The Identification of Gaps between perceived and required Service Quality and Strategies to increase Customer Satisfaction

- A case study of the three largest German Airline Companies –
Acknowledgement

I would like to thank the people who have supported me and contributed to my work in preparing this dissertation.

At first, I would like to thank my supervisor Gabriel Baffour Awuah for his valuable support and constructive feedback. Although it is a challenge to write a dissertation abroad, I was always able to consult him.

In addition, I am very grateful for the commitment and consistent willingness of Mr. Manuel Kluge of Deutsche Lufthansa AG to provide information for this research.

Finally, I would like to acknowledge Halmstad University, which has provided me with a fantastic study experience.
Abstract

The assurance of customer satisfaction is an increasing challenge for airline companies. Bridging the gap between passenger expectations and the perceived image of service quality is a permanent problem that is in the need to be optimized. Therefore, it is indispensable for the company to identify these gaps and develop strategies to increase customer satisfaction. Thus, the purpose of this study is to identify gaps between perceived and required service quality, and strategies to increase customer satisfaction. Consequently, the customer as well as the company perspective shall be considered carefully. The theoretical foundation for this dissertation can be referred to the service quality model of Parasuraman, Zeithaml and Berry (1985). To illustrate the coherencies and provide actual data from the reality, the cases of the airline companies Air Berlin, TUIfly and Lufthansa are chosen. By conducting a survey, quantitative data was collected from the customer. In order to collect data about the company perspective, qualitative methods like an interview and secondary information from the companies’ homepages are used.

Based on the cases of the three airlines, specific gaps are identified. From this, concrete needs for action and strategies on the part of the companies can be derived. The findings of this study show that core and secondary service quality attributes can be identified. Consequently, the improvement of certain attributes can be more important than the improvement of other attributes to increase customer satisfaction. These priorities depend also on the size of a service quality gap and on the access to company resources.

Keywords: service quality, customer satisfaction, gap analysis, airline sector
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1. Introduction

1.1. Background

Although a high number of customers that steadily obtain services from a company is already an indicator for a great potential on the part of the company to satisfy its passengers in an adequate way, the evaluation of single service attributes is hugely useful to find out, how far the customers’ needs are supplied in detail. One possibility to determine needs for improvement is the utilization of customer complaints (Plymire, 1991). A more active procedure can be implemented through a direct questioning of the customers.

In the service sector, the customer is integrated into the service delivery process. This is also characterized by a direct interaction between the customer and the employees of the company. Consequently, the employees have to radiate friendliness and competence to inspire confidence, which is especially important for services that are connected with a high degree of trustworthiness. Within the sector of passenger transportation, trust is particularly meaningful. This can be referred to the indispensable necessity of security assurance.

As a consequence, a suitable standard of service quality has to be ensured in order to create a positive image of the company and to achieve high customer loyalty. This is a constant challenge for service companies as they are in the permanent need to implement detailed strategies and operations to satisfy their customers. Whether customer satisfaction is realized successfully or not is based on a complex and dynamic decision process that requires an ongoing customer orientation.

Quite a number of researches deal with the investigation of service quality (Seth, Deshmukh & Vrat, 2005). It was detected early that service quality affects customer satisfaction, customer loyalty and profitability significantly (Leonard & Sasser, 1982). The first theoretical model was introduced by Grönroos (1984), who divides service quality into technical and functional quality. He mentions that both attributes influence the image of the service quality that is perceived by consumers. Parasuraman, et al. (1985) developed Grönroos’ model further by deriving a gap analysis in order to identify differences between customer expectations and perceptions. This model is very well elaborated and serves as a foundation for this dissertation. As the model is not adapted to a certain industry, this is accomplished by means of this study.
1.2. Research Problem

The research problem that shall be solved within this dissertation can be derived from two different perspectives of questioning. On the one hand, the perspective of the customer shall be considered by investigating how service quality gaps between expectations and perceptions on the part of the customer can be identified. The existence of a service quality gap leads to a lower customer satisfaction. There is also another perspective that shall clarify which strategies companies devise to minimize qualitative gaps and increase customer satisfaction.

1.3. Research Purpose

According to the research problem, the purpose of this dissertation is the identification of gaps between perceived and required service quality, and strategies to increase customer satisfaction. Consequently, the customer as well as the company perspective shall be considered carefully.

1.4. Delimitations

This dissertation is specified on the field of the German air transportation sector and shall emphasize the importance of adequate service quality provision in this context. The customers of airline companies are particularly sensitive and critical concerning service quality, because a relatively high range of trust is necessary.

