to distinguish the origin of the problem and create required developments to escape service breakdown in the future (PR; Johnston and Michel 2008). Both customer recovery (CR) and process recovery (PR) represent a significant service recovery domain (Michel, Bowen, and Johnston 2009).

According to Vaerenbergh *et al.*, (2011) there are two options here. The first has an operational perspective with the organization to try and use the complaints in such a way by pleasing less the customers and focus more on balancing aggregate performance metrics through service process optimization (Michel, Bowen, and Johnston 2009). The second who is supported by Vaerenbergh is a marketing perspective to examine a new variable called process recovery communication (PRC) which is defined as the communication that the service provider makes after the customer complaint made to inform about improvements.

More than 70% of dissatisfied customers who initially gave 1 or 2 points on a 5-point scale of customer satisfaction went to 4 points or even 5 after a successful communication from the service provider informing them of the amended steps that took place on the offered service (Trends, 2010). Lovelock and Wirtz, (2011) noticed that some companies apply this tactic.

PRC can reach four types of customers (1) those that received successful recovery after the failure complaint, (2) those that received unsuccessful recovery after the failure complaint, (3) those that didn't complaint (after the service failure) and (4) those that hadn't a service failure at first place (Vaerenbergh *et al.*, 2011).

From those four types Vaerenbergh *et al.*, (2011) found that process recovery communication (PRC) affects positively customers' overall satisfaction; repurchase intentions and word-of-mouth intentions. More particularly he found that PRC is most effective in the second and third types of customers while the first and fourth are less of an impact. After all these managers in order to grasp positive feedback as much as possible on a complaint handling process they should apply PRC to their customers. The companies must use the complaint information to seek the origin of the problem to avoid similar bad situations in the future (Johnston and Michel 2008).

Research revealed that the effectiveness of PRC in explanations differentiates into two types: retrospective and prospective explanations (Gelbrich, 2010).

The customers that received a retrospective explanation are aware of what caused the problem, while the prospective one reveals to them the possibility of future failures (Mattila, 2006).

PRC notifies customers regarding to what the company has done to avoid service failure in the future due to its analysis of the previous customer complaints. Also it has (PRC) a timing difference as generally arrives after some time of the initial complaint which in the meantime the customer has received recovery (CR) and that has an additional impact to the customer perception (Johnston and Clark, 2008). This further communication investment to the customer improves satisfaction and behavioral intentions (Liang and Wang, 2007).

2.5.4 Service recovery and Affective commitment on Complaint intention

Affective commitment comprises of emotional attachment to an organization (Meyer and Allen, 1991). It heightens the amount of readiness from the side of the customer to assist the company and defends the negative factors of service failure on post recovery behaviour. It is an important element as it can highlight the importance of measuring customers' affective commitment because at a later stage a tailored designed complaint system can increase the effectiveness of resource allocation when customer recovery will needed.

One of the major purposes of complaint management for a service provider is to decrease the undesirable results of service failure and to obtain data regarding the service delivery faults and to avoid service failures in the future (Grainer 2003; Homburg and Fürst2005). In order to achieve this service provider has to (a) motivate complaints and (b) arrange an adequate recovery (Evanschitzky *et al.*, 2011).

Whereas previous studies have revealed that up to 90% customers do not voice their dissatisfaction to the provider only a few amount have examined more in-depth the area of complaint stimulation (e.g., Huppertz 2003; Owens and Hausknecht 1999). Through these studies it can be highlighted that by simplifying the effort needed for making a complaint the rest 10% of customers that actually do raise their complaints can be increased (Bearden and Oliver 1985; Bearden and Teel 1980; Bodey and Grace 2006; Voorhees, Brady, and Horowitz 2006).

The number of studies that have involved in research for relationship moderators in service recovery is small and display opposing results. Ganesan *et al.*, (2010) found that when there is mild misconduct from the provider's side there is a buffering effect of affective commitment to switch provider from the customer's side and an amplifying effect in a more severe misconduct. Grégoire Tripp, and Legoux's (2009) study revealed that relationship quality

defences the eagerness for revenge but not the eagerness for avoidance. Grégoire and Fisher (2008) showed that in the case of greater levels of relationship quality offered to customers they will perceive it as betrayal in cases where the levels of distributive and procedural fairness are low. Mattila (2004) displayed that those highly committed customers in cases of poor recovery still don't change their attitude. Nevertheless she argued that there was no evidence of linkage among affective commitment and quality of recovery on loyalty for customers after the complaint took place.

The influence that affective commitment has on complaint stimulation seems that it needs of further attention as it can assist managers to distribute resources to those customers who have the biggest possibility to react. A small amount of studies have been dealt with complaint intention (de Witt and Brady 2003; Mittal, Huppertz, and Khare 2008). More specifically Evanschitzky *et al.*, (2011) have examined the impact of affective commitment on complaint intention. They conducted two studies, in Study 1 (complaint stimulation) they examined the interaction among affective commitment, complaint barriers and complaint intention, whereas in Study 2 (complaint handling) they assessed if dissimilar behavioural reactions to post service failure experiences are dependent upon affective commitment.

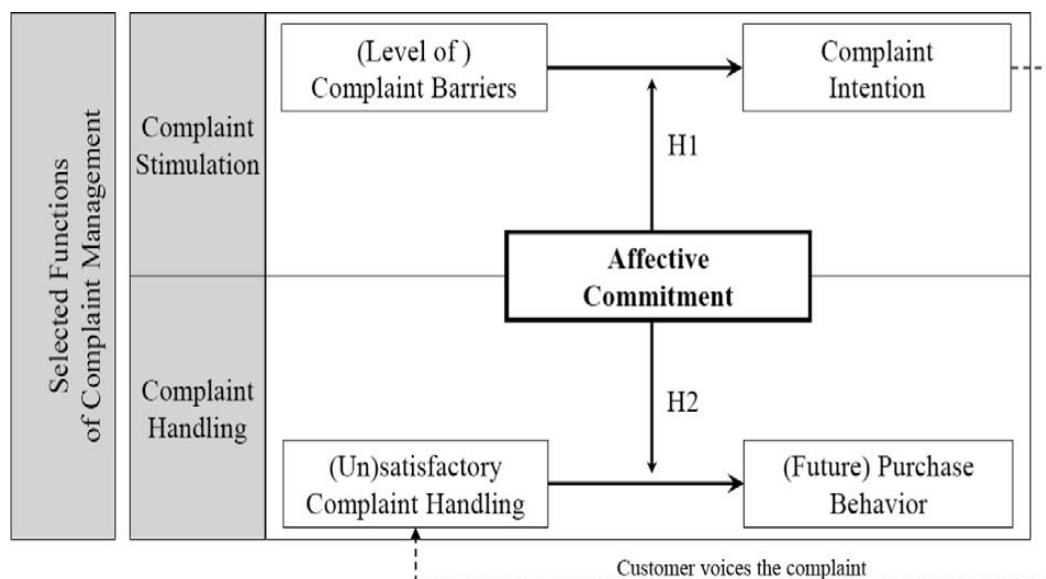


Figure 2.19. Evanschitzky *et al.*, (2011) Conceptual model

According to Evanschitzky *et al.*, (2011) research revealed that affectively committed customers show greater intention to complaint regardless of the amount of boundaries. Additionally those customers exhibit small changes in their behaviour after the post recovery, process, a sign of greater tolerance showing through this way that their intention is to assist their provider in making better the business.

2.6 Severity

In the service industry providing customer service without any service failure is almost impossible as problems arise from everywhere and there is also the distinctive feature of each service involved (Berry and Parasuraman, 1991). Particularly in the hospitality sector as well as in the airline one the large variety of customer's origin and their different cultural background increases the chances for more frequent service failures (Bitner *et al.*, 1990; Mack *et al.*, 2000; Susskind, Borchgrevink, Brymer, & Kacmar, 2000). Also there is "*a greater propensity to fail due to their intangible or experiential nature, as well as simultaneous production and consumption*" (Lee & Sparks, 2007, p. 505).

Therefore customers usually experience service failures and frequently the service recovery process is poor (Keaveney, 1995). Research has shown that a good service recovery is vital regarding the formation of customer relationships particularly with those customers who were dissatisfied during their first encounter (Maxham, 2001; Smith *et al.*, 1999; Tax *et al.*, 1998). More precisely research showed that service recovery has linked with greater satisfaction (Maxham, 2001; Smith *et al.*, 1999; Goodwin and Ross, 1992), trust (Tax *et al.*, 1998), commitment (Tax *et al.*, 1998), and word-of-mouth (Maxham, 2001; Blodgett *et al.*, 1997).

Severity of the service failure refers to the intensity of the failure that a consumer receives. The higher the intensity of the failure, the greater the perception of failure would be in customer's mind (Weun, *et al.*, 2004). Perceived severity has been recognized as a key issue to research in service recovery and is being suggested that the severity of the failure will influence the evaluation of a service provider (Bell and Ridge, 1992; Limbrick, 1993; McCollough *et al.*, 2000; Smith *et al.*, 1999; Zeithaml *et al.*, 1993). The diversity of severity on service failures can additionally offer to organizations such as hospitality or the airline industry further understanding of the customer response (Bhandari, Tsarenko, & Polonsky, 2007; Smith *et al.*, 1999; Weun *et al.*, 2004).

Severity and culture

The concept of culture differences has been taken into consideration with great amount of response to be focused on customer's cultural background in several research studies (Lin, 2011).

Wong (2004) in his survey studied the influence that culture has into customer's behaviours to service reaction. He studied customers from three countries, the US, Singapore and Australia and found out that only the Singapore customers were satisfied with an apology, whereas when financial compensation was provided all three countries' customers were satisfied.

Comparison between Western and Eastern cultural values showed the difference in perception regarding the service failure causes (Mattila and Patterson, 2004a), whereas Kim *et al.*, (2003) showed that dissatisfaction to service linked to cultural influences. Hofstede's fourth dimension of culture – the Power distance – dictates that in many societies particularly in Eastern cultures people behave and accept inequalities in power (Hofstede, 2010) therefore they are more attached to centralism and obedience hence their appreciation regarding the severity of service failure will differ in comparison with their Western colleagues.

Additionally the customer's perception of satisfaction and justice with regards to the service is being shaped by their cultural background and types such as financial compensation to be vastly accepted in the Western societies (Mattila and Patterson, 2004a), as it focuses more on customer's individuality, (Hofstede's third dimension of culture – the Individualism versus the Group –) rather the collectivism societies which they prosper more in Eastern cultures. (Hofstede, 2010).

Former research to a certain extent did not consider the influence of personality traits on recovery rates (Lin, 2011) and that is a critical variable in psychology as dissimilar ones influence the customer's behaviour, tolerance and the whole attitude towards an failure incident (Ong, Bergeman, Biscoti, & Wallace, 2006; Shahr, Joiner, Zuroff, & Blatt, 2004).

Lin (2011) in his study argued that those personality traits affect the recovery rates of service failure as due to their existing variety customer demand for the recovery rate differs. The more introverted an employee is the more likely is that he/she will not probably experience failure of service based on his/her high levels of confidence. On the other side the more extroverted an employee is the more responsive becomes through apologies and rapid responses (Lin, 2006). Odekerken-Schroder, De Wulf, and Schumacher (2003) designated that those personality traits influence the buy-and-sell relations. Gountas and Gountas (2007) on their research in the airline industry found that the travellers' personality traits influence their perception about the service provided.

Degrees of severity

The levels of severity differ (Oh, 2003; Sparks & Fredline, 2007) and the effort for recovery becomes harder when the incident is being perceived as serious by the customer (Mattila, 1999; Smith & Bolton, 1998). Sparks and Fredline (2007) argue that more severe incidents create lower satisfaction levels and loyalty. Consequently understanding of the severity in a service failure incident is significant in order to decide the most suitable recovery action (Hart *et al.*, 1990).

Due to the fact that severity depends upon individual perception of the service failure (Mattila, 2001), it has been suggested that separation of service failure according to the degree of severity can give a better view of the factors of customer response (Bhandari *et al.*, 2007). Further to that it must be noted that the severity of the service failure as a concept and operationally is different from customer satisfaction due to the fact that the former can only be evaluated after a service failure whereas the latter can be measured and evaluated regardless of a service failure appearance (Wang *et al.*, 2011).

The intensity of severity in a service failure is linked not only to the incident itself but additionally to problems that are related to the service, e.g. the design of the service (Chung, Hoffman, and Douglas, 1998).

Higher levels of severity decreases the efficiency of recovery actions (Smith *et al.*, 1999), the customer satisfaction with explanations (Conlon & Murray, 1996), and the commitment of the customer regardless of a satisfactory recovery (Weun *et al.*, 2004). The higher the level of severity the greater the chances for the customer to switch service provider and deploy negative word-of-mouth in comparison with customers who perceived the same service as less serious (Kelley & Davis, 1994). Weun *et al.*, (2004) proposes that “*the more intense or severe the service failure, the greater the customer’s perceived loss*” (Weun *et al.*, 2004; p. 135) and also the lower becomes the level of satisfaction (Smith *et al.*, 1999).

Wang *et al.*, (2012) research model showed that the severity of the service failure together with interactional justice, procedural justice and perceived switching costs, all together, have a significant relationship with customer loyalty to the extent that interactional justice can mitigate the negative relationship that have the severity of the service failure with customer loyalty.

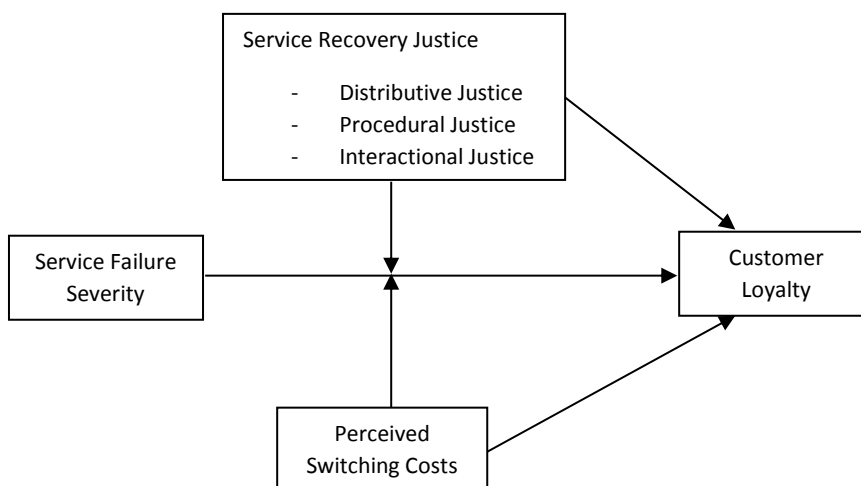


Figure 2.20 – Research model diagram of Wang *et al.*, (2011)

Prospect theory argues that damages caused by service failure will account heavily in relation to gains acquired during service recovery (Kahneman and Tversky, 1979; Smith *et al.*, 1999; Thaler, 1985). Consequently, even though a satisfactory service recovery action and outcome took place, in customer's mind will remain a perceived loss. Only a small number of studies have examined the role that severity plays in the service failure (Tax *et al.*, 1998; Blodgett *et al.*, 1997).

Severity and the service paradox

McCollough *et al.* (2000) study didn't support the impact that severity has on service failure which meant that the service recovery paradox was not to some extent supported. With the term service recovery paradox is being the condition whereas the customers who had initially a failure followed by a superior service recovery could at the end rank their satisfaction to the same level or even higher than they would have had no service failure happened (McCollough *et al.*, 2000, p. 122).

McCollough *et al.*, (2000) made the research by using two groups, one with no service failure and one with two sub ones: one with service failure but without high severity and one with service failure and high severity. The results are depicted in the following diagram 2.5:

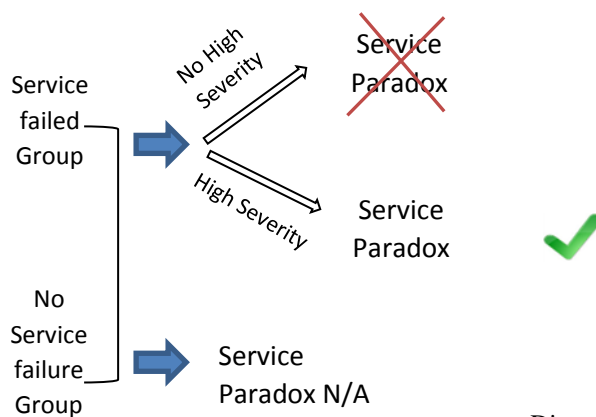


Diagram 2.5 – Severity and the Service Paradox

The group who had service failure but with no high severity didn't support the service paradox whereas the group with service failure and high severity supported the service paradox something which was in contrast with other studies about the impact that high severity has on service failure and the final likelihood of the overall service ranking by the customer.

Further research from McCollough, (2009) showed that the service paradox phenomenon can appear only after very modest service failure incident and with superior recovery service action. Matos *et al.*, (2007) in their meta-analysis of the service paradox stated that failure severity was among the

moderators that will probably account for the service paradox appearance even though there is a lack of further published studies on that.

Additionally there are a small number of studies on severity of the service failure. In conjunction with other researchers' findings mentioned above the higher the level of severity the higher will be customer's dissatisfaction (Mattila 1999; Magnini, Ford, Markowski, Honeycutt 2007; McCollough, Berry, and Yadav 2000; Smith and Bolton 1998; Webster and Sundaram 1998; Weun *et al.*, 2004).

Severity in the airline industry

In the airline industry for example, a four-hour delay of the flight for the air travellers would cause higher level of dissatisfaction when compared with a thirty-minute delay. Now the severity of the service failure has an impact on the type of the recovery that can be used in order to alleviate the traveller's dissatisfaction.

Mattila (1999) introduced the notion of criticality. For example a four-hour delay of a flight that makes somebody to lose a key meeting is being considered as more critical compared to somebody that has the same flight delay but one day earlier than the actual meeting. Under that scope there is dissimilarity between the objective harm of a failure and the actual perceived failure liable to criticality. In that particular example the objective harm (delay duration) is the same whereas the actual perceived failure (if the traveller misses a key meeting) is dissimilar according to the criticality of the service. Matilla (1999) examined the criticality of consumption, the magnitude of a service failure and who is the first perceiver of the service failure the employee or the customer and from all this found that the single important forecaster of a recovery paradox phenomenon was the magnitude of service failure.

Zeithaml *et al.*, (1993) on their research argued that in every service failure there is a customer's "zone of tolerance" which moves as an accordion is subject to the conditions. In the first encounter that zone is wider to customer's tolerance something which isn't the same after the first-time. In the case where there is high severity involved in the service failure that zone of tolerance is even narrower which raises the possibility for customer disappointment (Hoffman *et al.*, 1995). Keaveney (1995) argues that one single severe incident is one of the main reasons that make customers to switch their service providers. Severe service failure incidents reduce the appreciation that customers have for their service provider values and increase their negative word-of-mouth from the strong negative emotions that emerge in severe failure conditions (Richins, 1987).

Severity and customer trust

Weun *et al.*, (2004) through his research found that the severity of the service failure has a significant main effect on satisfaction with the service recovery. Despite the positive influence of a strong recovery on satisfaction, there remained a negative influence on satisfaction as a result of a more severe service failure. In addition, the severity of the service failure also had a main effect on customer trust, customer commitment, and likelihood of engaging in negative word-of-mouth after the service failure. The findings indicated that customers may still be upset, engaging in negative word-of-mouth, and be less likely to develop trust and commitment even with strong recovery if the original problem was severe. Thus, the results indicate that there is a negative consequence from more severe service failures, regardless of the successfulness of the service recovery.

Weun *et al.*, (2004) findings showed also that service providers must follow diverse strategies for service recovery according to the severity of the failure in each occasion. They have to develop a system in order to classify service failures according to the level of severity each one has. Even though the vast majority of service providers have low cost standardisation techniques in their service encounter approaches with customers a further amount of training for their employees is needed. This is because identification and classification of the unpredictable severity that will emerge from the customer perspective has to take place in order to behave and control smoothly the possible negative emotions that will emerge from them (Weun *et al.*, 2004). For the most part the employees must be in the position to distinguish and appreciate the variety of dissimilar emotional states among “annoyed” customers and those who felt “victims” for delivering a suitable service recovery (Zemke and Bell, 1990).

Numerous customers take the option of no complaint towards their service provider particularly if there is a low severity level (Tax *et al.*, 1998). In such a case a trained employee has to detect those customers that had less severity failures in order for an appropriate recovery to follow. Therefore empowering front line employees must be of a greater necessity in order to develop that ability. (Weun *et al.*, (2004).

The customers’ evaluation of service recovery efforts and the impact of service recovery on their future relationship with the service provider should not be modelled in a linear fashion. The study of Weun *et al.*, (2004) on severity of failure is consistent with previous service failure research (Smith *et al.*, 1999; Tax *et al.*, 1998) and, more generally, satisfaction research (Jones *et al.*, 2000; Taylor and Baker, 1994) that demonstrate the importance of investigating interaction effects when trying to better understand these complex evaluation processes.

In the airline industry during service failures there is a lack of studies focusing in the severity of the failure. Therefore there is a gap which gave the author the aspiration to include into his study the role that severity plays during service failures. More particularly on hypothesis H1a the role of severity is being examined to seek if there alliance with previous findings or not as to what extent severity causes further harming of customer's dissatisfaction with an airline company. In other industries as mentioned above severity causes further negative dissatisfaction, to what extent that applies to the airline industry with regards to service failure.

2.7 Justice

In the airline industry as the intensity of service interaction between customer and service provider is very high the chances are that several service procedures will develop a failure (Grönroos, 1984). Therefore a competent plan of service recovery has to be developed in order an establishment of a long-term relationship with the air travellers to be developed (Nikbin *et al.*, 2011). In this industry there is a gap as far as concerning the service recovery and justice theory as the competition have been increased heavily particularly after the entrance in the market of many low-cost airlines (Economist, 1999).

Previous studies on service recovery procedures have mainly focused on the impact that the perception of justice has with regards to consumer satisfaction (Lin, 2011). Many theories of organizational justice have been used as the basis of explanations of customer reactions to service recovery (Goodwin and Ross, 1992; Folger and Cropanzano, 1998; Tax *et al.*, 1998; Mattila, 2001; McColl-Kennedy and Sparks, 2003; Morrisson and Huppertz, 2010).

Justice theory in service recovery

In order to acquire a more effective service recovery the usage of justice theory has been engaged as the leading concept to examine service recovery procedures (McColl-Kennedy and Sparks, 2003). This is because consumers receive – according to their judgement – unfairness in service failure reactions from the service providers (Maxham, 2001). According to Konovsky (2000) the notion of perceived justice is critical when studying consumer's behaviour and reaction in a conflict situation.

Justice theory draws much attention in the academic circles as a theoretical concept for service recovery (Smith *et al.*, 1999; Sparks and McColl-Kennedy, 1998; Tax *et al.*, 1998). The reason for this practice is the fact that customer's perception for the fairness or not of the service recovery process influences customer's satisfaction and also future behavioural objectives. It is their behavioural intention that will endorse or not future purchases of the same

service based on their level of satisfaction (McColl-Kennedy and Sparks, 2003). Therefore in order for a company to implement competent service recovery action it is essential to understand the three dimensions of justice as seen below: distributive, procedural and interactional (Blodgett *et al.*, 1997; Smith, Bolton, & Wagner, 1999; McColl-Kennedy and Sparks, 2003).

1. Distributive justice: it relates to the perceived fairness of the tangible outcome of the service recovery (Adams, 1963; Greenberg, 1987; Blodgett *et al.*, 1997; Sparks and McColl-Kennedy, 2001; Tax, Brown, & Chandrashekaran, 1998; Smith, Bolton, & Wagner, 1999). It is what the customer is being given as a consequence of recovery efforts. That might include free meals, discounts, coupons, food replacement (Hoffman and Kelley, 2000; McColl-Kennedy and Sparks, 2003).

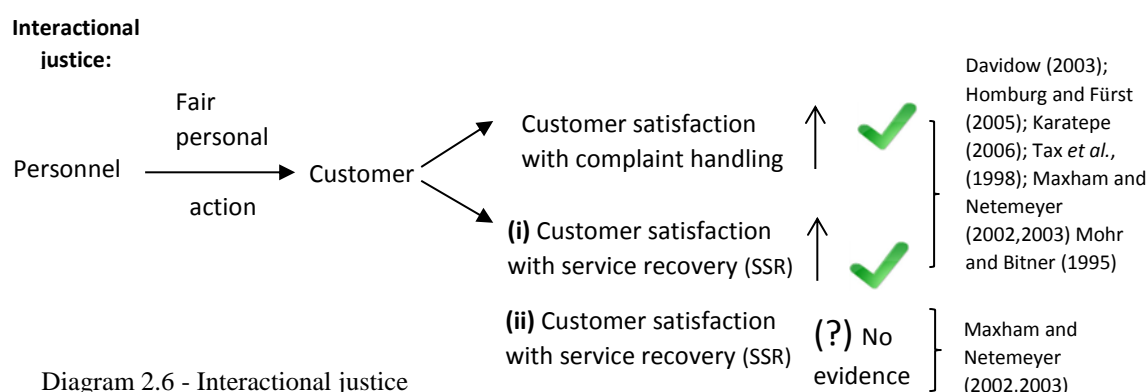
Distributive justice recovery attempts proved to be effective in decreasing post-complaint behaviour (Blodgett *et al.*, 1997). This created a suggestion that in service recovery when the compensation is tangible that brings higher perception levels of distributive justice (Hoccut *et al.*, 2006). Many researches showed that there is a positive link between distributive justice and satisfaction with service recovery (SSR) meaning that an increase of SSR takes place when distributive justice is activated (Smith & Bolton, 1998; Smith *et al.*, 1999; Maxham & Netemeyer, 2002, 2003). The same positive influence to satisfaction with complaint handling takes place when distributive justice engages (Homburg & Fürst, 2005; Karatepe, 2006).

2. Procedural justice: the policies and procedures used by a firm to rectify service failures (Voorhes and Brady, 2005) i.e. the means by which decisions are made and conflicts resolved so that customers feel they have been treated fairly throughout the process (Folger and Greenberg, 1985). It is the perceived fairness of the processes that is used in bringing that result through the recovery effort (Blodgett *et al.*, 1997). This element of justice comprises of employees' empathy, courtesy, sensitivity, treatment and the effort they apply to resolve the failure (Lanza *et al.*, 2009).

Through this type of justice there are factors that included such as formal policies and structural considerations, i.e. waiting time, level of responsiveness and flexibility during the recovery process (Clemmer, 1993; McColl-Kennedy and Sparks, 2003). These specific factors are also linked with customer satisfaction and overall service quality (Bitner *et al.*, 1990, Parasuraman *et al.*, 1985). Significant sign designate that customer satisfaction with service recovery can be higher if there is improvement in customer's perception about the procedural justice (Vazquez *et al.*, 2010). In recent past it has been argued that the perceived procedural justice influences considerably customers' satisfaction with complaint handling (Davidow, 2003; Homburg & Fürst, 2005; Karatepe, 2006). Maxham and Netemeyer (2003) showed also that procedural

justice has a significant impact on customers' satisfaction with the service recovery.

3. Interactional justice: relates to the manner in which customer is treated during the service recovery, what interaction took place among the service provider and the customer which also includes what kind information was exchanged and how the outcomes are communicated (Bies, 1987; Blodgett *et al.*, 1997; Tax *et al.*, 1998; McColl-Kennedy and Sparks, 2003) i.e. the courtesy and respect received from personnel in relation to the recovery actions and outcomes, or additionally the way that customers were treated, levels of dignity or provision of appropriate explanation for the service failure. This element of justice contains the customers' perception regarding the employees' empathy, courtesy, sensitivity, treatment and the action they take to resolve the problem.



Research shows (see figure above) that the delivery of fair personal action towards customers increases positively the customer satisfaction with complaint handling (Davidow, 2003; Homburg and Fürst, 2005; Karatepe, 2006; Tax *et al.*, 1998), and also with satisfaction with service recovery (SSR) encounter (Smith *et al.*, 1999). Maxham and Netemeyer's (2002, 2003) research however provided no evidence with regards to the impact that interactional justice has on satisfaction with service recovery (SSR). Communication among customers and employees and the actions that take place in order to resolve conflicts has an impact on customer satisfaction (Mohr and Bitner, 1995).

Implications of the three justice dimensions

Preceding studies observed the level of effect that service recovery strategies have when using diverge levels of justice (Blodgett *et al.*, 1997; Ok *et al.*, 2005). For example in distributive justice the offer of a free meal is considered as a high recovery strategy while a 15% food discount is considered as a low recovery strategy. On the other hand in the procedural justice a prompt reaction

can be considered as a high recovery strategy while the option of having the customer wait until somebody appears to correct the problem is considered as a low recovery strategy. Finally in the interactional justice a high recovery strategy would have include a sincere apology accompanied with an explanation of the problem while a simple apology with no further explanation would be considered as a low recovery strategy.

Customer evaluations, such as fairness and satisfaction; and behaviours, such as word-of-mouth communication and repeat purchase, are dependent on customer perceptions of justice and fairness (Sparks & McColl-Kennedy, 2001). The recovery actions that the firm takes have an impact on each of these dimensions of justice. Different recovery actions have been found to influence particular justice dimensions. For example, apologies and compensation have a significant influence on distributive justice, whereas initiating recovery and empathy affect interactional justice and finally the firm's level of response to complaints affects the procedural justice (Smith *et al.*, 1999). Each customer who has a complaint has a positive expectation from it – distributive, procedural or interactional – and this expectation for positive result guides his/hers complaint action (Oliver, 1997).

The research showed that the customer's perception for distributive and interactional justice is quite critical elements that impact on consumers' evaluation of service recovery and satisfaction (e.g. Goodwin and Ross, 1989, 1992; McCollough *et al.*, 2000; Smith *et al.*, 1999; Tax *et al.*, 1998). In most cases the unhappy customers demand their money back, a replacement or compensation, with the majority of studies in post-complaint situation to indicate that distributive justice through the compensation form has been found to have the greatest impact on customer satisfaction with recovery, repurchase intentions and loyalty (Blodgett and Granbois, 1992; Boshoff, 1997; Conlon and Murray, 1996; Smith *et al.*, 1999; Tax *et al.*, 1998).

Wirtz and Mattila (2004) on their study about how each of the three different perspectives (distributive, procedural and interactive) affect the customer service satisfaction and behaviour response they found out that indemnity and response rates had an impact on consumer satisfaction after the initial response to the service failure.

Yet culture and norms play a decisive role in influencing customers' minds regarding fairness of the service recovery. Mattila and Patterson (2004) identified some trends on that with the American consumers to take more important the issue of compensation in contrast with the Asian ones, while at the same time being (Americans) more assertive in requiring for redress than the Asians. On the contrary the Asian consumers paid more attention to the explanations provided for the service failure cause weighting more the interactional justice.

Ha and Jang's study (2009), examined whether the customer's response of perceived justice regarding future behavioural intentions differs across customers' relationship quality levels. Theirs' study outcome showed that high recovery efforts were high appraised steadily in terms of perceived justice when that was compared to low recovery efforts irrespective of the level of the relationship quality. Moreover perceived justice through the service recovery efforts has a positive weight on the customer's future behavioural intentions. Finally through hierarchical regression analysis it was suggested that relationship quality has a moderating role among perceived justice and behavioural intentions in the distributive and procedural justice dimensions.

The appliance of justice theory in service recovery in tourism and hospitality services is in its infancy phase (Becker, 2000; Collie *et al.*, 2000). Particularly in the airline industry there is a gap as far as concerning the service recovery and justice theory with the majority of similar studies focusing in the hospitality industry -hotels and restaurants mainly- leaving outside the airline industry. (DeWitt *et al.*, 2008; Kim *et al.*, 2009; Sparks and Fredline, 2007; Yuksel *et al.*, 2006; Karatepe, 2006).

Airline industry, the three justice dimensions and repurchase intention

Nikbin *et al.*, (2011) – as an exception among the few studies on the topic – examined the impact that the three justice dimensions have on repurchase intention (see figure 2.21 below) and analysed whether the reputation of an airline firm moderates the relationship among perceived justice with service recovery and repurchase intensions.

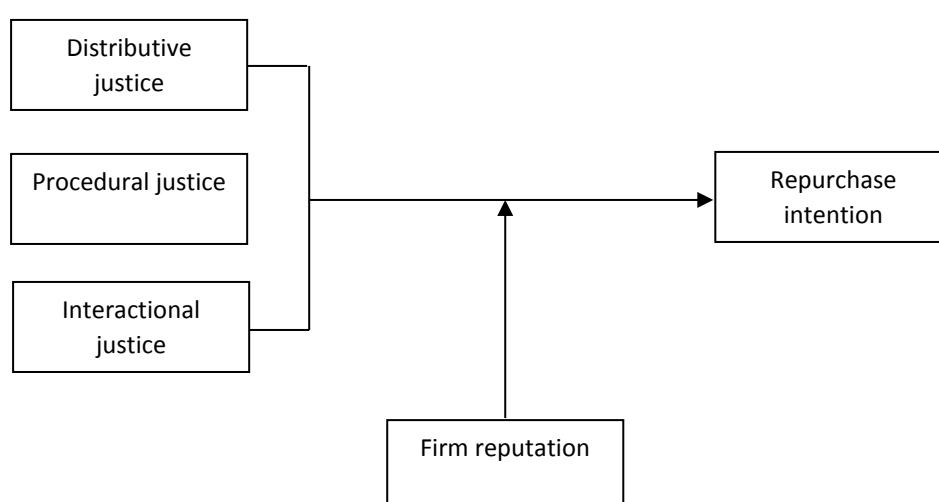


Figure 2.21 – Nikbin's *et al.*, (2011) research framework

Their outcome showed that the impact of distributive justice on repurchase intentions was higher compared with procedural and interactional justice. Further through their hierarchical regression analysis they suggested that the reputation of an airline firm acts as a moderator among perceived justice and repurchase intention in the distributive and interactional justice dimensions.

Their findings that tested the relationship among perceived justice with service recovery and repurchase intention showed that all three types of justice (distributive, procedural, interactional) are linked positively to customer's repurchase intention something which is in consistent with the preceding researches of Blodgett *et al.*, (1997), Ok *et al.*, (2005) and Ha and Jang (2009).

Further Nikbin's *et al.*, (2011) findings revealed that the influence of distributive justice on repurchase intention seems to be higher in relation to that of procedural and interactional. If the distributive justice is being backed with a generous treatment that includes refunds, discounts etc. that increases the chances for the airline passengers to fly again with the same company. Therefore the application of fair distributive justice has to been taken into account from the airline service provider.

As far as regarding the interactional justice Nikbin's *et al.*, (2011) suggested that the airlines should apply this type of justice efficiently through apologies, courteous and respectful behaviour that shows empathy and attentiveness towards the passengers. Finally with regards to procedural justice, training should get involved with particular emphasis on the appropriate procedures and policies that include prompt responses to customer's problems, dealing with each one's complaint in a well-timed mode (Nikbin's *et al.*, 2011).

From Nikbin's *et al.*, (2011) findings both the distributive and interactional justice dimensions interactions were significant and contributed to firm's reputation, something which is not happening with the procedural justice findings. That means that in the case of the procedural justice even if this has been applied perfectly (e.g. there is a quick response in a well-timed way), because of its less moderating role it will not influence the repurchase intention of customers even if the firm has an excellent reputation. Customers in that case will not choose to fly again as the procedural justice does not have a moderating role between perceived justice and repurchase intention, something which the other two types of justice (distributive and interactional) have (Nikbin's *et al.*, 2011; Vazquez-Casielles and Alvarez, 2010).

In another similar airline study Ghalandari *et al.*, (2012), showed that the corporate image moderates the relationship among perceived justice dimensions and post-recovery overall satisfaction, post-recovery revisit intention and post-recovery word-of-mouth intention; It was only in the cases firstly of the relationship between distributive justice and post-recovery revisit intention whereas there was no moderating role for the corporate image and

secondly in the case of the relationship between interactional justice and post-recovery word-of-mouth intention. In their suggestions Ghalandari *et al.*, (2012) argued that the airlines have to apply constant efforts in order to create and embrace a positive image in customers minds even in service failure/recovery situations.

Therefore, beyond the research studies of Nikbin's *et al.*, (2009) and Ghalandari *et al.*, (2012), the current study on the airline industry finds a gap that according to the author it needs to be identified further as to what extent justice (in each of the three different perspectives (distributive, procedural and interactive) moderates the service recovery action with regards to Post Recovery Satisfaction [(PRS), see the conceptual framework].

2.8 Loyalty

Customer loyalty is critical for piloting an organization in such a competitive environment of today's world and the airline industry is no exception. Previous research showed that service recovery plays a vital role in ensuring customer loyalty (Blodgett, Hill, and Tax 1997; Maxham and Netemeyer 2000, 2003; Smith, Bolton, and Wagner 1999).

Loyalty of the customer is the most desirable outcome that can evolve from a service recovery. According to Oliver (1997) customer loyalty is *"a deeply held commitment to re-buy or re-patronize a preferred product/service provider consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing"* (p. 196).

A loyal customer feels obliged to continue with a relationship of a particular organization within good and bad times (Reynolds and Arnold, 2000). Customer loyalty creates an environment where through repeated purchase makes the customer to develop a psychological bond with the existing company (Gee *et al.*, 2008). Loyal customers are a brilliant marketing force as they spread positive word-of-mouth and provide favourable references (Reichheld, 2003; Johnston and Michel, 2008).

Nevertheless the level of success can be dependent to the kind of service involved, what failure type (McDougall and Levesque, 1999) and what speed of reaction took place. In the case of a poor service recovery or even an ineffective one will probably make the customer to lose his or her confidence for the organization accompanied with negative word-of-mouth noticing others to avoid that particular organization (Tronvoll, 2010).

Complaints that haven't been resolved and also have been ignored makes the customer angry, perceives the whole process as a total waste of time, even feel guilty about making the complaint and in some cases in order to be heard might have a fight for that (Varela-Neira *et al.*, 2010).

Relation between loyalty and satisfaction

There is a relation between loyalty and satisfaction but it is a distinct one. In general high level of satisfaction is related to high level of loyalty (Morrisson and Huppertz (2010); Sousa and Voss (2009)). Trust is a critical factor in customer relationships as the ones who do not wish to trust a service provider will probably not be loyal (Morgan and Hunt, 1994; Singh and Sirdeshmukh, 2000; Sirdeshmukh *et al.*, 2002; Weun *et al.*, 2004; Pina e Cunha *et al.*, 2009). Further studies has been backing the significance of trust in analysing loyalty (Chaudhuri and Holbrook (2001); Singh and Sirdeshmukh (2000); Sirdeshmukh *et al.*, (2002); Rod and Ashill (2010)).

Bringing new customers costs five times more than retaining the current ones and in the case of a service recovery action that was resolved by the service provider that customer will inform about it about five people (Thwaites and Williams, 2006). In the case of a dissatisfied customer he or she may tell ten to 20 people about their bad experience (Thwaites and Williams, 2006; Reichheld, 2003; Sousa and Voss, 2009; Morrisson and Huppertz, 2010).

Behavioural and attitudinal loyalty

A typical path to describe customer loyalty is to differentiate between a customer's behavioural loyalty and attitudinal loyalty (Parasuraman *et al.*, 2005; Chaudhuri and Holbrook, 2001). Behavioural loyalty is the repetitive transactions in its class and can be measured through observational methods. In other words it is when a person buys from the same shop regularly. Now when this person feels positively about this shopping transaction from that same shop and wants to express this to others is called attitudinal loyalty. Attitudinal loyalty is characterized as positive influence on the way to both continuation of the relationship and the wish to stay in the relationship, and occasionally is being described as the same to relationship commitment (Rod and Ashill, 2010; Bugg Holloway *et al.*, 2009). Attitudinal loyalty is measured through questionnaire methods while behavioural loyalty is reflected through the level of sales (Oliver *et al.*, 1997; Turner and Wilson, 2006).

High level of attitudinal loyalty turns customers to be more defiant in other service providers' efforts to include them in their customer list (Boshoff, 2005). According to Turner and Wilson (2006) attitudinally loyal customers are much less vulnerable to negative information regarding the brand in comparison to non-loyal customers. Additionally increase in brand loyalty creates more foreseeable income flow from those customers something which can become significant through time (Augusto de Matos *et al.*, 2009).

As the loyalty of the customer is vital for the establishment of the business over a long-term period further understanding of the significant mediating role that

trust and emotion can provide is significant and certify further study. The reason is that as a concept service recovery uses two features of loyalty the attitudinal and the behavioural one (Day, 1969; Oliver 1999). Attitudinal loyalty depicts advanced level of customer commitment that cannot be incidental through just measuring repeat purchase intentions (Shankar, Smith, and Rangaswamy 2003). Further attitudinal loyalty can occasionally create excellent value from word-of-mouth (Dick and Basu 1994; Reichheld 2003), no barriers in paying premium prices and a high possibility for future support (Chaudhuri and Holbrook 2001).

According to Rod and Ashill (2010) trust is considered as of two items: performance or credibility trust and benevolence trust. They found that credibility trust has a great influence on relationship commitment in business-to-business conditions, something which did not happened for benevolence trust. The reason for that was mainly due to the fact that businesses purchases take place through judgement on the performance issues. Also in business-to-consumer relationship commitment performance or credibility trust is significant.

Factors that assist customer loyalty

Komunda and Osarenkhoe (2012), in their conceptual framework for the banking industry (Figure 2.22 below) suggested that Communication, Conflict handling and Service recovery play a critical role for consumer loyalty.

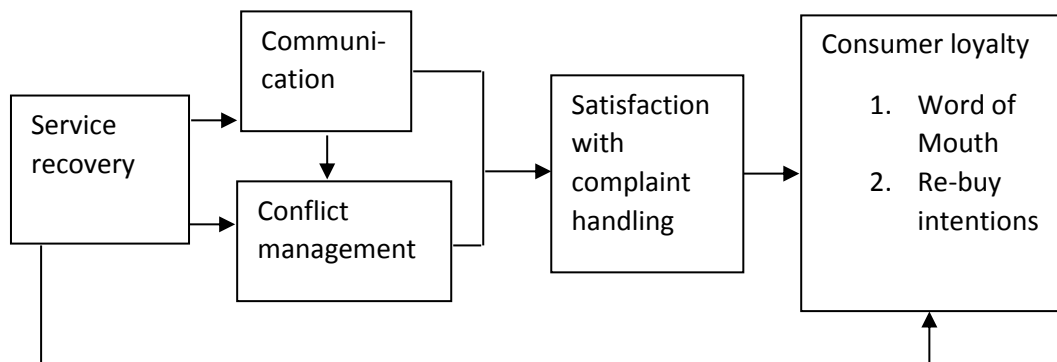


Figure 2.22 Komunda and Oarenkhoe's (2012) conceptual framework

From their findings communication and service recovery have a significant role for shaping customer loyalty. In particular communication and explanation are crucial for consumers when they report a service failure to the service provider, as a positive reaction from the provider positively influences customer

evaluations. This is in alliance with McCollough *et al.*, (2000), Ruyter and Wetzels (2000) findings and others. Through communication is being involved mainly any written one, personal letters, emails, web site interactions, in-person communication through personnel before and after the service failure. “Good” communication is described as a positive one, timely, helpful, easy, useful and pleasant (Ball *et al.*, 2004; Michel and Meuter, 2008).

In addition regarding service recovery they found that it has a positive influence on customer loyalty, as effectively recovered customers deploy positive word-of-mouth and favourable recommendations which make them at the end to become loyal customers.

Many researchers have identified a positive link between service quality and customer retention (Tepeci, 1999; Dube and Renaghan, 1999; Kandampully, 2002) and between customer satisfaction and retention (Butcher *et al.*, 2002; Hellier *et al.*, 2003; Yi & La, 2004; Zboja & Voorhees, 2006; Kristensen *et al.*, 2006; Gountas & Gountas, 2007).

The long term benefits of customer loyalty include reduced price sensitivity, increased per-customer revenue and referrals, and lower marketing and operating costs (Anderson and Mittal, 2000; Gronroos, 2000, Butcher, *et al.*, 2001; Zeithaml and Bitner, 2006). However, Jones and Sasser’s (1995) study of loyalty in five different industries showed that only very satisfied customers tend to be loyal; others succumb to competitors’ promotional efforts. Successful service recovery is therefore critical in relation to customer retention (Thomas *et al.*, 2004). It is also significant for positive referrals (Wirtz and Mattila, 2004) and in turn, it has been suggested that loyal customers give positive referrals by word of mouth in cases of successful service recovery (Richins, 1985; Hart *et al.*, 1990).

Building on long-term customer relationships requires an efficient way to handle when dealing with customer complaints (Morgan and Hunt, 1994). During this process customer complaints have to be appreciated as they provide the prospect to be in-depth studied and effectively confronted. With the necessary corrections the service process can then be valued by the unhappy customers meaning the start-up of a building relationship with them.

Research shows that more than fifty percent (50% +) of the total customer complaints after the attempted recoveries actions remained in the same negative level and sometimes became even worse (Hart, Heskett, and Sasser 1990). More specific there are less than 50% of those that make a complaint who receive a reply from the company and from those there is a 70% that sees the company’s recovery attempt as non-satisfactory, including delayed response and rudeness (Andreassen, 2001). The rest 30% only are satisfied with company’s service recovery response (Michel and Meuter, 2008). According to Keaveney (1995) these failed attempted recoveries comprise a

major cause for customers to switch service providers. To make things even more complicated the fact that only 5% to 10% of the unhappy customers take the initiative to complain confuses further the equation (Tax and Brown 1998).

An effective recovery action reinforces the relationship with the customer (Maxham and Netemeyer 2002; Tax, Brown, and Chandrashekar 1998), whereas poor attempts deepen the negative effects (Blodgett, Hill, and Tax 1997). Further when the corrected actions of a positive recovery effect become the new standards from the side of the provider that brings to the customers a higher level of trust (Tax, Brown, and Chandrashekar, 1998). Additionally those customers have greater tendency to support those service providers in the future through word-of-mouth (Maxham and Netemeyer, 2002).

Relation between justice, trust and loyalty

Even though the literature comes to a consensus about the necessity of trust in building customer relationships (Morgan and Hunt, 1994), there is yet small amount of knowledge concerning the customer's perception of justice in a recovery situation as to how this affects trust and loyalty (Tax, Brown, and Chandrashekar 1998). Previous studies on service recovery have created an understanding about the influence that service recovery has in making loyal customers and trust. Nevertheless the linkage between perceived justice and trust and also the one between trust and loyalty have been understood to a smaller amount (Tax, Brown, and Chandrashekar 1998). Besides the customer's emotional react concerning service failure and recovery have less amount of studies involved (Chebat and Slusarczyk 2005; Smith and Bolton 2002).