At this point, we should ask ourselves, which occasions induce us to travel by airplane. The following examples show the importance of high service quality within the air transportation sector. In the most cases, travelling by airplane is not as ordinary as travelling by bus or train. For many passengers the flight is the means of transport in order to reach a vacation resort or to visit family and friends. Thus, in this case, the travelling occupies precious spare time of the customer. From this it follows that the customer expects adequate service to be satisfied. Another travel occasion is to arrive at a business appointment. Many customers chose the airplane in this connection, because it is meant to be quick and comfortable. Business travellers, normally, have high requirements towards the transportation service.
The research of this dissertation concentrates on the German airline companies Air Berlin, TUIfly and Lufthansa. The choice of companies occurred on the basis of their importance in the German market and enables the deduction of results that are as representative as possible. This study is restricted deliberately to the area of passenger transportation by including on-board service quality as well as service quality on the ground.

Cultural distinctions shall be neglected in this study. To be sure, the chosen airline companies are active on international markets, but to differentiate between cultural backgrounds of the passengers would go beyond the scope in this case. As a consequence, customer expectations and perceptions as well as strategies of the companies are described from a general point of view and not with an adaption to different countries or cultures.

Unfortunately, it was not possible to conduct an interview with Air Berlin and TUIfly to gain more detailed information about the company perspective. Because of that, the empirical data base of these two airline companies is not as extensive as the data collected from Lufthansa.

1.5. Structure of the thesis

The introductory chapter described the background to the study and targets of the dissertation while the next chapter reviews the literature of relevant previous research. These studies shall provide the reader with the current stage of research in this field. Additionally, it shall evince the differences between earlier research in comparison with this dissertation and by that show the importance of the findings that this new research produces in addition to that.

In the third chapter, the relevant theoretical framework for this thesis is drawn up. This is chosen under the condition of being suitable to solve the research problem.

The methods that are utilized in this study are explained in the fourth chapter. The instruments of data collection are qualitative as well as quantitative by making use, for instance, of surveys and an interview. The collected data is presented and analyzed in the following two chapters so that conclusions and implications for future research can be deduced in the final chapters.
2. Literature review

Former studies already deal with the research about customer satisfaction in connection with service quality. A few researchers specified their investigations also on the aviation industry. These deliver valuable findings for this thesis and offer the opportunity to develop existent ideas further. Although the purpose of the studies is different, in some aspects, similarities between former studies and this dissertation are apparent. Because of that, the most important studies shall be presented as follows:

Sultan and Simpson Jr. (2000) examine the customers’ perceptions and expectations with the object of finding out if nationality influences these parameters and if some aspects can be generalized for all nationalities. For that, they take US as well as European airline customers into consideration. A similar background is chosen by Lu and Ling (2008), who deal with cross-cultural influences on service quality attributes and customer satisfaction. Their findings are developed by comparing customers who live at the Chinese mainland with Taiwanese customers.

In order to investigate airline passenger expectations and perception, Pakdil and Aydin (2007) apply the instrument SERVQUAL, developed by Parasuraman et al. (1988), on Turkish passengers to measure service quality. They conclude that both parameters are dependent from the customers’ educational level and flight habits. This research is based on certain service quality attributes that are divided into the categories employees, tangibles, responsiveness, reliability and assurance, flight patterns, availability, image and empathy. These are the underlying indicators for measuring service quality. As a result of this research, responsiveness has the highest meaning, and availability the lowest meaning, for the passengers.

Another study that includes the utilization of factors that influence service quality is developed by Wang (2007). These factors are separated into professionalism, physical service and correctness and positive work. In comparison to other studies, this study does not deal with airline passengers but with air cargo transportation. In order to improve service quality, Wang (2007) applies the ‘House of Quality’. This method combines customer needs with technical feasibility and shall evince gaps that can be minimized to increase customer satisfaction within the possibilities of the company. Therefore, a normative-actual value comparison is necessary.
A study of Chen (2008) focuses on the intended behaviour of airline passengers and how it is influenced by the customers’ expectations, perceptions and satisfaction concerning the offered service quality. Coherencies between these variables shall be evinced by means of a ‘structural equation model’ (SEM). As it follows from the research, every variable affects the next variable. That means that the expectation influences the customers’ perception of the service that in turn affects the establishment of a certain perceived value. This value then causes the degree of customer satisfaction. From this, the behavioural intentions of a customer can be deduced. Thus, Chen (2008) introduces a chain of relationships between single variables. He also utilizes a number of attributes that are crucial for service quality. These are classified into employees and facilities, product, transaction and reliability.