Genuinely, as had been mentioned before, organizations are not in a position to phase out completely service failure occurrence (Weun *et al.*, 2004). Still what distinguishes bestselling companies from the rest could be the manner through which they recover after service failures. Substantial findings suggest that an effective service recovery assists positively on customer assessment of the companies and have in some cases an intense effect on re-supporting intentions and the spread of word-of-mouth (Swanson and Kelley, 2001; Halstead, 2002). Therefore effective handling of service recoveries is a critical objective for service managers.

Mediating role between trust and emotion

The understanding of the significant mediating role that trust and emotion can have during a service recovery process can convince the service provider and its employees to carry out a more efficient recovery action, thus improving customer loyalty (De Witt *et al.*, 2008).

Additionally while several authors have credited a high degree of emotionality to loyalty, still there is large proportion of studies that have ignored the customer's emotional response to service recoveries (Chebat and Slusarczyk, 2005). The way through which service providers react to failures affects customers' emotional states and as a result they are either attached to their existing provider or switch to others. Lastly, although there is a clear separation among attitudinal and behavioural loyalty from the literature, still the service recovery studies have mainly paid attention on the behavioural outcomes of service recovery (patronage intentions word-of-mouth), and not that much on customers' attitudinal responses (De Witt *et al.*, 2008).

Conventional service recovery research regards customer loyalty as a function of customer perceptions of justice in service recovery (Smith, Bolton, and Wagner 1999; Tax, Brown, and Chandrashekaran 1998). In the service recovery background cognitive appraisal theory provides an explanation about how a customer after a recovery action assesses the process in terms of emotional and cognitive outcomes. The former one (emotional) outcome is echoed through customer's distinct emotions while the latter one outcome (cognitive) is echoed through customer's trust in the service provider (Chebat and Slusarczyk 2005).

De Witt *et al.*, (2008) in their conceptual framework that follows on figure 2 suggested that trust and emotion are two significant mediators in the service recovery process through the use of justice theory and cognitive appraisal theory:

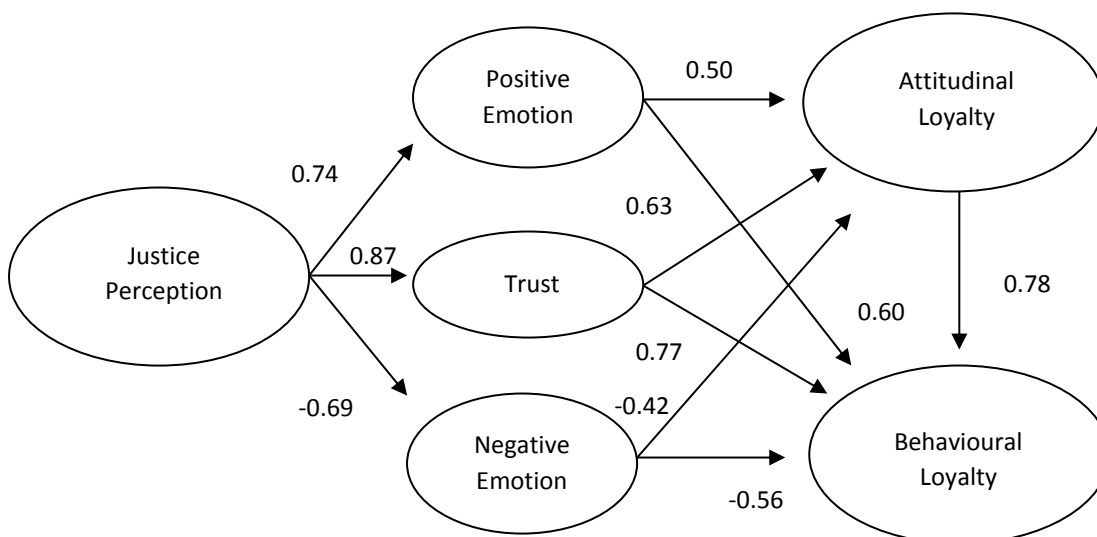


Figure 2.23 – Cognitive Appraisal Model of Service Recovery (De Witt *et al.*, 2008)

Through the use of justice theory a consumer assesses the service recovery effort as just or unjust and this subsequently affects his/hers loyalty towards

that specific provider (De Witt *et al.*, 2008). Despite the fact that all three justice dimensions are independent each other eventually their combination shapes the total perception of justice that a customer has, something which determine also his or hers behaviour and attitude (Blodgett, Hill, and Tax 1997).

De Witt *et al.*, (2008) in their model (seen on figure 2.23) used the cognitive appraisal theory to explain the mediating role of trust and emotion between justice perception and loyalty of the customer. This cognitive appraisal according to Folkman *et al.*, (1986) is a procedure where somebody assessing as to what extent is relevant with his or her well-being a certain encounter with the environment.

Cognitive appraisal theory argues that particular emotions arise through self-evaluation of a particular situation with justice playing the role of evaluative judgement regarding the suitability or not of a person's treatment through others (Dunn and Schweitzer 2005; Furby 1986; Watson and Pennebaker 1989).

Therefore the reaction of those emotions is subject to the outcome of a judgement whether this outcome is credited to oneself, to other or to impersonal circumstances (Smith and Ellsworth, 1985). If a consumer feels dissatisfied with the recovery action he or she receives that will cause intensified emotions in the case where the recovery result is seen as being through the service provider's direct control (Smith and Ellsworth, 1985).

Most of the studies on service recovery pay attention to negative emotions as the service failure is being regarded as something negative (Andreassen 1999; Bougie, Pieters, and Zeelenberg 2003), subsequently the potential co-occurrence of both negative and positive emotions have largely been ignored (Williams and Aaker 2002).

Loyalty is being affected by the perceived justice that customers experienced and expressed through emotions. Coping theory argues that a consumer who had a service recovery will try to eliminate the chance of facing again negative emotions in the future and increase at the same time the chance of facing positive emotions (Lazarus, 1991). Now in the case of a negative service recovery he/she will want to switch provider whereas in a positive recovery will want to stay loyal to his or hers current provider.

Trust according to Moorman, Deshpande and Zaltman (1993) has been defined as "*a willingness to rely on an exchange partner in whom one has confidence*" (p.315). Therefore in order to reinforce further trust of the customers personal interaction with them must reflect care for their needs (Holmes and Rempel, 1989). Trust is being influenced by trustee's ability, honesty and benevolence and also from previous experiences and the existing trustee's reputation (Butler, 1991). The customers' trust reveals the degree of vulnerability that he

or she has on the basis of a positive expectation of the service failure (Dunn and Schweitzer 2005).

As stated earlier only 5% to 10% of customers will complain as they think that their issue will be fixed in a rightful way in order to confirm their decisions of having a relation with this provider at the first place. If they receive a poor response for their problem they will perceive as worthless the current service provider.

According to Morgan and Hunt (1994) customer's perception regarding company's trustworthiness is certainly linked with the amount of commitment and repurchase intention. Commitment as a process is constructed mainly as a continuing wish to uphold a relationship among partners. When the reaction from the side of the service provider is judged positively it ends up in building further trust with less amount of complaints on the horizon. This also provides permission to the customers to make assertive estimates about future recovery behaviours of the service providers (Morgan and Hunt, 1994).

In the case where the customer receives a decent recovery that is being perceived as increased level of justice which together with positive emotions brings a positive attitude for the service provider (i.e., attitudinal loyalty) and makes the possibility of future support more likely to happen (behavioural loyalty) (De Witt *et al.*, 2008). In the opposite case where the customer receives poor service recovery he or she will perceive it as low level justice and together with negative emotions it will bring a negative attitude for the service provider which more likely this is being interpreted as exit from that particular provider (i.e. behavioural loyalty).

According to De Witt *et al.*, (2008) the role that negative emotions have among perceived justice and customer attitudinal loyalty is not a mediating one. That is in alliance with coping theory meaning that when there is an unhappy customer after the recovery action, he or she will not change attitude towards the service provider, but will simply switch provider.

As far as regarding trust their findings (De Witt *et al.*, 2008), are also in alliance with previous studies regarding the linkage among perceived justice and trust and then trust and loyalty. De Witt *et al.*, (2008) made an extension of previous models in order to examine the mediating role that possible trust has among loyalty and justice with their findings to confirm that, meaning that a good service recovery action has a positive effect on customer's trust and consequently increases attitudinal and behavioural loyalty together regarding the service provider.

2.9 Emotion

Emotion has been described as “*a mental state of readiness that arises from cognitive appraisals of events or thoughts . . . and may result in specific actions to affirm or cope with the emotion, depending on its nature and meaning for the person having it*” (Bagozzi, Gopinath, and Nyer 1999, p. 184). By comparison, consumption emotions are the set of emotional responses elicited specifically during consumption experiences (Westbrook and Oliver, 1991).

Emotion plays a significant role in the service encounter and the recovery process (Menon and Dubé, 2004). It could be suggested that in failure situations, consumers are under psychological stress (Lazarus and Folkman, 1984) and therefore experience negative emotions that leads them to employ various coping strategies (Yi and Baumgartner, 2004). Research showed that customers’ emotions throughout the service consumption need certain attention from the service provider regardless of the perceived cause of the emotion (Menon & Dubé 2000; Smith & Bolton 2002). For example consumers coming from a wide variety of services wanted their providers to react in a helpful way in either positive or negative emotions they expressed. Additionally when there was value attached that matched or exceeded their expectations that led to greater satisfaction for them (Menon and Dubé, 2000).

Not surprisingly, there is a lack of empirical investigation on the role of emotion in service encounters and its relationship with key concepts in service quality management. A further understanding of the ability of customers to integrate their emotions and reason in order to achieve successful performance or desirable outcomes remains elusive. Therefore there is a need to know more about the role of emotions in forming quality perceptions and more particularly in the airline industry as there is no previous research of their role with service encounter.

For example, some customers may repurchase even though they are dissatisfied with the resolution of the service failure or some loyal customers may switch to an alternative service provider because they feel betrayed, even though they have experienced high quality service on previous visits. These emotional states are therefore direct outcomes of the service failure and/or may also have extensive interactive effects with other outcomes (Magai and McFadden, 1996).

While research into emotional states and their inter-relationship with other outcomes is relatively new, it is important that these factors are considered when evaluating the overall success of recovery outcomes.

Consumption emotions have been conceptualized as distinct categories of emotional expressions: anger, fear, joy, or as a limited number of dimensions underlying emotional categories: pleasantness/unpleasantness,

relaxation/action or calmness/excitement (Plutchik, 1980). Positive emotions may lead to positive word-of-mouth behaviour, while negative emotions may result in complaining behaviour. Moreover, Wong (2004) found that negative emotions have a stronger effect on satisfaction with quality than positive emotions.

Emotions tend to influence quality perceptions and customer behaviour (Liljander and Strandvik, 1997). Stauss and Neuhaus (1997) claim that satisfaction studies have tended to focus on the cognitive component and that not enough attention has been paid to the emotional component of service quality.

According to Wong (2004:369), *“During the consumption experience, various types of emotions can be elicited, and these customer emotions convey important information on how the customer will ultimately assess the service encounter and subsequently, the overall relationship quality”*. Hence, the more we know about drivers of negative and positive customer emotions the better we can understand and manage service quality. There are two categories of service quality clues: clues of experience related to functionality and clues of experience related to emotions.

Verbeke’s emotional types

Verbeke (1997: 622) identified four emotional types with sales people, the Charismatics, the Empathetics, the Expansives and the Blands.

The Charismatics emotional types are those who can both transmit and receive emotions. They can influence others with emotions and vice versa. The Empathetic types are open to emotions from others (vulnerable to emotional influence) but they cannot influence other people’s emotions. The Expansive types can influence other people’s emotions but they cannot feel empathy and they do not feel or receive other people’s emotions, they are unaffected by emotions. Finally the Blands types they cannot influence or being influenced by the emotions of others.

In the work environment according to its settings those four emotional types respond differently. According to Verbeke (1997) the Charismatics and Empathetics perform better in sales whereas the Expansives are more susceptible to emotional burnouts and have lower sales levels.

The consumer now from his side during a service interaction see things according to his/hers personality orientation and react either positively or negatively. Additionally some consumers can influence the emotional experience of others (both consumers and service providers). Further research

identified two different and independent dimensions of affective factors labelled as positive and negative emotionality/affect (Watson *et al.*, 1999). Those positive and negative affect factors correlate differently with other psychological and social concepts. Levenson (1999) argues that further research has to be done here on understanding how personality affects the emotional responses.

Based on Levenson's (1999) request Gountas and Gountas (2007) researched further on that and particularly how the personality orientation and emotions affect customer's perceptions of the service in the airline industry. Their findings suggests a direct relationship among the personality orientation of the customer and his or hers emotional features and self-reported satisfaction of the service experience. There is a very small amount of research in the tourism industry and the airline more specific regarding the role that emotions have on customer's satisfaction. That gave an additional reason for the author to include the emotion factor to his conceptual framework.

Coping with negative emotions

Regarding the emotions regularly there is the development of negative emotions from customers during the purchase process as many products/services don't reach their initial expectations (Yi and Baumgartner, 2004). Further they discover that another product/service could have match better their expectation and that leads to their disappointment. Therefore when purchasing a product/service consumers are usually stressful due to possible undesirable consequences of a wrong choice. During this process they develop a negative emotion which they have to cope with or, additionally, the problem that created this undesirable situation.

Coping with negative emotions is a significant factor as this impact upon post purchase behaviours such as repurchase or negative word-of-mouth. This private internalization labelled as "coping" designates the efforts made of a single person to manage stressful situations. It can be defined as the reaction of an individual which includes *"the constant changing of cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person"* (Lazarus and Folkman 1984, p. 141).

Some researchers have studied the behavioural outcome of regret and disappointment (Zeelenberg, van Dijk, Manstead, & van der Pligt, 2000), while some others have focused on specific emotions on risk taking (Lerner & Keltner, 2000; Raghunathan & Pham, 1999). Despite these studies there is generally small amount of research on negative emotional experiences and even smaller on the negative emotions that are consumption-related (Yi and Baumgartner, 2004) with the exception of a small amount of studies such as

Kirmani & Campbell, (2000); Luce, (1998); Mick & Fournier, (1998); Otnes, Lowrey, & Shrum, (1997); Sujan, Sujan, Bettman, & Verhallen, (1999).

Luce *et al.*, (2001) showed in an in-depth study of negative emotions that they can rise in conditions that entail challenging emotional trade-offs and that can lead to many methods of coping headed towards the problem or the emotion. Mick and Fournier (1998) classified behavioural coping strategies without linking specific coping strategies to exact emotion types. Additionally Otnes *et al.*, (1997) examined which strategies consumers use to cope with uncertainty without again link specific types of negative emotions.

Lazarus, (1991), suggested that the different ways of coping with a service failure hang on the person's appraisal for the failure. As dissimilar negative emotions lead to different appraisals for the service failure there is the tendency for the customers to copy with the situation in different ways (Frijda, Kuipers, & ter Schure, 1989; Lazarus, 1991; Ortony, Clore, & Collins, 1988; Roseman, Antoniou, & Jose, 1996; Scherer, 1999; Smith & Ellsworth, 1985).

Yi and Baumgartner, (2004) researched on how customers cope with specific negative emotions which arise from customer purchases in order to find if there are generalizable differences on how non-satisfied customers cope with negative emotions and to suggest through general assumptions more specific coping strategies for diverse emotional situations.

Overall the findings from Yi and Baumgartner (2004), depicted that when customers are using coping strategies (eight in total used by Yi and Baumgartner) to manage stressful situations that usage has logical relations among precise negative emotions and certain coping strategies. These emotion-coping arrangements can be further understandable if there is consideration of the appraisals that cause the several emotions (predominantly the degree to which situation can be changeable and the degree to which the problem is recognized to the self-impersonal circumstances) and the sorting of coping strategies regarding the problem- or emotion-focus.

At this point according to Yi and Baumgartner (2004) it was essential to be a clear understanding of the variety of coping strategies that consumers can use to administer stressful events. Even though substantial amount of coping strategies have been introduced (Lazarus, 1999) it was uncertain to what extent were valid to the consumer environment and also there were many discrepancies that had a direct impact upon their classification (Yi and Baumgartner, 2004).

Coping refers to a person's attempt to manage stressful situations. Consumer coping is a relatively new phenomenon in marketing discipline (Duhachek 2005). Research shows that the causal acknowledgement (who or what made the cause) and the coping potential (capability of the customer to respond to an event) are the two highly applicable factors that define the type of emotion

incident (Lazarus 1991; Smith & Ellsworth 1985). Anger is connected to customer's perception as the cause of incident whereas anxiety is linked to conditions with no control (e.g., Ruth, Brunel, & Otnes 2002; Smith & Ellsworth 1985). It is significant to say that it is the customer's personal judgement that leads to the above two mentioned emotions. For example anger can arise due to long wait at check-in counters because the service provider hasn't put enough employees at the counters, or due to slow ticketing agent which can lead to uncontrollable situations. Additionally anxiety can appear e.g. in a holiday season that leads to excess travellers and possible the need for heightened security can arise. Attribution is the major focus of research in the case of negative emotions during service encounters (Folkes, Kotelsky, & Graham 1987).

Two meaning of coping are well-known, the "problem-focused" coping and the "emotion-focused" coping whereas the former is being referred to the behavioural responses of a consumer to resolve the problem at hand and the latter refers to a consumer who tries to control moods and emotions experienced by the incident (Lazarus and Folkman, 1984).

Even though those two different meanings of coping have been treated as opposite Lazarus (1996) argued that it makes little sense to contrast each-other and it also is difficult to judge whether certain thoughts and actions can be classified to either "problem-focused" or "emotion-focused". Putting those two into a conceptual framework to develop measures of coping has proven to be too abstract (Laux and Weber, 1991). Psychologists' categorized distinct coping strategies for people experienced stressful situations. "*The Ways of Coping Questionnaire*" (Folkman *et al.*, 1986) and the "*Cope scale*" (Carver *et al.*, 1989) consists of two famous coping frameworks in psychology for dealing with these situations.

Coping potential is linked to a customer's capability to cope with (i.e. master, tolerate, reduce) the consequence of negative emotions (Lazarus, 1991). Menon and Dubé (2004) suggested that coping potential can be the one of the emotion mechanisms that is most proximally close to the quotation of specific emotions. While initially coping was regarded as a personality variable further research on that revealed that coping potential depends highly on the situation (Folkman, Lazarus, Dunkel-Schetter, & DeLongis 1986). In a service consumption environment coping depicts the way that someone selects to interact with the service provider and to act with the remaining part of the service encounter.

High coping potential shows customer confidence and efforts to emphasize on the problem whereas low coping potential is in the case where the customer senses powerless to react with the negative event which leads to passivity, physically or psychologically distancing from the event. Further on low coping potential the customers that is in this situation they don't try to change the

situation or seeking emotional support from others. For example customers possibly will feel that they can cope with a delayed flight by demanding compensation in a hostile manner or make arrangements accordingly to alleviate the negative effects of the event. Others possibly will feel incapable to cope with the event, not know what to do, seek care from others including service providers or maybe choose not to think about it.

The major part of research on emotions revealed that anxiety which arises due to attributions of negative events to uncontrollable conditions is often escorted by low coping potential (Lazarus 1991; Smith & Ellsworth 1985). This is interpreted into propensities to find support from others (Gump & Kulik 1997; Menon & Dubé 2000), or to divert oneself from the problem without any aggressive expression (Suls & Fletcher 1985). In contrast anger is connected to attributions of provider's fault and is escorted with high coping potential which is predominantly aggressive confrontation of the perceive cause (Smith & Ellsworth 1985; Nyer 1997). Menon and Dubé (2000) found that the most frequent behaviour that customers report in coping with anxiety is one of approach towards the provider while for anger it is being aggressive towards the provider.

Coping strategies

Yi and Baumgartner (2004), built further in order to improve a typology of coping more valid for consumer behaviour. They reviewed eight different coping strategies with four different negative emotions (anger, disappointment, regret, and worry) that a consumer can experience through a stressful situation of a purchase. Their study showed that their four target emotions (anger, disappointment, regret, and worry) when measured among 12 total emotion items (anger-disappointment-regret-worry-planful problem solving-confrontive coping-seeking social support-mental disengagement-behavioural disengagement-positive reinterpretation-self-control-acceptance) had been accounted for 81% of the total variance. The co-occurrence of dissimilar negative emotions recommends that consumers may practice several coping strategies in any given situation (Yi and Baumgartner, 2004).

Their research on eight different coping strategies can be depicted in the following figure 2.24:

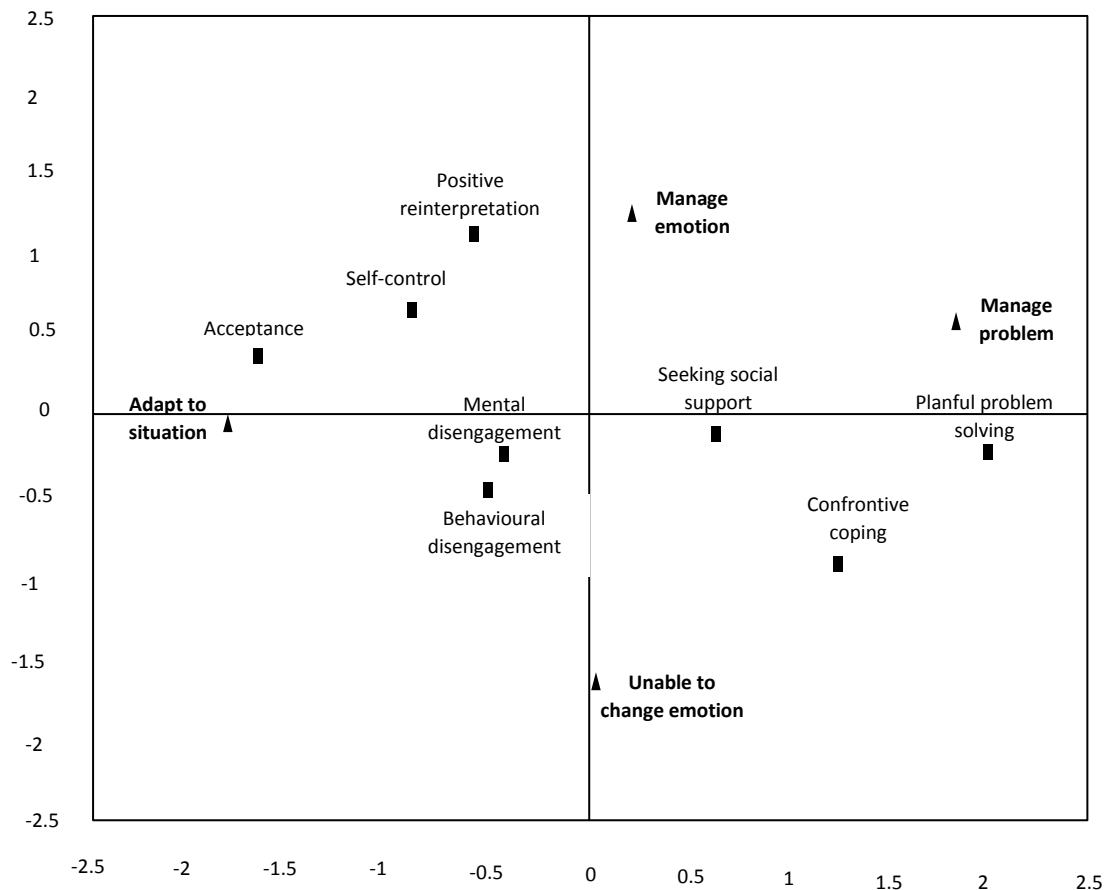


Figure 2.24- Multidimensional scaling solution for eight coping strategies.

The labels next to the triangle bullets refer to the following questions: Manage problem (“I tried to do something about the problem that made me feel the way I did by altering the situation that caused the emotion”), Adapt to situation (“I tried to adapt or get used to the situation because there was nothing I could do about it”), Manage emotion (“I tried to do something about the emotion I experienced by controlling or changing the way I felt”), and Unable to change emotion (“I was unable to change the emotional state I was in”). Source: Yi and Baumgartner 2004

Explanation of the two axes in the graph is that the horizontal dimension shows degree of problem-focus whereas the vertical shows degree of emotion-focus.

More precisely the horizontal axis is trying to make something about the problem only through adaptation to the new conditions as there is nothing that can be done about it. The vertical axis is trying to do something about the emotion by controlling or changing the way one feels after the incident. Their findings show that the two functions of coping strategies (“problem-focused” and “emotion-focused”) are not polar opposites but two orthogonal dimensions underlying people’s attempts. That means that coping strategies low in “problem-focus” are not automatically with high “emotion-focus” and coping strategies low in “emotion-focus” are not necessarily high in “problem-focus” something which is consistent with Lazarus research (p.292) in 1996 (Yi and Baumgartner, 2004).

Customer emotions in failed transactions and Emotional Intelligence

Gabbott *et al.*, (2011) work cites previous research that has investigated the role of customer emotions in failed service transactions (e.g., Chebat and Slusarczyk 2005; Schoefer and Ennew 2005; Bonifield and Cole 2007; De Witt, Nguyen, and Marshall 2008; Schoefer and Diamantopoulos 2008). Additionally the ideas that were initially presented by Yi and Baumgartner (2004) were further developed through Gabbott *et al.*, (2011) as they introduced the notion of a wide-ranging ability that moderates the relationship among an emotional stimulus and the efficiency of situational coping strategies. They showed that the level of Emotional Intelligence (EI) can predict responses to service failure with regards to customer satisfaction and behavioural intentions. Their findings suggested that higher levels of consumer EI are linked with better psychological reactions to stressful situations, improved consumer satisfaction and positive behavioural objectives.

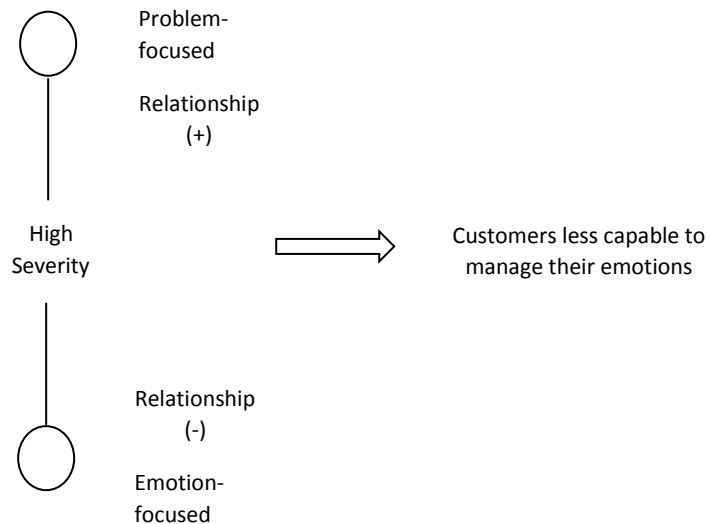
The notion of EI is comparatively new and it is the ability to understand and regulate emotions to cope with the environment calls and pressures (Salovey and Mayer, 1990); it is the capability to perceive access and generate emotions in order to assist through (Goleman, 1995). EI has already been practiced in research through buyer – seller interactions (Manna and Smith, 2004; Rozell, Pettijohn and Parker 2004) and also in figuring out service provider's capability (Bardzil and Slaski 2003; Kernbach and Schutte 2005). More recently one study has linked EI's emotional self-awareness with customer's consumption behaviour (Kidwell, Hardesty and Childers, 2008). Yet the literature still needs to evaluate how an exact "EI" impacts consumer consumption something which additionally is absent in the airline industry's service failures.

Taking under consideration the enlarged awareness in emotional expression and related behaviours between customers (McColl-Kennedy *et al.*, 2009; Miller *et al.*, 2009), there is a necessity for studying methods to forecast and guide resolution strategies. According to Mikolajczak and Luminet (2008), EI can be a worthy predictor of emotional resilience when dealing with stressful situations. Through EI consumers can control their own emotions by having positive attitude and dismissing negative disturbing conditions (Salovey and Mayer, 1990).

Several studies have demonstrated that service providers with high levels of EI can create in a smoother way suitable circumstances for positive results (Kernbach and Schutte 2005) and can also produce better consumer satisfaction (Rozell, Pettijohn, and Parker 2004).

Gabbott *et al.*, (2011) also showed that consumer's EI has a strong linkage with both coping strategies, problem-focused and emotion-focused. Among others they mentioned that when there is high severity of the service failure there is at

the same time strong positive relationship with problem-focused and strong but negative relationship with emotion-focused coping something which reflects that consumers are to a lesser extent capable to manage their emotions in the case of high severity service failure. They also want to deal straight with the source of the problem.



The emotion-focused strategies alone such as acceptance and positive reinterpretation could be inadequate to dealt entirely with the intensity of the negative tensions encircling service failure. Additionally they found that problem-focused coping has no direct linkage with customer satisfaction and behavioural intentions whereas emotion-coping has a strong and positive linkage with service outcomes Gabbott *et al.*, (2011).

Also EI has a moderating role on two sets of relationships (a) on the relationship among problem severity and both problem-focused and emotion-focused and (b) on the relationship among problem-focused coping and customer satisfaction/behavioural intention. Identifying that EI is an individual variable has meaningfully changed the perspective of the way that consumers react to negative service incidents Gabbott *et al.*, (2011).

It can be suggested that consumers with higher EI characteristics tend to manage better their emotions and thoughts and also their level of patience concerning stress is higher when service failure appears. This finding provides explanation to the dissimilar responses of individual consumers towards the same service failure Gabbott *et al.*, (2011).

For example the following response show the different customer reaction in the same service failure flight incident when the aeroplane was landing in Melbourne with some passengers being irritated while others being less upset:

“I think a few people on the plane had a fairly small-minded attitude,” passenger Eddie McDonald said. I think if we’d had to disembark it would have taken another four hours to get off the plane and back on again. A little patience goes a long way in these situations. One woman was creating a scene, wanting to go out on the tarmac and have a (cigarette) or something, but if you can’t have a bit of self-control now and then, what’s the world coming to?

(Source: The Age – 16.09.09 “Jet star passengers angry after ‘shocking’ tarmac wait.” as cited in Gabbott *et al.*, 2011)

Additionally customers with higher EI show better results when they involve in emotion-focused coping and this moderating effect was of less significance for problem-solving. Therefore the potential that EI has provided is the option to clarify a range of individual behaviours when service failure appears. The consumers through EI can outline better the subjective stimulation and involvement of emotional attributes and therefore can adjust better the negative things of consumption-related tension.

According to Menon and Dubé (2004) most of the customers are expecting their service providers to respond in a supportive way in either positive or negative emotions they express and when that reaction is accompanied by value added which meet or exceeds customer expectations then that situation is leading to higher levels of customer satisfaction.

Smith and Bolton (2002) found that when service failure occurs in hotels and restaurants together with negative emotions the level of support given by the service provider was crucial for the customer’s overall satisfaction in relation to similar cases with the absence of negative emotions. Those responses from the provider guide the further reaction of the customer as the negative emotions received initially can also damage or aid an individual (Smith & Ellsworth 1985). As the appropriate provider reaction to those emotions is significantly important it may also be profitable to investigate further the customer reaction into a different set of emotions (e.g., simple hedonic emotions vs. happiness or pride; anxiety vs. anger or embarrassment).

It would be more rationale for the providers to develop an adaptive approach that is tailored to the features of precise emotional incidents. That is because the tendency of the providers to bring supportive reactions varies with regards to the emotion type experienced by the customer. The efficiency of this adaptive approach has been proved in action with very positive results which can be seen in the case of the most successful salespeople as through their customer signs (customer individual style and preferences) they modify their sales tactics (e.g., Weitz, Sujan, & Sujan 1986).

Therefore there is a gap here as the research has not examined how the exposure into a variety of diverse emotions can influence the remaining part of the service sequence that leads to satisfaction. Many queries can arise such as the existence of one type of emotion over another can affect the result

regardless of a positive support from the provider? Or can customer perception into these responses differ when there is one specific type of emotion in relation to another? Can a difference be in existence between dissimilar customer evaluation of the service provider reactions that can mediate the connection among the emotion intensity and the customer satisfaction of the overall service?

As there is lack of literature background regarding the exposure that diverse emotions can affect towards the overall result of a service failure in an airline service provider the research identified a gap and he will seek to identify the role that the emotions have after a service recovery action and before the post recovery satisfaction of the air traveller. The intention is to seek to what extent the emotions can moderate that linkage.

There is also the work of Lanza (2009) where is referring to a link among interactional justice and emotions something which only few studies have examined. More particularly, Lanza's (2009) study showed that there is significant relation among those two concepts something which other researches earlier found as well (Chebat and Slusarczyk, 2005; Schoefer and Ennew, 2005). Additionally Clemmer and Schneider (1996) defend the relationship among interactional justice and emotions by saying that it is the capability of the employees to put themselves in the position of the customer and to share their emotions and by doing that it assist further the customer satisfaction as it improves the quality of explanations given to them.

2.10 Gaps from the Literature

This literature review highlighted that there is a gap (No1) in the role that severity plays in service failure in the airline industry. According to the literature service recovery is usually poor (Keaveney, 1995) and a good service recovery process is good for building customer relationships (Maxham, 2001). Emphasis here has been placed on the severity of failure with the literature to reveal that when the severity is high there is greater failure perception of the customer (Smith et al., 1999; Tax et al., 1998; Weun Beatty and Jones 2004). However these research findings about severity took place in industries other than the airline and the researcher seeks to find out if the same circumstances or not exist in the airline industry sector about the impact of severity of failure. Also here the research has been extended to identify the role that the severity of failure plays not only right after the service failure (Post Failure Satisfaction – PFS) but also and after the service recovery action (Satisfaction with Recovery (SWR), Post Recovery Satisfaction – (PRS) and Loyalty.

That gap formulates the first hypotheses (H1):

H1: Failure Severity (FS) will have a direct impact on (a) Post Failure Satisfaction (PFS), (b) Satisfaction with Recovery (SWR), (c) Post Recovery Satisfaction (PRS) and (d) Loyalty.

Another gap (No2) that appears from the literature is that there are yet no clearly identified Failure Types that determine the service failure in the airline industry. There are a number of them which have been identified from other studies (even though quite few in number) but there is no general consensus as to which are the more crucial ones. Due to this gap this research will try to identify those different Failure types that exist (before the activation of the recovery process) to see if there is homogeneity and consensus with previous research in the airline industry on that matter. Further the research after identifying the Failure types will try to see the impact that they have on Post Failure Satisfaction (PFS), Satisfaction with Recovery (SWR), Post Recovery Satisfaction (PRS) and Loyalty.

That gap formulates the second hypotheses (H2):

H2: Failure type (Basic, Performance, and Excitement) will have a significant impact on, (a) Post Failure Satisfaction (PFS), (b) Satisfaction with Recovery (SWR), (c) Post Recovery Satisfaction (PRS), and (d) Loyalty.

Another gap (No3) that has been identified is what is the impact that the recovery action (strategies) has on Satisfaction with Recovery (SWR), on Post Recovery Satisfaction (PRS) and on Loyalty? Does Post Recovery Satisfaction (PRS) explain more of the variance in Loyalty than Post Failure Satisfaction (PFS)?

That gap formulates the third hypotheses (H3):

H3: Post Recovery Satisfaction (PRS) explains more of the variance in Loyalty than Post Failure Satisfaction (PFS).

Another gap (No4) in the airline industry is that there are no clear recovery actions that need to be taken after a service failure occur. In service failure and recovery there are sixteen recovery strategies but the question remains as to which ones are the most effective particularly for the airline industry. So when the recovery action begins what kind of impact will be on Satisfaction with Recovery (SWR), on Post Recovery Satisfaction (PRS) and Loyalty? Which certain strategies (out of the sixteen in total) work more effectively for the airline industry?

That formed the basis for building the fourth gap for the fourth hypotheses (H4):

H4: The Recovery Action has a differential impact on (a) Satisfaction with Recovery (SWR), (b) Post Recovery Satisfaction (PRS) and (c) Loyalty.

Another gap (No5) that has been identified is to what extent the factor of Emotion can play in the service failure in the airline industry as there is no previous research of their role with service encounter. More specific can Emotion act as mediator between the starting of the service recovery action and the Post Recovery Satisfaction level (PRS)?

This is because there is a lesser amount of knowledge that has been acquired as to how customers evaluate the response of a firm after their complaints (if there are any as additional research here shows that only 5-10% of people do complaint Tax and Brown 1998;) or to what extent these efforts impact their satisfaction level (Ambrose Hess and Ganesan 2007; Tax, Brown and Chandrashekaram 1998). Verbeke (1997) is talking about 4 emotional types (Charismatic – Empathetic – Expansive – Bland) and Gountas and Gountas (2007) argue about a direct relationship that exist between personality orientation of the customer and his/hers emotional features and self-reported satisfaction of the service experience. Will there be any specific trait or any of the positive (Calm – Contented – Pleased – Respected – Relaxed) and negative (Angry – Upset – Disappointed – Offended – Anxious) emotions that will influence customer's perception about the service failure?

That gap formulates the fifth hypotheses (H5):

H5: Emotion will partially mediate the impact of Satisfaction with Recovery (SWR) on (a) Post Recovery Satisfaction (PRS), (b) Loyalty.

Another gap (No6) that has been identified is to what extent the factor of Justice can play in the service failure in the airline industry. More specific can Justice act as mediator between the starting of the service recovery action and the Post Recovery Satisfaction level (PRS)?

The literature argues that in all three areas of Justice (that is Distributive – Procedural – Interactional) if it is handled well customer satisfaction will increase. More particular in the case of Distributive Justice and Procedural Justice both play a big role in customer satisfaction with Distributive being the major one factor for customer satisfaction (Maxham and Netemeyer 2002; Smith *et al.*, 1999; Smith and Bolton 1998) whereas Distributive justice assists as well to customer satisfaction when there is the case where customer's perception see an improvement in procedural justice (Vazquez *et al.*, 2010).

Lastly in the case of Interactional justice again if the service recovery action process is handled well with fair personal action involved there is customer satisfaction (Davidow 2003; Homburg and Furst 2005; Karatepe 2006). Only one research found no positive link between this third factor (Interactional justice) and customer satisfaction (Maxham and Netemeyer 2003;)

That gap formulates the sixth hypotheses (H6):

H6: Justice will partially mediate the impact of Satisfaction with Recovery (SWR) on (a) Post Recovery Satisfaction (PRS), (b) Loyalty.

Finally at the beginning of the literature review there was identification with regards as to which service quality model fits best the airline industry as both generic and industry-based exist. It was suggested the use of the Hierarchical model together with the use of four industry-based ones as they were valid too. Further discussion on that took place on paragraph 2.3.10.

2.11 Research objectives

The theoretical concepts discussed above have been incorporated into the conceptual framework depicted below (Figure 2.25).

2.11.1 The conceptual framework / proposed model for this study

After a service failure occurs, a process starts to take place which is depicted in the following diagram.

Initially after the service failure occurs there will be a service recovery attempt which will be judged in terms of its Service Quality status (SQ) and further assessed by the perceived customer satisfaction (CS) condition ending in either exit or loyalty (Figure 2 – Part a). Further in part (b) more analytically, Post Failure Satisfaction (PFS) and Post Recovery Satisfaction appear (Figure 2 - Part b). The part (c) consists of the proposed research where further key variants are being depicted (failure severity, failure type, satisfaction, emotion, justice,) play each one of them critical condition in the whole process and they will be examined in detail later on in order to discover to what extent those are key factors or not that lead to customer satisfaction.

As discussed in paragraph 2.10 (Gaps from the literature) the six different hypotheses they can additionally be listed here before the actual conceptual framework:

H1

H1: Failure Severity (FS) will have a direct impact on (a) Post Failure Satisfaction (PFS), (b) Satisfaction with Recovery (SWR), (c) Post Recovery Satisfaction (PRS) and (d) Loyalty.

H1a: Failure Severity (FS) will have a direct impact on (a) Post Failure Satisfaction (PFS).

H1b: Failure Severity (FS) will have a direct impact on (b) Satisfaction with Recovery (SWR)

H1c: Failure Severity (FS) will have a direct impact on (b) Post Recovery Satisfaction (PRS)

H1d1: Failure Severity (FS) will have a direct impact on (d1) Loyalty (Word of Mouth)

H1d2: Failure Severity (FS) will have a direct impact on (d2) Loyalty (Fly same Airline)

H1d3: Failure Severity (FS) will have a direct impact on (d3) Loyalty (Not switch Airline)

H1d4: Failure Severity (FS) will have a direct impact on (d4) Loyalty (Consider this Airline my Primary choice)

H2

H2: Failure type (Basic, Performance, and Excitement) will have a significant impact on, (a) Post Failure Satisfaction (PFS), (b) Satisfaction with Recovery (SWR), (c) Post Recovery Satisfaction (PRS), and (d) Loyalty.

H2a: Failure Type (Basic, Performance, and Excitement) will have a significant impact on (a) Post Failure Satisfaction (PFS)

H2b: Failure Type (Basic, Performance, and Excitement) will have a significant impact on (b) Satisfaction with Recovery (SWR)

H2c: Failure Type (Basic, Performance, and Excitement) will have a significant impact on (b) Post Recovery Satisfaction (PRS)

H2d1: Failure Type (Basic, Performance, and Excitement) will have a significant impact on (d1) Loyalty (Word of Mouth)

H2d2: Failure Type (Basic, Performance, and Excitement) will have a significant impact on (d2) Loyalty (Fly Same Airline)

H2d3: Failure Type (Basic, Performance, and Excitement) will have a significant impact on (d3) Loyalty (Not Switch Airline)

H2d4: Failure Type (Basic, Performance, and Excitement) will have a significant impact on (d4) Loyalty (Consider this Airline my primary choice)

H3

H3: Post Recovery Satisfaction (PRS) explains more of the variance in Loyalty than Post Failure Satisfaction (PFS).

H3a1 REGRESSION: OLS Regression of Post Recovery Satisfaction (PRS) on (a1) Loyalty (Word of Mouth)

H3a2 REGRESSION: OLS Regression of Post Recovery Satisfaction (PRS) on (a2) Loyalty (Fly Same Airline)

H3a3 REGRESSION: OLS Regression of Post Recovery Satisfaction (PRS) on (a1) Loyalty (Not Switch Airline)

H3a4 REGRESSION: OLS Regression of Post Recovery Satisfaction (PRS) on (a1) Loyalty (Consider this Airline my primary choice)

H4

H4: The Recovery Action has a differential impact on (a) Satisfaction with Recovery (SWR), (b) Post Recovery Satisfaction (PRS) and (c) Loyalty

H4a REGRESSION: The Recovery Action has a differential impact on (a) Satisfaction with Recovery (SWR)

H4b REGRESSION: The Recovery Action has a differential impact on (b) Post Recovery Satisfaction (PRS)

H4c1 REGRESSION: The Recovery Action has a differential impact on (c1) Loyalty (Word of Mouth)

H4c2 REGRESSION: The Recovery Action has a differential impact on (c2) Loyalty (Fly Same Airline)

H4c3 REGRESSION: The Recovery Action has a differential impact on (c3) Loyalty (Not Switch Airline)

H4c4 REGRESSION: The Recovery Action has a differential impact on (c4) Loyalty (Consider this Airline my primary choice)

H5

H5: Emotion will partially mediate the impact of Satisfaction with Recovery (SWR) on (a) Post Recovery Satisfaction (PRS), (b) Loyalty.

H5a: Emotion will partially mediate the impact of Satisfaction with Recovery (SWR) on (a) Post Recovery Satisfaction (PRS).

H5b: Emotion will partially mediate the impact of Satisfaction with Recovery (SWR) on (b) Loyalty

H6

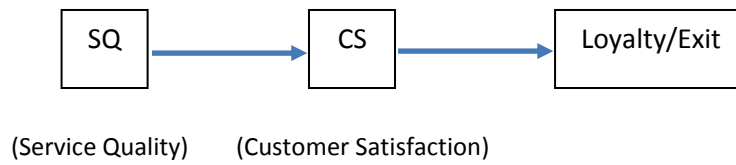
H6: Justice will partially mediate the impact of Satisfaction with Recovery (SWR) on (a) Post Recovery Satisfaction (PRS), (b) Loyalty.

H6a: Justice will partially mediate the impact of Satisfaction with Recovery (SWR) on (a) Post Recovery Satisfaction (PRS)

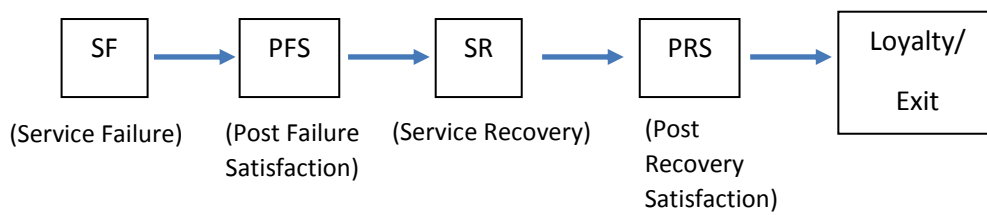
H6b: Justice will partially mediate the impact of Satisfaction with Recovery (SWR) on (b) Loyalty

Figure 2.25: Conceptual Framework for the Study:

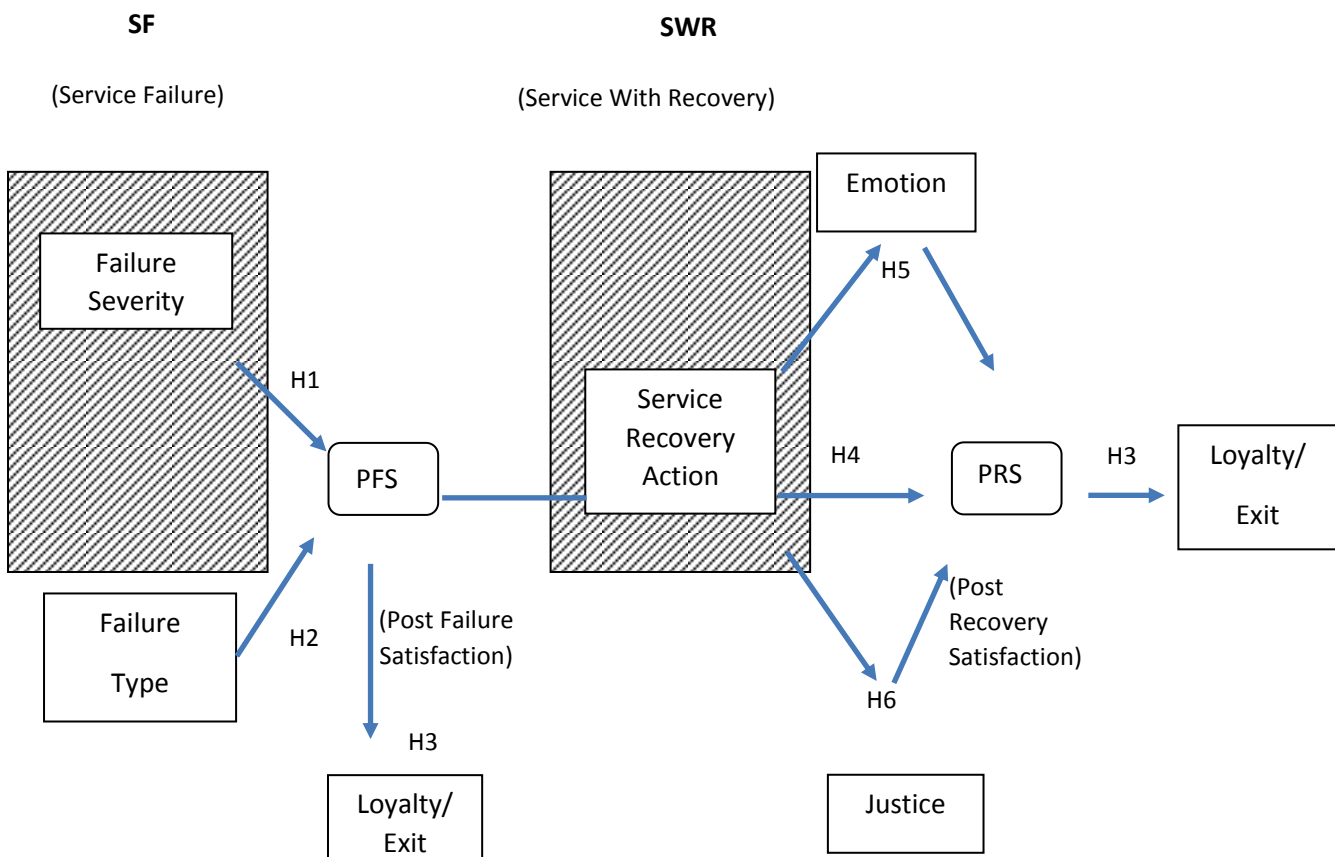
a) Normal Service Sequence:



b) Basic model of Service Failure:



c) Sequence after Service Failure (Proposed Research):



CHAPTER 3

METHODOLOGY

3.1 Introduction

This chapter concerns with the methodology that this research study will follow in order to achieve its aims and objectives.

According to Collins and Hussey (2003) the term “methodology” refers to the research process as a whole and it concerns with the gathering and analysis of information. Jennings (2001) defined methodology as an amount of rules that needs to be set for examining the paradigmatic admirable view of the world.

Perri and Bellamy (2012) defined methodology as an understanding of the necessary steps that needs to be followed in order to make assumptions about the truth of the theories. These steps take place after the empirical research collection with certain procedures in order to be a better understanding of the survey. Additionally for methodology can be said that “*a methodology provides the reasons for using a particular research ‘recipe’*” (Clough and Nutbrown, 2012:25)

According to Sarantakos (1998) the term methodology is being described as a model of theoretical principles and philosophies that delivers a set of procedures, necessary for the underlying research that is based in a specific paradigm context. Simpler, it is the way through which data collection and analysis takes place with the occasionally involvement of specific technique/s (Hussey and Hussey, 1994).

This chapter will provide a clarification of the necessary stages needed to accomplish the aim of this research. Initially the chapter provides an overview into some of the existing methodologies and what approaches they include, followed by author’s attempt to justify his research choice for the survey.

Discussion will follow about the operationalization of the research method. That will entail analysis of the sample that was used for the research, justifying the reason for its actual size. Further analysis will take place about the questionnaire that was used for data collection, (with the actual one listed at the end of this chapter), what questions were included, how it was designed and what necessary steps had to be taken before its actual distribution into public (Discussion about the “Pre-testing” and “pilot test” of it also).

Additionally explanations will take place about the ethical issues and ethical approval that had to be taken, how the data collection was collected and what difficulties occurred from that. Finally at a later stage of the survey design

explanations will be given as to what necessary steps involved into the above mentioned procedures to create validity and reliability for this research work.

3.2 The Research Paradigm

A research paradigm can be defined as a scheme of ideas that directs a research survey (Lincoln and Guba, 1985). Sarantakos (1998) defines it as a set of proposals that clarifies how the world is observed, what is significant, authentic and realistic. Denzin and Lincoln (2003) define a research paradigm as “an interpretive framework” or “basic set of perceptions that shapes actions”. Willis (2007) argues that a paradigm is an all-inclusive system of belief, a view of the world that guides research and practice in a particular field. Babbie (2010:33) on the other hand defines it as a model structure that assists in observation and understanding.

For several decades ‘paradigm wars’ took place with regards to the superiority or not of a specific one, something which in more recent years was replaced through the ‘paradigm dialogue’. There, supporters accepted their differences and agreed that no specific paradigm is superior from the rest as each one has distinct characteristics of equivalent significance that create exclusive knowledge (Taylor and Medina, 2013).

From a different study there are four elements within each paradigm: ethics, epistemology, ontology and methodology (Lincoln and Guba, 2000). Ethics has to deal with the fact that humans are involved within the research, while epistemology is linked with acquiring knowledge. Ontology raises the fact of how real is the research approach and methodology deals with the number of steps that must be taken for a further understanding of the world. At the end the researcher might have to choose which variables fit better their personal approach. Through time a certain amount of paradigms lost some of its initial glance through to new developments in theory but nevertheless those are still in existence due to the nature of studies (Babbie, 2010).

Those theoretical developments brought criticism as with any case along with supporters and those who oppose them. However according to Lincoln and Guba (2000), some level of agreement exists which acts as an indication of the principles that govern the four paradigms:

- (i) Positivism (or the similar term of “Empiricist” as Bryman and Bell (2015) indicate which comes with the “quantitative” approach)
- (ii) Post-positivism
- (iii) Critical theory

- (iv) Relativism or Constructivism (or Interpretivist, or Naturalistic or Ethnographic as Bryman and Bell (2015) indicate which comes with the “qualitative” approach).

Table 3.1 provides a summary of the basic beliefs of alternative inquiry paradigms.

The ontology of the positivist paradigm according to Blaikie (1993) refers to it being possible to capture reality. He defines ontology as the study of being an explanation for the social sciences in order to establish the assumptions about what exist, from what existence these units are made-up, if they are homogeneous and finally how they associate each other. Ontology brings queries regarding the assumptions that researchers create about how the world functions (Saunders *et al.*, 2007).

The ontology clarifies our interpretation on the nature of reality and if this is an objective one or a subjective reality. Those beliefs if they have not recognised and taken into account then the researcher might be in a difficult position of understanding certain aspects of the enquire that attempts to solve. The ontology refers to ‘true findings’ which are generalizable as the results tend to classify causes and effects in the real world. This methodology is quantitative as it tries to test and proof the hypotheses (Lincoln and Guba, 2000).

The epistemology of the positivist paradigm is thoroughly related to ontology and more specific to ideas that concern the most appropriate method in order to examine a research enquiry (Easterby-Smith *et al.*, 2008). It also concerns with what is an idea/knowledge and from where its origins and limits stems from (Eriksson and Kovalaine, 2008). The epistemology carries out the reliability of the knowledge and the outline of a process that will deliver through a systematic methodology. In other words ontology is the assumption of reality while epistemology recognises that reality. Additionally epistemology takes into consideration what is being established acceptable knowledge in a study area and its main principle lying among the researcher and the known world (Lincoln and Guba, 2000).

The methodology concerns with the specific steps the researcher makes to acquire knowledge through the epistemology’s and ontology’s viewpoints (Saunders *et al.*, 2007).

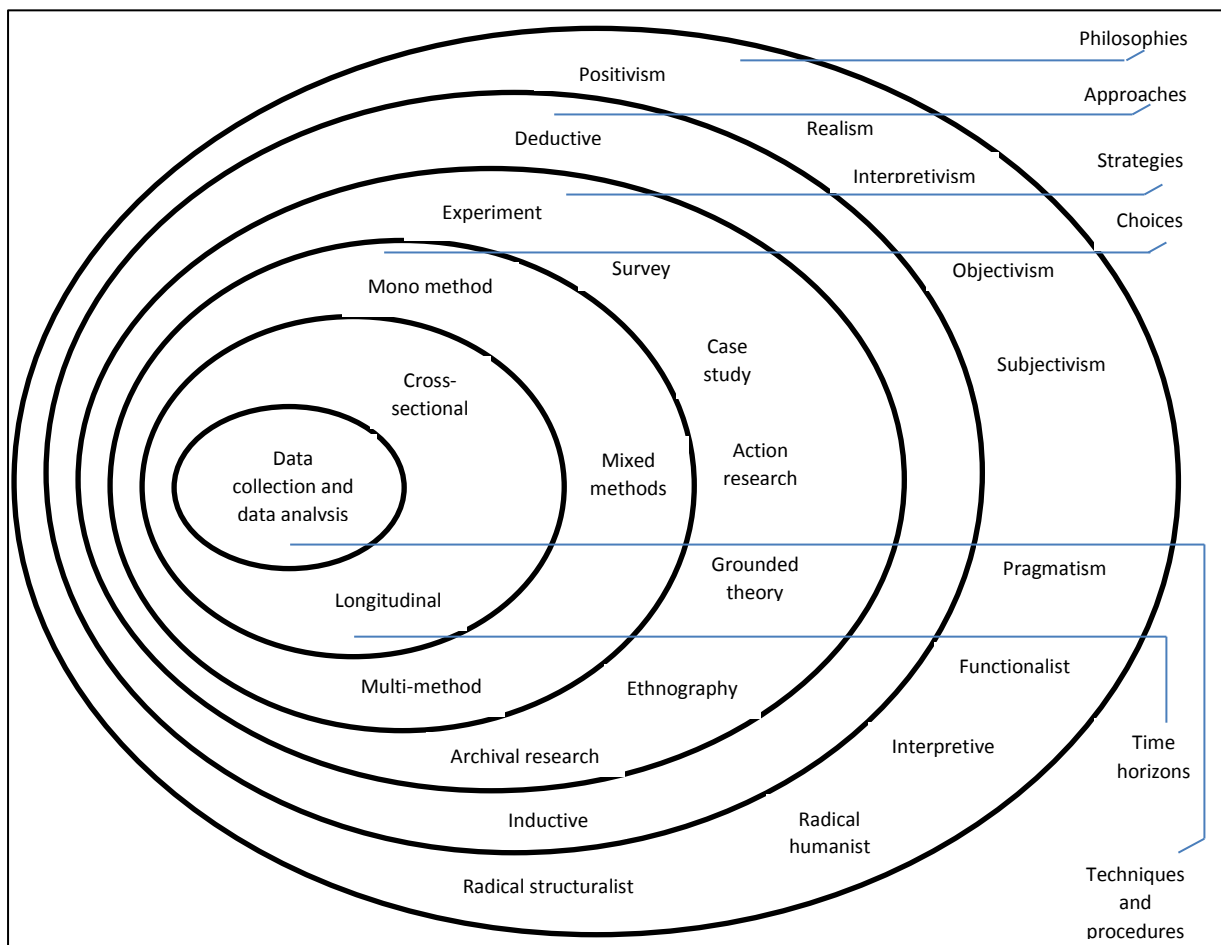
Table 3.1 – Basic Belief of Alternative Inquiry Paradigms

	<div> <div>Extreme view</div> <div>←</div> <div>→</div> <div>Extreme view</div> </div>			
	Positivism	Post-positivism	Critical Theory	Relativism or Constructivism
Ontology	Naive realism - 'real' reality but apprehendable	Critical realism - 'real' reality but only imperfectly and probabilistically apprehendable	Historical realism - virtual reality shaped by social, political, cultural, economic, ethnic, and gender values; crystallised over time	Relativism - local and specific constructed realities
Epistemology	Dualist and objectivist findings true	Modified dualist and objectivist; critical tradition and community; findings probably true	Transactional and subjectivist; value-mediated findings	Transactional and subjectivist, created findings
Methodology	Experimental and manipulative; verification of hypotheses; chiefly quantitative methods	Modified experimental and manipulative; critical multiplism; falsification of hypothesis; may include qualitative methods	Dialogical and dialectical	Hermeneutical and dialectical

Source: adapted from Lincoln & Guba (2000:165)

Saunders *et al.*, (2009) depicts on figure 3.1 the 'research onion' which consists of different layers and approach options that could be followed during a research paradigm. The reference considers this model with several layers; the first one from outside in the surface area is the research philosophies while the data collection and analysis has been put in the centre. This position highlights the view that approaching the centre means that other layers have to be 'peeled away' before.

Figure 3.1 Research Onion



(Source: Saunders, Lewis & Thornhill, 2009, p. 108)

There are several philosophies with regards to research paradigms (see Figure 3.1 above, first external layer of Saunders' "onion") and a plethora of textbooks serving this purpose. It is not the intention of the author to describe here the bulk of these methods but rather to justify his selected one. Before that step however there are more relatively new paradigms which will be mentioned in the next lines in order to provide a comparison basis together with one more traditional paradigm (positivist).

Starting with the traditional one, the Positivist is the traditional paradigm which involves the idea that stems from the natural sciences and is being defined as the test of the hypothesis that arise from the theories (testing the theories) through the valuation of social realities which comes through observation (Hatch and Cunliffe, 2006). The positivist approach initially involved observations which later involved experiments and survey techniques with extensive statistical analysis in order to test the hypotheses (Saunders *et al.*, 2007). In general its main focus relies on the objective process of the study (Creswell, 2008). It entails mainly quantitative methods and applies also experimental approaches, control groups, pre- and post-test supervisions to

measure gain scores. Through this way the researcher is external to the research field and has the main control of the study process (Taylor and Medina, 2013).

According to Veal (2006) positivism stems from the physical sciences whereas the researcher identifies objects as phenomena for investigation through the use of existing theories. It has been described as the capture of the reality through questionnaires (Blaxter, Hughes and Tight, 2006). On contrast with empirical evidence positivism emphasises on facts and through the creation of hypotheses tests them. It is linked with scientific research in order to endorse better the understandings of reality as it delivers more precision into the on-going research goal. The positivist approach is linked to Naturalism that has a joint tactic to research stranded in methodological approaches which are valid to natural and social studies (Blaikie, 1993).

A “milder form of positivism” according to Willis (2007) is the Post-Positivist paradigm whereas it go after the similar principles letting on further interaction among research participants and the researcher. Further approaches are used here such as interviews and participant observation (Creswell, 2008). It has very similar approach to the positivist such as comparing the mean scores but the difference is on the fact that it relies on non-equivalent groups which are dissimilar among themselves (Depoy and Gitlin, 1998). Here the main features of this paradigm are validity, reliability and objectivity.

Another paradigm is the Realism paradigm which is concerned with what kinds of things are there and how these things comport, it acknowledges that reality exist despite of science therefore it is legitimacy to recognise realities that are asserted to exist regardless if proven or not (Blaikie, 1993). Saunders *et al.*, (2007) classifies realism inside a post-positivist view of the world. He adopts the view that the post-positivist paradigm accepts that reality can be completely recognised and clarified. Divergently other post-positivists assume the fact that reality can only be estimated through the study of human behaviour and action (Creswell, 2009). A researcher’s paradigm is vital for the research as it arranges the theoretical foundation and provides the way of where the methodology is engaged (Sarantakos, 1998). According to him further, paradigms should be appreciated in relation to four major issues that is reality, humans, science nature and social research purpose (Sarantakos, 1998).

The Interpretive paradigm is relatively newer and has been motivated by anthropology as it intent to understand other people’s cultures from the inside (Taylor and Medina, 2013). This belief comes from the notion that people make sense of situations which are based upon their individual experience. Therefore comprehension here is based on inter-subjective knowledge, which differs significantly as many different interpretations will follow. The important thing here is to discover these understandings that will affect the interpretations (Fowler, 2009).

Through this paradigm researchers can have an in-depth know-how on a variety of cultures across the globe. The interpretive paradigm originates from the social sciences and through the use of methods it looks through the social behaviour of people. It regards research as an interactive process between the people that have been researched, the researcher and the findings (Crossan, 2003). It considers that reality diverges as from the difference in the mentality of the individuals. The feature characteristics of this paradigm vary but as essential ones were the standards of trustworthiness and authenticity that were developed further from the work of Guba and Lincoln (1989). Those two features were dissimilar but in parallel alignment to the standards of positivism which are validity, reliability and objectivity.

The trustworthiness feature involved credibility (was the researcher's amount of time a lengthy involvement in the field?), dependability (was there engagement from the researcher into open-ended inquiries?), transferability (does the reader have adequate provided explanations to relate the social context that he/she carries with the ones the research has?), and confirmability (is there tracking of the research data to the original source?)

The authenticity feature involved emphasis on the ethics of the relation that researcher has with the participants and comprised of fairness (were there fair representation of the informants?), educative (were there any acquisition of knowledge from the social world?), catalytic (were there any identification of problems from the participants that actually was for their own benefit?), and tactical (were there any research empowerment for the participants to progress their social situation?) (Guba & Lincoln, 1989; Josselson, 2007). The authenticity characteristics have a solid resonance with the critical paradigm ones listed few lines below.

The interpretive paradigm saw further developments more recently that emphasized on the significance of researcher's own subjectivity as far as regarding the interpretation process (Taylor and Medina, 2013). That improvement has been focused as a main part of the inquiry process which added further to the level of the interpretive research quality.

Therefore the researcher here has to question himself/herself as to what level the personal values he/she carries effect into the interpretation of other peoples' thoughts and feelings. Is there any unknown expectations that misrepresent the way the researcher make sense of the others? The interpretive research approaches contain "narrative inquiry" and "writing as inquiry" particularly autobiographic and auto-ethnographic methods (Ellis & Bochner, 2000; Clandinin & Connolly, 1998; Richardson, 2000; Taylor & Settelmaier, 2003).

Through the interpretative paradigm the researcher's own viewpoints along with all participants in the research are "given voice". Transferring into paper researcher's experiences allows the provision of in-depth insight examination

of the process and outcome of the survey exposing the way of constructed meaning of the research. The rich context detail that appears accomplishes important quality standards for the interpretive paradigm (Taylor and Medina, 2013).

The Critical paradigm enables the researcher to apply “deep democracy” (Kincheloe and McLaren, 2000) which contain identification and correction of unfair social structures, rules, principles and practices. The main goal of this paradigm is to classify, match and assist over “great power imbalances” that exist in the society leading to unethical profit making; spread of injustice to more sectors (i.e. social and economic exclusion); loss of cultural capital (Taylor and Medina, 2013).

In this research type there is an additional critical dimension which becomes a mean of critical analysis of the established policy and practice. Here the researcher promotes his/her personal critique in order to create an ethical image for an improved society (Brookfield, 2000). The role he/she has is advocative in order to point action near more reasonable, fair and sustainable society.

The consistency of this research type is appraised through quality standards that are in contrast and very dissimilar to the positivist paradigm but quite similar to those of the interpretive paradigm. A key thing here for the researcher is that he/she must establish critical self-awareness and be appreciative of the social issues and their complication. The critical paradigm enables the researcher and others to participate by imposing “critical voices” through the survey to the public. Those voices reveal need for policy changes in order to guarantee fairness.

The Post-Modern paradigm is a quite new paradigm unlocks new doors as it carries the important notion of “representation” (Denzin and Lincoln, 2005) which takes that what drives and enthusiasms our heads isn’t accessible to the outside world. No window of our head exists to others for seeing and understands what exactly we mean; what we can do best is to represent the thoughts we have within various means of communication. In a similar way for researcher there is lack of window of the nature that will disclose its mysteries; all the research observations are “theory laden” either through human eye or scientific equipment. Therefore the scientific knowledge is at its best a framework of the “unseeable” and its usefulness is tested with regards to the human purposes that designed its production (Taylor and Medina, 2013). The post-modern paradigm additionally opens doors to other disciplines such as the Arts.

Overall the positivist paradigm stands alone for capturing the researcher’s effort; the newer ones can serve as “referents” (Taylor and Medina, 2013). That

means there is the possibility of combination of methods, something not unusual for the interpretive and critical paradigms.

3.2.1 The Researcher's approach

In this study the researcher's approach was to undertake the most suitable methodology and epistemology point. Therefore the most appropriate adoption was the one of Positivism. This was applied under the perspective of seeking to appreciate and recognize the "truth" of what happens in service failure for the airline passengers through the use of the quantitative path. Seeking of this truth is what actually reflects Positivism. In a positivist view of the world science is the major wagon that will be used to carry the researcher into the truth in order to understand, forecast and control it better. The key approach of Positivism is the experiment in an attempt to separate natural laws through direct manipulation and observation (de Vaus, 2013).

Positivism is a denial of metaphysics. It is a situation where the task through knowledge is to label the experienced phenomena. Science's objective here is being attached according to measurement and observation. Any additional knowledge beyond this is impossible (de Vaus, 2013).

Positivism believes in empiricism, the notion that measurement and observation was the fundamental thing of a scientific endeavour. There is usage of deductive reasoning to assume theories that can be tested. When the outcome of the study comes to surface through the results there is a chance that possibly the theory might not fit the facts well, and therefore a revision might be needed for a better prediction of reality (de Vaus, 2013).

For some researchers Positivism is a category that simply describes a philosophical position which can be distinguished in research, while for others it is a detractive term used to pronounce crude data collection. It contains features of both deductive and inductive strategy, whereas a sharp division exist between theory and the research (Bryman and Bell, 2015).

This "appeal to data" is reinforced through a difference between facts and values, whereas the facts is the target for which data collection has to go, ending in a conceptual framework that can be used to analyse data regularities. Through this way those connections among theory and research suggest that it is feasible to collect observation in such a way which does not influenced by pre-existing theories (Bryman and Bell, 2015).

Advantage of Positivism is that the findings of the research can be generalised despite being replicated on a diverse amount of populations (Johnson & Onwuegbuzie, 2007). The numeric involvement in the acquired data through the quantitative method can be used in quantitative forecasts (Johnson &

Onwuegbuzie, 2007). Through this way and the accuracy that quantitative approach has a big amount of people can be studied in less amount of time (Cohen et al., 2007). It can deliver objective information which can be used to create scientific assumptions. The reliability which brings as an instrument of research is critical as it can produce similar data from similar respondents over time (Cohen et al., 2007 p.146). If there is also further emphasis on careful sampling, appropriate instrumentation and appropriate statistical treatments of the data the existing validity of the quantitative data can achieve higher levels of improvement (Cohen et al., 2007 p.133).

As with every paradigm choice, Positivism comes with some disadvantages as well. For example it has been criticized for the excessive confidence towards objectivity which in some cases does not stand up to scrutiny of usage in both the social and natural sciences (Houghton, 2011). In other cases it has been criticized for lack of accountability towards interpretation of personal experiences and lack also of representation to other people (Cohen et al., 2007 p.18). It has also been criticized for too much generalisation of data knowledge which hinders straight application to certain conditions (Johnson & Onwuegbuzie, 2004), something which is exactly the opposite of what other researchers have found and defend the positivism paradigm. Again others have argued that positivists see everything under a numerical approach which includes that everything can be measured and in case that this cannot happen then automatically is being disregarded. That can be seen from the other side (the non-positivist fans) as inflexible.

Nevertheless Positivism still has a major impact as a research paradigm. The reasons mentioned above include generalisation, accurate prediction, high amount of validity and reliability does not narrow down the research which can be universally applicable. This empirical approach (positivism) provides chances for accurate prediction because of the numerical (quantitative approach) involvement. In contrast with interpretivist who involves subjectivism on the paradigm here the paradigm is objective (numbers won't lie) and that brings further clarity and transparency beyond personal prejudices.

This study has adopted a quantitative method research strategy to detect the quantitative data in order to discover the underlying structures and mechanisms of the underlying investigation. The quantitative method is a scientific approach of the positivist paradigm as it applies statistic mathematics (Babbie, 2010). There are limitations in terms of reliability and validity of the method which are well recognised. For example some generalised results might not have application to all parts of the study. That is because of the environment relativity when regarding data collection.

Even though the quantitative survey is occasionally represented as being sterile and unimaginative it has the ability to provide well suited certain types of factual information, the "hard evidence" as it is said (de Vaus, 2013). The

qualitative on the other hand even though it can provide rich data about real life people and situations, it is regularly criticized for lack of generalisability, being too reliant on the subjective interpretation of the researcher, being incapable to replicate for other researchers (de Vaus, 2013). From this separation the approach of the researcher for this study matches the quantitative approach.

Taking that into account as the research is studying the service failure and recovery within the airline industry it was essential to adopt a positivist view as this implementation tries to understand the reality that is hidden below the service failure of the airlines. The quantitative approach facilitates to that because of its capability to provide as said above the “hard evidence”, the well suited types of factual information.

3.3 The Research Design

According to Saunders *et al.*, (2007) the research design brings the query as to whether the design of the research will have an inductive or deductive approach.

A deductive approach tries to justify the reason that has been given to a set of assumptions. When doing quantitative research this approach applies the theories to guide the research, and the hypotheses are structured to define the type of evidence data that has to be collected by the researcher (Grix, 2004). Therefore the context of study relies on the theories, a prototype that assists into the hypothesis structure and directs where to search for the collection of data (Creswell, 2009). The deductive approach has a major impact in positivist research and consists of five stages which are the hypothesis formulation, the operationalization of terms, the hypothesis testing, the examination of specific outcomes and the modification of theory in accordance with findings (Robson, 2002). This approach is beneficial and suitable as it permits to the clarification of causal relations (Saunders *et al.*, 2007). According to Robson further the formulation of hypothesis can go one step further in advance in order to connect it among ideas and variables (Saunders, Lewis & Thornhill, 2009).

The inductive approach is quite beneficial in founding a cause-effect connection and enables an internal vision on how the interpretation of several variables within the society takes place from humans (Altinay and Paraskevas, 2008). It can mainly support the final assumptions instead of delivering undisputable ground for the facts (Walliman, 2005). Therefore its power lies within the amount of support it provides on the final assumptions. The higher the levels of support, the bigger are the chances for real assumption of it (Walliman, 2011). Inductive approach is more related with qualitative research approaches (Altinay and Paraskevas, 2008).

The deductive approach is closer to positivism while the inductive approach relates more to interpretivism (Saunders, Lewis and Thornhill, 2009). An appraisal can be seen in the following table

In general both deductive and inductive approaches try to deliver precise interpretation of the facts but from contrasting directions (Walliman, 2011). It can be argued that the inductive approach deliver the truth from the specific to the overall, while the deductive approach delivers the opposite (Walliman, 2011). Most of the studies comprise features of both (Grix, 2004). Therefore the majority of research consists of an inductive and deductive mixture models (Veal, 2006).

This study on the airline industry consists of a deductive approach as it follows the theories and uses the hypotheses to seek the evidence of data that is needed (Grix, 2004). The deductive approach has also the advantage of being less time consuming to end up the results regardless of the fact that the researcher must account first the time that must spent in organise the study before its accumulation. This approach gives the advantage of “one take” as there can be predicted the time agenda (Saunders, Lewis and Thornhill, 2009). The inductive approach takes more time for data collection which adds up more time for its analysis which is more gradual. It also relates more with qualitative researches which is not the case in this study. Additionally the deductive approach entails less risk when compared with the inductive one as there is constantly more risk there (inductive) regarding the appearance of permanent data pattern (Saunders, Lewis and Thornhill, 2009).

Table 3.2 - Research approach comparison

Deduction	Induction
1. Scientific principals	Gaining an understanding of the meanings humans attach to events
2. Moving from theory to data and the need to explain causal relationship between variable	A close understanding of the research context
3. The application of controls to ensure validity of data and the operationalization of concepts to ensure the clarity of definition	A more flexible structure to permit changes of research emphasis as the research progress
4. Researcher independence of what is being researched	A realisation that the research is part of the research process
5. The necessity to select samples of sufficient size in order to generalise conclusion	Less concern with the need to generalise
6. Has the tendency to produce quantitative data	Has the tendency to produce qualitative data
7. Concerned with hypotheses testing	Concerned with theory development
8. The location is artificial	The location is real
9. Reliability is high	Reliability is low
10. Validity is low	Validity is high
11. High structured research methodology	Minimum structure of research methodology

Source: 1-5,11 (Saunders, Lewis & Thornhill, 2009, p.127), 5-10 (Hussey & Hussey, 1997, p.54), 6, 7, 8, 11 (Gill & Johnson, 2002, p.44)

3.3.1 Research Method - Quantitative approach vs Qualitative approach

The research method deals with the data collection and analysis. It is vital for the researcher the amount of time necessary for such an activity as the task must be fulfilled in the best possible way.

It is more suitable to choose what kind of analysis has to take place on the first place in order to examine the research task and afterwards to decide on the type

of data that has to be collected for making the analysis (Walliman, 2011). During this process it has to be contemplated what methods and resources will be used as dissimilar tactics will necessitate different ways of data gathering. The most identifiable methods of data collection include the quantitative and qualitative ones. On the quantitative one the data are numbers while the qualitative one consists of non-numeric figures. The quantitative depends on numerical figures to make assumptions and test the several hypotheses while at the same time it includes big amount of data which mistakenly is perceived as gathering of 'facts' (Blaxter *et al.*, 2006).

The qualitative one focuses generally on identifying lesser amount of 'soft data' which are cases and emphasizes on attaining 'depth' instead of 'breadth' (Blaxter *et al.*, 2006). Interviews, observations and focus groups are usually the best commonly ways of acquiring data collection of qualitative nature. The qualitative approach working better in building up theory whiles the quantitative one in testing it (Blaxter *et al.*, 2006).

Either side (quantitative and qualitative) have a range of points that support their choice. According to Flick (2009) the quantitative method is only a data shortcut of research economics with qualitative on the other side to deliver the genuine clarification of evidences. Knox (2004) argues that quantitative method is just suitable inside an interpretivist part of research as within a positivist approach.

The difference among quantitative and qualitative approaches can be incorrect irrespective of the fact that those two are dissimilar methods still though led through their analysis to similar understanding (Clark-Carter, 2010). Both of them can be perceived as two stages within equal research whereas qualitative methods apply notions which can be investigated through the quantitative way. Further the author claims that the problem is transferred as to when the two diverse methods deliver a separate response.

Further on that is the view of Hair, Money, Samouel and Page (2007) whose arguments agree with the idea that qualitative and quantitative research matches each other precisely well. They argue that both methods can be used in a similar study for an effective result. For them the quantitative approach concerns with the numerical collection of data while the qualitative one deals with description of things without the involvement of numerical figures.

In qualitative method the usual features consist of being subjective, flexible, speculative, and political and comprise of a case study (Silverman, 2000). On the other hand, the quantitative, he finds that it comprise of being objective, fixed, value-free, test of the hypothesis and mainly run through a survey. Additionally his estimation is that quantitative approach is more preferred by governmental bodies as it reproduces in a way the research that is taking place by them as usually they want quick replies based on hard facts.

According to Hair, Money, Samouel and Page, (2007) there are mainly two ways for qualitative data collection, interview and observation. The first one is suggested to use when there is need to understand why something occurs while the second one is in the case of examining people or events.

In the case of quantitative research the ways of collecting according to Clark-Carter (2010) is structured questionnaire, experiment, unstructured interview, semi-structured interview, observation, modelling and case study. Additionally here the view of Hussey and Hussey (1997) for methods on the quantitative research is surveys, experimental studies, longitudinal studies and cross-sectional studies.

3.3.2 Selected Research Method - The Quantitative approach and why

The research design must contain first of all the research aim, what theories are involved with that particular task and what is the path that the study needs to follow. At a further step must also be included what research method will be followed, what questions will be involved in the survey and what sample will be used when collecting the necessary data. Therefore the research design can be comprised of a quantitative approach in a more standard format or can include a combination of quantitative and qualitative approaches.

The research aim of this particular study is to see the degree of service failure and recovery rate that exist in the airline industry and what possible strategies can be suggested in order to alleviate the degree service failure. So far there is no significant amount of studies in that particular sector (airline industry) but vast amount on other sectors and that gave further motivation for the researcher to seek and explore that field. The path that this study will follow consists of analysing first the existing theories on service failure and recovery. Then considering the epistemological research necessities it will include a non-experimental strategy and it will have a fixed design with a quantitative method adoption that would outfit the research purposes.

A non-experimental strategy purpose is to examine the condition of the data collection to see if there are changes on particular topics (Price, 2000) De Vaus (2002) argues that the approach of this strategy is more scientific, sceptical and ethical. Veal (2011) includes the basic components of the project, the information related with the project, the gathering of data and the amount of economic resources and period that is needed for such a task. Here the effort of this research consists of a quantitative approach which is deductive as the findings are coming out only after the checking of the variables in an attempt to clarify those particular circumstances of the study. A quantitative approach is appropriate in the case of an investigative study (Babbie, 2010). As with

Silverman (2000), Jennings (2001), De – Vaus (2002), Clark-Carter, (2010), and others quantitative and qualitative approaches can be joint together.

Table 3.3 – A Comparison between Quantitative and Qualitative Research Methods

Procedure	Quantitative Methodology	Qualitative Methodology
Preparation	<p>Definition: precise, accurate and specific</p> <p>Hypotheses: formulated before the study</p> <p>Employs: operationalisation</p>	<p>Definition: general, and loosely structured</p> <p>Hypotheses: formulated through/after the study</p> <p>Employs: sensitising concepts</p>
Design	<p>Design: well planned and prescriptive</p> <p>Sampling: well planned before data collection; is representative</p> <p>Measurement: employs all types</p>	<p>Design: well-planned but not prescriptive</p> <p>Sampling: well-planned but during data collection; is not prescriptive</p> <p>Measurement: mostly nominal</p>
Data Collection	Uses quantitative methods; employs assistants	Uses qualitative methods; usually single-handed
Data Processing	Mostly quantitative and statistical analysis; inductive generalisations	Mainly qualitative; often collection and analysis occur simultaneously; analytical generalizations
Reporting	Highly integrated findings	Mostly not integrated findings

(Source: Sarantakos, 1998).

Sarantakos (1998) describes that both quantitative and qualitative approaches can be used in a triangulation format and this because it can attain information variation of the same subject. It can also practice the capability of the one approach to overwhelm the possible shortages of the other and the inefficiencies of being one only method of study. Finally it can reach better degree of validity and reliability. Hussey and Hussey (1997) argue that the usage of both approaches is not an uncommon thing as this enhances a wider view of the research task.

3.4 Operationalisation of the research method

As stated above the research method was through a quantitative approach and it included a questionnaire survey. That includes questions which are targeted to the recipients for collection of with the intension to be identified which group of respondents have a specific attitude (Babbie, 2010). Additionally the survey can be said that is an opinion collection to test a hypothesis (May, 2011).

The research objective also includes the upgrading of a designing tool that will filter service failure of the airline industry. The answered questionnaire from air travellers included scales that improved further the reliability and validity of the sample.

3.4.1 The Sample and Research Representativeness

Sample is a proportion of people being analysed (May, 2011). Survey sampling includes the process of selecting a sample of people from a target population in order to perform a survey with the chances for perfect representable samples being relatively small (De Vaus, 2002). The objective of the sample is properly mirror the population for which is intended to represent.

To assure that from the population the chosen sample is representative it is essential that several types of people from the population are included and all of them have an equal chance (May, 2011). The samples are of two broad types, the probability and non-probability samples.

The probability sample is considered of random selection of individuals and has frequently identified chance to be selected. Probability samples are the most certain way to acquire representative samples from the population (De Vaus, 2013). Still, it is unlikely to achieve perfect representation of the sample as differences will occur among the sample and the population partly due to “sampling error”.

What is the important here is the features of randomly selected samples to be close to that of the population. Through probability theory it can be estimated how close the actual population figure is with the selected one from the sample.

The term “standard error” is used for this purpose. Probability samples can create representative samples and allow improved sample accuracy. There are four types of it: the *Simple Random sampling (SRS)*, the *Systematic* sampling, the *Stratified* sampling and the *Multi-stage cluster* sampling (De Vaus, 2013).

In *Random* sampling (*SRS*) the key thing is that each unit of the population has an equal probability to be chosen in the sample. A random sample is taken through allocating a number to each unit of the population and through the use of a random number table it creates the sample list (Altinay and Paraskevas, 2008). By selecting random sampling bias can be avoided and therefore it becomes more representative. Its major problem is that its cost is prohibitive as it would involve interviews that needed to travel huge distances (De Vaus, 2013).

The *Systematic* sample most of the times is used in occasions where collection of data takes place during a process operation and that is being accompanied with a methodical rule, i.e. every fifth unit, the first 10 units every hour etc.

It is a simpler version of the *SRS* and apart from the cost problem here an additional one would be the “periodicity” of the sampling frame. That means that certain type of person may reoccur at regular intervals within the sampling frame excluding others systematically. Here one risk that is entailed is that this systematic rule possibly matches some primary structure ending in sample bias.

The *Stratified* sample is a modification of *SRS* designed for more representative and accurate samples. Its main focus is on dividing the population in homogeneous groups with specific characteristics such as gender, age or even market segment (Altinay and Paraskevas, 2008). The problem here which also occurs to the two previous techniques is that they are of limited use on their own when there is attempts to sample disperse geographical population. There is also no assist in drawing a sample in which no sampling frame is available, something which exists when conducting large area surveys.

One solution according to De Vaus (2013) is the *Multi-stage cluster* whereas in this technique there is involvement of several different samples through division of the area into clusters in such a way to minimise cost as much as possible. Through cluster sampling the primary sampling unit (which is the first stage of the sampling process) is not population units for sampling but groupings of those units (Bryman and Bell, 2015). This process involves aggregation of population units which are known as clusters. The cluster sampling necessitates a large population which has geographical diversity (Altinay and Paraskevas, 2008). Through this technique there is division e.g. of a city into areas (clusters) and within these areas there is selection of smaller areas (blocks) where from each block there is selection of people to participate in the questionnaire survey.

According to Malhotra and Birks (2006) there can be an aggregation of 32 minimum dissimilar probability practices such as stratified and un-stratified selection, systematic and random or multistage clustering and single stage clustering methods.

The non-probability sampling on the other hand has one distinction from the probability sampling as it does not involve random selection. The difference here is that there is human interference and therefore accidental selections are unidentified or even zero for some elements (Bradley, 1999). Does this being interpreted as lack of representativeness with the non-probability sampling? Not particularly as in the tourism industry research field quite regularly many non-probability samples take place mostly with the form of a convenience on-line sample (Bojanic and Warnick, 2012).

There are certain situations of why we use non-probability sampling. The one which is the most common and that what the reason for the current researcher to follow that path was because the non-probability sampling is less expensive in comparison with the probability one (Battaglia, 2011). The second reason is because it can be implemented quicker in comparison with the probability sampling (Battaglia, 2011).

The non-probability sample can be distinguished into three types, the *Quota* sampling, the *Purposive* sampling and the *Convenience* sampling. To illustrate inferences from a non-probability sample requires different actions than from a probability one but the latest advances in technology (i.e. Internet) created new approaches and favoured higher usage of the non-probability sampling (Battaglia, 2011). This is due to the fact that the respondents can use the Web to complete questionnaires and that means surveys can be carried out much quicker and much cheaper in relation to probability samples.

Quota sampling is quite similar to the *Stratified* sample. Here the basic idea is to complete a certain amount of interviews with specific subgroups of the population of interest i.e to create 50% of the interviews with males and 50% with females in a random-digit interview survey through the telephone (Battaglia, 2011). The main issue with Quota sampling is that an unknown number of sampling biases has been inserted into the survey estimations (Battaglia, 2011).

Purposive sampling's target is to create a sample that can be treated as "representative" with regards to the population. Usually it is chosen when selecting small samples from a limited geographic area but the knowledge and experience of the person making the selections is a key aspect of the success of the sample (Battaglia, 2011). It would also be problematic to quantify the sample characteristics (Battaglia, 2011).

Convenience sampling differentiates from purposive sampling in the fact that skilful judgement is not applied to select a representative sample of elements. Instead the main selection principle relate to the comfort of getting a sample (Battaglia, 2011). Obtaining the sample with comfort relates with the cost applied in locating elements of the population, what geographical distribution is being involved and acquiring the questionnaire data from selected elements (Battaglia, 2011).

In the current study there is usage of a convenience sample which is a non-probability one and that condition has been accomplished through researcher's interference into the selection of several types of people which were included in order to cover a variety of age, trip purpose, domestic/international flights, frequency of flying, nationality, airline brand name, travel class from a variety of countries. Similar situation achieved through researcher's data collection.

The demographic profile of the sample in this research has included the areas of gender and age. With regards to gender there were 209 male and 157 female travellers. 33 didn't reveal their gender (which makes all together 400 in total).

With regards to age this research has included all the six different age groups (18-24: 189 participants, 25-34: 129 participants, 35-44: 30 participants, 45-54: 9 participants, 55-64: 2 participants, 65 and over: 1 participant). 40 didn't reveal their age group (which makes all together 400 in total).

Additionally there has been included other related information such as the "Purpose of trip" – [(i)Business, (ii)Leisure/Holiday and (iii)Other (please write)], "Nationality background" – [country issued the passport], "Current job occupation", "Airline carrier of the trip", "Travel class" – [(i)First class, (ii)Business class, (iii)Economy class], "Domestic or international flight" – [(i)Domestic within the UK, (ii)International in Europe, (iii)International outside Europe] and "Flight frequency of the traveller with the same airline" – [(i)First time, (ii)Once before, (iii)Twice before, (iv)3-5 times, (v)6-10 times, (vi)More than 10 times].

The major objective was people from all ages that had recently flown domestic or internationally. The Manchester airport comprised of a major data collection point to that.

Despite being only a single place the variety and variation of its air travellers with regard to their background provided representativeness to the sample as the researcher tried to include all possible combinations of air traveller characteristics (age, sex, domestic and international travellers). Due to the fact that the city of Manchester is famous for its residents' international background (e.g. college and university students that come from around the globe) the airport gathers huge amount of diversity of air travellers. Additionally was the Piccadilly train station as many people were using the train from the airport to reach city centre.

Further on this convenience sample there was university students of Salford University involved in both undergraduate and post-graduate level with an effort to include additionally significant number of mature students (aged 25 and above) to balance and have greater variety among them.

One major reason for that was apart from the fact that it was less costly and time consuming in comparison with the rest of the sample (go the airport, Piccadilly train station, Piccadilly garden square, several other areas) was the fact that Salford university comprises of a vast amount of international students that became air travellers in order to reach their destination for study and also visiting their home countries for several times (e.g. Christmas/Easter/Summer breaks) during their time of study in the university.

Even though a convenience sample includes a good response rate it does not represent a general view of country's air travellers. Nevertheless the students' international background and their recent experience of flying (only the last 2-3 years) represented a very good opportunity not to be missed.

One thing that has to be mentioned here is the fact that population have dissimilar characteristics with regards to their accessibility. Particularly in the airport or in the train station, and during peak / busy times they tend to develop insignificant levels of cooperation for surveys (O'Neill and Charters, 2000). Therefore it is crucial for the researcher to take under consideration the accessibility factor towards the air travellers and have also included a contingency plan (Daniel, 2012). Also here when air travellers are about to board into the plane might not have the mind frame to complete a questionnaire.

3.4.2 Sample through Internet

There is an increasing use the last years and forward to administer surveys through the Internet (De Vaus, 2013). Most of these internet surveys are now web-based and that means that a respondent visits a web page (URL) whereas through this page he/she can have access to the questionnaire that is supposed to be completed online. There is still however not a truly 100 per cent sample representative through this technique.

Even though there is huge growth the last 5 years and before of Internet use with rates over 90 percent usage in several countries still cannot be regarded as 100 per cent representative (De Vaus, 2013). Even if there is no bias in accessing an on-line questionnaire there is no sampling frame of Internet users to guarantee a truly representative sample (De Vaus, 2013).

Despite that part of this survey's sample involved participation through the Internet as additionally to the traditional ways the questionnaire was also sent on-line to selected individuals that had diversity in age in order to cover

different age groups and had travelled recently with an aeroplane. Through this way there was an attempt to make the sample more representative. The only bias that existed here and that probably worked better to those that participate on the survey on-line was the fact that there was no time limit in answering the questions, something which existed when in real time face-to-face meeting of people as this approach has an expectation to finish the questionnaire within a reasonable amount of time (e.g. half an hour, or sometimes more) something which is not an issue in an on-line survey.

3.4.3 Sample size

In a research of this magnitude there is always the question of the sample size and whether this is done properly to have precision in the survey results. The answer is not straight forward as there is involvement of the time and cost factors (Bryman and Bell, 2015). Even though a large sample cannot guarantee precision when there is increase of its size that means that the chances of a likely better precision sample are increased. This can be interpreted as: size increase, sampling error decreases.

The necessary size of the sample is determined by two important aspects:

1. The grade of accuracy that is required for the sample
2. The amount to which variation exist in the targeted population in respect with the major study characteristics

A decision has to be made into how much error tolerance has to be accepted and how much certainty exists to the generalisation level of the sample.

Through the two statistical approaches of “sampling error” and “confidence intervals” there is assistance to state first the grade of accuracy (through the “sampling error”) and second the amount of confidence that exist into the generalisation level of the sample (through the “confidence interval”).

There has to be a calculation of the error margins in the sample. De Vaus (2013) provides a good example of how this can be achieved. He hypothetically suggests that in a forthcoming election a sample of voters found to be 48 per cent towards party A. The question posed is how close this 48 per cent figure to the real population figure is.

Probability theory gives the answer. If there is taken a large proportion of random samples of the population in most cases the percentage estimates will be close to the real ones and only a few will be high deviated from the expected. In such a case the sample represents an approximate “normal” distribution (shown in Figure 3.2).