The idea of presenting certain quality attributes as indicators for the service quality level is very suitable and shall be applied in this dissertation as well. Most of the presented studies refer to a great extend to Parasuraman et al. (1985; 1988; 1994) findings about service quality and qualitative gaps. Because the service quality model of Parasuraman et al. (1985) is exceedingly suitable as a point of origin for researches in this field, this model shall also serve as a foundation for this dissertation.

At this stage, it is apparent that the described studies primarily investigate from the perspective of customer perceptions and expectation. Thus, they neglect the role of the service company that has a continuous need to ensure an adequate service quality level to achieve customer satisfaction, customer loyalty and competitive advantages. This thesis will consider the situation of the three airline companies and combine it with the customer perspective.

3. Theoretical framework

The theoretical model that serves as a basis for the research of this thesis can be referred to Parasuraman et al. (1985). They developed a conceptual model of service quality that identifies five different gaps between the single parameters of their model. It is one of the most important frameworks, because it was the first model that illustrates appropriately the mentioned coherencies at that time and has become a significant and enduring cornerstone for research in this field.
3.1. Expected service

Referring to Parasuraman et al. (1985), customer expectations are formed by the customers’ intrapersonal structure of needs and his or her earlier experiences. Moreover, the influence from his interpersonal network has a significant effect on the customers’ expectations. In addition to that, the external communication of a firm can modify the expectation to a large extent.

As the needs of the individual customers are variable, different expectation levels can be identified depending on different preferences. That signifies that the requirements concerning a service can be either more differentiated or more basic. For example, Doole and Lowe (2008) assume that quality expectations can be developed on the basis of price differences. The implication of this is that a more favourable price results in lower expectations of service. In turn, a comparatively high price would suggest higher service quality and, by that, the expectation level concerning this service is higher and more complex as well.

Another important factor that can have an effect on service expectations is the brand image of a company. Following an elucidation of Martínez Salinas and Pina Pérez (2008), customers establish a brand association on the basis of a learning process. The allocation of different brand associations then leads to the creation of brand image (Torres & Bijmolt, 2008).

3.2. Perceived service

According to Kotler et al. (2005, p. 273), perception can be defined as “the process by which people select, organise and interpret information to form a meaningful picture of the world”. The perception is built on subjective aspects and, for that reason, can differ between persons. Nevertheless, a service company strongly influences how its own service is perceived by the customer. From the model of Parasuraman et al. (1985) it can be extrapolated that the process of service delivery and the communication to the customer are the crucial factors for the perception of a service. At this stage, the assumption can be formulated that service perception and service expectation correlate significantly with satisfactory service quality. As described by Doyle (2002), an augmenting number of companies realize that profitability and customer loyalty can be achieved through higher customer satisfaction. In this context, a definition of Kotler et al. (2005, p. 10) is particularly
applicable. They define customer satisfaction, as “the extent to which a product’s perceived performance matches a buyer’s expectations”. Thus, the customer satisfaction is high if perceptions and expectation are equal. On the contrary, customer satisfaction is low if perceptions and expectations differ from each other in a decisive way.

3.3. Service quality model

As described by Seth et al. (2005, p. 916), the gap model of Parasuraman et al. (1985), proceeds on the assumption that “service quality is a function of perception and expectations”. This correlation can be translated into the following formula:

\[
SQ = \sum_{j=1}^{k} (P_{ij} - E_{ij})
\]

**Formula 1: Service quality**

- **SQ** = overall service quality
- **k** = number of attributes
- **P_{ij}** = Performance perception of stimulus i with respect to attribute j
- **E_{ij}** = Service quality expectation for attribute j that is the relevant norm for stimulus i

From this it follows that a qualitative gap of a certain service exists if there is a difference between perception and expectation: \(P_{ij} \neq E_{ij}\). The five different gaps that are represented by Parasuraman et al. (1985) can be explained on the basis of Figure 1.
3.3.1. Customer Orientation

As can be gathered from Figure 1, the first gap is described as the difference between the consumers’ expectation of a service offer and the management perception of this expectation on the part of the customer. In other words, the firms’ management interprets the needs of the customer in a way that diverges from his actual needs. This can be due to an insufficient customer closeness, which creates an unattractive service offer for customers, even though the company expended a great effort by developing its strategies. These coherencies are also described by Bruhn and Stauss (2000), who reckon that the integration of the customer is indispensable to establish an adequate long-term quality image. That means that the customer shall be integrated more actively into the process of service creation and accordingly shall have a wider influence on the configuration of the service provision. Bruhn and Stauss (2000) define the customer in this respect as a ‘co-producer’ and ‘co-designer’ of the service delivery.
3.3.2. Company resources

The second gap can exist if the former mentioned management perception differs from the service quality specification. Specifically that means that the marketer evaluates the consumers’ expectations in the right way, but he or she is bound by his performance. As a consequence, the firm offers an inappropriate service that is a result of a lack of company resources. The availability of these internal factors is the foundation for the ability to implement motivations and strategies into a successful customer-oriented performance. The resources that a company owns create an essential value that, in turn, affects the opportunity to extend the market position, quality image and, by that, also the competitive advantage of the firm (Collis & Montgomery, 1994). Based on Ansoff (1965), Greene and Brown (1997) specify three different types of resources. They divide resources into physical, monetary and human resources. In addition to that, Greene and Brown (1997) mention also organizational and social capital as crucial resources of a firm.