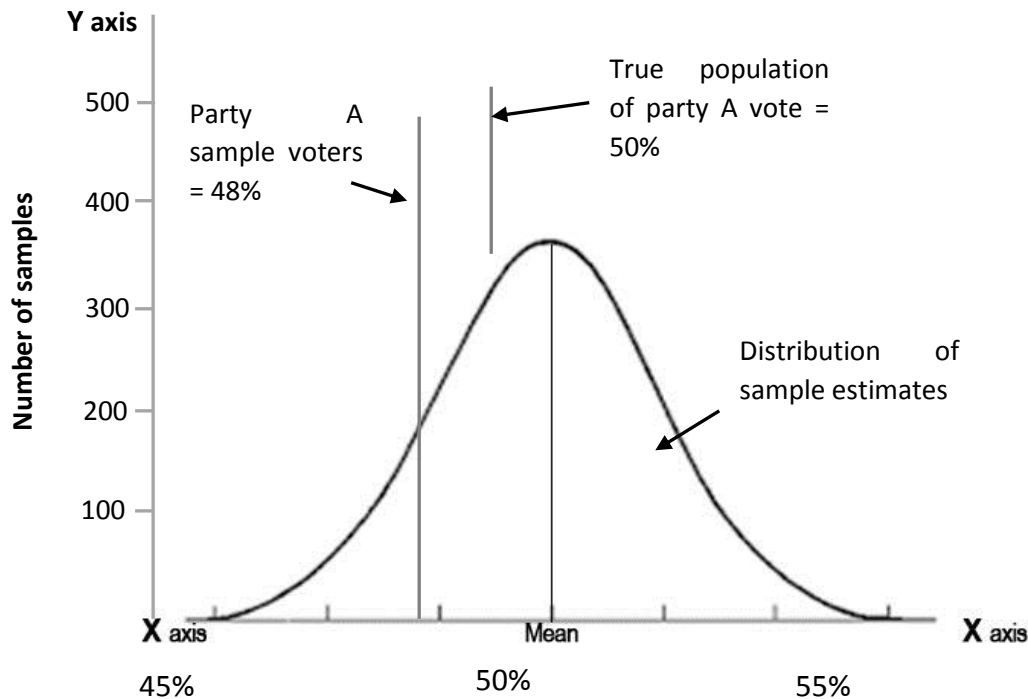


Figure 3.2 – Distribution of sample estimates. Source: De Vaus (2013), p.232

There is an issue here that is related with the number of random samples. If there is only one random sample selection how can somebody be certain of this being representative of the true population percentage? To estimate this there is usage of the statistical approach called “standard error” through the following formula:

$$S_B = \sqrt{PQ/N}$$

Where

S_B = standard error for the binomial distribution

P = per cent in the category of interest of the variable

Q = per cent in the remaining category (ies) of the variable

N = number of cases in the sample

The sample that De Vaus (2013) uses initially estimated a 48 per cent vote for party A. This will be the value of P . Therefore the rest 52 per cent will vote other parties except A, and so this figure represents the value of Q . The sample size found to be for De Vaus example 1644 people and that will be the value of N . By putting all this values into the above equation there can estimation as to within what range the sample estimate of 48 per cent will be:

$$S_B = \sqrt{PQ/N} = \sqrt{48 * 52/1644} = S_B = \sqrt{2496/1644} = S_B = \sqrt{1.52} = 1.23$$

The equation shows a standard error of 1.23 and through the use of probability theory there can be an estimation within which the population percentage is likely to be. This range is called the *confidence interval* and the certainty that the sample will be 48 per cent is called *confidence level*.

Now probability theory says that in 95 per cent of samples the percentage of the population will lie within \pm two standard error units of the sample percentage.

In this case the standard error of 1.23 and two standard errors make it $2 \times 1.23 = 2.46$ per cent and the initial sample percentage of 48 per cent indicates that there is a 95 per cent chance that the population intention is to vote party A for 48 per cent ± 2.46 per cent. That is the true population percentage indicating that people's vote for party A is likely to be somewhere between 45.54 per cent and 50.46 per cent.

The size of the standard error is a function of sample size. In order to estimate the population percentage with even less margin of error (e.g. small confidence interval) there has to be reducing in the standard error. For doing this the sample size has to be increased and there has to be substantially increase: *quadrupling* the sample size halves the standard error (De Vaus, 2013).

De Vaus however raises quite high the sample size, he says that for further accuracy that has to go to 2000 (De Vaus, 2002). That is because as the confidence intervals increases so does the confidence level of the sample accuracy. By this way the bigger the sample size gets, the bigger becomes the accuracy levels of it (Veal, 2011). There is a point however whereas the sample accuracy cannot go beyond it, it is irrelevant. For some like Lewin (2011) the limit is 1000 and others like De Vaus (2002) put this to 2000. The latter also argues that the sample confidence level is influenced by the population variance whereas in the case of a homogeneous sample the chances are the sample error to be smaller in contrast with a non- homogeneous one.

In this survey the confidence interval was remained to 5% as this is considered representative. In order to calculate the sample size the formula that was used was:

$$ME = z\sqrt{(p(1 - p)/n)}$$

Where:

ME = Margin of desired error (here is 5%)

z = confidence coefficient (for 95% confidence interval the value is 1.96 - Saunders *et al.*, 2007; Gilbert *et al.*, 2009)

p = standard deviation (value is 0.5 in order to provide maximum variability)

n = sample size

The formula after putting the values is as follows:

$$0.05 = 1.96\sqrt{(0.5(1 - 0.5)/n)} \Rightarrow$$

$$0.05*0.05 = 1.96*1.96 (0.5 *0.5)/n \Rightarrow$$

$$0.0025 = 3.8416 * 0.25/n \Rightarrow$$

$$n = 3.8416 * 0.25/0.0025 \Rightarrow$$

$$n = 384.16 \text{ which is round up to } 385$$

Therefore the minimum amount of participants would be 384 for a considered 5% confidence interval. Based on that figure principle the researcher went to collect data from at least 400 participants. He managed to collect 650 but due to the fact that 250 participants answered partly the questionnaire put the researcher in the unpleasant position to discard them and carried on the survey with a sample of 400 which is representative.

3.4.4 Questionnaire design

On this section is the questionnaire design from where the primary data was collected. It consists of 20 questions and the research took place in the UK. (The actual questionnaire is on Appendix 3.xx). A successful design of it must emphasize on the aim and objectives of the research as this can be a difficult procedure to handle with. It is a challenging job which necessitates the mixture of methodological capability and experience in order to form the appropriate questionnaire design (Sarantakos, 1998).

When designing the questionnaire it has to be included six broad principles that have to be built within the question design. Those consist of “Reliability”, “Validity”, “Discrimination”, “Response rate”, “similar meaning for all respondents” and finally “Relevance” (De Vaus, 2013).

The extent of validity and reliability of the responds provided by the respondents depends largely on the questionnaire design and its structure

(Saunders *et al.*, 2007). Babbie (2010) additionally argues that a weak questionnaire design will lead to inaccurate outcome.

Reliability more particularly involves the issue that the question has to be answered in a similar way on different occasions. Failure in achieving consistent responses means that the question is unreliable. Additionally a vague wording of the question can bring also unreliable responses due to the fact that participants interpret differently the question on different occasions.

Validity on the other hand here is interpreted as a question that measures what the respondents will think. For example if the question asks “how healthy are you?” the researcher wants to see replies that measure health rather than something like optimism and pessimism (de Vaus, 2013).

Discrimination here is related with how much variation exists in the sample, high variance or low variance. High variance within the sample is good but in the case of low variance that might have caused due to poor design of the questions which can include e.g. limited range of response alternatives. If there is good question design that would include finer-grained response categories which means higher variation of the sample as a good design would have entail more sensitivity in measuring real and meaningful dissimilarities across the sample.

Response rate reveals that in many cases some questions of the questionnaire maybe partly answered which means loss of information. That loss is due to several reasons such as poor question content and construction, poorly worded, length of the question, insufficient categories, and all these create difficulties to understand and answer which finally cause non-response. Those non-responses need to be minimised.

Same meaning for all respondents depends from the interpretation that each one provides for the question as the way they perceive it can be different which end up in answering different questions instead of the same one. In order to reduce that issue careful design of the question is necessary. Therefore the design of the questions must be in such a way for the respondents to perceive the question in a similar way as the researcher did and respond with the required data. Further to that their answers must be interpreted by the researcher in a similar way as with the respondents.

Relevance finally means that each question must “earn” its position to the questionnaire as usually many irrelevant ones appear reducing the possibilities for a desirable in quality data collection.

Walliman (2011) suggests some guidelines for a competent questionnaire design. Initially there has to be identification of the assessment method of the variables from which the data will be collected. Additionally here that initial identification will assist the researcher to collect the necessary information

(Saunders *et al.*, 2007). Then the use of language has to show clarity on its meanings. The questions must be simple and the same applies for the whole questionnaire, it has to be easily readable and understandable. Finally the presentation of it has to be clear.

An earlier view of Hussey and Hussey (1997) brings additional attention to the questionnaire design as it includes the size of the sample, the question categories, the question wording and the guidance to the respondents. Additionally they include the existence of an accompanying letter, how the distribution of the questionnaire will take place, the existence of test for validity and reliability and what method will be followed for the collected data analysis. According to Sarantakos (1998) also the design of the questionnaire must be in alliance with the nature of this particular research.

Further on having an efficient design according to Babbie (2010) the questions must reflect clarity in what they are asking in order to evade confusion of the respondents. Slang or vague expressions, hypothetical statements or leading questions have to be avoided (Finn *et al.*, 2000). De Vaus (2002) provided a list of actions (see Table 3.4) that can improve further the questionnaire wording design.

Before acknowledging details in designing the questions it is beneficial to consider principles which can influence the way that participants progress upon them. The major task for the questions would be to acquire precise responses from a large sample of participants. To achieve that it has to be acknowledged what can motivate them to answer those questions in the best possible way reducing the complexity of it (Krosnick, 1999).

In constructing the questionnaire acknowledgement took place from the work of De Vaus (2013), listed in the timetable Figure 1 below and also from Krosnick and Presser (2010).

Table 3.4 - Adapted De Vaus' (2013) Suggestions for Questionnaire Wording p.97			
	Suggestions	Meaning	How suggestions were achieved in this research
1	Using a simple language	Avoid jargons and complicate expressions	That took place through pilot test
2	Short questions	Avoid long sentences leading to misunderstanding of meanings	That took place through pilot test
3	Avoid double-barrelled questions	Avoid questions referring to two or more points or using words meaning more than one items	That took place through pilot test
4	Avoid leading questions	Use of words that directly or indirectly lead to an opinion	That took place through pilot test
5	Avoid negative questions	The use of 'not' expression may lead to answer accordingly	That took place through pilot test
6	Respondents should have the necessary knowledge to answer	Inappropriate questions to an audience results in unreliable answers	Any kind of possible inappropriate question was not in use in this research
7	Words should have the same meaning to everyone	Self-explanatory	That took place through pilot test
8	Avoid prestige bias	Avoid the inclusion of opinions on important people	Important people didn't involve
9	Avoid ambiguity	The use of words that may have several meanings or vague can induce wrong answers	That took place through pilot test
10	Avoid asking for precision	Excessive precision in answers requires information that respondents may not have and lead to bias	Such level of precision was not required
11	Clear frame of references	Avoid asking questions that are vaguely construed and do not refer to something specific	That took place through pilot test
12	Avoid creating artificial opinions	It is important not to force for an answer within the spectrum of options given, hence including a 'don't know' option to avoid bias	The alternative option of 'Don't know' was included
13	Personal or impersonal approach in questions	Addressing the respondent's feelings or people's feelings; this depends on the purpose of the research	The approach was personal by the researcher to the respondents.
14	Avoid detailed or objectionable questions	Some specific or personal questions might be unnecessary and create discomfort to respondents	Not applicable this one
15	Avoid questions phrased with alternative options	Respondents may want to refer to one option only but they cannot	That took place through pilot test
16	Avoid inclusion of gratuitous qualifiers	The inclusion of sentences providing leading statements may affect the answers	That took place through pilot test
17	Avoid 'dead giveaways'	Avoid absolute words that do not allow exceptions since they compromise answers and compromise variance	Not applicable this one

3.4.5 Data Collection Strategy

Data Collection strategy is a vital part in any research involved, as inaccurate collection of data can have a direct negative impact on the research as it can lead to invalid results. There are certain ways of data collection with two basic types of primary research, the qualitative data collection and the quantitative one.

This data collection strategy is a quantitative one as it involves the numeric use to evaluate information. That information can further be assessed through the usage of statistical analysis providing a chance for the researcher to excavate further within the data in order to find and interpret the situation that the numbers are saying (Leedy and Ormrod, 2001). It creates results which can be easily summarized in order to compare them and finally to generalize. Through this way it can test the hypotheses that arise from certain gaps within the literature review.

Several techniques exist which can be selected in order to have data collection and all of them involve numerical data. These techniques can involve observation, structured interviews, questionnaires (which can be paper-pencil or web based ones) (Leedy and Ormrod, 2001).

This data collection strategy was based on a questionnaire specifically designed with 20 questions that would fit and support further the hypotheses that arise from the conceptual framework. This questionnaire involved rating scales which can simplify and quantify people's behaviours and attitudes. This is because a rating scale can assist better in a situation where the behaviour of people has to be assessed on a continuum. That scale is also called Likert scale (Leedy and Ormrod, 2001).

Here the target was to identify any kind of service failure within the airline industry and the way that the quantitative data collection method works as it relies on random sampling can assist to collect diverse traveller's experiences and to fit them into predetermined response categories. From there the results can be easily withdrawn and can test the hypotheses in order to seek if there is any specific interest arising from the results.

3.4.6 The actual Questionnaire

The actual questionnaire (listed at the end of this chapter page 144) comprises of 20 questions with some of them having the format of an open question (2 questions: one in Section A: QA1 and one in Section B: QB1), some of a closed one (10 questions: 1 in Section A: QA5 and the rest 9 in Section C: QC1 – QC9) and some involving the five point Likert scale format (8 questions: 4 questions in Section A: QA2 – QA4, QA6 and 4 questions in Section B: QB2-QB5).

The choice of two open questions was based on the fact that the researcher wanted to leave the respondents to express their opinions in their own way. That is an advantage as it leaves unusual responses to be derived (Bryman and Bell, 2015). An open question gives the respondent the opportunity to provide an answer in their choice style (Sarantakos, 1998). Through this way it is not suggested certain kinds of answers to be given and therefore the salience of issues for the respondents can be explored. Also an open question provides the opportunity to explore new areas as there is no specified limit to the respondents answer.

Here as the target was to identify any kind of service failure within the airline industry an open question is ideal as it can bring a variety of issues in the surface. Additional to that it can offer the choice to the respondent to have a very accurate answer but to create an arduous analysis of it (Hussey and Hussey, 1997). It can also in the case of very open questions to have extensive answers that they would need some time to apply a coding frame for them (Bryman and Bell, 2015).

The rest of the questions consisted of ten close questions and eight with use of Likert type scale. The choice for the ten closed questions was due to the fact that it is easier to process answers (Bryman and Bell, 2015). That is because the respondent will only have to tick or circle an answer that fits better to his/hers response and through this the appropriate code will be ‘mechanically’ rise for further data analysis. A closed one comprises of fixed options giving the opportunity the respondent to choose the one he or she approves better (Sarantakos, 1998). It brings a more direct and easier to examine response as the choice range is very restricted (Hussey and Hussey, 1997). Additionally through a closed question the comparativeness of answers is easier to be studied and the relationship of variables to be monitored faster. Also a close question can clarify sometimes the vague perception of the respondent regarding as to where the question is getting at and through the offered available answers that situation can be sorted (Bryman and Bell, 2015).

Further, close questions can reduce the chances of high variability in the recording of answers and they also are less time consuming which facilitates the process of completing the questionnaire within logical amount of time (e.g. 20 minutes). As a downside can be the fact that respondents can come up with answers that are not covered through the fixed answers provided (Bryman and Bell, 2015).

Both types of questions (open and close) however bring advantages and disadvantages and that has the support of many researchers (Hussey and Hussey, 1997; Sarantakos, 1998).

The remaining eight questions had included the use of Likert type scale. That was mainly because the usage of scales can provide measurement of the concept through multiple indicators rather than just a single one. Through this way the complexity of the concept is being reduced. Additionally the usage of multiple indicators helps in providing more valid measures and therefore increases reliability and brings more precision (De Vaus, 2013). Further the analysis of the collected information through questions that use scales can be considerably simplified. That can be achieved through gathering information that exist in multiple questions and do the analysis through the usage of a single variable, not be analysing each question separately.

Further on, the use of Likert type scales was adopted due to the fact that decisions are based on outcomes such as the mean score and many marketing organizations and research providers have a preference on Likert type scales for measuring concepts such as customer satisfaction (Dawes, 2008). Additionally according to Dawes (2008), aspects of data such as mean variation, skewness and kurtosis and also regression analysis which are used to explain variation in several variables are facilitated through the use of Likert type scales.

During the design phase of a rating scale it has to be decided how many points will be included on the scale. Likert (1932) type scales in most cases make use of a 5 point scale (Krosnick and Presser, 2010). However there is variation to that as there is no standardize number for points on rating scales and common practice fluctuates. For example the American Elections surveys have used in the past a range that included from 2-, 3-, 4-, 5-, 7-, and even 101-point scales! (Krosnick and Presser, 2010 p.268).

In this study there was usage of 5-point scale as Dawes (2008) showed that the 7-point scales produce the same mean score with the 5-point (which was 0.3), and only if we rise to 10-point scales there was difference statistically significant ($p=0.04$). Nevertheless the researcher decided to stay with a 5-point scale and not rise to a 10-point scale as this would have involved significant more time consuming in answering the questions.

The use of Likert type scale assists in measuring the intervals of the respondents viewing intensity and therefore must have consistency. Those questions include the 5-point scale options of:

- “Very Slight Failure” to “Very Severe Failure” (QA2)
- “Not a problem” to “Very Serious Problem” (QA3)
- “Extremely Dissatisfied” to “Extremely Satisfied” (QA4) and (QB4)
- “Strongly Disagree” to “Strongly Agree” (QA6) and (QB5)
- “Extremely Unsatisfied” to “Extremely Satisfied” (QB2)

- “A Little” to “Extremely” (QB3)

Furthermore and according with De Vaus (2002) suggestion, in each of the 5-point Likert scale questions a “6th” option of “Don’t Know” was added to avoid a forcing answer as some people of the sample may have a vague opinion and consequently end up in a result bias.

Question No 1 (Section A: AQ1)

This first question is an open-ended question as it gives the chance for the respondent to recall one recent service failure/problem that he or she had giving the opportunity to express in his own way and describe the problem as accurate as possible (Hussey and Hussey 1997). The advantages of an open-ended question is described above in the previous page and the choice of having this question first is to give at first the respondent the opportunity to describe the service failure he or she had (Hussey and Hussey 1997).

On the pilot test that question seem to be very clear as the respondents perceived directly what the question was asking heading directly to the core of the problem without facing any problem that consisted lack of clarity or of confusion about the respond. The only supplementary expression from the researcher was to specify even more clear the airline areas of where a service failure can occur and that was the service at the airport, the cabin of the aeroplane or problems with booking the tickets on-line (referring also to a potential poor airline web-design site).

Question No 2 (Section A: AQ2)

The second question is using the 5 point Likert-scale format and the additional option of “Don’t Know” as explained above (to alleviate bias in case of an uncertain position for the respondent to answer). Here the task for the researcher is to identify the degree of severity that the failure/problem had on the air-traveller. The 5 options vary from a “Very slight Failure” to “Very Severe Failure”.

Question No 3 (Section A: AQ3)

Similarly as the above question this question has a 5 point Likert-scale format and the task here for the researcher is to collect responses as to how critical was the service failure incident. This question is of great importance as it will allow showing the depth of the criticality as in particular serious problems that will have a further effect on the likelihood of the customer. The 5 options vary from “Extremely Dissatisfied” to “Extremely Satisfied”.

Question No 4 (Section A: AQ4)

This question again has a 5 point Likert-scale format with the task being the emotional aftermath of the service failure/problem ranging from an “Extremely Dissatisfied” view to an “Extremely Satisfied” option.

Question No 5 (Section A: AQ5)

This question is a closed one. It simply requires an answer of a “Yes” or a “No” but it is very important as it seeks to identify as to what extent the airline company knows about the service failure/problem or not.

Question No 6 (Section A: AQ6)

This is the last question of section A. Again here it has a 5 point Likert-scale format ranging from a “Strongly Disagree” to a “Strongly Agree” option and it actually follows the previous question to see through the expressions “ I don’t like complaining” and “I’m reluctant to complain even when service failure occurs” the tendency to complain or not.

Question No 7 (Section B: BQ1)

This question and the following four belong to Section B which seeks to find out how the Airline responded to the Service Failure. This one is an open question and has the same format as question 1. Here the intention is to seek if the airline staff responded on the first place and if yes to what extent.

Questions No 8 (Section B: BQ2)

This question involves a 5 point Likert-scale format with options of “Extremely Unsatisfied” to “Extremely Satisfied” and gives the choice of 16 recovery strategies to choose some or all of them.

Question No 9 (Section B: BQ3)

This question involves the emotions that an airline passenger felt after the service recovery by providing the option of five negative (Angry – Upset – Disappointed – Offended – Anxious) and five positive emotions (Calm – Contented – Pleased – Respected – Relaxed) on a 5 point Likert-scale (with options varying from “A Little” to “Extremely”) asking to select one or more of each of the aforementioned emotions.

Question No 10 (Section B: BQ4)

This question again uses a 5 point Likert-scale and tries to seek the level of airline’s service recovery to the problem. The options provided are from “Extremely Dissatisfied” to “Extremely Satisfied”.

Question No 11 (Section B: BQ5)

The last question of section B with a 5 point Likert-scale format tries to find the overall condition of the airline passenger after the service recovery of the

particular problem that existed. It provides 14 choices whereas the respondent can choose one or more than one options.

Questions No 12-20 (Section C: CQ1-CQ9)

These question on this last Section C try to gather some information for the passenger such as Gender, Age group, purpose trip, nationality, current job, which airline did the trip, what service class he or she chose to fly, if it's a domestic or international flight and if the passenger has already flew in the past or not and how many times.

3.4.7 Pre-testing of the Questionnaire

In order to increase the level of consistency for the results there has to be a questionnaire pre-testing (De Vaus, 2002). The reason is that it seeks to recognize errors and to detect question vagueness together with possible errors in several variables that are been used (Babbie, 2010). It has to be effective and reliable therefore it must reflect clarity in its understanding from the recipients' point of view which has to be matched with the researcher's optical angle.

The pre-testing took place by three academics and one student in such a way that at the end the whole effort assisted to a better understanding of the questionnaire. In question QB2 initially there were smaller number of recovery strategies, but after further research it was decided to include 16 recovery strategies. Further it was suggested the introduction of a separate column in questions QB2, QB3 (see Appendix xx where the questionnaire is) which gave the option to the respondents to answer only some and not all the sub-categories included there (It gave the option to tick or not some of them).

In the same way from the question QB5 it was initially included as well that additional column but later in a further discussion it was decided to remove it as those categories had to be answered by the respondents as it covered the overall impression of the service provided. In contrast with QB5, in question QB3 it was not necessary to answer all the options as it expressed all 10 different stages of emotions (5 positive and 5 negative) something almost impossible to happen at the same time from the same person. There (QB3), some initial emotions that were placed were changed after the suggestion of one academic as those that suggested as replacements were more updated with the existing research on the emotions sector. One thing that was followed was the suggestion of De Vaus (2002) to introduce a diversity of questions in order the attention of the respondent to remain high.

Some shortening took place in question QB2 as there 16 different choices and some additional explanations in some of them to clarify made them (from

academic feedback) not to take time and read each one of them in detail, therefore it was decided to shorten the explanation in most of them in such a way that would reduce the reading time but also in a way secure that the audience will read all 16 choices.

Finally in question QC9 there was initially 4 choice options provided which later on added 2 more extra (6-10 & More than 10) for those very frequent air travellers.

3.4.8 Pilot Test

After developing the questionnaire there has to be evaluation of each question before final administration a process which is called Pilot test (De Vaus, 2013). The pilot test consists of an additional procedure to increase further the levels of reliability. That procedure includes checking first a small number of people before the actual releasement of the questionnaire to the whole range of the participants. This can assist in assessing the flow of the questions, any possible bottleneck that might appear, if the time is enough for answers, if the questions are clear in what they are asking, if there is a contingency part and if assessing the whole process is realistic and achievable within the interest of the participants (De Vaus, 2002).

It is a vital part as due to the difficulty to forecast the respondents' understanding to the questions it actually assists in improving the questions by making them more accurate (Gill and Johnson, 2002). Through this method it provides further understanding to the researcher as to how effective the questions are and to what extent those have been perceived in the same way as the researcher that places them. Additionally the researcher can acquire further ideas through the way that respondents answer them. At the end the pilot test not only observe the appropriateness of the questions for an anticipated result but also provides to the researcher the prospect to detect possible content or design flaws and provides options as to how the questions should be rephrased (Altinay and Paraskevas, 2008). It also checks the degree of reliability and validity of it which means that difficulty in understanding them will end up in unreliable results (Finn *et al.*, 2000).

According to De Vaus (2013) the pilot test comprises of 3 stages: the *Question development*, the *Questionnaire development*, and *Polishing Pilot test*.

On the first one the *Question development*, involves evaluation of the phrasing of each question in order the respondents to have similar understanding with the researcher about what the question is asking and also to check if the variety of alternative replies is adequate. Participants are welcomed to be asked how

the question should have been stated if the existing meaning creates different perception about what it wants to ask.

Twenty (20) students took place in this pilot study with ten (10) undergraduates and ten (10) postgraduates in order to have a balanced view. On each person a hard copy with the questions was given in order to fill with answers and hand it back to the researcher. The objective of this study was initially to find out if the respondents will answer the questions and then to see if the respondents fully understood what the questions were asking (Finn *et al.*, 2003).

Also it had to be examined the level of variation to see if respondents provide similar answers to a question which in case that this happened it had to be discarded that particular question as it would have made little contribution to its further analysis.

On the *Questionnaire development* there is further evaluation of individual items and the whole questionnaire. At this stage the comments and the whole feedback provided by the respondents are analysed in order to improve further the questionnaire. The time factor is also considered here as there is effort to estimate how much time will take to answer the whole questionnaire and how many questions should be included in order the whole response time to be remaining within reasonable amount of time (De Vaus, 2013).

There were no signs of vagueness in all the 20 respondents as there was no question asked about a particular part of the questionnaire that had to be cleared further. In most cases the response rate time was approximately 20 minutes. One small mistake only came after the collection of the questionnaire and had to do with question QB2 as some of the respondents answered all the parts of these question which wasn't necessary. The amendment action was to replace one part of the description of the question with capital letters (Please tick...ONLY THOSE ITEMS FROM THE FOLLOWING LIST THAT YOU RECEIVED FROM THE AIRLINE during...) as this worked much better with regard to the time factor (speed up the process) and reduced completely any signs of vagueness as to how many of the following 16 recovering strategies the respondents should they have to circle (See Appendix xx the questionnaire).

Finally on the 3rd stage, the *Polishing pilot test*, issues such as revision of questions, reorder of them, shortening the questionnaire, attention to the final layout of it take place here in order to have as much clarity as possible to the respondents (De Vaus, 2013).

In question QB3 there were 5 positive and 5 negative emotions placed and some rewording in some of them took place to have further clarification on each of those 10 different stages of emotion for the respondents to facilitate even more accuracy about a particular choice.

Further some rewording took place in question QB5 (level of agreement) to have even more clarity in each of the options provided for answer.

De Vaus (2013) suggests 5 points to be examined: *Variation*, *Meaning*, *Redundancy*, *Scalability*, and *Non-response*. Apart from the *Variation* that is referred in *Question development* (as the 20 participants' answers were checked in the case of a possible discard if similar answers appear something which didn't happen); the rest 4 had their appliance in the current research as follows:

The *Redundancy* point didn't appeared as there was no redundancy issue in a particular question. Regarding the *Meaning*, indeed the participants understood the meaning of each question (with only one amendment referred above on QB2). On *Scalability* which examines the design of the question to apply scale type they did ensure that they do so. Finally the *Non-response* point in the pilot test was not an issue, all responded satisfactory. Only later after the final version of the questionnaire was released to the streets were a significant number of respondents that didn't reply the second-third and final fourth page and that due to their limited interest of time (no more than 5 min on average) something which was beyond the scope of this PhD research as within 5 min it is impossible to answer 20 questions in a high quality standard and have satisfactory amount of data at this level.

3.5 Ethical Issues

Ethics involves a number of principles where a group of people has to comply (De Vaus, 2002). These rules have to be taken into account to avert damage in any way to people when they will participate in this research. Particularly caution has to be paid in the following four elements: a) If there is harm to participants, b) if there is lack of informed consent, c) if there is a privacy invasion and d) if there is deception involvement (Bryman and Bell, 2015).

The AoM Code of Ethical Conduct defines clearly that it is the researcher's obligation to examine the fact of harming participants in his/her research and if that happens it should be minimized as possible (Bryman and Bell, 2015). Parallel opinions are held by the MRS's Code of Conduct which states that the researcher is accountable for all necessary precautions taken to make sure respondents will not be harmed directly or adversely due to their participation in the survey.

The matter of harming participants is extended additionally in ethical codes through the crucial factor of "preserving confidentiality" of records and maintaining full anonymity, meaning full confidentiality of individuals and organizations that participate in the survey. That according to the AoM Code

of Ethical Conduct creates the obligation of an initial negotiation and agreement with the participants and if there is request for confidentiality that has to be honoured.

Therefore there has to be confirmation towards the participants side of understanding enough of the process they are about to enter, which includes what their role will be, emphasis to why their presence is vital, how there will be usage of the data they will provide (Bryman and Bell, 2015).

Among the rules included is the refusal right to not be participant to this research, their right to be participants and at the same time to have the highest possible level of confidence kept among the researcher during the research in order for the group to be protected (De Vaus, 2002).

The participants were informed through a 'covering letter' (Appendix x) where the intension of this study was noticeably specified. Also very clearly it was mentioned that all the information provided for the research will remain anonymous in full confidentiality.

In order to increase more the number of participants and to create further motivation for participation a prize draw was declared with the winner gaining £200 cash. The winner was the Number 62, an English female student which 'forgot' to check her university email with the good news for almost a month but when finally she did she was literally running to the office to collect the cash reward!

3.5.1 Ethical Approval

The collection of data started only after the submission of the Ethical Approval document to the University's Committee for Ethical Approvals. Permission was granted as the Committee was satisfied with the documentations.

3.5.2 Data Collection of the questionnaire

The whole questionnaire consists of 20 questions giving approximately a 20-25 minutes response rate with maximum 30 minutes. That is quite important as a lengthier one with more questions would have a lesser response rate as it reduces the respondent interest. The questionnaire was sent to a large number of recipients in hard copies and on-line giving the respondents the option to come back and reply the rest of the questions at a later stage.

To enhance further the chances of getting further responses the researcher introduced a prize draw of £200 cash in order to encourage more respondents to participate.

The data collection was done by self-gathering as this way indicates low costs and can be done quick regardless of the fact that brings the disadvantage of incomplete responses (Veal, 2011), as this happen to a big extent in that particular study. However even though there was initial gathering of 650 responses 250 of them had to be discarded as the respondents were only filling the first page of the questionnaire which included the first 6 questions leaving un-answered the rest of the pages (questions 7-20). The main reason for that was the lack of time that respondents showed through their action as many of them wouldn't devote time of more than 10 minutes. In a question of the researcher if there is any vague questions or meanings which made them to stop the effort, always the answer was negative to that, everything was very clear to them, it is just that they didn't want to devote extra time. It was really hard to caught somebody on the street and ask for a 20 min break of his/her activities to answer all questions. That was the reason of why such a big number of participants failed to answer the rest of questions which meant that they had to be discarded as their contribution was very small to the survey. However the remaining 400 participants fill all questions with more than satisfactory amount of data.

3.6 Reliability and Validity

The matter of reliability always follows any conversation about research approaches (Decrop 2004, Saunders *et al.*, 2009). Validity concerns with the degree as to how the results echo the research study that carries on (Babbie, 2010). Jennings (2001) and Saunders *et al.*, (2009) argues that reliability and validity in research has to be founded and defined by the researcher. Those two above mentioned and also Orams and Page (2001) argue that both the concepts of reliability and validity have to be taken in serious concerns from the researcher in relation to the data collection and the results that are created.

3.6.1 Reliability

Reliability relays to the degree as to how similar would be the outcome if the research was recurrent at a different time through somebody else (Babbie, 2010). Its major concern relates with the matter of consistency of measures, having three factors involved when there is consideration about reliability of a measure: *Stability*, *Internal reliability*, and *Inter-rater reliability* (Bryman and Bell, 2015). *Stability* concerns with having or not stable measurement over time in order to avoid fluctuations. *Internal reliability* concerns with the degree or not that the chosen indicators which make up the scale are consistent. *Inter-rater reliability* involves the issue of subjectivity and to what extent this is

engaged (e.g. recording of observation, data translation into categories, how to categorize items, or open-ended questions, classification of behaviour). When there is more than one “*rater*” involved there is the possibility of lacking consistency in the decisions to be followed (Bryman and Bell, 2015).

Further on the second one (*Internal reliability*) in order to attain it, there has to be examined the scales that are used through a statistical method called the *Cronbach’s alpha test*. This test evaluates the internal stability for every element that is used in the scale with the rest of the elements that are put in the scale and produces an index (De Vaus 2002). It consists of a frequently way to examine internal reliability. What it does in essence is to calculate the average of all possible split-half reliability coefficients. A computed alpha coefficient will vary between 1 (indicating perfect internal reliability) and 0 (indicating no internal reliability) (Bryman and Brooks, 2015). The threshold that has been decided in order for the internal stability and consistency to be acceptable is 0.8 and above (Bryman and Brooks, 2015). Other writers for many purposes go lower to 0.7 and above (Schutte *et al.*, 2000; Pallant, 2007).

The major point through this is that the correlation establishes how closely respondents’ scores on the two groups of indicators are related (Bryman and Bell, 2015). The coefficients for Cronbach’s Alpha in the scales of the questionnaire showed that all the scales that were used in this research were reliable.

1. Severity of the service failure/problem variables ($\alpha = .95$)
2. Criticality of the service failure incident ($\alpha = .95$)
3. Importance of emotion after the service failure ($\alpha = .92$)
4. Importance of complaint of the service failure ($\alpha = .95$)
5. Service recovery strategies employed ($\alpha = .96$)
6. Importance of emotions after the service recovery strategies applied ($\alpha = .95$)
7. Importance of satisfaction after the service recovery strategies applied ($\alpha = .94$)

Several statistical techniques can be used to measure the reliability of the questionnaire that uses scales. According to De Vaus (2002) when there are single questions then their reliability can be checked through the test-retest method, something quite difficult to be achieved for various reasons. According to Robson (2002) when the re-submission of the questionnaire takes place at different hours during the day, the state of the mind, the fatigue and other factors influence as to how reliable this time the outcomes of the questionnaire are in relation with the first attempt, many of the respondents provide different feedback.

Reliability improvement according to De Vaus (2002) can be seen in the following Table 3.x with suggestions on the left column and further explanations as to how this can be applied into the research.

Numerous methods can be used to increase the reliability standards but one particular point that has to be addressed is when the data collection takes place from more than one observers which possibly will affect the kind of responses expected (Babbie, 2010).

In this study the collection of data took place through self-completed type of questionnaire during autumn/winter of 2013 and spring of 2014. The option of on-line questionnaire was added as well (SurveyMonkey.com) giving the choice to the participants to answer the questions in their own time as there was no time restrictions if followed that option. Additionally here many internationally respondents participated.

Table 3.5 – Application of Reliability Improvement Methods to Multiple Item Questions

Method of Improving Reliability	How Applied to Research
Use well-tested questions from reputable questionnaires.	The questions were accordingly formulated and structured in response to the previous research on the factors of service and recovery. Further on that the previous research was used to substantiate the information.
Use carefully worded questions in questionnaire	Questions were structured for easier understanding from the participants. That was achieved through the pre-test application and the pilot study.
Ensure standardised coding methods.	Standard methods of coding were used by the researcher.
Provide neutral response options.	The 'don't know' option was provided anywhere a multiple option response was needed in order to avoid forced answers.

(Adapted from de Vaus, 2002).

Many questions in the questionnaire included a Likert scale which according to Babbie (2010) comprise of pointers at some levels in “unambiguous ordinarily of response categories” (p.179). As stated above in the table 3.5 the ‘don’t know’ option was added as well in those Likert scale questions to avoid forced answers.

3.6.2 Validity

The notion of validity is linked with how precise measurement has been attained from the data collection (Babbie, 2010). It is concerned with certifying that this measurement measures the model that it is intended to measure. It has to do with the fact that during the measurement an indicator (or a set of indicators) that is devised to gauge a concept it actual measures that concept (Bryman and Bell, 2015). Sarantakos (1998) argues that two methods exist when examine the validity of an instrument. The first method is empirical validation and the second theoretical validation. The first one deals with measurement against empirical evidence while the latter concerns with measurement of the validity through theoretical concepts. In each of the two circumstances validity is produced when findings that are created are backed-up with empirical evidence in the first place or through theoretical values in the second.

There are four types of validity that are the most frequently namely face, criterion-related, content and construct validity (Jennings, 2001; De Vaus 2002). The first one the ‘face’ validity is valid as the model is being measured ‘on the face of it’ (Jennings, 2001). It can be established by asking others if the measurement is getting towards a concept where it is the focus of attention, it asks people to act as judges, it is basically intuitive process (Bryman and Bell, 2015). The second one, the criterion-related validity is established from the capability of the questionnaire to create similar outcome as with an established questionnaire. In that particular case the use of the former one can be used as measure of comparison. If answer of both questionnaires are highly correlated this means that the new measurement is valid (De Vaus, 2013). Here there are not always recognised standards in order to prove the questionnaire validity (Babbie, 2010), as it could be the old one which is invalid (De Vaus, 2013) and that is a problem. Also the non-existence of specific well-established measures in many concepts over the social sciences which can be used to compare with the new measures is an additional problem (De Vaus, 2013). Those two problems can overcome by giving the measure to criterion groups (De Vaus, 2013).

The content validity as a third can be acquired if the researcher defines what creates a relevant content domain for the model that is being measured. This method is focusing to the extent that indicators measure all different elements of the concept (De Vaus, 2013). Here is it hard to express what variety of likely items can appear and whether there is a demonstrative scale of these (De Vellis, 2012). The Likert scales that were formatted for the questionnaire appear to have content validity due to the fact that the elements being measured were set from the initial research of the literature review. Therefore they are doubtfully a complete set of displays of the model being measured. Furthermore here the questions structure came consist from a combination of previous works from the literature in conjunction with the researcher's existing conceptual framework.

The construct validity concerns with the fact if there are theoretical relationships among the variables (De Vaus, 2002; De Vellis, 2012). It boosts the researcher into presumption of hypotheses from a theory that is compatible with the concept (Bryman and Bell, 2015). There are three types of construct validity: convergent, discriminant and nomological validity. The first one, convergent validity examines the correlation that exists among variables of similar scale with high correlation interprets that the convergent validity is valid. The second one, discriminant validity examines the degree as to which two concepts that should not have theoretical relation, in fact they are not related in reality (Trochim, 2007). It examines the degree as to how much two models are related through dissimilarity.

The third one the nomological validity concerns with the extent to which forecast can be made by a using scale and how relative can that be with an approved theoretical model (Hair *et al.*, 2010). Construct validity can be achieved if there is demonstration of both convergence and discrimination validity. That can be achieved through measuring both through a correlation matrix in order to seek if the measures that had to be related they do (convergence) and those that hadn't be related they are not (discrimination) (Trochim, 2007).

3.6.3 Data Analysis

The analysis of data took place initially through the use of Microsoft's Excel where the data had been first put on and then transferred to IBM's program named SPSS Version 20 which has a matrix and several command options to do the analysis. The analysis of variance (ANOVA) technique was

implemented there. A two-way ANOVA tests took place as well together with a series of correlations and regression analysis.

The final results and discussion is followed by the next chapter.

Attachment: Questionnaire

Airline Service Quality Survey

We are conducting a survey about airline service quality and would be grateful for your views about a recent experience of airline service failure. All information you provide will be anonymous. The survey is part of a PhD research project at the University of Salford and the results of the survey will be used for academic research only.

Section A: Airline Service Failure

QA1. Please recall ONE RECENT INCIDENT when you experienced a service failure/problem with an air-line and briefly summarise the problem in the box below.

QA2. Based on the above experience, please indicate the SEVERITY of the failure/problem (*by circling the most appropriate option on the scale*).

	Very Slight Failure	Slight Failure	Moderate Failure	Severe Failure	Very Severe Failure	Don't Know
	1	2	3	4	5	0

QA3. Based on the above experience, how would you rate the CRITICALITY of the failure incident i.e. how IMPORTANT was it to you? (*by circling the most appropriate option on the scale*).

	Not a Problem	Slight Problem	Moderate Problem	Serious Problem	Very Serious Problem	Don't Know
	1	2	3	4	5	0

QA4. Please indicate how you felt after the service failure (*by circling the most appropriate option on the scale*).

	Extremely Dissatisfied	Fairly Dissatisfied	Neither	Fairly Satisfied	Extremely Satisfied	Don't Know
	1	2	3	4	5	0

QA5. Did you complain to the airline about the service failure?

Yes		No	
-----	--	----	--

QA6. Please indicate your level of agreement with the following statements (*by circling the most appropriate option on each scale*).

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Don't Know
I don't like complaining	1	2	3	4	5	0
I'm reluctant to complain even when service failure occurs	1	2	3	4	5	0

Section B: How did the Airline Respond to the Service Failure?

QB1. Please briefly describe the AIRLINE STAFF RESPONSE to the service failure (in the box below) i.e.

what did they do about it? If you received compensation (financial or otherwise) please give details.

--

QB2. Please tick (✓) ONLY THOSE ITEMS FROM THE FOLLOWING LIST THAT YOU RECEIVED FROM THE AIRLINE during the attempted recovery from your service failure. For each one you received, please indicate HOW SATISFIED you were (by circling the most appropriate option on each scale).

Did the airline provide..... (Please tick ✓)	✓	Extremely Unsatisfied	Fairly Unsatisfied	Neither Unsatisfied Nor Satisfied	Fairly Satisfied	Extremely Satisfied
An acknowledgement of the service failure		1	2	3	4	5
Acceptance of responsibility for the failure		1	2	3	4	5
An apology for the service failure		1	2	3	4	5
An explanation of the service failure		1	2	3	4	5
An opportunity to voice my view/feelings		1	2	3	4	5
Correction of the problem		1	2	3	4	5
Compensation for the service failure		1	2	3	4	5
A prompt response from the airline in dealing with the service failure		1	2	3	4	5
Follow-Up from the airline management / staff		1	2	3	4	5
Effort from the staff in resolving my complaint		1	2	3	4	5
Attentive/Helpful staff		1	2	3	4	5
Staff empowered to solve my problem		1	2	3	4	5
Empathetic/Understanding staff		1	2	3	4	5
Facilitation (the airline company made it easy to complain)		1	2	3	4	5
An appropriate place to explain/handle my complaint		1	2	3	4	5
Follow-Up in writing from airline manager/empowered staff member		1	2	3	4	5

QB3. PLEASE SELECT THE EMOTION(S) (tick) from the list below which most closely describe how you felt after the service recovery and indicate the strength of those feelings (by circling the most appropriate option on the scale).

(Please tick ✓) Negative emotions	✓	A Little	Moderately	Quite a Bit	Quite a Lot	Extremely	Don't Know
Angry		1	2	3	4	5	0
Upset		1	2	3	4	5	0
Disappointed		1	2	3	4	5	0
Offended		1	2	3	4	5	0
Anxious		1	2	3	4	5	0

(Please tick ✓) Continue...		A Little	Moderately	Quite a Bit	Quite a Lot	Extremely	Don't Know
Positive emotions	✓						
Calm		1	2	3	4	5	0
Contented		1	2	3	4	5	0
Pleased		1	2	3	4	5	0
Respected		1	2	3	4	5	0
Relaxed		1	2	3	4	5	0

QB4.Please indicate how satisfied you were with the airline's service recovery? (Please circle the most appropriate option on the scale show below).

	Extremely Dissatisfied	Fairly Dissatisfied	Neither	Fairly Satisfied	Extremely Satisfied	Don't Know
	1	2	3	4	5	0

QB5.Please indicate your level of agreement with the following statements (*by circling the most appropriate option on each scale*).

Your Overall Impression	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree	Don't Know
I felt that the outcome I received was fair	1	2	3	4	5	0
In resolving the problem, the airline gave me what I needed	1	2	3	4	5	0
I got what I deserved	1	2	3	4	5	0
The employees behaviour whilst the recovery was being dealt with was fair	1	2	3	4	5	0
I felt the procedure followed by the airline to address my complaint was fair	1	2	3	4	5	0
The airline showed adequate flexibility in dealing with my problem	1	2	3	4	5	0
I felt I had some control over the result I received from the complaint	1	2	3	4	5	0
Overall , I was satisfied with the airline's performance despite the service failure	1	2	3	4	5	0
I have recommended/will recommend the airline to others	1	2	3	4	5	0
I will fly with the same airline again	1	2	3	4	5	0
I would not switch to another airline	1	2	3	4	5	0
I consider this airline to be my primary choice	1	2	3	4	5	0
I like switching airlines for variety	1	2	3	4	5	0
I like switching airlines to compare services	1	2	3	4	5	0

Section C: About You

Finally, we would be grateful for a few further details. This information will enable us to analyse your responses to the previous questions more accurately. **(It will not be used for any other purpose).**

QC1. Gender?

Male		Female	
------	--	--------	--

QC2. What is your age group?

18 – 24	
25 – 34	
35 – 44	
45 – 54	
55 – 64	
65 and Over	

QC3. The purpose of your trip?

Business	
Leisure/holiday	
Other (please write)	

QC4. What is your nationality (which country issued your passport)?

QC5. What is your current job /occupation?

QC6. Which airline did you fly with?

QC7. How did you travel?

First class	
Business class	
Economy class	

QC8. Domestic or International flight?

Domestic Within the UK	
International (in Europe)	
International (outside Europe)	

QC9. How many times have you previously flown with this airline?

First time	
Once before	
Twice before	
3-5 times	
6-10 times	
More than 10 times	

Thank you for your kind co-operation

CHAPTER 4

DATA ANALYSIS

4.1 Introduction

The data analysis is being divided into two areas. In the first one there is discussion about the results findings that were provided from the air travellers as far as concerning their service failure incidents occurrence (Part 1a). Additionally here there is some further discussion about the recovery action that the airline took (or not) and whether customers were satisfied (or not) (Part 1b).

Further on the 2nd part which is the main bulk according to what the conceptual framework dictates and in conjunction with the literature review there is data analysis through statistics (IBM's SPSS software) to seek if the hypotheses suggested by the researcher in his conceptual framework are in alliance with the results or something different came to the surface (Part 2).

4.2 Part 1a – Service Failure Incidents analysis: 22 Failure Types occurrence and rationale for each one

From the data analysis with regards to the appearance of service failure incidents there were provided as feedback from the air travellers' twenty two (22) different categories of service failure that can be seen in the following table. Some of them have the exact same number of incidents so through ranking 16 places were found in total:

Table 4.1 –Service failure incidents from the airline industry

No	Ranking	INCIDENT description (from Service Failure)	No of incidents In total	%
1.	1)	Flight delay	184	46.35
2.	2)	Baggage delay	52	13.10
3.	3)	Poor service	35	8.82
4.	4)	Flight cancellation	21	5.29
5.	5)	Baggage lost	16	4.03
6.	6)	Bad food	14	3.53
7.	7)	Lost flight	11	2.77
8.	8)	Baggage damage	10	2.52
9.	9)	Poor food service	9	2.27
10.	10)	Flight diversion	8	2.02
11.	11)	Bad behaviour	6	1.51
12.	12) (i)	Baggage overweight	5	1.26
13.	(ii)	Flight issues on air	5	1.26

14.	13) (i)	Small size seat/legroom	4	1.01
15.	(ii)	Entertainment gadget broke	4	1.01
16.	14) (i)	Flight reschedule	3	0.76
17.	(ii)	Ticket issue failure	3	0.76
18.	15) (i)	Lost/stolen things	2	0.50
19.	(ii)	Flight overbooked	2	0.50
20.	16) (i)	Crash landing	1	0.25
21.	(ii)	Booking system error	1	0.25
22.	(iii)	Web booking not flexible	1	0.25
			397	100%

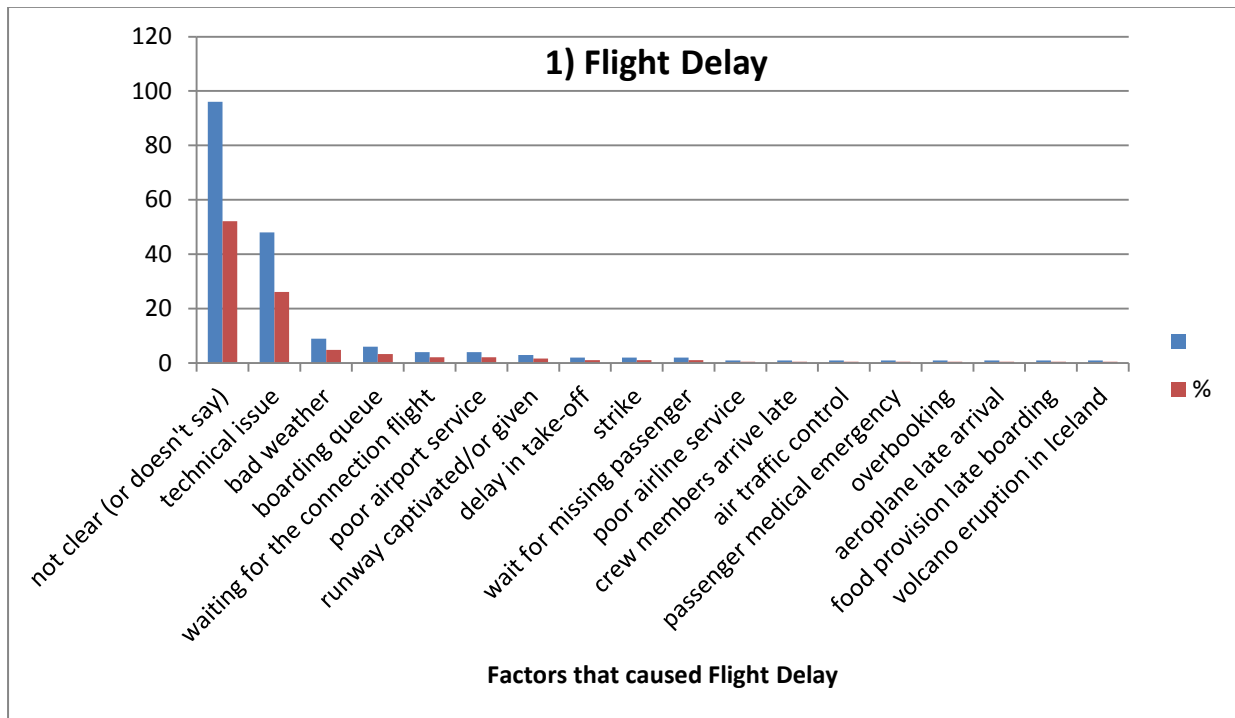
1. Flight Delay

The one that came first was “Flight delay” with 46% followed by “Baggage delay” with 13% and thirdly “Poor service” with almost 9%. The sequence of the rest can be seen in the Table 4.1. As far as concerning the first category, “Flight Delay”, the analysis showed that there 18 factors were involved that led to it. More particularly Table 4.2 below shows that, together with the diagram 1 that follows. From the results there is more than 50% (actual 52.17%) that respondents didn’t refer the cause of “Flight delay”, followed by 26% of “Technical issue” that the aeroplane faced and then thirdly the “Bad weather” factor (almost 5%).

Table 4.2 – Factors that caused Flight Delay

No	Ranking	1) FLIGHT DELAY – Factors that cause it	No of incidents in total	%
1.	1)	Not clear (or doesn't say)	96	52.17
2.	2)	Technical issue	48	26.09
3.	3)	Bad weather	9	4.89
4.	4)	Boarding queue	6	3.26
5.	5) (i)	Waiting for the connection flight	4	2.17
6.	(ii)	Poor airport service	4	2.17
7.	6)	Runway captivated/or given	3	1.63
8.	7) (i)	Delay in take-off	2	1.09
9.	(ii)	Strike	2	1.09
10.	(iii)	Wait for missing passenger	2	1.09
11.	8) (i)	Poor airline service	1	0.54
12.	(ii)	Crew members arrive late	1	0.54
13.	(iii)	Air traffic control	1	0.54
14.	(iv)	Passenger medical emergency	1	0.54
15.	(v)	Overbooking	1	0.54
16.	(vi)	Aeroplane late arrival	1	0.54
17.	(vii)	Food provision late boarding	1	0.54
18.	(viii)	Volcano eruption in Iceland	1	0.54
			184	

Diagram 4.1 – Factors that caused Flight Delay



For the first factor (“Not clear or doesn’t say”) in any case there were no announcement from the side of the airline company to justify the delay and that added further disappointment to the air travellers, meaning that if explanations were provided that could enhance them to not even mention the delay as a service failure. The second factor that caused the delay is clear as it regards to a “technical failure” of the airplane usually a minor one which is being fixed before the flight commences, accompanied with the third one, the “bad weather”. The rest of the factors are quite small in occurrence (ranging from 3.26% for the boarding queue up to 0.54% Volcano eruption in Iceland a few years back).

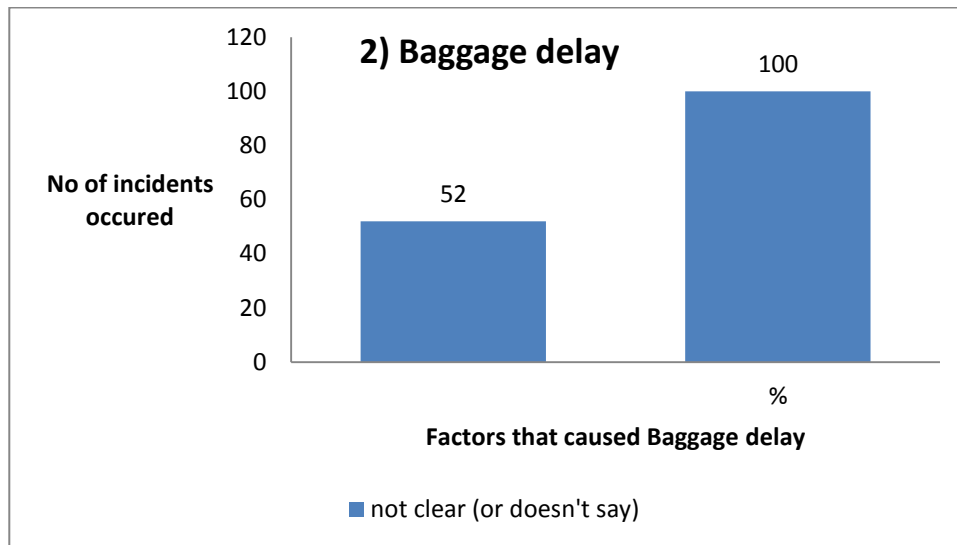
2. Baggage Delay

The second category of service failure that appeared quite often from the air traveller’s feedback is the “baggage delay” and all 52 times that appeared there was with no further explanations given as to the cause of it. All the customers didn’t provided any further explanation (hence the justification “Not clear or doesn’t say” was added) as table 4.3 shows, apparently because the airline company in each one didn’t provided any during that time.

Table 4.3 – Factors that caused Baggage delay

No	Ranking	2) BAGGAGE DELAY – Factors that cause it	No of incidents in total	%
1	1)	Not clear (or doesn't say)	52	100
		Total	52	100

Diagram 4.2 – Factors that caused Baggage delay



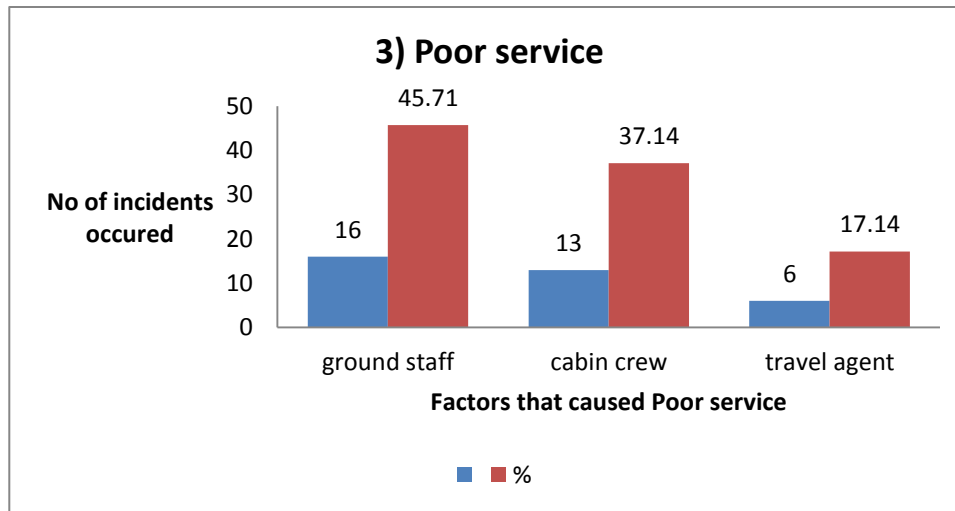
3. Poor service

The third category that appeared quite regularly is the “poor service” with 35 incidents in total. From the feedback we can see that 45% of it came from the “ground staff”, putting second with 37% the “cabin crew”, followed by the “travel agent” with 6% (Table 4.4 and Diagram 4.3 below). It is quite important information as it shows between ground and air the percentage of poor service provided revealing that both sides have relatively similar amount of poor service failure and that means that the effort from the airline company has to be targeted to both directions. The third factor, “travel agent” still a significant factor in poor service incidents and that means the airlines has to pay also more attention to their travel agent partners as well to reduce as possible the 17% poor service occurrence.

Table 4.4 – Factors that caused Poor service

No	Ranking	3) POOR SERVICE – Factors that cause it	No of incidents in total	%
1	1)	ground staff	16	45.71
2	2)	cabin crew	13	37.14
3	3)	travel agent	6	17.14
		Total	35	100

Diagram no 4.3 – Factors that caused Poor service



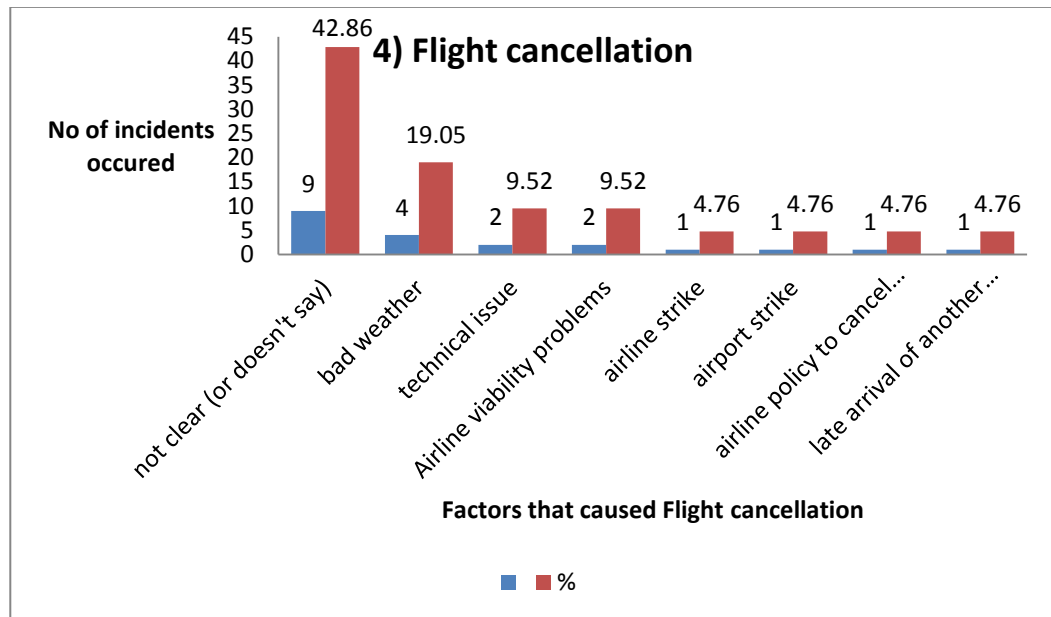
4. Flight cancellation

The fourth category is “flight cancellation” and eight factors have been caused it. Again there is almost 43% of the answers provided where no justification for the flight cancellation, had been announced from the side of the airline company could have eased the amount of complaints. The rest of the feedback is due to “Bad weather” conditions with 19% followed by two equal “Technical issue” and “Airline viability problems” (something quite rare). In fourth place there are four different causes with less than 5% each, the “Airline strike”, “Airport strike”, “Airline policy to cancel the flight” and “Later arrival of another aeroplane”.

Table 4.5 – Factors that caused Flight cancellation

No	Ranking	4) FLIGHT CANCELLATION – Factors that cause it	No of incidents in total	%
1	1)	Not clear (or doesn't say)	9	42.86
2	2)	Bad weather	4	19.05
3	3) (i)	Technical issue	2	9.52
4	(ii)	Airline viability problems	2	9.52
5	4) (i)	Airline strike	1	4.76
6	(ii)	Airport strike	1	4.76
7	(iii)	Airline policy to cancel the flight	1	4.76
8	(iv)	Late arrival of another aeroplane	1	4.76
Total			21	100

Diagram 4.4 – Factors that caused Flight cancellation



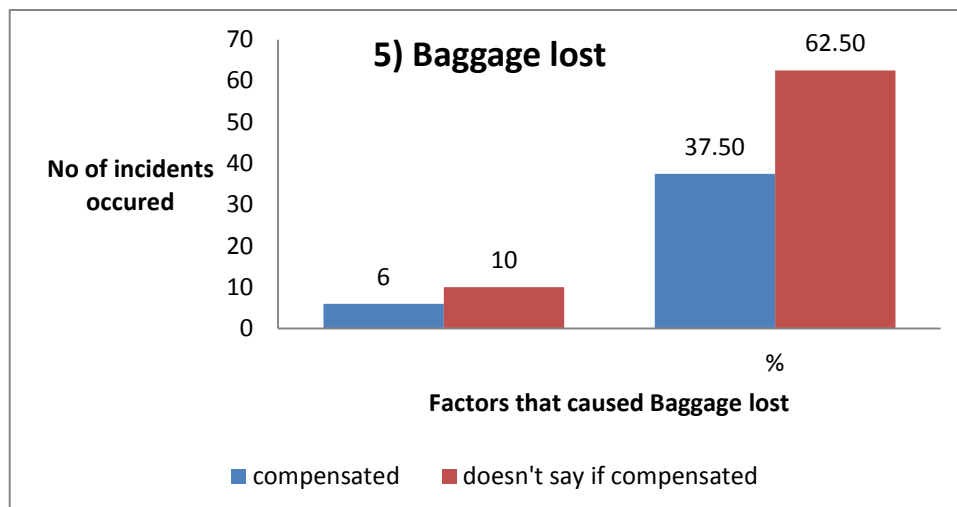
5. Baggage lost

“Baggage lost” comes in the fifth position and from the travellers’ feedback it was compensated only the 37% with the rest 63% of the customers not to mention if it was compensated something which suggests that apparently there was no compensation provided for this figure, a very high number for no compensation for any airline involved.

Table 4.6 – Factors that caused Baggage lost

No	Ranking	5) BAGGAGE LOST – Factors that cause it	No of incidents in total	%
1	1)	Compensated	6	37.50
2	2)	doesn't say if compensated	10	62.50
		Total	16	100

Diagram 4.5 – Factors that caused Baggage lost



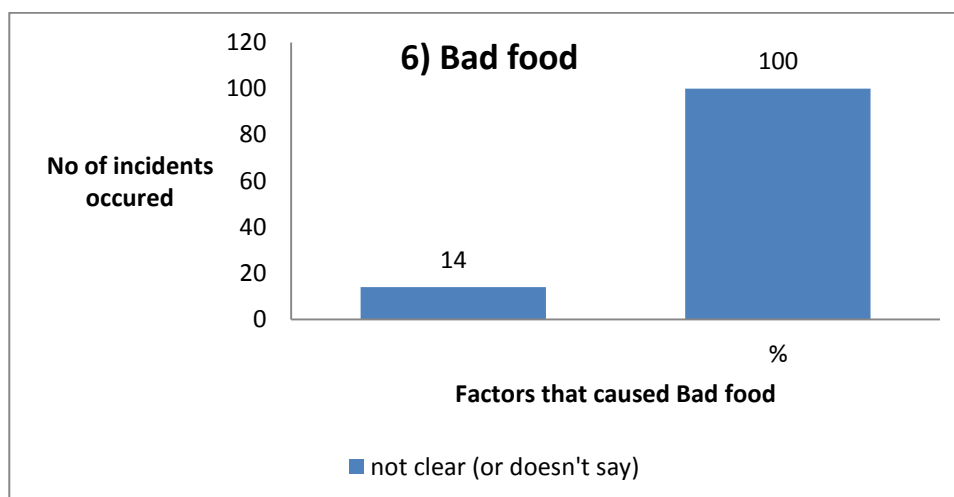
6. Bad food

Further on the analysis as number 6 is “Bad food” with 14 incidents in the 400 people data collection, a relatively small number.

Table 4.7 – Factors that caused Bad food

No	Ranking	6) BAD FOOD – Factors that cause it	No of incidents in total	%
1	1)	not clear (or doesn't say)	14	100
		Total	14	100

Diagram no 4.6 – Factors that caused Bad food



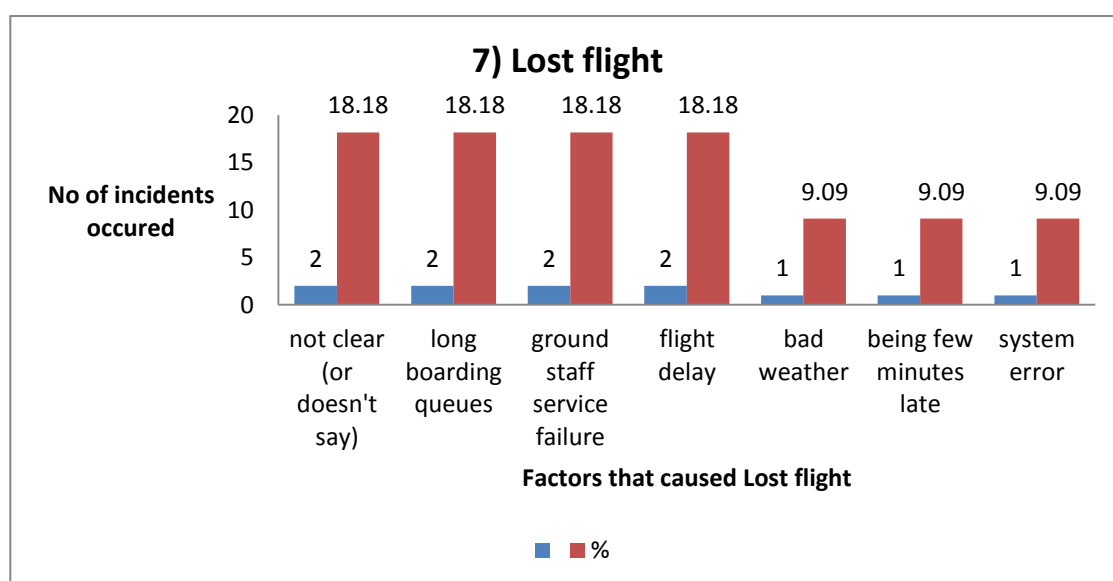
7. Lost flight

The “Lost flight” is in seventh position, with the data to reveal that it was caused by 7 different factors separated in two batches based on the frequency of the incidents, the first one (higher occurrence) with 18% were the boarding queues, the ground staff failure, the flight delay and also the absence of mentioning any reason followed by the second batch with 9% occurrence of the bad weather, late boarding and system error.

Table 4.8 – Factors that caused lost Flight

No	Ranking	7) LOST FLIGHT – Factors that cause it	No of incidents in total	%
1	1) (i)	Not clear (or doesn't say)	2	18.18
2	(ii)	Long boarding queues	2	18.18
3	(iii)	Ground staff failure	2	18.18
4	(iv)	Flight delay	2	18.18
5	(2)(i)	Bad weather	1	9.09
6	(ii)	Being few minutes late	1	9.09
7	(iii)	System error	1	9.09
		Total	11	100

Diagram no 4.7 – Factors that caused Flight Lost



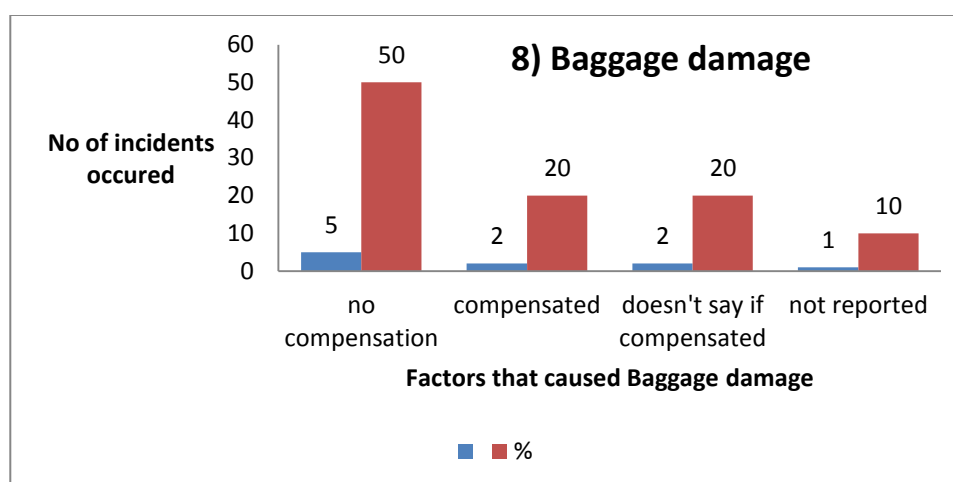
8. Baggage damage

“Baggage damage” comes eight with 50% of the travellers receiving no compensation for the damage, and from the rest 50% 20% of it only receives compensation, another 20% does not clarify if it was compensated (with most likelihood not to receive any) and the remaining 10% did not reported any baggage damage.

Table 4.9 – Factors that caused Baggage damage

No	Ranking	8) BAGGAGE damage – Factors that cause it	No of incidents in total	%
1		No compensation	5	50
2	2) (i)	Compensated	2	20
3	(ii)	Doesn't say if compensated	2	20
4		Not reported	1	10
		Total	10	100

Diagram no 4.8 – Factors that caused Baggage damage



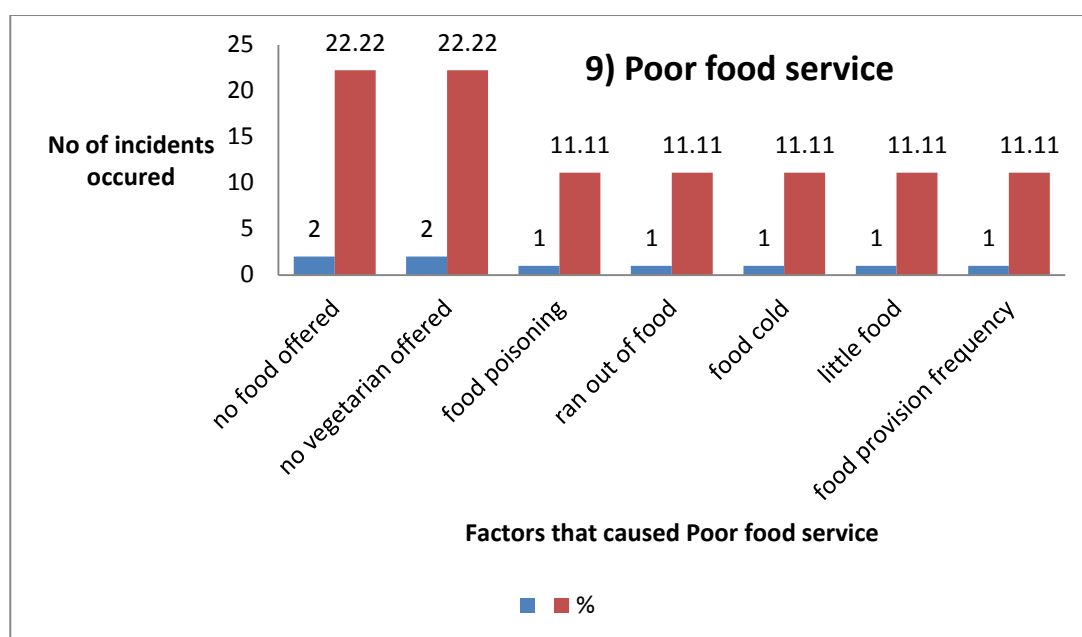
9. Poor Food service

Placed at number 9 is “Poor Food service” with 22% complaining that no food was offered at all during their air trip, another 22% was complaining that no vegetarian food was offered, following by four equal single occurrence incidents of 11% each that included “food poisoning” – “ran out of food” – “cold food” – “little food” and “food provision frequency”.

Table 4.10 – Factors that caused Poor food service

No	Ranking	10) POOR food service – Factors that cause it	No of incidents in total	%
1	1) (i)	No food offered	2	22.22
2	(ii)	No vegetarian food offered	2	22.22
3	(2)(i)	Food poisoning	1	11.11
4	(ii)	Ran out of food	1	11.11
5	(iii)	Food cold	1	11.11
6	(iv)	Little food	1	11.11
7	(v)	Food provision frequency	1	11.11
		Total	9	100

Diagram 4. 9 – Factors that caused Poor food service



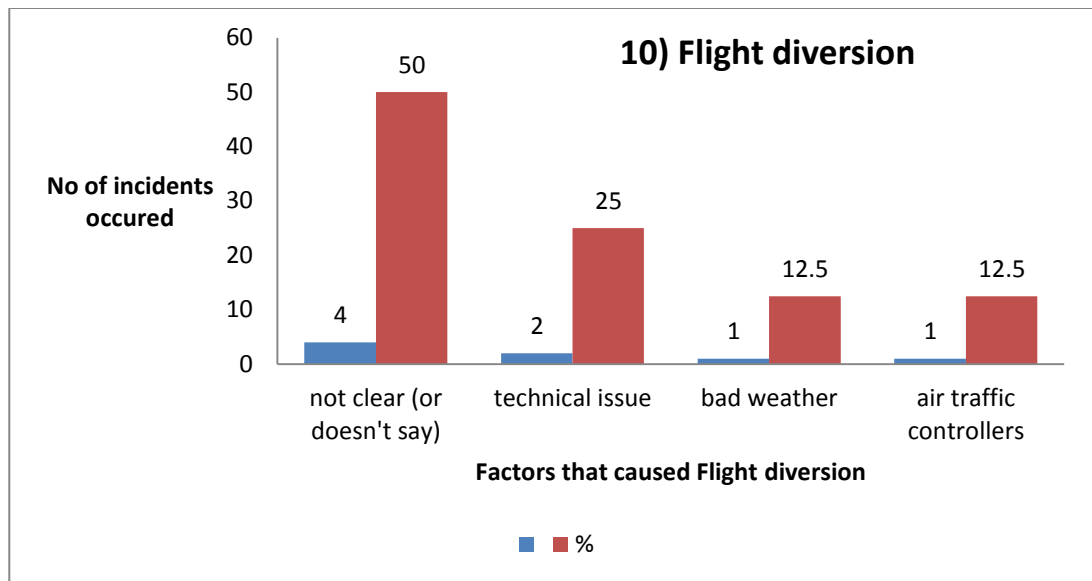
10. Flight diversion

At number 10 is the category of “Flight diversion” with 50% of the travellers not clarifies the reason for the diversion, as it is likelihood not to be explained by the airline’s cabin crew. 25% of the factors that led to the diversion are from technical issue and the remaining 25% is split into bad weather with 12.5% and air traffic controllers with another 12.5%

Table 4.11 – Factors that caused Flight diversion

No	Ranking	10) FLIGHT diversion –Factors that cause it	No of incidents in total	%
1	1)	Not clear (or doesn't say)	4	50
2	2)	Technical issue	2	25
3	3) (i)	Bad weather	1	12.5
4	(ii)	Air traffic controllers	1	12.5
		Total	8	100

Diagram 4.10 – Factors that caused Flight diversion



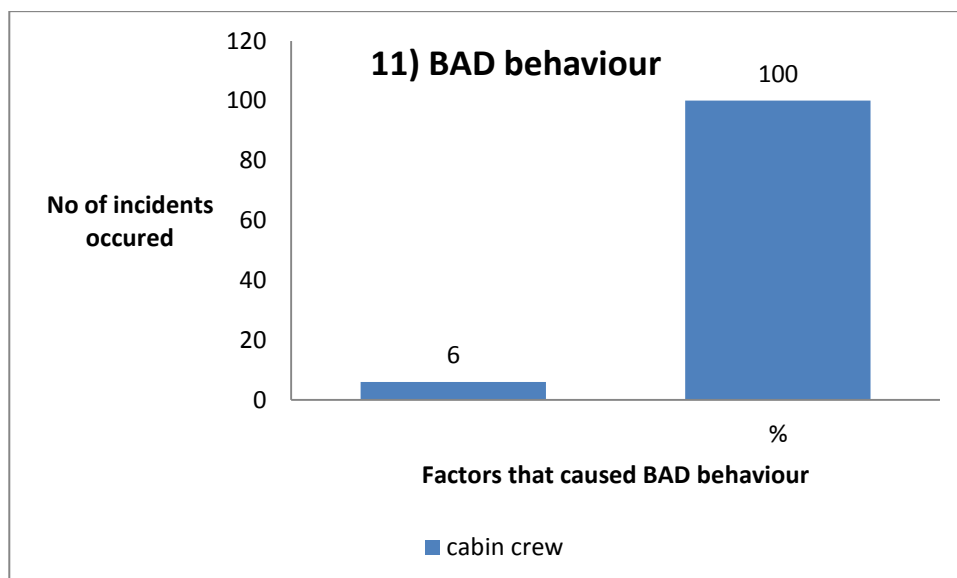
11. Bad behaviour

“Bad behaviour” is in the 11th place with 6 incidents all of them coming from cabin crew. That tells that some flight attendants need some additional training to improve their behaviour towards customers.

Table 4.12 – Factors that caused Bad Behaviour

No	Ranking	12) Bad behaviour –Factors that cause it	No of incidents in total	%
1	1)	Cabin crew	6	100
		Total	6	100

Diagram 4.11 – Factors that caused BAD Behaviour



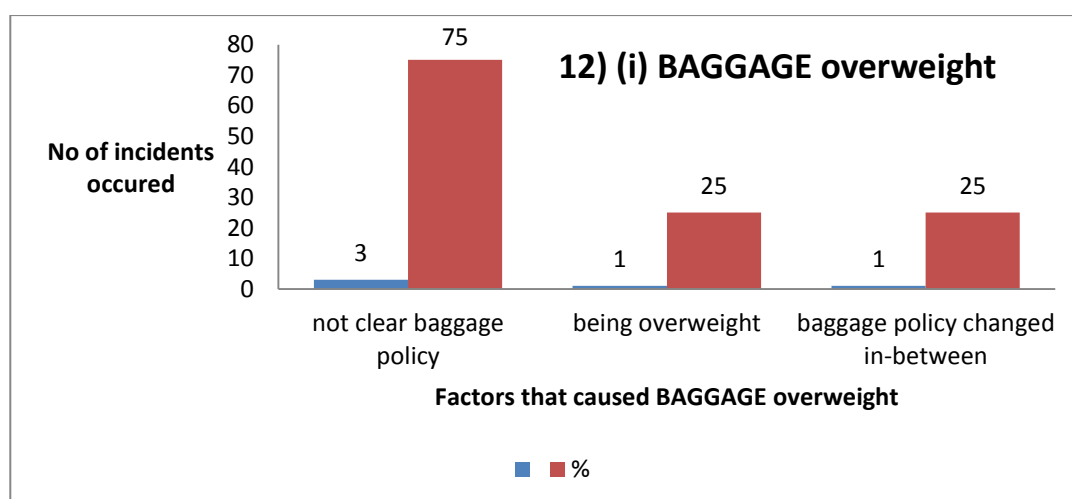
12 (i) Baggage overweight

“Baggage overweight” comes next with 3 factors that caused it, a 75% goes to non-explanation provided followed by a 25% of actual being overweight baggage and another 25% with baggage policy changed in-between. The first factor (no explanation provided) of 75% could be interpreted as a fault of the airline company not to be specific about its policy on that matter, or also as a fault of the customers.

Table 4.13 – Factors that caused Baggage overweight

No	Ranking	12) (i) Baggage overweight –Factors that cause it	No of incidents in total	%
1	1)	Not clear (or doesn't say)	3	75
2	2)	Being overweight	1	25
3	3)	Baggage policy changed in-between	1	25
		Total	5	100

Diagram 4.12 – Factors that caused Baggage overweight



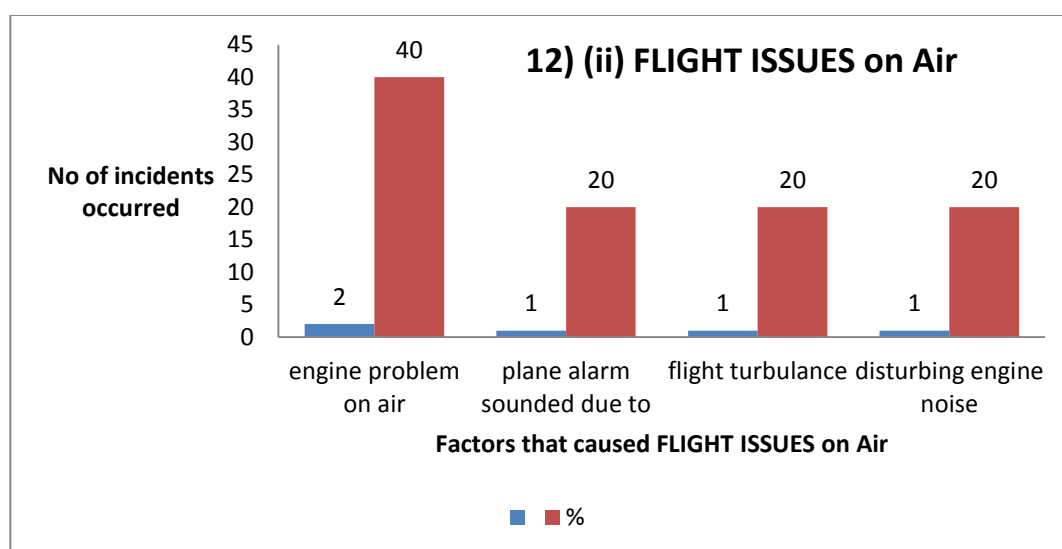
12 (ii) Flight issues on Air

“Flight issues on Air” is another category of service failure incidents ranked at 12th position with a 40% factor of engine problem on air, followed with 20% of all three “Aeroplane alarm sounded due to”, “Flight turbulence” and “Disturbing engine noise”.

Table 4.14 – Factors that caused FLIGHT ISSUES on Air

No	Ranking	12) (ii) FLIGHT ISSUES on Air – Factors that cause it	No of incidents in total	%
1	1)	Engine problem on air	2	40
2	2) (i)	Aeroplane alarm sounded due to	1	20
3	(ii)	Flight turbulence	1	20
4	(iii)	Disturbing engine noise	1	20
		Total	5	100

Diagram 4.13 – Factors that caused FLIGHT ISSUES on Air



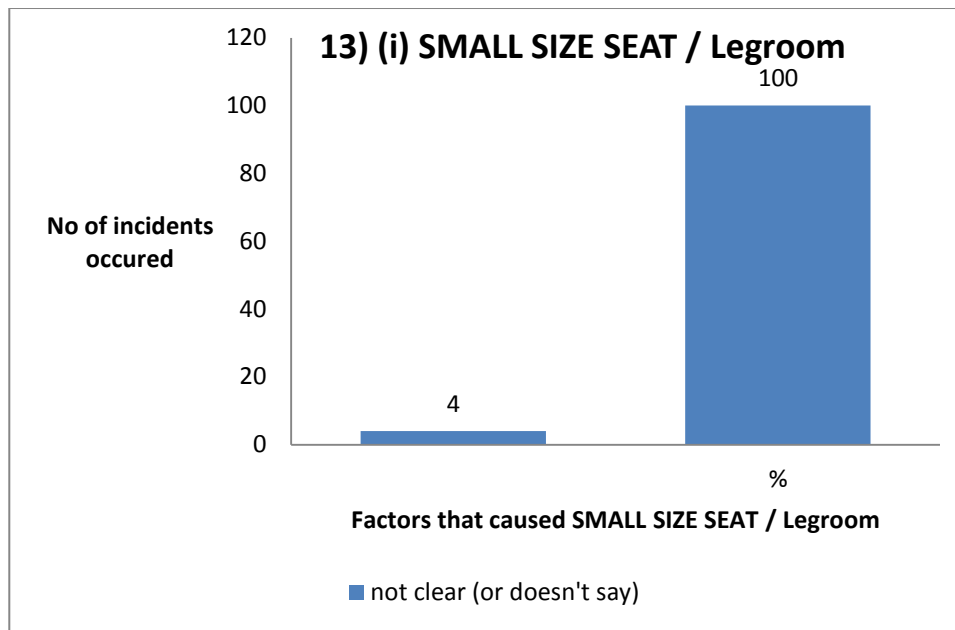
13) (i) Small size seat / legroom

At the 13th position is the category complaint of “small size seat” with not enough legroom, luckily only four incidents as most tall people have this problem (including the author himself) as the airlines try literally to squeeze as much as possible the cabin space for one extra row of seats. It is a wrong policy as many people have to face that difficult situation which can last for hours.

Table 4.15 – Factors that caused SMALL SIZE SEAT/ Legroom

No	Ranking	13) (i) SMALL SIZE SEAT / Legroom – Factors that cause it	No of incidents in total	%
1	1)	Not clear (or doesn't say)	4	100
		Total	4	100

Diagram 4.14 – Factors that caused SMALL SIZE SEAT/ Legroom



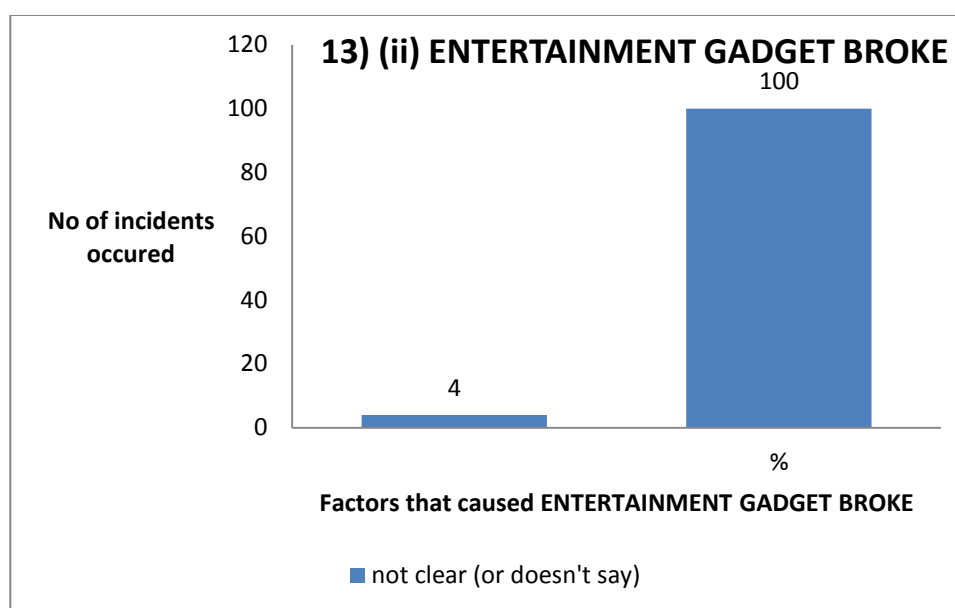
13) (ii) Entertainment gadget broke

Another service failure category ranked 13th is the case of having entertainment gadget broken and can be difficult to seat on that chair for e.g. a transatlantic flight (several hours, more than ten) without having the possibility of doing nothing unless a good book has been carried together with the passenger. The feedback of the passengers has not specified any particular reason of why the gadget was broken, in most cases comes with the extensive usage, meaning that the airline has to be more cautious and controlling more frequently any broken/faulty device as this has a direct impact on customers travelling hours.

Table 4.16 – Factors that caused ENTERTAINMENT GADGET BROKE

No	Ranking	13) (ii) ENTERTAINMENT GADGET BROKE – Factors that cause it	No of incidents in total	%
1	1)	Not clear (or doesn't say)	4	100
		Total	4	100

Diagram 4.15 – Factors that caused ENTERTAINMENT GADGET BROKE



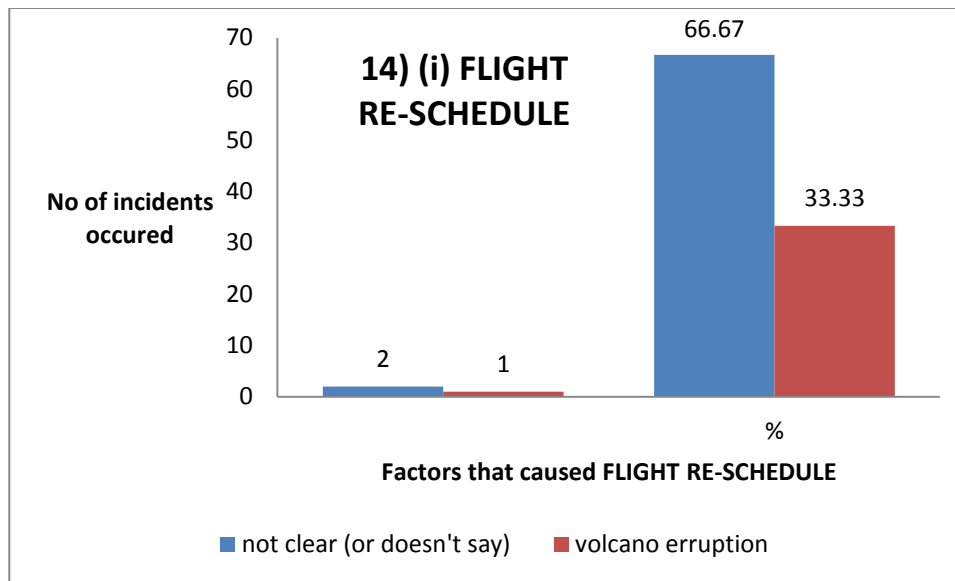
14 (i) Flight Re-schedule

“Flight re-schedule” is another uncommon category of service failure, ranked here at the 14th position. The feedback provided a 67% no clarity as to why this phenomenon happened and a 33% on something rare which is the Volcano eruption.

Table 4.17 – Factors that caused FLIGHT RE-SCHEDULE

No	Ranking	14) (i) FLIGHT RE-SCHEDULE –Factors that cause it	No of incidents in total	%
1	1)	Not clear (or doesn't say)	2	66.67
2	2)	Volcano eruption	1	33.33
		Total	3	100

Diagram 4.15 – Factors that caused FLIGHT RE-SCHEDULE



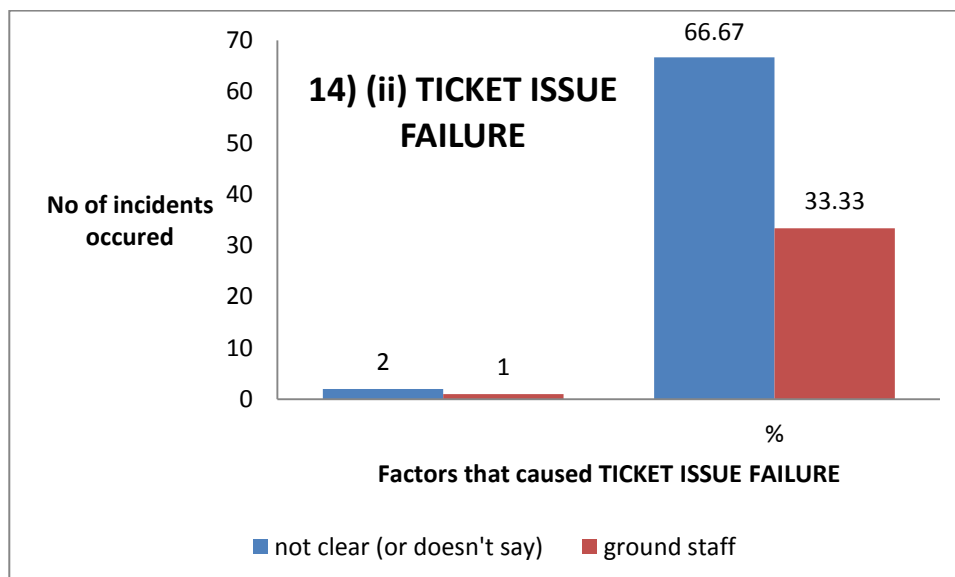
14 (ii) Ticket issue failure

“Ticket issue failure” is another category of service failure incident ranked at 14th position. 67% of the failure is not been explained as to why things ended up in this way and only 33% specified that the problem was created from the ground staff on the airport.