3.3.3. Employee performance

Referring to the framework in Figure 1, it can be seen that the third gap depends on the employees’ method of operation. In this connection, Vandermerwe (1994) notes that the quality of a service depends on the interaction between the customer and the employee. This is based on the assumption that service production and service consumption take place simultaneously, which implies that both actions are inseparable (Doyle, 2002; Kasper, Helsdingen & de Vries, 1999; Kotler, Wong, Saunders & Armstrong, 2005). To assure a high level of employee competence, it is important that the employees receive a sophisticated training and further education. In this context, the employees are provided with hard as well as soft skills (Vandermerwe, 1994). But it is not only job training that is a crucial aspect for the performance of employees - employee motivation is at least equally important (Mefford, 1993). By means of the particular importance of human resources in connection with service firms, it results that employee qualification should be even more of peculiar interest to cause quality in comparison with manufacturing firms (den Hertog & Kunst, 1992).

The service–profit chain model developed by Heskett, Loveman, Sasser and Schlesinger (1994) clarifies the correlations within service companies. Thus, employees, as representatives of the company, are the key for customer satisfaction and loyalty. From this it
follows that a higher employee satisfaction, loyalty and identification with the company affects the behaviour and appearance of the employees. This is perceived by the customers in terms of a high service quality. According to Heskett et al. (1994), this leads to a higher profitability and competitive advantages and favours growth intentions.

Porter (1985) points out that an efficient design of the value chain and a stable market position prevents a company from being ‘stuck in the middle’. That implies that image creation depends on all company activities and requires a ‘Total Quality Management’ (Mefford, 1993).

3.3.4. External Communication

Based on the external communication of the firm, the consumer normally develops certain expectations about the service offered. Thus, a fourth gap can be detected, if the communicated service quality disagrees with the actual delivered service. This can happen, for instance, if the company makes use of misleading advertising or imprecise slogans that promises benefits that are not conform to the real service product (Kotler et al., 2005). Communication instruments should be utilized only if an extensive control of the results can be warranted. The external communication also concerns the presentation of a certain service quality image. Due to the certain brand strategy, an image that includes characteristics and values of the service company is sent to the target customers. Then, the customers perceive and evaluate this image. Consequently, it is vital for the company to consider the effect of its external communication (Jevons, Gabbot & Chernatony, 2005).

3.4. Integrated gap model

According to Parasuraman et al. (1985), these four gaps, in combination, lead to the existence of a fifth gap that is described as the difference between the expected service quality and its general perception of the actual service offered. Consequently, the fifth gap is a function of the other four gaps:

**Formula 2: Integrated gap**

\[
\text{Gap 5} = f(\text{Gap 1, Gap 2, Gap 3, Gap 4})
\]
Because of these correlations, the four mentioned gaps can be subsumed under the fifth gap that is defined as the deviation of the perceived service quality from the qualitative service expectations of the customer. As Grönroos (1982) discusses in his research, Hensel (1990) describes analogical that the perceived service quality is a result of the distance between the customers’ expectations and perceptions towards the service quality. Accordingly, service quality perception is the output of a “comparative evaluation process” (Hensel, 1990, p. 43). Further Hensel refers to Lewis and Booms (1983) who point out that “service quality is a measure of how well the service level delivered matches customer expectations”. From this it follows that customer orientation is indispensible and the crucial condition for the provision of a perceived high quality service. In order to secure a satisfactory level of service quality in the long term, ongoing control and adaption in relation to changing customer needs have to be implemented (Hensel, 1990). In this respect, Mefford (1993) remarks that it is easier to control a qualitative level if a firm offers its services frequently, because, in this case, it can develop transaction standards. This is especially valid for the use of current technologies that are developed in a highly co-evolutionary process of innovation. As internet, and other information technology, is getting increasingly important, this is a crucial attribute that a suitable service should include (Tian, Voigt, Naumowicz, Ritter & Schiller, 2004).