Table 4.18 – Factors that caused TICKET ISSUE FAILURE

No	Ranking	14) (ii) TICKET ISSUE FAILURE – Factors that cause it	No of incidents in total	%
1	1)	Not clear (or doesn't say)	2	66.67
2	2)	Ground staff	1	33.33
		Total	3	100

Diagram 4.16 – Factors that caused TICKET ISSUE FAILURE



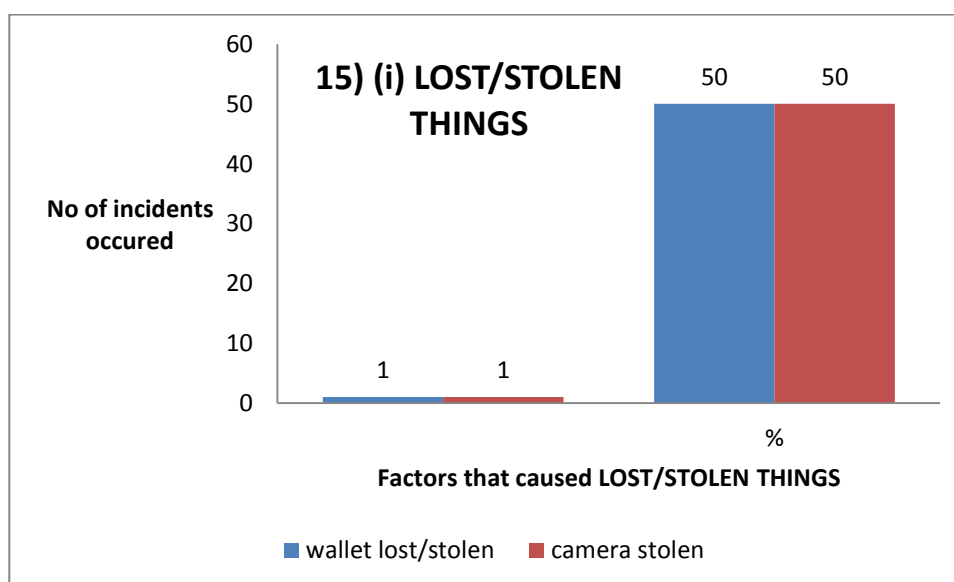
15 (i) Lost / Stolen things

“Lost / Stolen things” is another category occurred, with 2 incidents, a “wallet lost/stolen” with 50% and another one of “camera stolen” -the rest 50%.

Table 4.19 – Factors that caused LOST/STOLEN THINGS

No	Ranking	15) (i) LOST/STOLEN THINGS – Factors that cause it	No of incidents in total	%
1	1)	Wallet lost / stolen	1	50
2	2)	Camera stolen	1	50
		Total	2	100

Diagram 4.17 – Factors that caused LOST/STOLEN THINGS



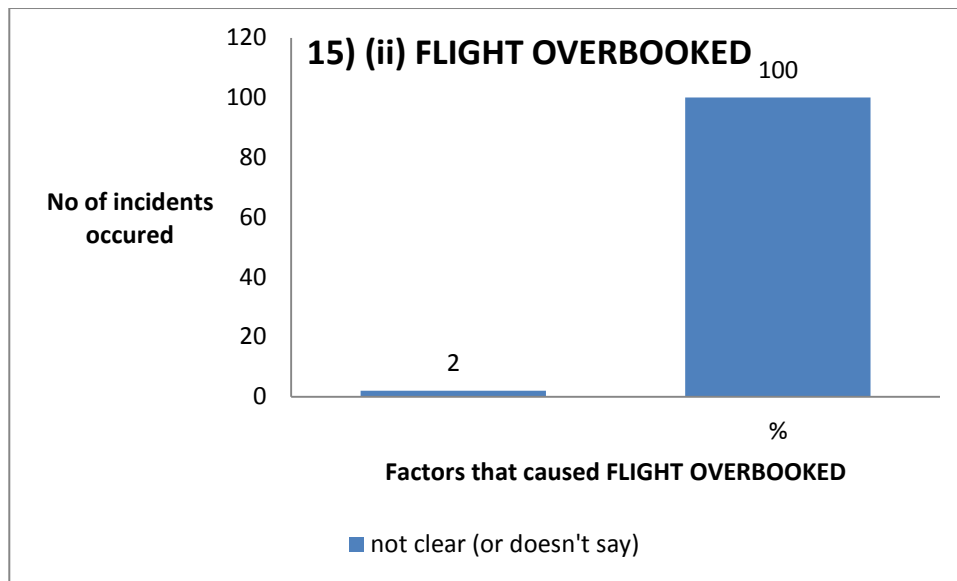
15) (ii) Flight overbooked

“Flight overbooked” is also another category of service failure occurred, with only 2 incidents which they (customers) don’t clarify the reason as to why this happened. Probably it was not their fault with indications of a travel agency bad activity to end up in this unpleasant situation.

Table 4. 20 – Factors that caused FLIGHT OVERBOOKING

No	Ranking	15) (ii) FLIGHT OVERBOOKED – Factors that cause it	No of incidents in total	%
1	1)	Not clear (or doesn't say)	2	100
		Total	2	100

Diagram 4.18 – Factors that caused FLIGHT OVERBOOKING



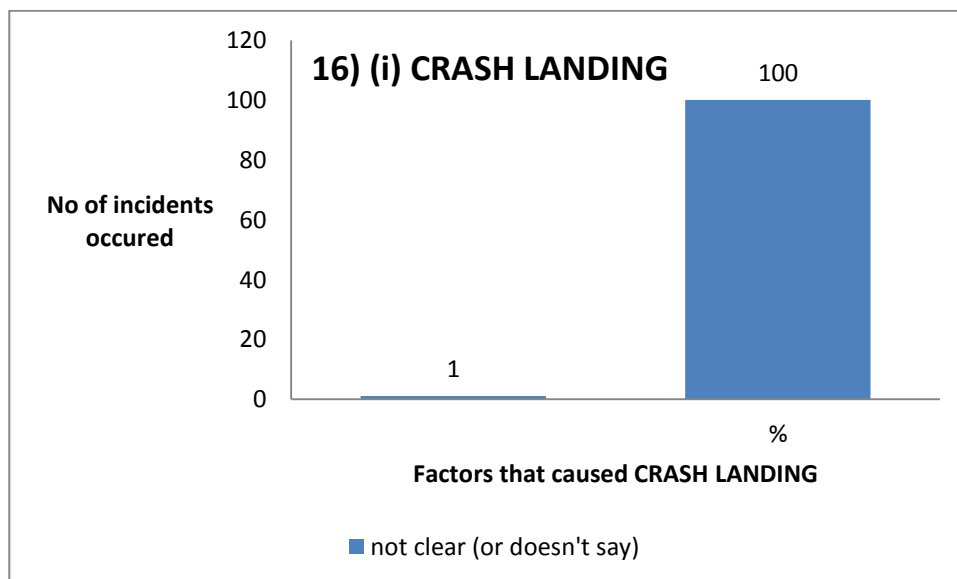
16) (i) Crash landing

One incident has been appeared in this data collection of 400 participants and it was not a fatal one. However there is no further clarification as to what factors involved to end up in this situation.

Table 4.21 – Factors that caused CRASH LANDING

No	Ranking	16) (i) CRASH LANDING – Factors that cause it	No of incidents in total	%
1	1)	Not clear (or doesn't say)	1	100
Total			1	100

Diagram 4.19 – Factors that caused CRASH LANDING



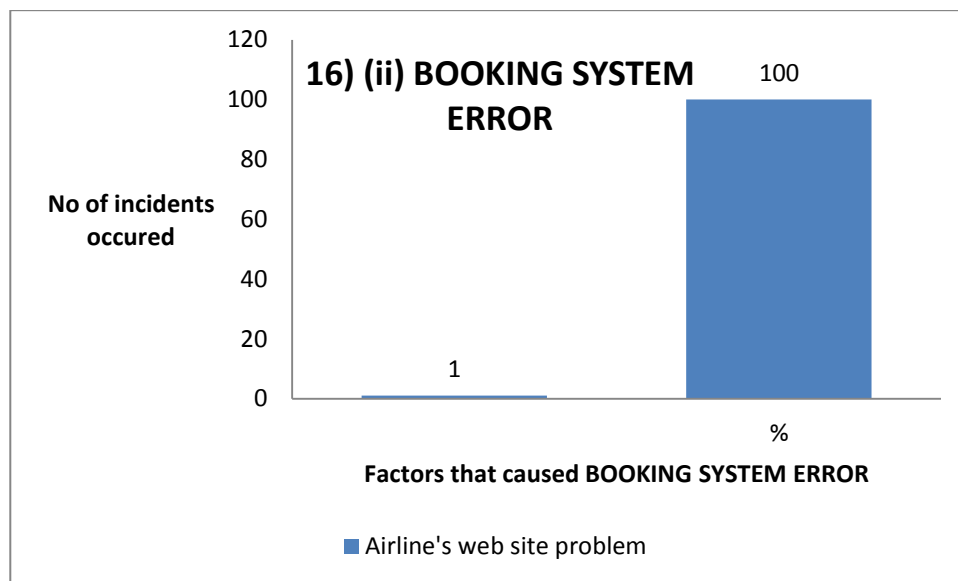
16) (ii) Booking system error

Another service failure category incident, only one appeared in this data with the fault going to airline's web site problem.

Table 4.22 – Factors that caused BOOKING SYSTEM ERROR

No	Ranking	16) (ii) BOOKING SYSTEM ERROR – Factors that cause it	No of incidents in total	%
1	1)	Airline's web site problem	1	100
		Total	1	100

Diagram 4.20 – Factors that caused BOOKING SYSTEM ERROR



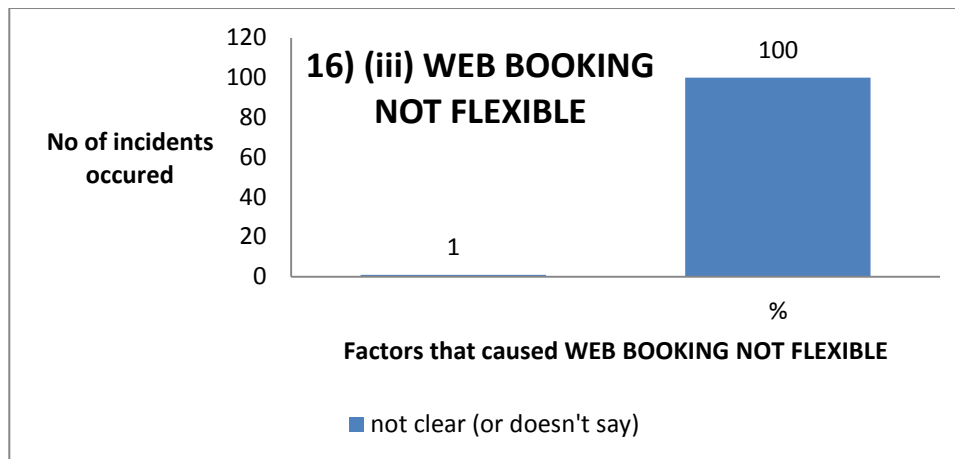
16) (iii) Web booking not flexible

The last category of service failure appeared with only one incident was the non-flexibility of the web booking without the customers specifying further the problem and the specific factor that led to it.

Table 4. 23 – Factors that caused WEB BOOKING NOT FLEXIBLE

No	Ranking	16) (iii) WEB BOOKING NOT FLEXIBLE – Factors that cause it	No of incidents in total	%
1	1)	Not clear (or doesn't say)	1	100
		Total	1	100

Diagram 4. 21 – Factors that caused WEB BOOKING NOT FLEXIBLE



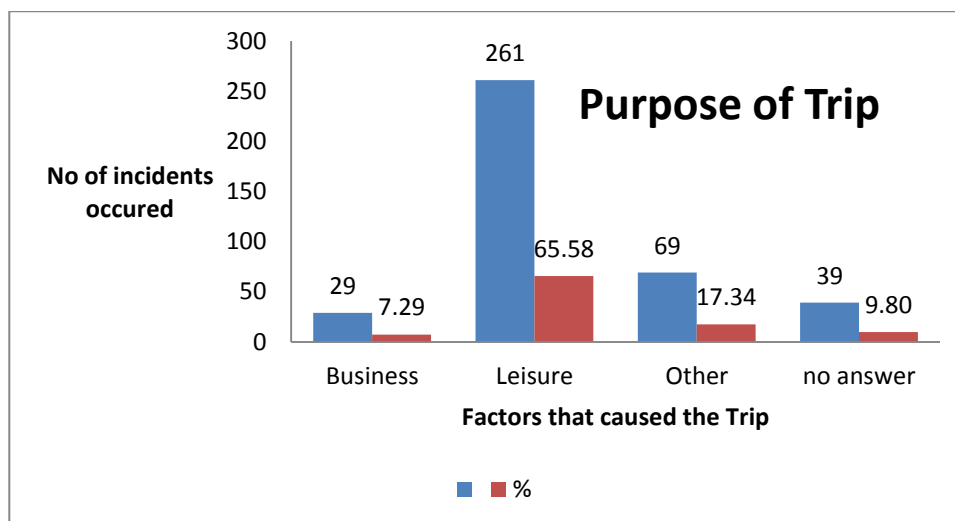
4.2.1 Purpose of Trip Analysis

Additionally from the data analysis we can see that for the “Purpose of Trip” the “Leisure” comes first with 66% leaving “Other” in the second place with 17%, “no answer” to be provided at third place with 10% and lastly “Business” with 7%.

Table 4.24 – Purpose of trip

No	Ranking	Purpose of Trip – Factors that cause it	No of incidents in total	%
1	1)	Business	29	7.29
2	2)	Leisure	261	65.58
3	3)	Other	69	17.34
4	4)	No answer	39	9.80
		Total	1	100

Diagram 4.22 – Factors that caused PURPOSE OF TRIP



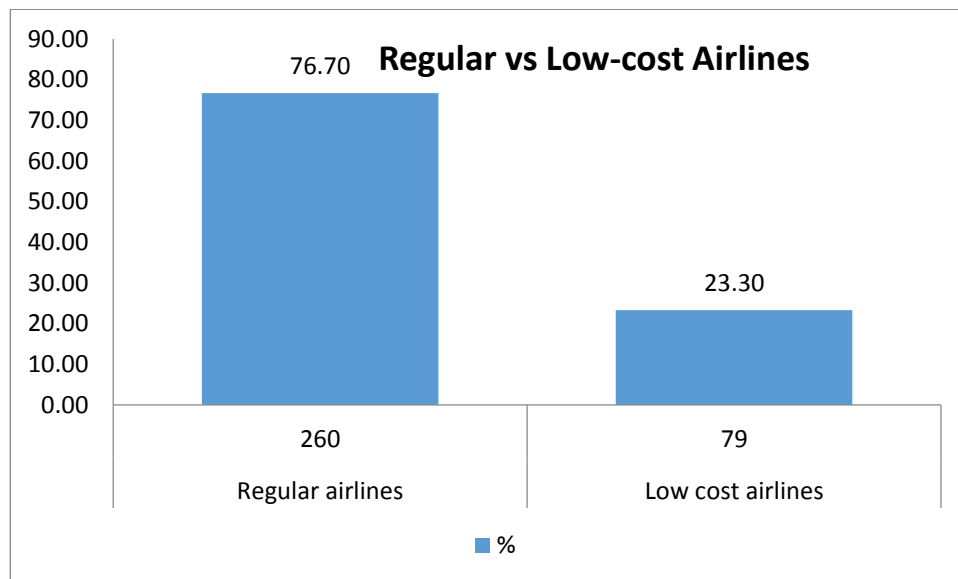
4.2.2 Regular vs Low-cost Airlines usage

The data revealed the comparison among regular airlines with low – cost airlines. From 398 recipients 65% chose to fly with regular airlines, 20% chose the low – cost ones and the rest 15% didn't mentioned what airlines they used.

Table 4.25 – Regular airlines vs Low – cost airlines usage

No	Ranking	Regular airlines vs Low–cost airlines usage	No of incidents in total	%
1	1)	Regular airlines	260	65.33
2	2)	Low-cost airlines	79	19.85
3	3)	No airline mentioned	59	14.82
		Total	1	100

Diagram 4.23 – REGULAR vs LOW-COST Airlines



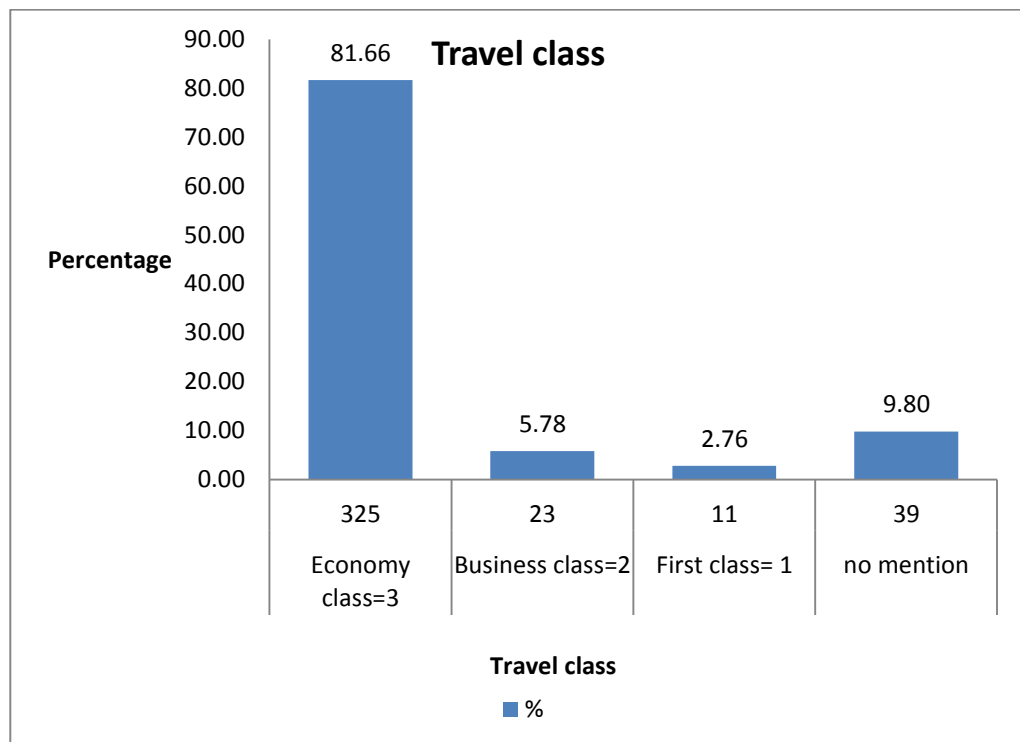
4.2.3 Travel class

From the data analysis there was first the Economy class with 82%, then “No airline mentioned” with 10% followed by Business class with 6% thirdly and last one was the First class with only 3%.

Table 4.26 – Travel class

No	Ranking	Travel class	No of incidents in total	%
1	1)	Economy class	325	81.66
2	2)	No airline mentioned	39	9.80
3	3)	Business class	23	5.78
4	4)	First class	11	2.76
		Total	1	100

Diagram 4.24 – Travel class



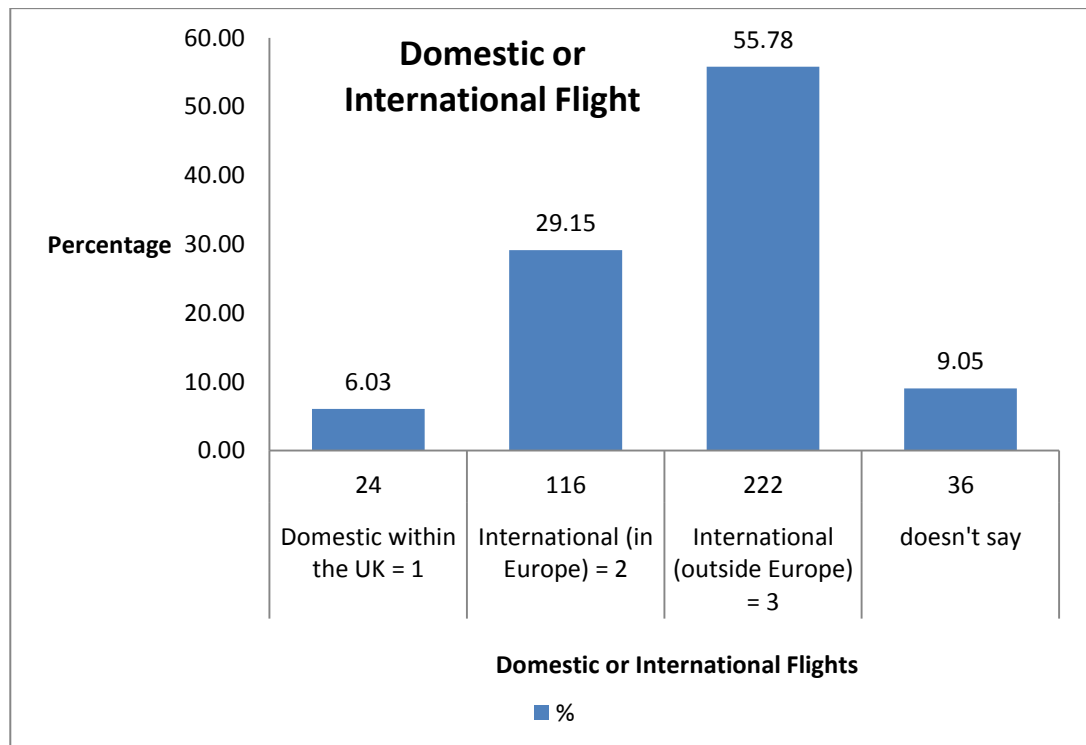
Domestic or International Flight

As far as concerning the amount of Domestic or International Flights the data revealed that first comes the “International (outside of Europe)” flights with 56% followed by “International (in Europe)” flights with 29%. At third place is those who didn’t provide a clear answer with 9% followed by the “Domestic within the UK” flights with 6%.

Table 4.27 – Domestic or International Flight

No	Ranking	Domestic or International Flight	No of incidents in total	%
1	1)	International (outside Europe)	24	55.78
2	2)	International (in Europe)	116	29.15
3	3)	Not clear (or doesn’t say)	222	9.05
4	4)	Domestic within the UK	36	6.03
		Total	398	100

Diagram 4.25 – Domestic or International Flight



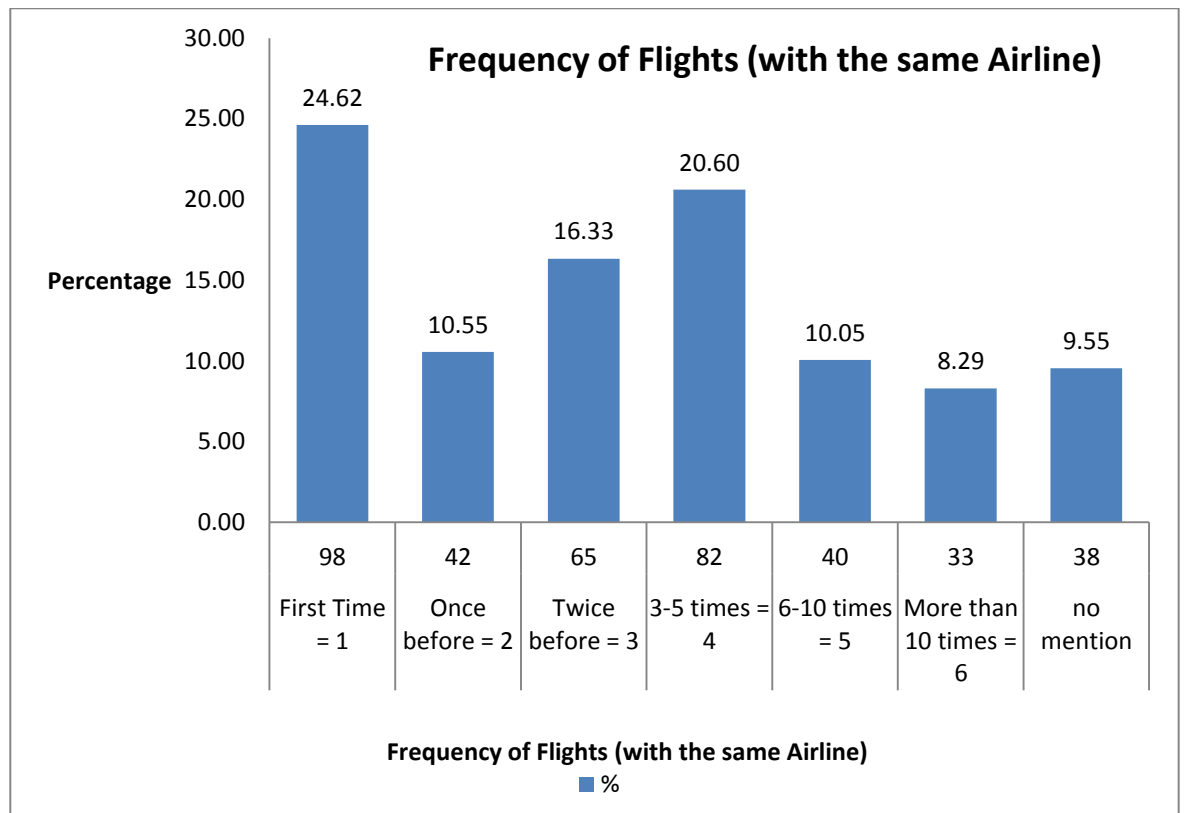
4.2.5 Frequency of Flights (with the same Airline)

Finally the Frequency of flights (with the same Airline) revealed that 25% were first time flyers with that airline, then it was those who had fly 3-5 times before with 21% followed by those who had fly only twice before with 16%. At fourth position came those who had fly once before with that airline with 11% followed in fifth place from those who had fly 6-10 times before with that airline with 10%. Position no 6 was from those who didn't mentioned if they had fly before with that airline with 10% and lastly were those who had fly before more than 10 times with 8% with the same airline.

Table 4. 28 – Frequency of Flights (with the same Airline)

No	Ranking	Frequency of Flights (with the same Airline)	No of incidents in total	%
1	1)	First Time	98	24.62
2	2)	3-5 times	82	20.60
3	3)	Twice before	65	16.33
4	4)	Once before	42	10.55
5	5)	6-10- times	40	10.05
6	6)	No mention	38	9.55
7	7)	More than 10 times	33	8.29
		Total	398	100

Diagram 4. 26 – Frequency of Flights (with the same Airline)



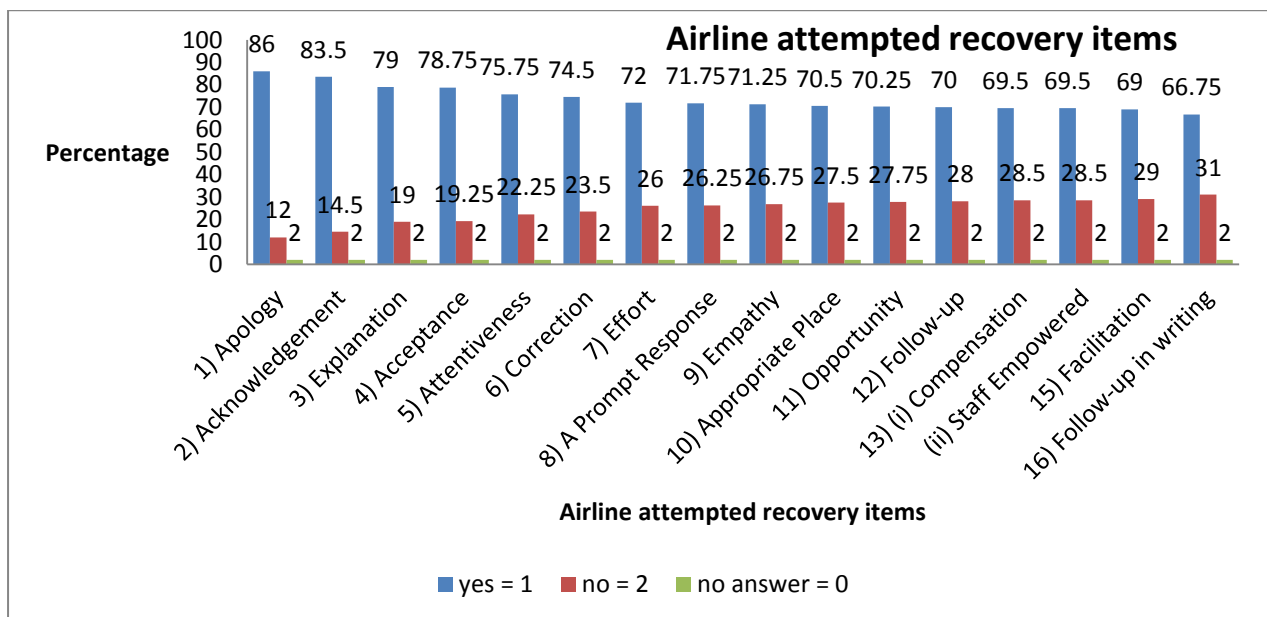
4.3 Part 1 b – SERVICE RECOVERY Application (Discussion on the Airline Recovery items)

When the airline engaged (or not) in the recovery effort after the service failure there are according to the literature 16 recovery strategies which have been implemented into the questionnaire (question QB2). The air traveller's feedback provided their ranking which can be seen in the following Table 4.29:

Table 4. 29 – Airline attempted recovery items

Airline attempted recovery items	% yes = 1	% no = 2	% no answer = 0
1) Apology	86	12	2
2) Acknowledgement	83.5	14.5	2
3) Explanation	79	19	2
4) Acceptance	78.75	19.25	2
5) Attentiveness	75.75	22.25	2
6) Correction	74.5	23.5	2
7) Effort	72	26	2
8) A Prompt Response	71.75	26.25	2
9) Empathy	71.25	26.75	2
10) Appropriate Place	70.5	27.5	2
11) Opportunity	70.25	27.75	2
12) Follow-up	70	28	2
13) (i) Compensation	69.5	28.5	2
(ii) Staff Empowered	69.5	28.5	2
15) Facilitation	69	29	2
16) Follow-up in writing	66.75	31	2

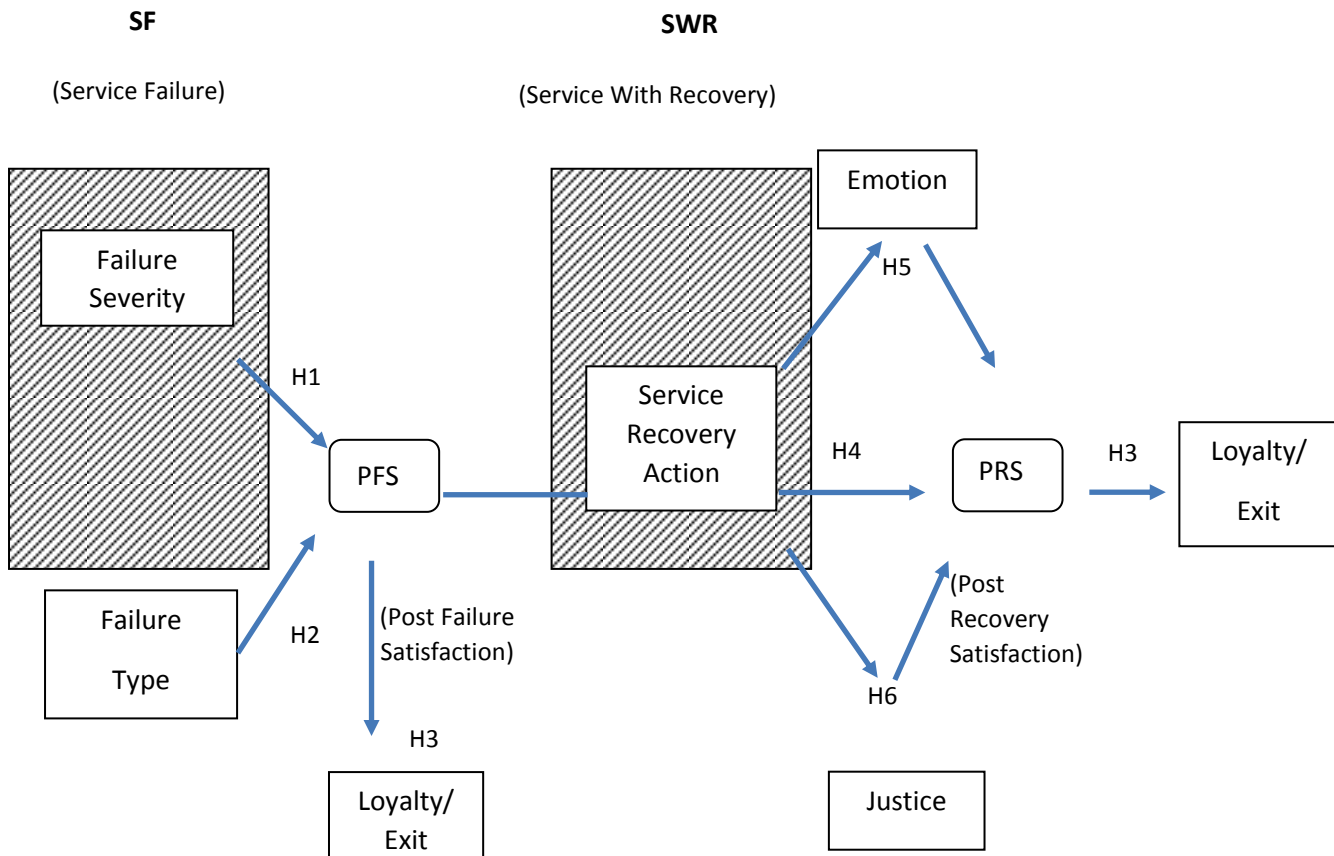
Diagram 4.27 – Discussion on the Airline Recovery items



4.4 Part 2 – MAIN DATA ANALYSIS of the conceptual framework (Through IBM's SPSS Software Package)

From the conceptual framework that is seen below:

c) Sequence after Service Failure (Proposed Research):



Statistical analysis took place through the use of Analysis of Variance (ANOVA) in certain cases and Linear Regression in others. ANOVA took place where the independent variable is categorical and the dependent is continuous. Linear Regression took place where the independent variable is continuous and so is dependent.

The purpose here was to see how the six hypotheses (H1-H6) of the framework applied with the usage of independent and dependent variable(s).

For the first one (H1):

The purpose here was to see how overall the Severity of Failure affects the others, it is an overall measure of Failure Severity which, even though being one variable only it relates to all the rest as it is for everybody when there is service failure. That single one variable is the independent one (Failure Severity) and the purpose was how far that variable predict the dependent variables (PFS, SWR, Loyalty) which they depend on the Severity of Failure.

In a similar format for the H2:

Failure Type is the independent variable and PFS, SWR and Loyalty are the dependent ones.

Subsequently for the H3:

PFS is the independent and Loyalty is the dependent one.

For the H4:

The Recovery Action is the independent one while SWR, PRS and Loyalty are the dependent ones

For the H5:

Emotion will be the independent one while SWR, PRS and Loyalty are the dependent ones

For the H6:

Justice will be the independent one while SWR, PRS and Loyalty will be the dependent ones.

H6: Justice will partially mediate the impact of Satisfaction with Recovery (SWR) on (a) Post Recovery Satisfaction (PRS), (b) Loyalty.

4.4.1 H1 Hypothesis testing

Failure Severity (FS) will have a direct impact on (a) Post Failure Satisfaction (PFS), (b) Satisfaction with Recovery (SWR), (c) Post Recovery Satisfaction (PRS) and (d) Loyalty.

Hypothesis H1a:

Failure Severity (FS) will have a direct impact on (a) Post Failure Satisfaction (PFS).

The hypothesis was tested using ordinary least squares (OLS) regression. To examine the overall impact of FS on PFS, (PFS) was regressed against (FS). The results are presented in Table 4.30.

Table 4.30 (OLS) Regression of Post Failure Satisfaction on Failure Severity

Independent Variables	Beta	t
R= 0.19; R ² = 0.04; Adjusted R ² = 0.04; F = 15.03***		
Failure Severity	-0.19	-3.88***

Notes: *: significant at the $p < 0.001$ level, Durbin Watson: 2.09, VIF: 1.00, Tolerance: 1.00

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable.

Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

Failure Severity (FS) has a significant negative impact on Post Failure Satisfaction (PFS) as would be expected. This supports previous research in other service sectors.

Hypothesis H1b:

Failure Severity (FS) will have a direct impact on (b) Satisfaction with Recovery (SWR)

The hypothesis was tested using OLS regression. To examine the overall impact of FS on SWR, (SWR) was regressed against (FS). It should also be noted that a comparison of the mean SWR and PFS figures indicate that failure severity has a greater impact on PFS than on SWR.

The results are presented in Table 4.31.

Table 4.31 (OLS) Regression of Satisfaction with Recovery (SWR) on Failure Severity (FS)

Independent Variables	Beta	t
R= 0.071; R ² = 0.05; Adjusted R ² = 0.02;		
F = 1.71***		
Failure Severity	-0.71	-1.30***

Notes: *: significant at the $p < 0.001$ level, Durbin Watson: 1.87, VIF: 1.00, Tolerance: 1.00

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value and tolerance statistic indicate the absence of collinearity in the data.

Hypothesis H1c:

Failure Severity (FS) will have a direct impact on (b) Post Recovery Satisfaction (PRS)

The hypothesis was tested using OLS regression. To examine the overall impact of FS on PRS, (PRS) was regressed against (FS).

The Results from the Regression test are presented in Table 4.32.

Table 4.32 (OLS) Regression of Post Recovery Satisfaction on Failure Severity

Independent Variables	Beta	t
R= 0.14; R ² = 0.04; Adjusted R ² = 0.04; F = 7.635***		
Failure Severity	-0.145	-2.76***

Notes: *: significant at the $p < 0.001$ level, Durbin Watson: 1.99, VIF: 1.00, Tolerance: 1.00

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

Hypothesis H1d1:

Failure Severity (FS) will have a direct impact on (d1) Loyalty (Word of Mouth)

The hypothesis was tested using OLS regression. The results from the Regression test are presented in Table 4.33

The Results from the Regression test are presented in Table 4.33.

Table 4.33 (OLS) Regression of (d1) Loyalty (Word of Mouth) on Failure Severity

Independent Variables	Beta	t
R= 0.14; R ² = 0.02; Adjusted R ² = 0.02; F = 6.919***		
Failure Severity	-0.14	-2.63***

Notes: *: significant at the $p < 0.001$ level, Durbin Watson: 2.04, VIF: 1.00, Tolerance: 1.00

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

Hypothesis H1d2:

Failure Severity (FS) will have a direct impact on (d2) Loyalty (Fly same Airline)

The hypothesis was tested using OLS regression. The results from the Regression test are presented in Table 4.34.

Table 4.34 (OLS) Regression of (d2) Loyalty (Fly same Airline – repurchase) on Failure Severity

Independent Variables	Beta	t
R = 0.16; R ² = 0.26; Adjusted R ² = 0.23; F = 9.17***		
Failure Severity	-0.16	-3.03***

Notes: *: significant at the $p < 0.001$ level, Durbin Watson: 2.00, VIF: 1.00, Tolerance: 1.00

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

The regression however here suggests slightly higher impact of SF on repurchase than word of mouth.

Hypothesis H1d3:

Failure Severity (FS) will have a direct impact on (d3) Loyalty (Not switch Airline)

The hypothesis was tested using OLS regression. The results from the Regression test are presented in Table 4.35

Table 4.35 (OLS) Regression of (d3) Loyalty (Not switch Airline) on Failure Severity

Independent Variables	Beta	t
R= 0.70; R ² = 0.005; Adjusted R ² = 0.002; F = 1.69***		
Failure Severity	-0.07	-1.30***

Notes: *: significant at the $p < 0.001$ level, Durbin Watson: 2.04, VIF: 1.00, Tolerance: 1.00

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

The result show that the Beta value (-0.07) is less on switching in comparison with the Beta value (-0.16) on loyalty (repurchase) and does not have a significantly higher impact.

Hypothesis H1d4:

Failure Severity (FS) will have a direct impact on (d4) Loyalty (Consider this Airline my Primary choice)

The hypothesis was tested using OLS regression. The results from the Regression test are presented in Table 4.36.

Table 4.36 (OLS) Regression of (d4) Loyalty (Consider this Airline my primary choice) on Failure Severity

Independent Variables	Beta	t
R= 0.11; R ² = 0.12; Adjusted R ² = 0.10; F = 4.33***		
Failure Severity	-0.11	-2.08***

Notes: *: significant at the $p < 0.001$ level, Durbin Watson: 2.15, VIF: 1.00, Tolerance: 1.00

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

The Beta value indicate the figure for not switching as stated above.

4.4.2 H2 hypothesis testing

Failure type will have a significant impact on, (a) Post Failure Satisfaction (PFS), (b) Satisfaction with Recovery (SWR), (c) Post Recovery Satisfaction (PRS), and (d) Loyalty.

Hypothesis H2a:

Failure Type will have a significant impact on (a) Post Failure Satisfaction (PFS)

The hypothesis was tested using one-way analysis of variance (ANOVA). The results from the ANOVA test are presented in Table 4.37.

Table 4.37 One-way ANOVA for Failure Type Impact on Post Failure Satisfaction (PFS)

	N	Mean PFS	Std. Deviation	Std. Error
Flight delay, diversion, cancellation	157	2.07	0.99	.79
Flight delay, diversion, cancellation (airline fault)	66	2.08	1.06	.13
Baggage lost, damage, delay	85	1.72	0.92	.10
Poor functional or technical service	86	2.01	0.93	.10

Notes: Failure type was measured on a 4 point scale: 1=Flight delay, diversion, cancellation 2=Flight delay, diversion, cancellation (airline fault), 3=Baggage lost, damage, delay 4=Poor functional or technical service. Post Failure Satisfaction (PFS) was measured on a 5 point scale: 1=Extremely dissatisfied, 2=Fairly dissatisfied, 3=Neither, 4=Fairly satisfied, 5=Extremely satisfied.

ANOVA: $F(5, 390) = 2.73; p < 0.0001$.

The results show that the four failure types have a similar impact with the exception of Failure type 3 (Baggage lost, damage, delay) which indicates to be the highest type of failure.

Hypothesis H2b:

Failure Type will have a significant impact on (b) Satisfaction with Recovery (SWR)

The hypothesis was tested using one-way analysis of variance (ANOVA) and ordinary least squares (OLS) regression. The results from the ANOVA test are presented in Table 4.38.

Table 4.38 One-way ANOVA for Failure Type Impact on Satisfaction with Recovery (SWR)

	N	Mean SWR	Std. Deviation	Std. Error
Flight delay, diversion, cancellation	143	2.84	1.10	.92
Flight delay, diversion, cancellation (airline fault)	62	3.06	1.11	1.42
Baggage lost, damage, delay	77	2.84	1.25	1.14
Poor functional or technical service	76	2.58	1.19	0.14

Notes: Failure type was measured on a 4 point scale: 1=Flight delay, diversion, cancellation 2=Flight delay, diversion, cancellation (airline fault), 3=Baggage lost, damage, delay 4=Poor functional or technical service. Satisfaction with Recovery (SWR) was measured on a 5 point scale: 1=Extremely dissatisfied, 2=Fairly dissatisfied, 3=Neither, 4=Fairly satisfied, 5=Extremely satisfied.

ANOVA: $F(5, 390) = 2.73; p < 0.0001$.

The results show that the four failure types have a similar impact with Failure type 2 (Flight delay, diversion, cancellation – airline fault) having the lowest type of failure.

Hypothesis H2c:

Failure Type will have a significant impact on (b) Post Recovery Satisfaction (PRS)

The hypothesis was tested using ANOVA. The results are presented in Table 4.39.

Table 4.39 One-way ANOVA for Failure Type will have a significant impact on (b) Post Recovery Satisfaction (PRS)

	N	Mean PRS	Std. Deviation	Std. Error
Flight delay, diversion, cancellation	135	2.87	1.11	.96
Flight delay, diversion, cancellation (airline fault)	59	3.00	1.16	.15
Baggage lost, damage, delay	77	3.03	1.25	.14
Poor functional or technical service	74	3.14	3.72	.43

Notes: Failure type was measured on a 4 point scale: 1=Flight delay, diversion, cancellation 2=Flight delay, diversion, cancellation (airline fault), 3=Baggage lost, damage, delay 4=Poor functional or technical service. Post Recovery Satisfaction (PRS) was measured on a 5 point scale: 1=Extremely dissatisfied, 2=Fairly dissatisfied, 3=Neither, 4=Fairly satisfied, 5=Extremely satisfied.

ANOVA: $F(3, 341) = 0.31; p < 0.0001$.

The results here when compared with H2a ANOVA show that the recovery on the third Failure Type (Baggage lost, damage, delay) have made a significant improvement. Both in all cases recovery has had a significant improvement on satisfaction levels but particularly effective was on Baggage lost.

Hypothesis H2d1:

Failure Type will have a significant impact on (d1) Loyalty (Word of Mouth)

The hypothesis was tested using ANOVA. The results are presented in Table 4.40.

Table 4.40 One-way ANOVA for Failure Type will have a significant impact on (d1) Loyalty (Word of Mouth).

	N	Mean Word of Mouth	Std. Deviation	Std. Error
Flight delay, diversion, cancellation	135	2.58	1.24	.11
Flight delay, diversion, cancellation (airline fault)	60	2.57	1.31	.17
Baggage lost, damage, delay	77	2.62	1.23	.14
Poor functional or technical service	73	2.44	1.24	.14

Notes: Failure type was measured on a 4 point scale: 1=Flight delay, diversion, cancellation 2=Flight delay, diversion, cancellation (airline fault), 3=Baggage lost, damage, delay 4=Poor functional or technical service. (d1) Loyalty (Word of Mouth) was measured on a 5 point scale: 1=Strongly Disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree.

ANOVA: $F(3, 344) = 0.32; p < 0.0001$.

The results show similarity with the PRS figures, there is significant improvement in all four failure types with very close figures in all of them. The Baggage lost was no exception here.

Hypothesis H2d2:

Failure Type will have a significant impact on (d2) Loyalty (Fly Same Airline)

The hypothesis was tested using one-way analysis of variance (ANOVA). The results are presented in Table 4.41.

Table 4.41 One-way ANOVA for Failure Type will have a significant impact on (d2) Loyalty (Fly Same Airline).

	N	Mean Fly Same Airline	Std. Deviation	Std. Error
Flight delay, diversion, cancellation	138	2.78	1.38	.12
Flight delay, diversion, cancellation (airline fault)	60	2.80	1.49	.19
Baggage lost, damage, delay	77	2.83	1.34	.15
Poor functional or technical service	73	2.56	1.38	.16

Notes: Failure type was measured on a 4 point scale: 1=Flight delay, diversion, cancellation 2=Flight delay, diversion, cancellation (airline fault), 3=Baggage lost, damage, delay 4=Poor functional or technical service. (d2) Loyalty (Fly Same Airline) was measured on a 5 point scale: 1=Strongly Disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree.