In order to achieve a stable competitive position in the market, the establishment of strategic alliances with domestic and often also international partners, is getting increasingly important (Goh & Uncles, 2003). According to Achrol and Kotler (1999), these networks can provide a company, for example, with additional information and capacities and, by that, effectuate a strengthening of all companies that belong to the alliance. This implies that also in connection with offered quality standards, a company can profit and learn from other companies. Thus, to adapt these coherencies to the airline sector, an airline that is embedded in an alliance can benefit, for instance, from the access to a more expansive destination network, or from economies of scale and scope (Goh & Uncles, 2003). As it is mentioned by Gallacher (1999) and O’Toole (2000), especially the co-operation between airline companies is a subject of augmenting relevance. Another advantage is that prevailing quality standards have to be secured by all member airlines. Accordingly, they have to face a constant pressure to meet these requirements, and to make sure that the image of the company and the alliance does not lose its value.
3.5. Service quality attributes

The general quality of a service can be differentiated by several attributes. In connection with the measurement of the current provision of service quality, Parasuraman et al. (1988) developed a standardized instrument that is named SERVQUAL. By means of SERVQUAL, the expected and perceived service quality of five employee-related service attributes is measured. These are defined as reliability, assurance, tangibles, empathy and responsiveness. Reliability describes, in this case, the correct and reliable execution of working tasks. The term ‘assurance’ refers to the competent appearance while the term ‘tangibles’ refers to the outward appearance of the employee. ‘Empathy’ means that an employee is sensitive for the needs of the customer and ‘responsiveness’ can be described as the ability to react quickly and amicably towards the customer's concerns. The normative-actual value comparison of each attribute contributes to the degree of customer satisfaction initiated by the employees.

But not only employee-related aspects shall be taken into account to measure the holistic level of service quality. Besides the attributes that focus on the performance of the employees, a lot of other qualitative factors influence the valuation of the quality standard. The service quality attributes that are presented in this thesis are modelled after studies of Chen (2008), Pakdil and Aydin (2007) and Wang (2007). These studies include an enumeration of several factors that are crucial for the value of a service. As can be extracted from their research, Chen (2008), Pakdil and Aydin (2007) and Wang (2007) introduce a significance ranking of the single attributes. Consequently, it can be assumed that the need for improvement of more important attributes is higher than it is for less important attributes.

4. Methodology

The methods that are applied in this dissertation are chosen with a focus on the solution of the research question. For that, two different perspectives need to be taken into consideration. On the one hand, it is necessary to gain information about the customer perspective. Therefore, airline passengers of Air Berlin, TUIfly and Lufthansa were questioned by means of a survey. This collected data is crucial to present, what quality expectations the passengers have and how they perceive the actual service quality that is offered by the three airline companies.
On the other hand, the second part of the research question needs to be investigated. That means that it has to be detected, what efforts are made on the part of Air Berlin, TUIfly and Lufthansa to increase customer satisfaction, respectively minimize the gap between expected and perceived service quality of the passengers. In this connection, it was planned to conduct interviews with the three companies and collect additional data from the homepages and annual reports. Unfortunately, only a representative of Lufthansa was willing to provide detailed information about the airline company, while Air Berlin and TUIfly refused the cooperation.

The combination of both research approaches is important to consider the customer as well as the company perspective and by that to attain the research purpose in an appropriate way.

4.1. Customer Perspective

In order to solve the first part of the research question it is essential to investigate and gain data about the customer expectations and perceptions of service quality. The comparison of these two parameters normally leads to the identification of a certain qualitative gap. In this connection, it was decided to illustrate the gap model of Parasuraman et al. (1985) by applying it on the case of the three largest German airline companies. The methodology used in this thesis conforms with Parasuraman et al.,s (1985) theoretical model and contributes to answer the research question.

There are two ways to approach the research problem which differ in their way of data collection, presentation and analysis. If the researcher wants to get an objective view of the reality, it is useful to conduct a quantitative research strategy. This method is advantageous if there are already certain expectations about the results of the research. For a deeper study of the research problem, a qualitative strategy is preferable (Yin, 2009).

After gathering information through an exploratory research, it was decided that the best practice to ascertain the expected and perceived quality from the perspective of the customers and accordingly to identify a gap between these parameters is by the introduction of a quantitative survey. This method implies a deductive approach that serves to prove the underlying theoretical model (Bryman & Bell, 2007).

In this context, a questionnaire, with five predominantly structured questions with fixed response presets, was developed (see Appendix) and handed out randomly to anonymous
passengers of the airlines as an instrument to collect relevant data. The questions are divided into questions concerning expected and questions about perceived service quality, which leads to the identification of a certain qualitative gap between these two perspectives. It can be said that the structure of questions follows the principle of funnelling (Bauer, 2002). Thus, in the beginning, the questionnaire deals with general requirements towards service quality of airline companies, while the final part inquires the specific perceptions of service attributes of the certain airline company. The central questions were meant to measure the attitude towards expected and perceived service quality through a continuum. This makes it possible to get detailed information on the rating and intensity of the customers’ valuation (Bryman & Bell, 2007). As mentioned by Parasuraman (1986), the advantage of this kind of survey is the quickness of data collection and the facilitation of the evaluation process. That means that this method is relatively easy and less resource demanding, in comparison with disclosed questions that do not set answer determinations and are only necessary for a deeper quantitative investigation (Bauer, 2002; Douglas & Craig, 1983).

As previously mentioned, the service quality attributes that are included in the questionnaire rest upon the factor and reliability analysis of Wang (2007), the exploratory factor analysis of service expectation according to Chen (2008) and the principle component analysis that can be referred to Pakdil and Aydin (2007). This study does not contain a depletive itemization of all possible attributes, because of concentrating on the most evident components. The study of Wang (2007) is based on the air cargo service sector but, by means of adaptations, its structure can also be applied to the service sector of passenger transportation. Both of the other studies also have a bearing on passenger transportation in the airline sector.

Bauer (2002) points out that the data that result from the survey must be absolutely precise, pertinent to the research field, current and assailable. Consequently, it is imperative to ensure a representative and significant survey that is produced and conducted with at least 100 respondents. This condition is complied within this research.

The setting of the first inquiry is the Airport of Hannover and was targeted at customers of the German airline companies Air Berlin and TUifly. A second inquiry took place at the Airport of Bremen and was addressed to passengers of Deutsche Lufthansa. In both cases, the persons were selected at random, but with the attempt to achieve a preferably high level of representation. That means that all age groups and both sexes are taken into account. In addition to that, it has to be mentioned that single persons, as well as persons travelling in groups were questioned, which can influence their response behaviour in some aspects if
communication takes place during the fill-in process. The questionnaire was translated into English because it was predicted that it would not just be Germans who would be willing to complete it. Bauer (2002) advises concerning this matter that it is absolutely essential to secure a semantic equivalence in translation to achieve an assimilable data basis. Consequently, dimensions of equivalence involve lexical and grammatical meaning, context, response style, salience and equivalence of scale points (Warwick & Osherson, 1973).

Another aspect that has to be considered is the influence of time pressure on the part of the respondents that can affect the response behaviour by filling in the questionnaire cursorily or thoroughly. This can lead to distortion concerning the verification of the given answers. As this hazard was factored into the inquiry process in advance, it was attempted to hand out the questionnaire solely to passengers that were not pressed for time.

The responses of the passengers were evaluated and averaged out. On the basis of the resulting values, a graphical representation was developed for customer expectations as well as customer perceptions. In the form of bar charts, a ranking of the service quality attributes was developed. By presenting the importance of single attributes that resulted from the evaluation of the responses, the attributes are ranked on a continuum from ‘exceedingly important’ (1) to ‘no importance at all’ (5). On the analogy, the evaluation of the customers’ perceptions is presented on a scale from ‘very good’ (1) to ‘very bad’ (5). According to Bryman and Bell (2007), this type of scale is declared as a Likert scale. A Likert scale is characterized as a psychometric scale that is often applied in connection with quantitative surveys. By that the respondent is meant to express his or her attitude towards a questioned subject. The usage of Likert scales and the representation of the results with bar charts are adequate instruments to evince the findings of the implemented survey. Due to these instruments, a clear illustration of the findings is possible.

4.2. Company perspective

In order to investigate the companies’ strategies to identify and reduce gaps between service expectations and service perceptions of the customer, a qualitative research method was chosen. The selected instrument to obtain information in this thesis is a focused interview with a responsible employee of the company (Merton, Fiske & Kendall, 1990). According to Yin (2009), an interview favours a purposeful data collection within the research process. Moreover, it provides the interviewer with valuable insider information.
In addition to that, information was provided through secondary data collection by using the official web pages and annual reports of the chosen companies, which are the largest German airlines Lufthansa, Air Berlin and TUIfly. According to Bauer (2002), primary data collection should be obtained by the researcher so far as it is possible. To complete the informational basis, secondary data is suggestive.

The choice of the airline sector was made after initially exploring different service industries. From this it followed that the passenger aviation industry is eminently suited for the application of the service quality model of Parasuraman et al. (1985) and gives a good possibility to illustrate the underlying coherencies of this research. Applying the case to internationally-active airlines evinces the importance of customer orientation and satisfaction in particular. Therefore, it was decided to utilize the case study method for this thesis by presenting, exemplarily, the three companies Lufthansa, Air Berlin and TUIfly and, in the course of this, referring to real conditions (Yin, 2009).