ANOVA: $F(3, 347) = 0.57; p < 0.0001$.

The results show that these figures are higher than the previous one (Word of Mouth) and are slightly less than Word of Mouth. That indicates that that reveals that this type of delay – repurchase – (Fly Same Airline) has less impact in comparison with Word of Mouth. That reinforces the power of recovery (Baggage value mean here: 2.83).

Hypothesis H2d3:

Failure Type will have a significant impact on (d3) Loyalty (Not Switch Airline)

The hypothesis was tested using one-way analysis of variance (ANOVA) and ordinary least squares (OLS) regression. The results from the ANOVA test are presented in Table 4.42.

Table 4.42 One-way ANOVA for Failure Type will have a significant impact on (d3) Loyalty (Not Switch Airline).

	N	Mean Not Switch Airline	Std. Deviation	Std. Error
Flight delay, diversion, cancellation	135	2.35	1.21	.10
Flight delay, diversion, cancellation (airline fault)	61	2.51	1.27	.16
Baggage lost, damage, delay	76	2.36	1.21	.14
Poor functional or technical service	72	2.33	1.21	.14

Notes: Failure type was measured on a 4 point scale: 1=Flight delay, diversion, cancellation 2=Flight delay, diversion, cancellation (airline fault), 3=Baggage lost, damage, delay 4=Poor functional or technical service. (d3) Loyalty (Not Switch Airline) was measured on a 5 point scale: 1=Strongly Disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree.

ANOVA: $F(3, 343) = 0.30; p < 0.0001$.

The results show similarity with the previous one (Fly Same Airline) but not in the same level as PRS which showed significant improvement.

Hypothesis H2d4:

Failure Type will have a significant impact on (d4) Loyalty (Consider this Airline my primary choice)

The hypothesis was tested using one-way analysis of variance (ANOVA). The results are presented in Table 4.43.

Table 4.43 One-way ANOVA for Failure Type will have a significant impact on (d4) Loyalty (Consider this Airline my primary choice).

	N	Mean PRS	Std. Deviation	Std. Error
Flight delay, diversion, cancellation	139	2.39	1.34	.11
Flight delay, diversion, cancellation (airline fault)	58	2.43	1.27	.17
Baggage lost, damage, delay	77	2.34	1.19	.14
Poor functional or technical service	72	2.31	1.25	.15

Notes: Failure type was measured on a 4 point scale: 1=Flight delay, diversion, cancellation 2=Flight delay, diversion, cancellation (airline fault), 3=Baggage lost, damage, delay 4=Poor functional or technical service. (d4) Loyalty (Consider this Airline my primary choice) was measured on a 5 point scale: 1=Strongly Disagree, 2=Disagree, 3=Neither, 4=Agree, 5=Strongly Agree.

ANOVA: $F(3, 345) = 0.13; p < 0.0001$.

The results show as above that there is similarity in the recovery action here as it was with Not Switch Airline and Fly Same Airline (repurchase).

4.4.3 H3 hypothesis testing

Post Recovery Satisfaction (PRS) explains more of the variance in Loyalty than Post Failure Satisfaction (PFS)

The hypothesis was tested using a paired samples t-test and OLS regression. The paired-samples t-test was conducted to evaluate the differential impact of Post Failure Satisfaction (PFS) and Post Recovery Satisfaction on Loyalty. There was a statistically significant increase in Loyalty scores from PFS (Mean = 1.96, SD = 0.96) to PRS (Mean = 2.98, SD = 2.00), $t(339) = -8.80$, $p < 0.01$ (two-tailed). The results from the OLS regression are presented in Table 4.44.

H3a1 Regression:

OLS Regression of Post Recovery Satisfaction (PRS) on Loyalty (Word of Mouth)

Table 4.44 OLS Regression of Post Recovery Satisfaction (PRS) on (a1) Loyalty (Word of Mouth)

Independent Variables	Beta	t
R= 0.33; R ² = 0.11; Adjusted R ² = 0.10; F = 20.60***		
Post Recovery Satisfaction	0.26	4.97***
Post Failure Satisfaction	0.18	3.46***

Notes: *: significant at the $p < 0.001$ level, Durbin Watson: 2.07

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value (1.00) and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

These results show that PRS was in significantly higher than PFS on Word of Mouth. Overall these results support hypotheses H3.

H3a2 Regression:

OLS Regression of Post Recovery Satisfaction (PRS) on Loyalty (Fly Same Airline)

Table 4.45 OLS Regression of Post Recovery Satisfaction (PRS) on (a2) Loyalty (Fly Same Airline)

Independent Variables	Beta	t
R= 0.32; R ² = 0.10; Adjusted R ² = 0.10; F = 19.18***		
Post Recovery Satisfaction	0.21	4.09***
Post Failure Satisfaction	0.22	4.15***

Notes: *: significant at the $p < 0.001$ level, Durbin Watson: 1.99,

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value (1.00) and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

H3a3 Regression:

OLS Regression of Post Recovery Satisfaction (PRS) on Loyalty (Not Switch Airline)

Table 4.46 OLS Regression of Post Recovery Satisfaction (PRS) on (a1) Loyalty (Not Switch Airline)

Independent Variables	Beta	t
R= 0.22; R ² = 0.05; Adjusted R ² = 0.04; F = 8.40***		
Post Recovery Satisfaction	0.10	1.92***
Post Failure Satisfaction	0.18	3.37***

Notes: *: significant at the $p < 0.001$ level, Durbin Watson: 2.08.

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value (1.00) and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

H3a4 Regression:

OLS Regression of Post Recovery Satisfaction (PRS) on Loyalty (Consider this Airline my primary choice)

Table 4.47 OLS Regression of Post Recovery Satisfaction (PRS) on (a1) Loyalty (Consider this Airline my primary choice)

Independent Variables	Beta	t
R = 0.23; R ² = 0.05; Adjusted R ² = 0.05; F = 9.06***		
Post Recovery Satisfaction	0.15	2.86***
Post Failure Satisfaction	0.15	2.80***

Notes: *: significant at the $p < 0.001$ level, Durbin Watson: 2.11.

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value (1.00) and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

4.4.4 H4 hypothesis testing

The Recovery Action has a differential impact on (a) Satisfaction with Recovery (SWR), (b) Post Recovery Satisfaction (PRS) and (c) Loyalty

H4a Regression:

The Recovery Action has a differential impact on (a) Satisfaction with Recovery (SWR)

(Implemented from the Recovery action only those that are significant (smaller <0.05))

Table 4.48 OLS Regression of Recovery Action in Satisfaction with Recovery (SWR)

Independent Variables	Beta	t
Recovery Strategies / Opportunity	0.05	0.69***
Recovery Strategies / Explanation	0.03	0.41***
Recovery Strategies / Follow Up	0.02	0.22***
Recovery Strategies / Compensation	-0.02	-0.32***
Recovery Strategies / Apology	-0.03	-0.39***
Recovery Strategies / Follow-Up in Writing	-0.05	-.80***
Recovery Strategies / Staff Empowered	-0.06	- 0.78***
Recovery Strategies / Empathy / Understanding	-0.23	-2.54***

R= 0.65; R² = 0.42; Adjusted R² = 0.38;

F = 10.60***

Notes: *: significant at the p < 0.001 level, Durbin Watson: 1.99.

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value (1.00) and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

From the 16 recovery strategies here is being presented the values of only 8 of them as those 8 strategies had values that were significant (smaller <0.05). In the above table they are represented from the highest to the lowest value which also shows the degree of significance on each one of them according the value.

H4b Regression:

The Recovery Action has a differential impact on (b) Post Recovery Satisfaction (PRS)

(Implemented from the Recovery action only those that are significant (smaller <0.05))

Table 4.49 OLS Regression of Recovery Action in Post Recovery Satisfaction (PRS)

Independent Variables	Beta	t
Recovery Strategies / Correction	0.02	0.28***
Recovery Strategies / Compensation	0.02	0.23***
Recovery Strategies / Follow Up	-0.03	-0.31***
Recovery Strategies / Facilitation	-0.03	-0.39***
Recovery Strategies / Empathy / Understanding	-0.05	-0.44***
Recovery Strategies / A Prompt Response	-0.06	-0.68***
Recovery Strategies / Follow-up in Writing	-0.11	-1.44***
Recovery Strategies / Attentiveness / Helpfulness	-0.12	- 1.08***
Recovery Strategies / Opportunity	-0.24	-2.84***

R = 0.48; R² = 0.23; Adjusted R² = 0.17;

F = 4.25***

Notes: *: significant at the p < 0.001 level, Durbin Watson: 2.21.

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value (1.00) and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

Here out of the 16 recovery strategies, 9 of them have significant value, listed from the highest to the lowest.

H4c1 Regression:

The Recovery Action has a differential impact on (c1) Loyalty (Word of Mouth)

(Implemented from the Recovery action only those that are significant (smaller <0.05))

Table 4.50 OLS Regression of Recovery Action in (c1) Loyalty (Word of Mouth)

Independent Variables	Beta	t
Recovery Strategies / Correction	0.03	0.42***
Recovery Strategies / A Prompt Response	0.03	0.39***
Recovery Strategies / Appropriate place to explain	0.03	0.37***
Recovery Strategies / Facilitation	0.01	0.19***
Recovery Strategies / Opportunity	-0.07	-0.86***
Recovery Strategies / Follow-up in Writing	-0.08	-1.08***
Recovery Strategies / Staff Empowered	-0.30	- 3.35***
Recovery Strategies / Acceptance of		
Responsibility for the failure	-0.72	-0.75***
Recovery Strategies / Apology	-0.83	-0.95***

R= 0.54; R² = 0.29; Adjusted R² = 0.25;

F = 6.07***

Notes: *: significant at the p < 0.001 level, Durbin Watson: 2.02.

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value (1.00) and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

H4c2 Regression:

The Recovery Action has a differential impact on (c2) Loyalty (Fly Same Airline)

(Implemented from the Recovery action only those that are significant (smaller <0.05))

Table 4.51 OLS Regression of Recovery Action in (c2) Loyalty (Fly Same Airline)

Independent Variables	Beta	t
Recovery Strategies / Appropriate place to explain	0.03	0.37***
Recovery Strategies / Follow – Up	-0.007	-0.09***
Recovery Strategies / Correction	-0.008	-0.10***
Recovery Strategies / Facilitation	-0.04	-0.59***
Recovery Strategies / Follow-up in Writing	-0.14	-1.88***
Recovery Strategies / Opportunity	-0.15	-1.87***
Recovery Strategies / Staff Empowered	-0.27	- 2.96***
Recovery Strategies / Apology	-0.28	-3.11***

R= 0.52; R² = 0.28; Adjusted R² = 0.23;

F = 5.58***

Notes: *: significant at the p < 0.001 level, Durbin Watson: 1.96.

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value (1.00) and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

H4c3 Regression:

The Recovery Action has a differential impact on (c3) Loyalty (Not Switch Airline)

(Implemented from the Recovery action only those that are significant (smaller <0.05))

Table 4.52. OLS Regression of Recovery Action in (c3) Loyalty (Not Switch Airline)

Independent Variables	Beta	t
Recovery Strategies / Acknowledgement	-0.06	-0.63***
Recovery Strategies / Acceptance of Responsibility for the failure	-0.05	-0.42***
Recovery Strategies / Apology	-0.22	-2.25***
Recovery Strategies / Opportunity	-0.007	-0.07***
Recovery Strategies / Correction	-0.06	- 0.72***
Recovery Strategies / Compensation	-0.03	-0.32***
Recovery Strategies / Follow-up	-0.06	-0.66***
Recovery Strategies / Staff Empowered	-0.06	-0.57***
Recovery Strategies / Empathy / Understanding	-0.08	-0.72***
Recovery Strategies / Appropriate Place to Explain	-0.01	-0.13***

R= 0.38; R² = 0.15; Adjusted R² = 0.09;

F = 2.52***

Notes: *: significant at the p < 0.001 level, Durbin Watson: 2.04.

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value (1.00) and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000).

H4c4 Regression:

The Recovery Action has a differential impact on (c4) Loyalty (Consider this Airline my primary choice)

(Implemented from the Recovery action only those that are significant (smaller <0.05))

Table 4.53. OLS Regression of Recovery Action in (c4) Loyalty (Consider this Airline my primary choice)

Independent Variables	Beta	t
Recovery Strategies / Facilitation	0.05	0.61***
Recovery Strategies / Acceptance of Responsibility for the Failure	0.02	0.22***
Recovery Strategies / Attentiveness / Helpfulness	0.02	0.14***
Recovery Strategies / Empathy / Understanding	0.02	0.19***
Recovery Strategies / A Prompt Response	0.007	0.07***
Recovery Strategies / Staff Empowered	-0.02	-0.20***
Recovery Strategies / Opportunity	-0.03	-0.34***
Recovery Strategies / Appropriate Place to Explain	-0.03	- 0.29***
Recovery Strategies / Correction	-0.06	- 0.64***
Recovery Strategies / Apology	-0.07	-0.68***
Recovery Strategies / Follow-up in Writing	-0.12	-1.48***

R= 0.30; R² = 0.09; Adjusted R² = 0.03;

F = 1.48***

Notes: *: significant at the p < 0.001 level, Durbin Watson: 1.95.

The model achieved a satisfactory level of goodness of fit in predicting the outcome variable. Durbin-Watson statistics indicate that the assumption of independent errors is tenable. The variance inflation factor (VIF) value (1.00) and tolerance statistic indicate the absence of collinearity in the data (Bowerman and O'Connell, 1990; Myers, 1990). Moreover the confidence intervals indicate that the estimates are likely to be representative of 95% of other samples (Field, 2000)

4.4.5 H5 hypothesis testing

Emotion will partially mediate the impact of Satisfaction with Recovery (SWR) on (a) Post Recovery Satisfaction (PRS), (b) Loyalty.

H5a:

Emotion will partially mediate the impact of Satisfaction with Recovery (SWR) on (a) Post Recovery Satisfaction (PRS).

Predicting the influence of Emotion on Satisfaction with Recovery's (SWR) impact on Post Recovery Satisfaction (PRS) and loyalty through the mediating effect of perceived value.

Baron and Kenny's (1986) procedure and Sobel (1982) statistic were carried out in testing hypothesis five – *H5*. Baron and Kenny's (1986) procedure to assess the mediating effect of variables is as follows: (1) the independent variable significantly affects the mediator, (2) the independent variable significantly affects the dependent variable, and (3) the mediator variable affects the dependent variable when both the independent and the mediator variable are in the model. If these conditions manifest in the hypothesized direction, then the influence of the independent variable on the dependent variable should be less in the third regression equation than in the second (Baron and Kenny 1986). Further to this, perfect mediation exists if the independent variable has no influence on the dependent variable when the mediator is in the model with the independent variable. The influence of emotion mediating the effect of satisfaction with recovery (independent variable) on post recovery satisfaction (dependent variable) was assessed employing the above procedures.

The results of the procedures are shown in Table 4.54 and Figure 4.1. The regression analysis showed that the influence of satisfaction with recovery (SWR) on Emotion was significant [Negative ($t = -3.83, p < .001$), Positive ($t = 6.21, p < .001$)]. In the same vein, the influence of satisfaction with recovery (SWR) on post recovery satisfaction (PRS) was significant ($t = 6.50, p < .001$). Additionally, emotion significantly affected satisfaction with recovery (SWR) [$t = 5.13, p < .001$ and $t = 6.03, p < .001$] but did not significantly affected post recovery satisfaction (PRS) [$t = 1.54, p < .001$ and $t = -1.74, p < .001$]. This indicates partial mediation (Baron and Kenny 1986).

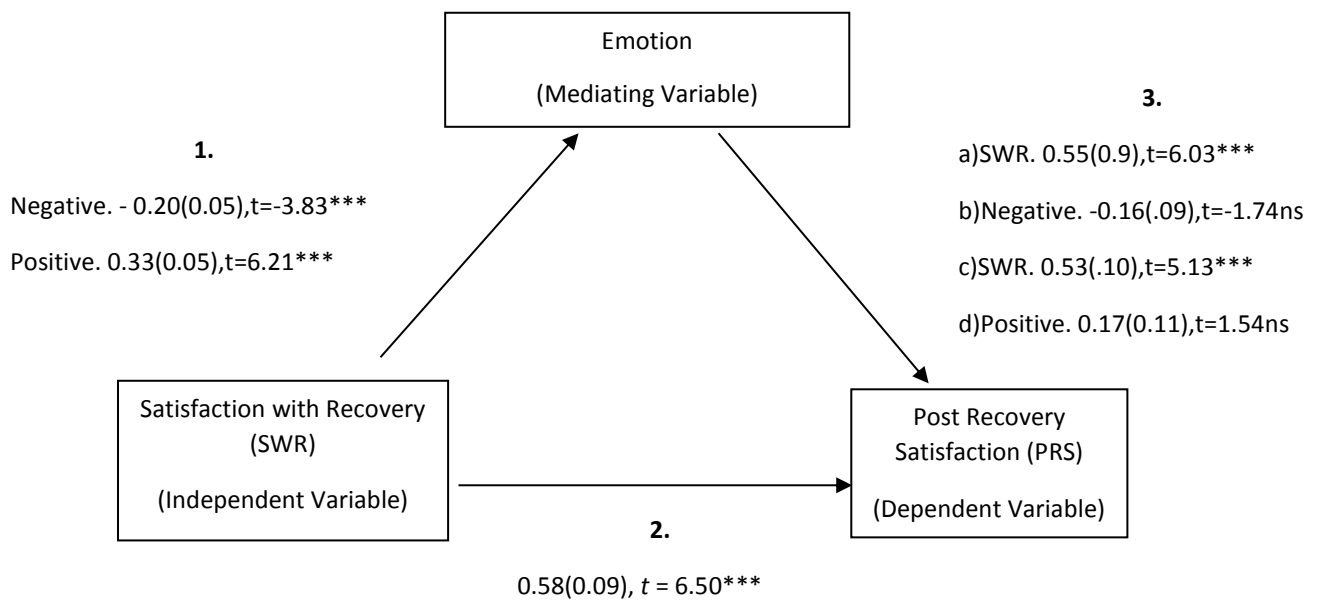


Figure 4.1 Perceived Value Mediation Model 1 after Baron and Kenny (1986)

Table 4.54 – Value Mediation Analysis

Predictor	B	SE B	t
1. SWR Impact on Emotion			
Negative	-0.20	0.05	-3.83***
Positive	0.33	0.05	6.21***
2. SWR Impact on PRS	0.58	0.09	6.50***
3. Mediating Effect of Emotion	0.55	0.9	
a)SWR Impact on PRS	-0.16	0.09	6.03***
b)Negative emotion impact on PRS	0.53	0.10	-1.74ns
c)SWR Impact on PRS	0.17	0.11	5.13***
d)Positive emotion Impact on PRS			1.57ns
Sobel test	5.45***		

*** $p < .001$

When emotion and satisfaction recovery are both in the model emotion does not significantly influence Post Recovery Satisfaction (PRS) and therefore does not partially mediate the impact of Satisfaction with Recovery (SWR) on PRS.

In summary, the Sobel (1982) test showed that perceived value did not mediate the effect of satisfaction with recovery (SWR) on overall post recovery satisfaction. Baron and Kenny's (1986) procedure indicated a partial mediation effect. Therefore, Hypothesis 5a was not supported. The non-partial mediating effect means that, satisfaction with recovery does not have some direct effect on overall post recovery satisfaction (PRS).

H5b:

Emotion will partially mediate the impact of Satisfaction with Recovery (SWR) on (b) Loyalty

Predicting the influence of Emotion on Satisfaction with Recovery (SWR) with Loyalty through the mediating effect of perceived value.

Baron and Kenny's (1986) procedure and Sobel (1982) statistic were carried out in testing hypothesis five – *H5*. Baron and Kenny's (1986) procedure to assess the mediating effect of variables is as follows: (1) the independent variable significantly affects the mediator, (2) the independent variable significantly affects the dependent variable, and (3) the mediator variable affects the dependent variable when both the independent and the mediator variable are in the model. If these conditions manifest in the hypothesized direction, then the influence of the independent variable on the dependent variable should be less in the third regression equation than in the second (Baron and Kenny 1986). Further to this, perfect mediation exists if the independent variable has no influence on the dependent variable when the mediator is controlled. The effect of the variable, emotion mediating the effect of satisfaction with recovery (independent variable) on Loyalty (dependent variable) was assessed employing the above procedures.

The results of the procedures are shown in Table 4.2 and Figure 4.55. In the evaluation, regression analysis showed that the influence of satisfaction with recovery (SWR) on Emotion was significant [Negative ($t = -3.83$, $p < .001$), Positive ($t = 6.21$, $p < .001$)]. In the same vein, the influence of satisfaction with recovery (SWR) on Loyalty was significant ($t = 7.89$, $p < .001$). Additionally, emotion significantly affected satisfaction with recovery (SWR) [$t = 5.13$, $p < .001$ and $t = 6.03$, $p < .001$] but did not significantly affect post recovery satisfaction (PRS) [$t = 1.54$, $p < .001$ and $t = -1.74$, $p < .001$]. This indicates partial mediation (Baron and Kenny 1986).

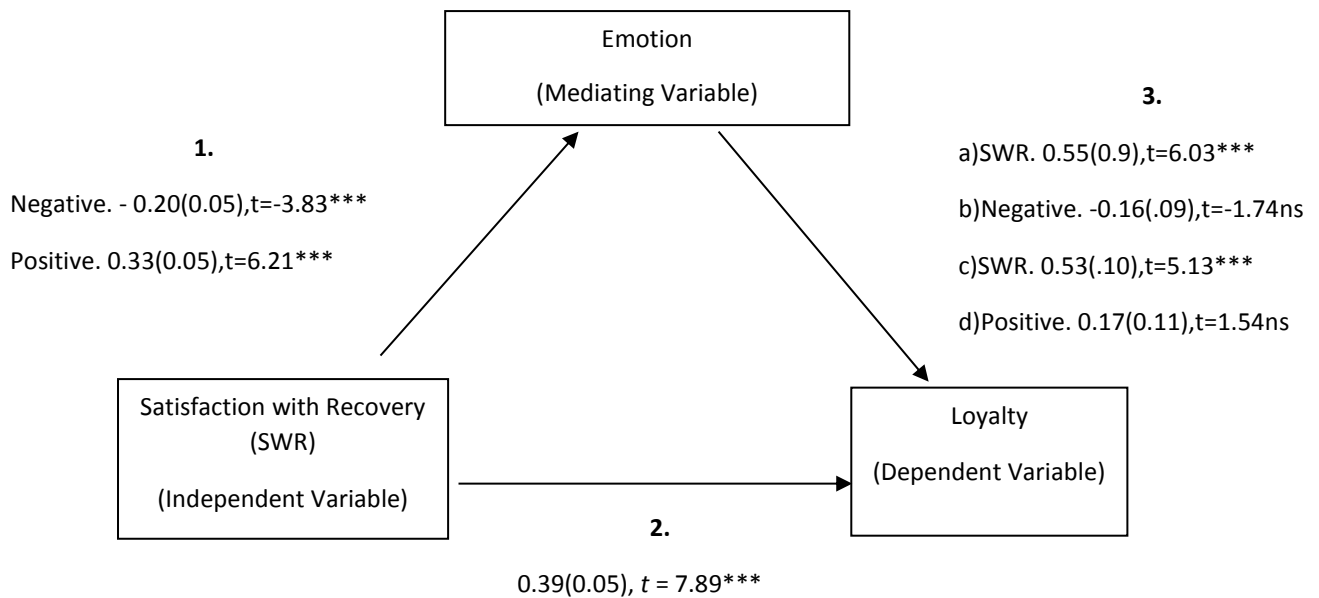


Figure 4.2 – Perceived Value Mediation Model 1 after Baron and Kenny (1986)

Table 4.55 – Value Mediation Analysis

Predictor	B	SE B	t
1. SWR Impact on Emotion			
Negative	-0.20	0.05	-3.83***
Positive	0.33	0.05	6.21***
2. SWR Impact on Loyalty	0.39	0.05	7.89***
3. Mediating Effect of Emotion	0.55	0.9	
a)SWR Impact on PRS	-0.16	0.09	6.03***
b)Negative emotion impact on PRS	0.53	0.10	-1.74ns
c)SWR Impact on PRS	0.17	0.11	5.13***
d)Positive emotion Impact on PRS			1.57ns
Sobel test	5.45***		

*** $p < .001$

Further to the use of Baron and Kenny's (1986) procedure, the indirect influence of satisfaction with recovery (SWR) on post recovery satisfaction through perceived value was also tested using the Sobel (1982) test, because this test explicitly assesses the significance of mediation effects. The Sobel test entails running of two regressions: (1) with emotion as the dependent variable and satisfaction with recovery (SWR) as the independent variable and (2) with overall post recovery satisfaction (PRS) as the dependent variable and satisfaction with recovery (SWR) and perceived value as the independent variables. A test statistic with a normal distribution was derived using the unstandardized coefficients and the standard errors from the two regressions. The statistical significance of this test statistic was then evaluated. As shown in Table 4.69, the mediation effect of perceived value on satisfaction with recovery (SWR) and overall post recovery satisfaction (PRS) was significant $p < .001$. Therefore, Hypothesis 5b was supported.

In summary, the Sobel (1982) test showed that perceived value mediated the effect of satisfaction with recovery (SWR) on overall post recovery satisfaction. Baron and Kenny's (1986) procedure indicated a partial mediation effect. Therefore, Hypothesis 5b was supported. The partial mediating effect means that, satisfaction with recovery had some direct effect on overall post recovery satisfaction (PRS).

H6 hypothesis testing

Justice will partially mediate the impact of Satisfaction with Recovery (SWR) on (a) Post Recovery Satisfaction (PRS), (b) Loyalty.

H6a:

Justice will partially mediate the impact of Satisfaction with Recovery (SWR) on (a) Post Recovery Satisfaction (PRS)

Predicting the influence of Justice on Satisfaction with Recovery (SWR) and Post Recovery Satisfaction (PRS) through the mediating effect of perceived value.

Baron and Kenny's (1986) procedure and Sobel (1982) statistic were carried out in testing hypothesis six – *H6*. Baron and Kenny's (1986) procedure to assess the mediating effect of variables is as follows: (1) the independent variable significantly affects the mediator, (2) the independent variable significantly affects the dependent variable, and (3) the mediator variable affects the dependent variable when both the independent and the mediator variable are in the model. If these conditions manifest in the hypothesized direction, then the influence of the independent variable on the dependent variable should be less in the third regression equation than in the second (Baron and Kenny 1986). Further to this, perfect mediation exists if the independent variable has no influence on the dependent variable when the mediator is controlled. The effect of the variable, Justice mediating the effect of Satisfaction with Recovery (SWR) (independent variable) on Post Recovery Satisfaction (PRS) (dependent variable) was assessed employing the above procedures.

The results of the procedures are shown in Table 4.56 and Figure 4.3. In the evaluation, regression analysis showed that the influence of satisfaction with recovery (SWR) on justice was significant [Negative ($t = -3.83, p < .001$), Positive ($t=6.21, p < .001$)]. In the same vein, the influence of satisfaction with recovery (SWR) on overall Post Recovery satisfaction was significant ($t = 6.50, p < .001$). Additionally, justice significantly affected satisfaction with recovery (SWR) [$t=5.13, p < .001$ and $t=6.03, p < .001$] but did not significantly affected post recovery satisfaction (PRS) [$t=1.54, p < .001$ and $t=-1.74, p < .001$]. This indicates partial mediation (Baron and Kenny 1986).

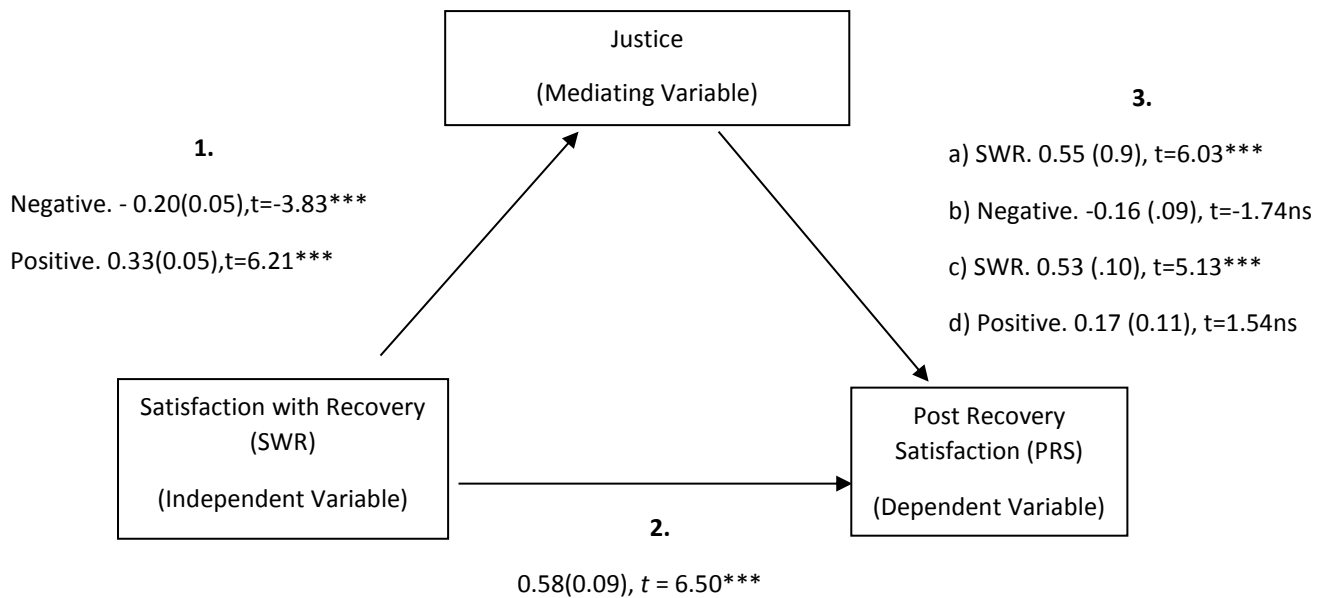


Figure 4.3 Perceived Value Mediation Model 1 after Baron and Kenny (1986)

Table 4.56 – Value Mediation Analysis

Predictor	B	SE B	t
4. SWR Impact on Emotion			
Negative	-0.20	0.05	-3.83***
Positive	0.33	0.05	6.21***
5. SWR Impact on PRS	0.58	0.09	6.50***
6. Mediating Effect of Emotion	0.55	0.9	
SWR Impact on PRS	-0.16	0.09	6.03***
Negative emotion impact on PRS	0.53	0.10	-1.74ns
Positive emotion Impact on PRS	0.17	0.11	5.13***
SWR Impact on PRS			1.57ns
Sobel test	5.45***		

*** $p < .001$

Further to the use of Baron and Kenny's (1986) procedure, the indirect influence of attraction attribute performance on satisfaction through perceived value was also tested using the Sobel (1982) test, because this test explicitly assesses the significance of mediation effects. The Sobel test entails running of two regressions: (1) with justice as the dependent variable and satisfaction with recovery (SWR) as the independent variable and (2) with overall post recovery satisfaction (PRS) as the dependent variable and satisfaction with recovery (SWR) and justice as the independent variables. A test statistic with a normal distribution was derived using the unstandardized coefficients and the standard errors from the two regressions. The statistical significance of this test statistic was then evaluated. As shown in Table 4.70, the mediation effect of justice on satisfaction with recovery (SWR) and overall post recovery satisfaction (PRS) was significant $p < .001$. Therefore, Hypothesis 6 was supported.

In summary, the Sobel (1982) test showed that perceived value mediated the effect of satisfaction with recovery (SWR) on overall post recovery satisfaction (PRS). Baron and Kenny's (1986) procedure indicated a partial mediation effect. Therefore, Hypothesis 6a was supported. The partial mediating effect means that, satisfaction with recovery (SWR) had some direct effect on overall post recovery satisfaction (PRS).

H6b:

Justice will partially mediate the impact of Satisfaction with Recovery (SWR) on (b) Loyalty

Predicting the influence of Justice on Satisfaction with Recovery (SWR) and Post Recovery Satisfaction (PRS) through the mediating effect of perceived value.

Baron and Kenny's (1986) procedure and Sobel (1982) statistic were carried out in testing hypothesis six – *H6*. Baron and Kenny's (1986) procedure to assess the mediating effect of variables is as follows: (1) the independent variable significantly affects the mediator, (2) the independent variable significantly affects the dependent variable, and (3) the mediator variable affects the dependent variable when both the independent and the mediator variable are in the model. If these conditions manifest in the hypothesized direction, then the influence of the independent variable on the dependent variable should be less in the third regression equation than in the second (Baron and Kenny 1986). Further to this, perfect mediation exists if the independent variable has no influence on the dependent variable when the mediator is controlled. The effect of the variable, Justice mediating the effect of Satisfaction with Recovery (SWR) (independent variable) on Loyalty (dependent variable) was assessed employing the above procedures.

The results of the procedures are shown in Table 4.57 and Figure 4.4. In the evaluation, regression analysis showed that the influence of satisfaction with recovery (SWR) on justice was significant [Negative ($t = -3.83, p < .001$), Positive ($t=6.21, p < .001$)]. In the same vein, the influence of satisfaction with recovery (SWR) on overall Post Recovery satisfaction was significant ($t = 6.50, p < .001$). Additionally, justice significantly affected satisfaction with recovery (SWR) [$t=5.13, p < .001$ and $t=6.03, p < .001$] but did not significantly affected post recovery satisfaction (PRS) [$t=1.54, p < .001$ and $t=-1.74, p < .001$]. This indicates partial mediation (Baron and Kenny 1986).

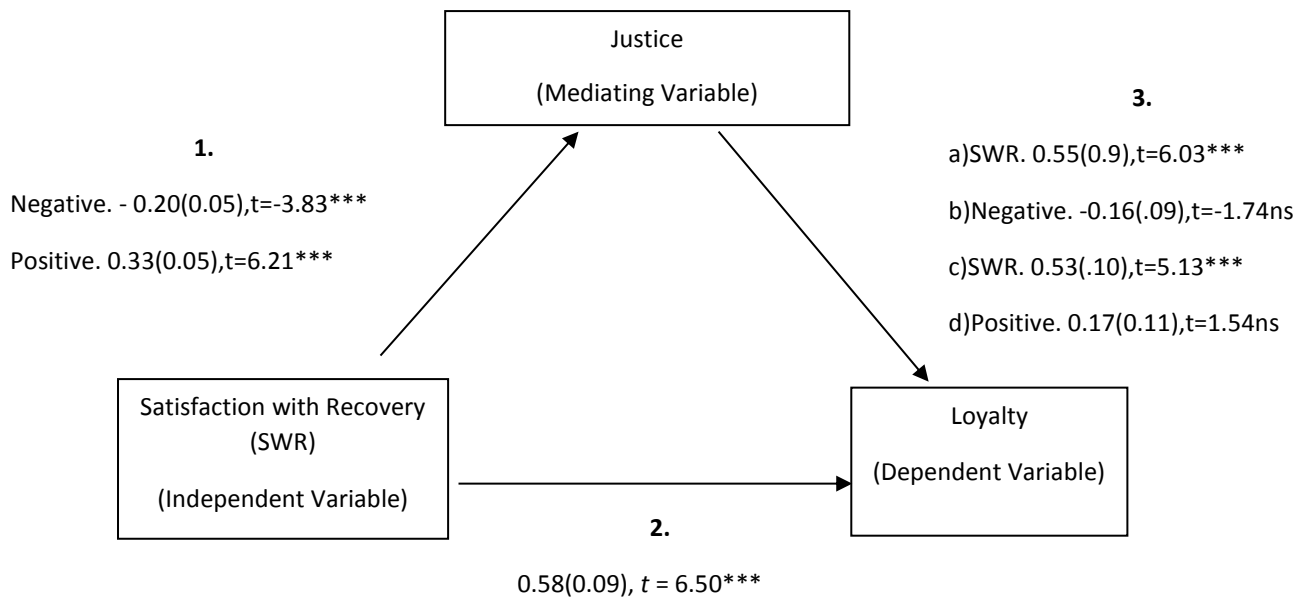


Figure 4.4 Perceived Value Mediation Model 1 after Baron and Kenny (1986)

Table 4.57 – Value Mediation Analysis

Predictor	B	SE B	t
7. SWR Impact on Emotion			
Negative	-0.20	0.05	-3.83***
Positive	0.33	0.05	6.21***
8. SWR Impact on PRS	0.58	0.09	6.50***
9. Mediating Effect of Emotion	0.55	0.9	
			6.03***
SWR Impact on PRS	-0.16	0.09	-1.74ns
	0.53	0.10	
Negative emotion impact on PRS	0.17	0.11	5.13***
			1.57ns
SWR Impact on PRS			
Positive emotion Impact on PRS			
Sobel test	5.45***		

*** $p < .001$

Further to the use of Baron and Kenny's (1986) procedure, the indirect influence of attraction attribute performance on satisfaction through perceived value was also tested using the Sobel (1982) test, because this test explicitly assesses the significance of mediation effects. The Sobel test entails running of two regressions: (1) with justice as the dependent variable and satisfaction with recovery (SWR) as the independent variable and (2) with overall post recovery satisfaction (PRS) as the dependent variable and satisfaction with recovery (SWR) and justice as the independent variables. A test statistic with a normal distribution was derived using the unstandardized coefficients and the standard errors from the two regressions. The statistical significance of this test statistic was then evaluated. As shown in Table xx, the mediation effect of justice on satisfaction with recovery (SWR) and overall post recovery satisfaction (PRS) was significant $p < .001$. Therefore, Hypothesis 7 was supported.

In summary, the Sobel (1982) test showed that perceived value mediated the effect of satisfaction with recovery (SWR) on overall post recovery satisfaction (PRS). Baron and Kenny's (1986) procedure indicated a partial mediation effect. Therefore, Hypothesis 6 was supported. The partial mediating effect means that, satisfaction with recovery (SWR) had some direct effect on overall post recovery satisfaction (PRS).

4.5 Discussion of the Results

From the hypotheses H1 having looked at both the One-way Anova and (OLS) Regression analysis for the factors of Post Failure Satisfaction (PFS), Satisfaction with Recovery (SWR), Post Recovery Satisfaction (PRS) and Loyalty [Loyalty (Word of Mouth (WOM) – Loyalty (Fly Same Airline) – Loyalty (Not switch Airline) – Loyalty (Consider this Airline my Primary choice)], and by examining the role of Failure Severity at the different stages, the results show that the figures of the Mean PFS (and also the Means of SWR, PRS and Loyalty later) are low (less or in very few cases equal to 3, with 4 and 5 being the area of strong impact) so when there is a Failure there it is still low level of satisfaction on a five point Likert scale and it shows that customers are still dissatisfied but they clearly are more dissatisfied when there is more Severe Failure.

The purpose here was to see how overall the Severity of Failure affects the others and despite that lack of an index (except of the Loyalty case) it is an overall measure of Failure Severity which, even though being one variable only it relates to all the rest as it is for everybody when there is service failure. That single one variable is the independent one (Failure Severity) and the purpose was how far that variable predict the dependent variables (PFS, SWR, Loyalty) which they depend on the Severity of Failure.

There is a significant variation across the different degrees of service failure in term of Post Failure Satisfaction (PFS) so it does the degree of Failure, the Severity of Failure does affect significantly Post Failure Satisfaction (PFS). So therefore Failure severity has a direct impact on Post Failure Satisfaction (PFS), on Satisfaction with Recovery (SWR), on Post Recovery Satisfaction (PRS) and Loyalty.

This comes in alliance with the literature on the impact that Failure Severity has on customer satisfaction and this research endorses the previous findings on that. So far the previous findings have designated that the higher level of severity in service failure, the higher the negative impact will be on customer satisfaction (Smith, Bolton, and Wagner 1999; Weun, Beatty, and Jones 2004); the higher will be the perception of failure on customer's side (Tax *et al.*, 1998; Smith *et al.*, 1999; Maxham 2001;) It will also influence badly the evaluation of a service provider (Bell and Ridge, 1992; Limbrick, 1993; McCollough *et al.*, 2000; Smith *et al.*, 1999; Zeithaml *et al.*, 1993). The diversity of severity on service failures can additionally offer to organizations such as hospitality or the airline industry further understanding of the customer response (Bhandari, Tsarenko, & Polonsky, 2007; Smith *et al.*, 1999; Weun *et al.*, 2004).

Regardless of how the customers recovers the findings indicated that the Severity of the failure has an impact on Post Failure Satisfaction (PFS) and it

also has an impact as to how they will feel afterwards of the recovery – Post Recovery Satisfaction, (PRS) – and it also has an impact on Loyalty as well therefore it is a key thing. Clearly the less amount of severity the less impact is going to have on the factors of PFS, SWR and PRS. In the case of Loyalty more specific on all these four loyalty factors (Word of Mouth / Fly Same Airline / Not switch Airline / Consider this Airline my Primary choice) the means are low [less than 3 or at their highest reaching 3 which is still low, it is not 4s' and 5's on a five point Likert scale, and more specific: mean Loyalty (Word of Mouth) ranging: (2.12 – 3.02) / mean Loyalty (Fly Same Airline) ranging: (2.39 – 3.10) / mean Loyalty (Not switch Airline) ranging: (2.15 – 2.71) / Mean Loyalty (Consider this Airline my Primary choice) ranging: (2.12 – 2.70)]. That means that again as above Severity has an impact with regards to Loyalty, it is a key thing.

However it has to be a careful notice here with regards to the Loyalty of the customers because there is intention to re-purchase but there are no figures that they actually came back, it is just intention to re-visit which is still positive though.

In terms of the regression, it has been regressed all these ones [(PFS – SWR – PRS – Loyalty (WOM) – Loyalty (Fly Same Airline) – Loyalty (Not switch Airline) – Loyalty (Consider this Airline my Primary choice)], to see whether there is a significant explanation. There is not effort to predict the size of the impact which will have a significant impact and it does significantly predict it, however these figures here, the R figure which is correlation and if you take the square of that R^2 it is the regression, and although it is significant it doesn't explain very much of it as it is a small amount but nevertheless in terms of the hypothesis it significantly predicts it.

In the case of the regressed PFS the R^2 is 4% and that explains that failure is 4% (very little) of the variation across though, so there are other things there but the Beta value (-0.19) is the impact of the independent variable here on the dependent variable, because there is only one variable. So the Severe Failure is 19% and it is for every one unit so every time there is a unit change or decreasing Failure severity there is a negative (minus figure here) -0.19 impact on satisfaction, that what it means really. The figures of t (-3.88) and F (15.03) and the significant levels they relate to the fit between the variables are just a confirmation that it is the right test to use and there is a significant difference and it is the relation between having two variables fit together.

So having done on all of them in both the Anova and the Regression, yes, they significantly predict it through the variation across the different categories in the way that has been measured by the researcher.

The results as already explained earlier show that PFS is low even when failure slides; it is still low which is below 3 in terms of the mean (3 being the mid figure “neither satisfied nor dissatisfied”, 4 and 5 are satisfied on a 5 point Likert scale) so they are not satisfied and there is some variation around that figure but it is not a great deal. The rest of the factors H1b-H1c-H1d are very similar things in terms of severity and criticality as with H1a. All the results are pointing in the same direction, that Failure Severity will have a direct impact on Satisfaction with Recovery (SWR), on Post Recovery Satisfaction (PRS) and Loyalty. The figures do not show a major amount of impact but still is significant.

That findings that create annoyance to the customers from smaller amount of severity of service failure but still significant are in alliance with recent findings of Keingham *et al.*, (2014) for the airline industry which indicates that it is the minor incidents have a more major role and cause a great amount of damage in comparison with the major ones

Keingham *et al.*, (2014) found that product-harm crises do not appear to have similar impact level on customer’s perceptions or behaviour in the airline industry. Major incidents (accidents, injuries, fatalities) showed a lesser level of linkage with market share in comparison with the minor incidents (e.g. flight cancellations and airline load factor). Furthermore the major incidents revealed no significant relation with customer satisfaction while the minor ones revealed a strong and negative relation to future customer satisfaction.

From the hypothesis H2 in a similar way having looked at both the Anova and Regression analysis for the factors of PFS, SWR PRS and Loyalty by examining the role of Failure Type at the different stages the results show that the figures of the Mean PFS [and also the Means of SWR, PRS and Loyalty – (Word of Mouth (WOM) – Fly Same Airline – Not switch Airline – Consider this Airline my Primary choice)], are low (less or in very few cases equal to 3, with 4 and 5 being the area of strong impact) so when there is a Failure there is still low level of satisfaction on a 5 point Likert scale so it shows that customers are still dissatisfied. The purpose here was to see how overall Failure Type affects the others (PFS, SWR, PRS and Loyalty).

The Failure Type that came first was “Flight Delay, diversion, cancellation) followed by “Baggage lost, damage, delay” and “Poor functional or technical service”. The Mean Post Failure Satisfaction (PFS) figures ranges from 1.72 – 2.08 which is low and the same happen for the Mean Satisfaction with Recovery (SWR) which does slightly better (figures range from 2.58 – 3.06). In a similar level lies the mean Post Recovery Satisfaction (PRS) (figures range 2.87 – 3.14) and also the last one, the mean Loyalty, which has an index with four sub-categories (mean of Loyalty “Word of Mouth” (figures range 2.44-

2.62) – mean of Loyalty “Fly Same Airline” (figures range 2.56 – 2.83) – mean of Loyalty “Not Switch Airline” (figures range 2.33 – 2.51) – mean of Loyalty “Consider this Airline my Primary Choice” (figures range 2.31 – 2.43)). Here the mean values are low as well.

The Failure type findings are in close alliance with the findings of Steven *et al.*, 2012 whereas they found first on their ranking as Failure types in the airline industry the “mishandled baggage”, “ticket over-sales”, and “on-time performance” (Steven *et al.*, 2012). From those three, two of them the first one (“mishandled baggage”) and the third one (“on-time performance”) are similar and were found in this research too (the “mishandled baggage” is similar to “Baggage lost, damage, delay” ranked as No 2 Failure Type in occurrence in this research and the “on-time performance” is the “Flight delay” ranked as No 1 in this research in occurrence as far as concerning the Failure types. The third one (Failure Type) of Steven *et al.*’s 2012 research was found too but in much lesser amount of occurrence (Ranked 19th out of 22 Failure Types in total – with the code name “Flight overbooked” see Part 1a).

The findings indicated that the Failure Type has an impact on Post Failure Satisfaction (PFS) and it also has an impact as to how they will feel afterwards of the recovery – Post Recovery Satisfaction, (PRS) – and it also has an impact on Loyalty as well therefore it is a vital thing. Clearly the type of Failure is going to have an impact on the factors of PFS, SWR and PRS. In the case of Loyalty more specific on all these four loyalty factors (Word of Mouth/ Fly Same Airline/Not switch Airline/ Consider this Airline my Primary choice) the means are low. That means that again as above on H1 that Failure Type has an impact with regards to Loyalty, it is a very important factor.