To establish a connection with a suitable airline company for conducting an interview, Air Berlin, TUIfly and Lufthansa were contacted several times. Unfortunately, Air Berlin and TUIfly were not willing to provide data about their company, justifying their reluctance by the level of work involved and the current economic situation. Thus, in spite of every effort, it was not possible to interview a representative of Air Berlin and TUIfly. Consequently, relevant information is only collected from the homepages and annual reports of both airline companies. For that reason, it is not as detailed as expected in advance.

Fortunately, the establishment of a contact with a responsible employee of Lufthansa was successful. Mr. Manuel Kluge, a responsible representative of Lufthansa, agreed to support the data collection process by providing relevant information about the company. The interview took place on 17th April 2009 and was conducted face-to-face in a cafeteria of the companies’ location in Bremen. The duration of the interview amounts approximately two hours. Afterwards, additional data was provided by Mr. Kluge through several email exchanges. The questions of the interview guide were developed in a structured way by being arranged as follow-up questions (Bryman & Bell, 2007). Nevertheless, it was possible to pose a question dependent on the interview process. That means that an informal structure and interposed questions were necessary in some cases to adapt to the development of the conversation (Gummesson, 1991). The answers of the interviewee were written down on a notepad as detailed as possible.
4.3. Validity and reliability

As described by Gummesson (1991), the profit and quality of a study are assumed if the conditions of reliability, validity, objectivity and relevance are observed. Cicourel (1964) noticed that these mentioned conditions are often dependent on the normative acceptance that developed within the business research. That means, for instance, that reliability can be measured by means of long-accepted parameters. Cicourel (1964) criticizes this on the basis that these parameters are mostly set and insufficiently scrutinized. However, conducting research on the existing standards can justify the applied methods within this dissertation and provides an adequate degree of the single conditions mentioned above.

The research of this study is constructed on the basis of well-investigated data and adequate methods of collecting relevant information. The choice of sources can be justified with a high degree of reliability as it is obtained from a survey, an interview, subject-related books, specific articles and directly from the homepages and annual reports of the investigated airline companies. By assuring the reliability of this study, the researcher has to be mindful of avoiding deficient and unfounded influences. As it is stated by Yin (2009), it is necessary that if this case study is repeated, the results are identical to the findings of this dissertation. This can be ensured through the consistent documentation of the research procedure to affect a high degree of transparency. It was tried to document all developments of this research as detailed and transparent as possible.

Reliability can be delaminated into stability, internal reliability and inter-observer consistency (Bryman & Bell, 2007). According to that, stability means that a test-retest method needs to show that a correlation between the results is apparent and that the findings can be generalized. Internal reliability is present if all indicators of the study accord and relate to the same basis. The third factor, inter-observer consistency, means that a comparable study developed by someone else should lead to the same findings. As all of these requirements are implemented in this study, reliability is suitably assured.

The findings of the research and their presentation in the dissertation are always in the need of substantiation with existing theories and previous research. Additionally, all results of the study should preferably be generalizable to coherencies of the reality (Gummesson, 1991). If this is not convertible, the study gives no innovative impulses by presenting an imperfect picture of real circumstances and, as a consequence, the research can be described as a mistrial that does not provide the reader with valid implications. This research is established on a convertible basis and consequently it fulfils the conditions mentioned above. Thus, a re-
handle would lead to the same results. The quantitative survey was realized with 160 respondents. Because of time and work capacities, this is an adequate number of passengers and a high level of representativeness is existent. Minor deviations can occur, if the study is repeated with a more extensive sample of questioned passengers or if the other companies would be persuaded to contribute to the data collection process.

5. Empirical presentation

5.1. Presentation of the customer perspective

The collection of quantitative data was realized by conducting a first survey that includes 120 passengers of Air Berlin and TUIfly and a second survey that was addressed to 40 passenger of Lufthansa. As mentioned before, a questionnaire was developed and handed out to the passengers at random (see Appendix). The respondents were questioned at the departure terminal of the airports of Hannover and Bremen. In order to include only passengers of Air Berlin, TUIfly and Lufthansa, the respondents were selected at different check-in counters that are solely a point for the checking-in of Air Berlin, TUIfly and Lufthansa passengers.