However as it has been mentioned above a careful notice has to be put here with regards to the Loyalty as there is only intention to re-purchase, there are no figures that they actually came back, which however this intention is still positive though.

In terms of the regression, it has been regressed all these ones (H2a-H2b-H2c-H2d1/H2d2/H2d3/H2d4), regressed PFS to see whether there is a significant explanation. There is not effort to predict the size of the impact which will have a significant impact and it does significantly predict it, however these figures here, the R figure which is correlation and if you take the square of that (R^2) it is the regression, and although it is significant it doesn’t explain very much of it as it is a small amount but nevertheless in terms of the hypothesis it significantly predicts it.

The results show that PFS is low (mean figures range: 1.72 – 2.08) even when different failure types involved; it is still low which is below 3 in terms of the mean (3 being the mid figure “neither satisfied nor dissatisfied”, 4 and 5 are

satisfied) so they are not satisfied and there is some variation around that figure but it is not a great deal.

The rest of the factors H2b-H2c-H2d H2d1/H2d2/H2d3/H2d4 are very similar things in terms of the mean [mean SWR figures range: (2.58 – 3.06), mean PRS figures range: (2.87 – 3.14), mean Loyalty (WOM) figures range: (2.44 – 2.58)/ mean Loyalty (Fly Same Airline) figures range: (2.56 – 2.83)/ mean Loyalty (Not switch Airline) figures range: (2.33 – 2.51)/ mean Loyalty (Consider this Airline my primary choice) figures range: 2.31 – 2.43]. All the results are pointing in the same direction, that Failure Type will have a direct impact on Post Failure Satisfaction (PFS), on Satisfaction with Recovery (SWR), on Post Recovery Satisfaction (PRS) and Loyalty. The figures do not show a major amount of impact but still this is significant.

From the Hypothesis H3 these results show that PRS was in significantly higher than PFS on Word of Mouth. Overall these results support the hypotheses.

In terms of the regression, it has been regressed Post Recovery Satisfaction (PRS) on Loyalty (WOM) – Loyalty (Fly Same Airline) – Loyalty (Not switch Airline) – Loyalty (Consider this Airline my Primary choice), to see whether there is a significant explanation. These figures here, (R figure which is correlation and if you take the square of that (R^2) it is the regression), the regressed PRS on Loyalty (WOM) the R^2 is 10% and that explains that failure 10% (very little) of the variation across though.

The Beta value is 26% and 18% for PRS and PFS and it is for every unit so every time there is a unit change or decreasing Word of Mouth there is a positive (positive figure here) impact on satisfaction.

Similar results are also on the regressed PRS with Loyalty (Fly Same Airlines) with the R^2 being again 10% and that explains that failure 10% (very little) of the variation across though. The Beta value is 21% and 22% for PRS and PFS and it is for every unit so every time there is a unit change or decreasing Fly Same Airlines there is a positive (positive figure here) impact on satisfaction.

Additionally similar results are for the remaining regressed PRS with Loyalty (Not Switch Airline) and again regressed PRS with Loyalty (Consider this Airline my Primary choice) as both have low value on the R^2 with figures of 4% and 5% subsequently.

The Beta values are for the PRS and PFS of Loyalty (Not Switch Airline) 10% and 18% and for Loyalty (Consider this Airline my Primary choice) the Beta values for PRS and PFS are 15% and 15% subsequently.

The results here support the hypothesis that the recovery action has an effect on customers and their satisfaction after (Post Recovery Satisfaction - PRS) is

better in relation with right after the failure occurrence (Post Failure Satisfaction - PFS).

From the hypothesis H4 and more specific from the H4a the results present the values of only eight out of the sixteen recovery action (strategies) (all sixteen are in question QB2 in the questionnaire) as only those eight had values that were significant (smaller <0.05).

In terms of the regression, it has been regressed Satisfaction with Recovery (SWR) with all these eight Recovery action (strategies) to see whether there is a significant explanation. There is not effort to predict the size of the impact which will have a significant impact and it does significantly predict it, however these figures here, the R figure which is correlation and if you take the square of that (R^2) it is the regression, and although it is significant it doesn't explain very much of it as it is a small amount but nevertheless in terms of the hypothesis it significantly predicts it.

We can see that those eight recovery strategies have an impact on Satisfaction with Recovery (SWR) with the ranking being (from highest to lowest) the: Opportunity – Explanation – Follow Up – Compensation – Apology – Follow Up in Writing – Staff Empowered – Empathy/Understanding. Those eight have a better effect when used from the total sixteen recovery strategies. Particularly the first three-four when there is “Opportunity to raise my view/feelings” (No1) or when the airline provides “Explanation” (No2) and follows a “Follow Up” (No3) and then “Compensation” (No4), those recovery strategies seems to work better to create a more positive condition when the air traveller is in the Satisfaction with Recovery (SWR) situation.

In the hypothesis H4b it can be seen in terms of the regression that it has regressed Post Recovery Satisfaction (PRS) with only nine out of sixteen Recovery action strategies as only those nine had values that were significant (smaller <0.05).

We can see that those nine recovery strategies have an impact on Post Recovery Satisfaction (PRS) with the ranking being (from highest to lowest) the: Correction – Compensation – Follow Up – Facilitation – Empathy/Understanding – A Prompt Response – Follow-up in Writing – Attentiveness/Helpfulness – Opportunity. Those nine have a better effect when used from the total sixteen recovery strategies. Particularly the first three-four when there is “Correction of the Problem” (No1) or when the airline provide “Compensation” (No2) and follows a “Follow Up” (No3) and then “Facilitation (the airline made it easy to complain)” (No4), those recovery strategies work better to create a more positive condition when the air traveller is in the Post Recovery Satisfaction (PRS) condition.

In the hypothesis H4c1 it can be seen in terms of the regression that it has regressed Loyalty (WOM) with only nine out of sixteen Recovery action strategies as only those nine had values that were significant (smaller <0.05).

We can see that those nine recovery strategies have an impact on Loyalty (WOM) with the ranking being (from highest to lowest) the: Correction – A Prompt Response – Appropriate place to explain – Facilitation – Opportunity – Follow-up in Writing – Staff Empowered – Acceptance of responsibility for the failure – Apology. Those nine have a better effect when used from the total sixteen recovery strategies. Particularly the first three-four when there is “Correction of the Problem” (No1) or when there is from airline a “A Prompt Response” (No 2), then if the airline provide an “Appropriate place to explain” (No 3) and then “Facilitation (the airline made it easy to complain)” (No4), those recovery strategies work better to create a more positive condition as far as with regards to the Loyalty (Word of Mouth) of the customers.

In the hypothesis H4c2 it can be seen in terms of the regression that it has regressed Loyalty (Fly Same Airline) with only eight out of sixteen Recovery action strategies as only those eight had values that were significant (smaller <0.05).

We can see that those recovery strategies have an impact on Loyalty (Fly Same Airline) with the ranking being (from highest to lowest) the: Appropriate place to explain – Follow-up – Correction (of the problem) – Facilitation (the airline company made it easy to complain) – Follow-up in Writing – Opportunity (to voice my view/feelings) – Staff Empowered (to solve my problem) – Apology. Those nine have a better effect when used from the total sixteen recovery strategies. Particularly the first three - four when there is “Follow-up” (No1) or when there is from the airline a “Correction (of the problem)” (No 2), then if the airline provide a “Facilitation (the airline company made it easy to complain)” (No 3) and then “Follow-up in Writing” (No4), those recovery strategies work better to create a more positive condition as far as with regards to the Loyalty (Fly same airline) of the customers.

In the hypothesis H4c3 it can be seen in terms of the regression that it has regressed Loyalty (Not Switch Airline) with only ten out of sixteen Recovery action strategies as only those ten had values that were significant (smaller <0.05).

We can see that those recovery strategies have an impact on Loyalty (Not Switch Airline) with the ranking being (from highest to lowest) the: Acknowledgement (of the service failure) – Acceptance of responsibility (for the failure) – Apology – Opportunity (to raise my view/feelings) – Correction (of the problem) – Compensation – Follow-up – Staff Empowered (to solve my problem) – Empathetic/Understanding Staff – Appropriate place to explain.

Those ten have a better effect when used from the total sixteen recovery strategies. Particularly the first three - four when there is “Acknowledgement (of the service failure)” (No1) or when there is from the airline a “Acceptance of responsibility (for the failure)” (No 2), then if the airline provide an “Apology (for the service failure)” (No 3) and then if the airline provides also the “Opportunity (to raise my view/feelings)” (No4), those recovery strategies work better to create a more positive condition as far as with regards to the Loyalty (Not Switch Airline) of the customers.

In the hypothesis H4c4 it can be seen in terms of the regression that it has regressed Loyalty (Consider this Airline my primary choice) with only eleven out of sixteen Recovery action strategies as only those eleven had values that were significant (smaller <0.05).

We can see that those recovery strategies have an impact on Loyalty (Consider this Airline my primary choice) with the ranking being (from highest to lowest) the:

Facilitation (the airline made it easy to complain) – Acceptance of responsibility for the Failure – Attentiveness / Helpfulness (staff) – Empathy/Understanding (staff) – A Prompt Response (from the airline in dealing with the service failure) – Staff Empowered (to solve my problem) – Opportunity (to raise my view/feelings) – Appropriate place to explain – Correction (of the problem) – Apology – Follow-up in writing. Those eleven have a better effect when used from the total sixteen recovery strategies. Particularly the first three - four when there is “Acceptance of responsibility for the Failure)” (No1) or when there is from the airline “Attentive / Helpful (staff)” (No 2), then if the airline provide staff that comprises of “Empathy/Understanding” (No 3) and then if the airline has a “Prompt Response (in dealing with the service failure)” (No4), those recovery strategies work better to create a more positive condition as far as with regards to the Loyalty (Consider this Airline my primary choice) of the customers.

In the Hypotheses H5 and H6 the approach took place based on Baron and Kenny’s (1986) procedure and Sobel (1982) which were carried out. It is quite a robust model here where Emotion will partially mediate the impact of Satisfaction with Recovery (SWR) and Loyalty.

Through the use of this model the objective was to see to what extent Satisfaction with Recovery (SWR) – how the airline tries to recover from the failure – and if this was going to impact Post Recovery Satisfaction (PRS) which logically seemed so. The Emotion here had an index of 5 positive (Calm – Contented – Pleased – Respected – Relaxed) and 5 negative emotions (Angry – Upset – Disappointed – Offended – Anxious). The analysis looked at both the positive and the negatives ones. Firstly here what needed was to establish that

there is a significant and that the satisfaction with Recovery (SWR) does significantly impact on the Emotion.

The figures revealed that the impact that Emotion have on Satisfaction with Recovery (SWR) is very small, it is not significant.

As the regression took place – even a complicated one, because of both negative and positive emotions presence – that meant that there is a significant negative impact but also at the same time a significant positive impact on Emotions, it was quite interesting as it was not so straight forward.

There was a positive impact on emotions; also a negatively one on other emotions so what had been established was that first of all yes there is an impact on Emotion.

From previously it is known, as it took place that Satisfaction with Recovery (SWR), yes, it does significantly impact on how the passengers feel afterwards [Post Recovery Satisfaction –(PRS) here] and then it was put them all together [these two in together (SWR & PRS) trying to explain that].

The independent variable – Satisfaction with Recovery, (SWR) – significantly affects the mediator (Emotion).

Firstly this (No 1- SWR) had to be established, if this significantly predicts this. Then it had to be established that the other one (No 2 - PRS) significantly predicts that and finally if both of those together can significantly predict it. More analytically:

As No 1 the independent variable Satisfaction with Recovery – (SWR) significantly affects the mediator (Emotion).

As No 2 The independent variable Satisfaction with Recovery – (SWR) significantly affects the dependent variable (PRS).

Then as No 3 the mediator variable (Emotion) affects the dependent variable (PRS) so this affects this when both the independent and the dependent variable are in the model in the regression. If these conditions manifest in the hypothesized direction, then the influence of the independent variable on the dependent variable should be less in the third regression equation than in the second (Baron and Kenny 1986).

Overall by looking the figures their value is so minimal and therefore not significant and therefore they are not statistically significant.

So when emotion and satisfaction are both in the model Emotion does not significantly impact satisfaction therefore does not partially mediate the impact of satisfaction with recovery but whilst there is an impact but it is not significant.

Through testing of No 1 it showed that the Emotion it does not significantly influence PRS and SWR. As this happened there is not much to continue further to say at this stage as it does not significantly (the Emotion) mediate because it doesn't have a significant influence on it. Similar results came from testing of No 2 and No 3 as well.

Through similar approach (as described in the above and upper part of the current page for Hypothesis H5) for Hypothesis H6 through the use of Baron and Kenny's model (1986) and also Sobel's (1982) model the results showed that Justice have a significant impact on Satisfaction with Recovery (SWR) and also on Post Recovery Satisfaction (PRS) so it does partially mediates them.

CHAPTER 5

CONCLUSION

5.1 General discussion

Overall this research found out that in the airline industry during a service failure there is occurrence of twenty two (22) Failure types, presented in a ranking order in Part 1a. The first three were the “Flight Delay”, the “Baggage lost” and the “Poor Service”. As mentioned above there is similarity in the occurrence of these findings with another research’s for the airline industry and more particularly the findings of Steven *et al.*, (2012).

Also this research found the negative impact that Failure Severity has which has a similarity with other researcher’s findings as the higher the magnitude of failure severity becomes the higher is the perceived negative impact of the customers (Smith, Bolton, and Wagner 1999; Weun, Beatty, and Jones 2004); (Tax *et al.*, 1998; Blodgett *et al.*, 1997; Smith *et al.*, 1999; Maxham 2001;) (Bell and Ridge, 1992; Limbrick, 1993; McCollough *et al.*, 2000; Smith *et al.*, 1999; Zeithaml *et al.*, 1993).

More particularly Smith, Bolton and Wagner (1999) suggested the same result that the higher the level of failure severity is, the lower is the amount of customer satisfaction. On their research they also found the same with predecessors on the same issue (amount of severity on service failure) such as Gilly and Gelb (1982), Hoffman, Kelley, and Rotalsky (1995) and Richins (1987).

Other researchers on previous research projects found similarly that the level of severity on service failure affects the assessment of the service provider according to customer’s judgement. Prospect theory for example argued that the negative influence of a high service failure severity is heavier in conjunction with the positive effect that service recovery will bring (Kahneman and Tversky, 1979; Smith *et al.*, 1999; Thaler, 1985). The additional new thing here with this research is that it takes place in the airline industry whereas the previous ones in other industries.

Further this research found that by examining the role of Failure Type at the different stages of the process the results show that the figures of the Mean PFS are low (less or in very few cases equal to 3, with 4 and 5 being the area of strong impact) so when there is a Failure there is still low level of satisfaction on a 5 point Likert scale so it shows that customers are still dissatisfied. The

purpose here was to see how overall Failure Type affects the others (PFS, SWR, PRS and Loyalty).

In the conceptual framework as the process moves there is the Post Failure Satisfaction (PFS) which is increased when the Severity of failure increases (a positive relation here) and also increases with some particularly Failure Types occurrence (i.e. “Flight Delay” – “Baggage damaged/lost” – “Poor Service” (further on Part 1a the whole table of the 22 Failure Types analytically). Therefore the existence of failure after the analysis taken depends firstly on the Severity of the Failure and also from the Failure Type. When in the conceptual framework the Recovery action begins it has a positive effect on the customer and particularly when the implication of some of the sixteen recovery strategies is engaged.

Table 5.1 – Sixteen Recovery Strategies

	SIXTEEN RECOVERY STRATEGIES
1.	An acknowledgement of the service failure
2.	Acceptance of responsibility for the failure
3.	An apology for the service failure
4.	An explanation of the service failure
5.	An opportunity to voice my view/feelings
6.	Correction of the problem
7.	Compensation for the service failure
8.	A prompt response from the airline in dealing with the service failure
9.	Follow-Up from the airline management / staff
10.	Effort from the staff in resolving my complaint
11.	Attentive/Helpful staff
12.	Staff empowered to solve my problem
13.	Empathetic/Understanding staff
14.	Facilitation (the airline company made it easy to complain)
15.	An appropriate place to explain/handle my complaint
16.	Follow-Up in writing from airline manager/empowered staff member

More specific during the start of the recovery action the statistical analysis showed that for Satisfaction with Recovery (SWR) there are eight recovery strategies that have an impact on it (Satisfaction with Recovery – SWR) as their Beta values were significant (smaller <0.05). In a similar way in Post Recovery satisfaction (PRS) there are nine recovery strategies that have an impact on it (PRS) as their Beta values were significant (smaller <0.05). Those eight and nine strategies subsequently can be seen in the table 5.2 below along with their ranking is according to their t value (from higher to lower, which can be seen in few pages above where the statistical analysis (regression) of H4a & H4b takes place). All the sixteen Recovery strategies can be seen in table 5.1 above.

Table 5.2 – Eight and Nine Recovery strategies with better effect for SWR and PRS subsequently.

	Satisfaction With Recovery (SWR)		Post Recovery Satisfaction (PRS)
1.	An opportunity to voice my view/feelings	1.	Correction of the problem
2.	An explanation of the service failure	2.	Compensation for the service failure
3.	Follow-Up from the airline management / staff	3.	Follow-Up from the airline management / staff
4.	Compensation for the service failure	4.	Facilitation (the airline company made it easy to complain)
5.	An apology for the service failure	5.	Empathetic/Understanding staff
6.	Follow-Up in writing from airline manager/empowered staff member	6.	A prompt response from the airline in dealing with the service failure
7.	Staff empowered to solve my problem	7.	Follow-Up in writing from airline manager/empowered staff member
8.	Empathetic/Understanding staff	8.	Attentive/Helpful staff
		9.	An opportunity to voice my view/feelings

In a similar way for Loyalty (Word of Mouth-WOM) – Loyalty (Fly Same Airline) – Loyalty (Not switch Airline) – Loyalty (Consider this Airline my Primary choice), the recovery strategies that were found more effective with significant Beta value (smaller <0.05) were nine, eight, ten and eleven subsequently. They can be seen in the following table No 5.3.

Table 5.3 – Nine, eight, ten and eleven Recovery strategies with better effect for Loyalty (WOM), Loyalty (Fly Same Airline), Loyalty (Not Switch Airline), Loyalty (Consider this Airline my primary choice) subsequently.

	Loyalty (Word of Mouth (WOM))		Loyalty (Fly Same Airline)
1.	Correction of the problem	1.	An appropriate place to explain/handle my complaint
2.	A prompt response from the airline in dealing with the service failure	2.	Follow-Up from the airline management / staff
3.	An appropriate place to explain/handle my complaint	3.	Correction of the problem
4.	Facilitation (the airline company made it easy to complain)	4.	Facilitation (the airline company made it easy to complain)
5.	An opportunity to voice my view/feelings	5.	Follow-Up in writing from airline manager/empowered staff member
6.	Follow-Up in writing from airline manager/empowered staff member	6.	An opportunity to voice my view/feelings
7.	Staff empowered to solve my problem	7.	Staff empowered to solve my problem
8.	Acceptance of responsibility for the failure	8.	An apology for the service failure
9.	An apology for the service failure		
	Loyalty (Not Switch Airline)		Loyalty (Consider this airline my primary choice)
1.	An acknowledgement of the service failure	1.	Facilitation (the airline company made it easy to complain)
2.	Acceptance of responsibility for the failure	2.	Acceptance of responsibility for the failure
3.	An apology for the service failure	3.	Attentive/Helpful staff
4.	An opportunity to voice my view/feelings	4.	Empathetic/Understanding staff
5.	Correction of the problem	5.	A prompt response from the airline in dealing with the service failure
6.	Compensation for the service failure	6.	Staff empowered to solve my problem
7.	Follow-Up from the airline management / staff	7.	An opportunity to voice my view/feelings
8.	Staff empowered to solve my problem	8.	An appropriate place to explain/handle my complaint
9.	Empathetic/Understanding staff	9.	Correction of the problem
10.	An appropriate place to explain/handle my complaint	10.	An apology for the service failure
		11.	Follow-Up in writing from airline manager/empowered staff member

Now from the sixteen recovery strategies in total and throughout the whole process in the conceptual framework (from Satisfaction with Recovery (SWR) to Post Recovery Satisfaction (PRS) and then towards the four types of Loyalty) those recovery strategies who were found to have higher frequency of occurrence (within SWR – PRS – Loyalty of 4 types) with significant Beta value (smaller <0.05) were fifteen, ranked in six positions and can be seen in the following table No 5.4

Table 5.4 – Most Effective Recovery Strategies

No	Ranking	MOST EFFECTIVE RECOVERY STRATEGIES	Frequency of occurrence (within SWR – PRS – Loyalty of 4 types)
1.	1)	An opportunity to voice my view/feelings	6
2.	2) (i)	Correction of the problem	5
3.	(ii)	Staff empowered to solve my problem	5
4.	(iii)	An apology for the service failure	5
5.	(iv)	Follow-Up in writing from airline manager/empowered staff member	5
6.	3) (i)	Facilitation (the airline company made it easy to complain)	4
7.	(ii)	An appropriate place to explain/handle my complaint	4
8.	(iii)	Empathetic/Understanding staff	4
9.	(iv)	Follow-Up from the airline management / staff	4
10.	4) (i)	A prompt response from the airline in dealing with the service failure	3
11.	(ii)	Acceptance of responsibility for the failure	3
12.	(iii)	Compensation for the service failure	3
13.	5)	Attentive/Helpful staff	2
14.	6) (i)	An acknowledgement of the service failure	1
15.	(ii)	An explanation of the service failure	1

Those are the recovery strategies that worked more effectively during this research when the recovery process begins.

Finally on the Recovery action the factors of Emotion and Justice didn't had a great impact as was initially expected (based on the results shown above which are not significant). Therefore the Emotion first did not partially mediate the

impact of Satisfaction with Recovery (SWR) on Post Recovery Satisfaction (PRS) and Loyalty and second the factor of Justice did not partially mediate either all the above three factors (SWR, PRS, Loyalty).

The contribution so far is that there is alliance with the severity, partly alliance with the recovery, and some contrast with the last part (Emotion & Justice factors didn't mediate the SWR, PRS and Loyalty factors) as some of the literature argues that both the Emotion and the Justice have an impact on Satisfaction with Recovery (SWR), Post Recovery Satisfaction (PRS) and Loyalty.

5.2 Theoretical contribution

This research has contributed to knowledge by expanding the understanding of the impact that several factors such as Severity of Failure, Failure type, Emotion and Justice have on Post Failure Satisfaction (PFS), on Satisfaction with Recovery (SWR), on Post Recovery Satisfaction (PRS) and Loyalty. It has also revealed some recovery strategies that work more effectively after the occurrence of service failure. It has also identified some quality models for the airline industry that work better and suggested the use of the Hierarchical model along with industry-based models. Also the usage of the SERVPEX and SERVPERF cannot be totally rejected as there are arguments from both sides.

Therefore this research has contributed to theory by demonstrating through a conceptual framework what overall impact have on the service failure and recovery process the factors of Severity of Failure, Failure type, Emotion and Justice. The findings provide significant contribution to the literature. More specific:

(1) The study findings as far as concerning Severity (which are in alliance with previous studies (Smith, Bolton, and Wagner 1999; Weun, Beatty, and Jones 2004; Tax et al., 1998; Smith et al., 1999; Maxham 2001; Bell and Ridge, 1992; Limbrick, 1993; McCollough et al., 2000; Smith et al., 1999; Zeithaml et al., 1993) show that there is a positive relationship of the magnitude of Severity with the perception for the failure that the air traveller has. The higher the severity, the more negative the perception about the service failure. The findings through IBM'S SPSS software package support that (Support of Hypothesis H1).

(2) Also this study found twenty two (22) Failure types (with the first two being in alliance with the study of Steven *et al.*, 2012 and also showed the impact that Failure types have in the whole process. They actually do have a significant impact on Post Failure Satisfaction (PFS), on Satisfaction with Recovery (SWR), on Post Recovery Satisfaction (PRS) and on Loyalty (4 types: Word of Mouth – Fly Same Airline – Not Switch Airline - Consider this Airline my primary choice) (support of Hypothesis H2).

(3) This study also found that the differentiation in Loyalty increases in the Post Recovery Satisfaction (PRS) condition in relation with Loyalty in the Post Failure Satisfaction (PFS) (support of Hypothesis H3).

(4) Additionally the study found that there is different impact of the Recovery action on the Satisfaction with Recovery (SWR) condition, on Post Recovery Satisfaction (PRS) and on Loyalty as there are some recovery strategies of the total 16 that work better on each condition (support of Hypothesis H4).

(5) The factor of Emotion didn't found to have significant impact on the relationship among Satisfaction with Recovery (SWR) on overall Post Recovery satisfaction (PRS). The Sobel (1982) test showed that perceived value did not mediated the effect of satisfaction with recovery (SWR) on overall post recovery satisfaction. Therefore it didn't support the Hypothesis H5a (Non-support of Hypothesis H5a).

(6) The factor of Emotion found to have significant impact on the relationship among Satisfaction with Recovery (SWR) on overall Post Recovery satisfaction (PRS). Baron and Kenny's (1986) procedure indicated a partial mediation effect. Therefore, Hypothesis 5b was supported. The partial mediating effect means that, satisfaction with recovery had some direct effect on overall post recovery satisfaction (PRS) (Support of Hypothesis H5b).

(7) The factor of Justice found to have significant impact on the relationship among Satisfaction with Recovery (SWR) on overall Post Recovery Satisfaction (PRS).

In summary, the Sobel (1982) test showed that perceived value mediated the effect of satisfaction with recovery (SWR) on overall post recovery satisfaction (PRS). Baron and Kenny's (1986) procedure indicated a partial mediation effect. Therefore, Hypothesis 6a was supported. The partial mediating effect means that, satisfaction with recovery (SWR) had some direct effect on overall post recovery satisfaction (PRS) (Support of Hypothesis H6a).

(8) The factor of Justice found to have also significant impact on the relationship among Satisfaction with Recovery (SWR) on overall post recovery satisfaction (PRS). In summary, the Sobel (1982) test showed that perceived value mediated the effect of satisfaction with recovery (SWR) on overall post recovery satisfaction (PRS). Baron and Kenny's (1986) procedure indicated a partial mediation effect. Therefore, Hypothesis 6b was supported. The partial mediating effect means that, satisfaction with recovery (SWR) had some direct effect on overall post recovery satisfaction (PRS) (Support of Hypothesis H6b).

The set of hypotheses tested for this study were through the use of One-Way Anova Analysis and (OLS) Regression analysis. Additionally for the Hypotheses H5a, H5b, H6a and H6b it was used the tested for the mediating influence of the service constructs procedure of Kenny and Baron (1986) and the Sobel (1982) statistic additionally. The test for the H5b was significant but the test for the H5a was not hence both the H5 hypothesis was not accepted. The tests for the H6a and H6b were significant ($p < .001$) hence H6 hypothesis was accepted.

5.3 Managerial implication

The conceptual framework that was developed for this study had as a task to provide a comprehensive tool for the managers and operators of the airline industry to develop their reactions when dealing with the frequent occurrence of the service failure. Based on the findings managers need to develop the overall process of the service failure and recovery and not focusing only on specific actions against one or possibly two service constructs, they have to examine the traveller's experience holistically.

There were found some recovery strategies that have a better result on customer's perception and those have been depicted in table 5.4 above. The most important in occurrence was the customer's expression that there was given an opportunity to voice their view/feelings ("opportunity to voice my view/feelings"). So that would be the first recommendation for the airline managers is to provide easy this environment for the customers.

Also second in occurrence and very important was the fact that after the service failure there was actually correction of the problem. If then the staff is empowered to solve the problem that brings further confidence to the customers. That means that the airlines must follow extensive training with their front line employees (here mostly appears to air stewardess, and also those employees on the ground) to face different kinds of problems that might occur during a flight or at the airport. All of the above is recommendations that the airlines must follow.

Now if this training is accompanied with appropriate "apology" in the case of a service failure and appropriate "follow-up in writing from the airline manager" and also if there is an easy way for the customers to express their complain ("Facilitation from the airline that made it easy to complain") and there is an "appropriate place for explanations/handling of the complaint" the perception of the customers will be more positive towards that airline as far as concerning their customer satisfaction level.

If at the same time the staff is more "Understanding", there is "Follow-up" with "Prompt response" and if there is also immediately "acceptance of responsibility for the failure" followed by "Compensation" and also the

existence of “Attentive/Helpful staff” with “Acknowledgement of the service failure” and direct “Explanations for the failure” there will be more likely for the customers to develop Post Recovery Satisfaction (PRS) and also higher and more positive indication for positive Loyalty “Word of Mouth”, “Fly the same airline” and not “Switching” and also to “Consider this airline their primary choice”.

Additionally as the severity of failure increases and brings a negative impact to customers perception, even low increase of it creates damage and in alliance with Keingham *et al.*, (2014) work, managers must pay attention to minor incidents as well. Even for some travellers half an hour delay might not be a problem but for certainly will be for some others and is of major importance. Now from the literature review some airlines don’t pay attention to non-concentrated markets as their level of profits are not high (they only pay attention to concentrated markets) so minor incidents left unattended there, it should also their focus be to those non-concentrated markets as well.

In order to have a satisfactory and prompt reaction of the front-line employees when dealing with customers, extensive training is suggested to improve their level of reaction and have the necessary knowledge, behaviour and prompt response.

As far as concerning service quality managers must use as guidance the Hierarchical model for the airline industry, or an industry-based model of the four discussed earlier.

5.4 Recommendations for future research

There are a number of prospects that could be linked with this research study and be extended further for future research. Certain other factors can be researched to find their influence towards a service failure and recovery process. The factor of “Trust” for instance can be explored further. Also further the “Communication factor” that the employees have and how this can be improved further to have a prompt response but at the same time an effective one.

As far as the quality factor it is suggested the Hierarchical model for the airline industry or an industry-based one (of four suggestions) but for the first one (Hierarchical model) there is no actual study of it for the airline industry yet. Also the industry-based models are relatively old now so a more recent version could be explored to see the implications due to the fact that there huge lack of literature directly related with the airline industry and more particularly with the service failure and recovery.

Additional implications could have the different cultural background of the passengers and how this relates with the service failure and recovery in the airline industry.

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APPENDICES

Appendix 1

Methodology philosophies

Positivist Philosophy.

The positivist philosophy at its initial stages developed as one type of study based on “logical results” supported mainly by the positive and experimental sciences (Kaplan 1968). Under this perspective only “logical” statements would be taking into consideration. Therefore any result that does not match or does not confirm any scientifically experiment would be worthless.

Although later there were attempts to adapt it in a less rigid level (Caldwell 1980) with the introduction of the term “variability” still this philosophy remains stiff with no flexibility. If one result from a series of them contradicts the rest then the whole research result has to be turn down.

Realism

In a parallel way with positivism Realism describes that what the senses depict as real it is real (Saunders *et al.*, 2007). It is comparable to positivism in the sense that it accepts a scientific approach for the purpose of knowledge development regardless of the data collection and data understanding. Realism appears in two types: direct and critical realism.

Direct realism describes that what you see is what you get whereas critical realism is the sensations that you experience, the images not the things directly which in some cases could be deceivable (Saunders *et al.*, 2007).

Interpretivist Philosophy.

This philosophy (Smith *et al.*, 2004) in contrast with the previous argues that same things can be seen differently from individuals and interpreted in a diverse way. Heidegger (1962) and Gadammer (1994) bring the issue of “subjectivity” to individual understanding on a research result. Sandelowski (1993) adds further on that and opposes to others such as Clark (1998) who argues that some of the research results must be interpreted completely objective, a thing that positivism theory does.

Others like Clayton (1997: 19) argues that complete objectivity cannot walk along science, it is something that belong in the past and no longer exists.

Phenomenology

This type of philosophy according to Loughlin (1993:11) suggests putting aside initial presumptions of the world and accepts the external reality as it is. Gray (2004:21) further, suggests that new interpretations may arise if people left behind their initial views something which according to Hummel (1994:209) unfortunately they tend to do and ignore the “external reality”.

Methodologies have been categorised as either quantitative or qualitative (Cuba, 1990). The quantitative extracts data for statistical analysis while the qualitative depend on textual pictures. The quantitative method is grounded in the positivist paradigm whilst the qualitative is grounded on the interpretivist.

Appendix 2 (from Chapter 2)

A. Ten components of service quality

(Source: Francis Buttle, (1996) "SERVQUAL: review, critique, research agenda", European Journal of Marketing, Vol. 30 Iss: 1, pp.8 – 32)

- (1) *Reliability* involves consistency of performance and dependability. It also means that the firm performs the service right first time and honours its promises. Specifically, it may involve:
 - Accuracy in billing;
 - Performing the service at the designated time.
- (2) *Responsiveness* concerns the willingness or readiness of employees to provide service. It may involve:
 - Mailing a transaction slip immediately;
 - Calling the customer back quickly;
 - Giving prompt service (e.g. setting up appointments quickly).
- (3) *Competence* means possession of the required skills and knowledge to perform the service. It involves:
 - Knowledge and skill of the contact personnel;
 - Knowledge and skill of operational support personnel;
 - Research capability of the organization.
- (4) *Access* involves approachability and ease of contact. It may mean:
 - The service is easily accessible by telephone;
 - Waiting time to receive service is not extensive;
 - Convenient hours of operation and convenient location of service facility.

- (5) *Courtesy* involves politeness, respect, consideration, and friendliness of contact personnel (including receptionists, telephone operators, etc.). It includes:
- Consideration for the consumers property;
 - Clean and neat appearance of public contact personnel.
- (6) *Communication* means keeping customers informed in language they can understand, and listening to them. It may mean that the company has to adjust its language for different customers. It may involve:
- Explaining the service itself and how much the service will cost;
 - Explaining the trade-offs between service and cost;
 - Assuring the consumer that a problem will be handled.
- (7) *Credibility* involves trustworthiness, believability, honesty. It involves having the customer's best interests at heart. Contributing to credibility are:
- Company name and reputation;
 - Personal characteristics of the contact personnel;
 - The degree of hard sell involved in interactions with the customer.
- (8) *Security* is the freedom from danger, risk, or doubt. It may involve:
- Physical safety;
 - Financial security and confidentiality.
- (9) *Understanding/knowing the customer* involves making the effort to understand the customer's needs. It involves:
- Learning the customer's specific requirements;
 - Providing individualized attention.
- (10) *Tangibles* include the physical evidence of the service:
- Physical facilities and appearance of personnel;
 - Tools or equipment used to provide the service;
 - Physical representations of the service, such as a plastic credit card.

Appendix 3 – Ethical Approval

College Ethics Panel Ethical Approval Form for Post-Graduates

Ethical approval must be obtained by all postgraduate research students (PGR) prior to starting research with human subjects, animals or human tissue.

A PGR is defined as anyone undertaking a Research rather than a Taught masters degree, and includes for example MSc by Research, MRes by Research, MPhil and PhD. The student must discuss the content of the form with their dissertation supervisor who will advise them about revisions. A final copy of the summary will then be agreed and the student and supervisor will 'sign it off'.

The signed Ethical Approval Form and application checklist must be forwarded to your College Support Office and also an electronic copy **MUST be e-mailed to the contacts below at your College Support Office;**

CHSC: Deborah Woodman - D.Woodman@salford.ac.uk

The forms are processed online therefore without the electronic version, the application cannot progress. Please note that the form must be signed by **both the student and supervisor**.

Please ensure that the electronic version of this form only contains your name and your supervisor's name on this page, where it has been requested.

All other references to you or anyone else involved in the project must be removed from the electronic version as the form has to be anonymised before the panel considers it.

Where you have removed your name, you can replace with a suitable marker such as [.....] Or [Xyz], [Yyz] and so on for other names you have removed too.

You should retain names and contact details on the hardcopies as these will be kept in a separate file for potential audit purposes.

Please refer to the 'Notes for Guidance' if there is doubt whether ethical approval is required

The form can be completed electronically; the sections can be expanded to the size required.

Name of Student:
Name of Supervisor:
School: Salford Business School
Course of study: PhD
Name of Research Council or other funding organisation (if applicable):N/A

1a. Title of proposed research project

Service Failure and Recovery in the UK Airline Industry.

1b. Is this Project Purely literature based?

NO

2. Project focus

This study will focus on service failure and recovery in the UK airline industry. Its main objective is to create a theoretical model in order to develop further our understanding of the impact that airline service failure has on customer satisfaction and to identify optimal recovery strategies.

Building on a recent study of service failure and recovery strategies in UK hotels (Schofield and Bennett, 2013 forthcoming), funded by the Charles Forte Foundation, this study of service failure in UK airlines will focus on the criticality and severity of service failure by type and the comparative effectiveness of alternative recovery strategies from the consumer perspective.

The aim of this study is to contribute further to the literature through in-depth analysis of service failure, critical incidents and evaluation of alternative recovery strategies to build a clear understanding of the problem and contribute to the sustainable development of organisations.

3. Project objectives

This research will examine service failure in the UK airline sector and evaluate the effectiveness of recovery actions within the context of recent theoretical developments e.g. the three factor theory of satisfaction and the interrelationship between failure severity, perceived justice, emotion, trust and loyalty. Six specific objectives have been identified:

1. Identify and examine the key factors influencing customer satisfaction and loyalty.

2. Examine the impact of service failure type, and severity on post failure satisfaction (PFS) and post recovery satisfaction (PRS).
3. Evaluate the differential effects of service recovery actions on post recovery satisfaction (PRS) and loyalty.
4. Evaluate the mediating effect of passenger emotion in relation to the impact of service recovery on post recovery satisfaction (PRS) and loyalty.
5. Evaluate the mediating effect of perceived justice in relation to the impact of service recovery on post recovery satisfaction (PRS) and loyalty.
6. Evaluate the mediating effect of trust in relation to the impact of service recovery on post recovery satisfaction (PRS) and loyalty.

See Attachment 1 for the conceptual framework and research hypotheses.

4. Research strategy

(For example, outline of research methodology, what information/data collection strategies will you use, where will you recruit participants and what approach you intend to take to the analysis of information / data generated)

Permission will be requested from Manchester Airport Authority via KGS (see Attachment 2) to conduct an intercept (face-to-face) questionnaire survey of airline passengers at Manchester airport. See Attachment 3 for questionnaire. The questionnaire format has been designed to fit the research aims, objectives and hypotheses. The data collection will take place in [October/November 2013] subject to ethical approval. In the case of a negative response from Manchester Airport Authority, the questionnaire survey will target students at Salford University and an on-line survey will be used. The questionnaire will be placed on the SurveyMonkey.com website.

In the case of either the airport intercept survey or the on-line student survey, participants will have full knowledge of the nature of the research and what they will be asked to do before agreeing to participate. Anonymity will be guaranteed and also they will have the opportunity to leave the survey at anytime for whatever reason (Attachment 4). If they agree to participate, they will be asked to sign the questionnaire survey consent form prior to completing the questionnaire (Attachment 5). At the end of the survey, the questionnaires will be stored at Salford University in a secure location.

The individual cases of data generated by the survey will be aggregated and analysed through a variety of statistical methods

including correlation, analysis of variance (ANOVA), factor analysis and multiple regression analysis.

5. What is the rationale which led to this project?

(For example, previous work – give references where appropriate. Any seminal works must be cited)

The airline industry is been characterised as a highly competitive sector with low profit margins and high fixed costs making it very difficult for some airlines to compete against others with greater financial resources or lower operating costs (Dempsey and Gessel, 2012).

Customer satisfaction plays a vital role in every organisation's strategic plan and while extant models such as SERVQUAL and SERVPERF have been discredited in the literature (Babakus and Boller 1992; Carman 1990; Cronin and Taylor 1992; Teas 1993; Buttle, 1996), the three factor theory of satisfaction (Matzler and Sauerwein, 2002; Matzler et al, 2004) has explained many of the confounding results from previous research which has examined customer satisfaction. However, this model has not been applied in the context of airline service failure and recovery to date. This study will therefore examine service failure in the UK airline industry and evaluate the effectiveness of various recovery actions and the interrelationships between post-recovery satisfaction, justice, emotion, trust and loyalty within the context of the three factor theory of satisfaction.

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6. If you are going to work within a particular organisation do they have their own procedures for gaining ethical approval

(For example, within a hospital or health centre?)

NO

If YES – what are these and how will you ensure you meet their requirements?

Ethical approval will be sought and obtained from the College ethical approval committee at Salford University before commencing with the primary data collection. An application for permission to conduct the survey at Manchester Airport will be submitted in response to the procedure outlined in Attachment 2.

7. Are you going to approach individuals to be involved in your research?

YES

If YES – please think about key issues – for example, how you will recruit people? How you will deal with issues of confidentiality / anonymity? Then make notes that cover the key issues linked to your study

As stated in section 4 above, the data will be collected through a face-to-face questionnaire survey at Manchester airport. In connection with this, an application will be submitted to Manchester Airport Authority (Attachment 2). If access to Manchester Airport passengers is denied, an on-line procedure will be used and students at Salford University will be invited to participate in the survey. The questionnaire will be placed on the Surveymonkey.com website.

All participants will be fully briefed as to the nature of the research and what they will be asked to do before agreeing to participate in the

survey (Attachment 4). Anonymity will be guaranteed and also they will have the opportunity to leave the survey at anytime for whatever reason. If they agree to participate, they will be asked to sign the Questionnaire Survey Consent Form prior to completing the questionnaire (Attachment 5). At the end of the survey the questionnaires will be stored at Salford University in a secure location. The data from individual questionnaires will be aggregated and individual cases will be anonymised in the process. The consent forms will be stored in a separate location from the questionnaires and individual participants will be unable to be identified from their questionnaires.

8. More specifically, how will you ensure you gain informed consent from anyone involved in the study?

Participants will be fully informed of the nature of the study and the survey prior to engaging with a questionnaire. They will also be advised that they may withdraw from the survey at any stage should they wish to do so. If they agree to participate, they will be asked to sign the Questionnaire Survey Consent Form (Attachment 5). Full anonymity will be guaranteed to participants. The signed consent forms will be stored separately from the questionnaires in a secure location at Salford University.

9. How are you going to address any Data Protection issues?

See notes for guidance which outline minimum standards for meeting Data Protection issues

The anonymous data from the questionnaire survey will be loaded into a password secure SPSS version 20.00 matrix and stored in a secure location in Salford University. All statistical analyses will be performed on aggregated data.

10. Are there any other ethical issues that need to be considered? For example - research on animals or research involving people under the age of 18.

N/A. All participants will be aged 18 or over.

11. (a) Does the project involve the use of ionising or other type of "radiation"

NO

(b) Is the use of radiation in this project over and above what would normally be expected (for example) in diagnostic imaging?

NO

(c) Does the project require the use of hazardous substances?

NO

(d) Does the project carry any risk of injury to the participants?

NO

(e) Does the project require participants to answer questions that may cause disquiet / or upset to them?

NO

If the answer to any of the questions 11(a)-(e) is YES, a risk assessment of the project is required and must be submitted with your application.

12. How many subjects will be recruited/involved in the study/research? What is the rationale behind this number?

The sample size for the study is unknown. According to Krejcie and Morgan (1970) the formula for the unknown population size is:

$$n = \frac{Z^2 \sigma^2}{e^2}$$

Where :

n=sample size

z=confidence coefficient

σ^2 =estimated variance

e=allowable error

1.The z value for a confidence level of 95% is 1.962

2.Estimated variance for 5-point scale is 2.5 (Tull and Hawkins,1993)

3. A 5% allowable error on a 5 point- Likert scale is 5% of 4.

It is estimated that a sample of 500 will be obtained.

13. Please state which code of ethics has guided your approach (e.g. from Research Council, Professional Body etc).

Please note that in submitting this form you are confirming that you will comply with the requirements of this code. If not applicable please explain why.

The approach is based on University of Salford research ethics guidelines and feedback and approvals obtained from the University Research Governance and Ethics Sub-committee relating to previous research projects in Salford Business School.

Remember that informed consent from research participants is crucial, therefore all documentation must use language that is readily understood by the target audience.

Projects that involve NHS patients, patients' records or NHS staff, will require ethical approval by the appropriate NHS Research Ethics Committee. The University College Ethics Panel will require written confirmation that such approval has been granted.

Where a project forms part of a larger, already approved, project, the approving REC should be informed about, and approve, the use of an additional co-researcher.

I certify that the above information is, to the best of my knowledge, accurate and correct. I understand the need to ensure I undertake my research in a manner that reflects good principles of ethical research practice.

Signed by Student _____

Print Name _____

Date 29th August 2013_____

In signing this form I confirm that I have read this form and associated documentation.

I have discussed and agreed the contents with the student on _28th August 2013_____
(Please insert date of meeting with student)

Signed by Supervisor _____

Print Name _____

Date 29th August 2013_____

College Ethics Panel: Application Checklist

Ref No: Office Use Only

Name of Applicant:

Title of Project: Service Failure and Recovery in the UK Airline Industry

The checklist below helps you to ensure that you have all the supporting documentation submitted with your ethics application form. This information is necessary for the Panel to be able to review and approve your application. Please complete the relevant boxes to indicate whether a document is enclosed and where appropriate identifying the date and version number allocated to the specific document (*in the header / footer*), Extra boxes can be added to the list if necessary.

Document	Enclosed? (indicate appropriate response)			Date	Version No
Application Form	<u>Mandatory</u>			If not required please give a reason	
Risk Assessment Form	Yes	No	(-----)	See Attachment 6	
Participant Invitation Letter	Yes	No	(-----)	See Attachment 4	
Participant Information Sheet	Yes	No	(-----)	See Attachment 4	
Participant Consent Form	Yes	No	(-----)	See Attachment 5	
Participant Recruitment Material – e.g. copies of posters, newspaper adverts, website, emails	Yes	No	(-----)	See Attachment 4	
Organisation Management Consent / Agreement Letter	No	No	(-----)	Permission will be obtained from Manchester Airport in accordance with procedures outlined in Attachment 2	
Research Instrument – e.g. questionnaire	Yes	No	(-----)	Attachment 3	
Draft Interview Guide	No	No	Not required for this project	Not required (Only a questionnaire survey will be used).	
National Research Ethics Committee consent	Yes	No	Not required for this project	Not required (Only Manchester Airport Authority (see Attachment 2) and University of Salford Research Ethics Committee approval required.	

Note: If the appropriate documents are not submitted with the application form then the application will be returned directly to the applicant and will need to be resubmitted at a later date thus delaying the approval process