The survey contains 75 passengers of Air Berlin, 45 passengers of TUIfly and, as mentioned before, 40 passengers of Lufthansa. In the first instance, they expressed their expectations of service quality by naming spontaneously the three most important quality attributes from their point of view. According to their responses, a ranking was developed without differentiating between the affiliations to the certain airline companies. This ranking evinces that friendliness of the employees with 116 declarations, punctuality of the flight with 77 declarations and technical safety with 68 declarations are the first three service attributes that come into the customers’ minds if they think about their main requirements without having any answer presets. Besides, the mentioned findings, further attributes and their spontaneously expressed importance are illustrated in figure 2.
If the response categories are set, the customers’ rating of the importance is a bit different, as can be seen by evaluating the survey data. They were supposed to rank their expectation on a scale from one to five, whereby one means exceedingly important and five means of no importance at all. The attributes that had a high importance in connection with the spontaneous declarations of the former open question still have a high value for the customer. But, in addition to that, other attributes that were not considered before are taken into account at this point.

As presented in figure 3, the weighted importance of given service quality features demonstrates a slightly different distribution. In this case, high technical safety has the highest importance by being valued averagely with the grade 1.20625. Punctuality and luggage safety are positioned at ranks two and three. Attributes like on-board catering, cost-effectiveness and on-board entertainment have the lowest importance for the responding passengers. The latter is only ranked with an importance of 2.81995. The attribute cost-effectiveness does provide a biased and, by that, a not totally correct picture. In this case, it is necessary to differentiate...
between the different airline companies whereas passengers of Air Berlin and TUIfly are, comparatively speaking, concerned about the price level, while Lufthansa passengers do not attach so much importance on this attribute.

**Fig. 3: Weighted importance of single service quality attributes**

![Weighted importance of single service quality attributes](image)

Source: own illustration based on collected data

The attribute friendliness of employees is placed only at the eighth rank, which differs a lot from the open inquiry. But technical safety and punctuality still have a high importance for the passengers, as it could already be identified in figure 2. On-board catering is otherwise one of the most mentioned important attributes of the open question by being ranked on the seventh position, while it is the third last important characteristic when answer presets are existent.

To compare the expectations of the customers with the current image of service quality, the perceptions of the single quality attributes of Air Berlin, TUIfly and Lufthansa were obtained through the questionnaire. Again, a ranking from one to five shall evince how the
service quality is perceived by the responding passengers. Equally, it is valid that one means
the attribute has a very good impression and five means the impression of the valued attribute
is very bad.

This part of the survey serves as an identification of specific airline-related image
advantages and disadvantages. Based on the customers’ requirements that were ascertained
before, it is possible to compare the expectations with the de facto perception of each
attribute. Depending on the difference between the valuations, the needs of the customer can
be satisfied or not. That means that the satisfaction of the passenger depends largely on the
range of fulfilment of his needs. The larger the gap that is detected by a normative-actual
value comparison, the larger is the dissatisfaction on the part of the passenger and the higher
the need for action by the airline company.

The evaluation of the perceptions of Air Berlin and TUIfly is presented in figure 4 and
in figure 5. As revealed by the survey, the service quality attributes of Air Berlin that are rated
the highest are the check-in process, punctuality and luggage safety. On-board catering and
on-board entertainment are placed in the last positions.

![Fig. 4: Perceived service quality of Air Berlin](image)

*Source: own illustration based on collected data*
By inspecting the results for TUIfly it can be seen that technical safety, competence of the employees and punctuality are rated fairly high by the passengers. These belong to the most important factors for the passengers as it can be seen in figure 3. For on-board catering and entertainment, the same ranking is valid as it is for Air Berlin. The attribute cost-effectiveness is positioned at the midfield and implies that the comparison between price and performance has a better image than it can be extracted from the case of Air Berlin.

Fig. 5: Perceived service quality of TUIfly

Source: own illustration based on collected data

The findings of the survey that was conducted with Lufthansa passengers are illustrated in figure 6. According to that, technical safety is rated the highest with an eminently high grade. Thus, technical safety is rated with a value of 1.35, which is regarded as higher than the technical safety of TUIfly (1.7) and Air Berlin (2.0). The single quality attributes of Lufthansa are positioned fairly close to each other, while the valuation of the attributes of Air Berlin and
TUIfly are characterized by a broader spectrum. On-board entertainment is perceived with the lowest quality, which is identical to the other two airline companies. While Air Berlin and TUIfly received a good rating in the case of luggage safety, Figure 6 shows that, in the case of Lufthansa, this attribute is located on a lower position. But by comparing the grade of Lufthansa’s luggage safety (1.8) with the grade of the other two airlines, it can be seen that the perception is almost the same (Air Berlin: 1.9 and TUIfly: 1.826). This implies that the customers expect a higher luggage safety from Lufthansa than from Air Berlin and TUIfly.

**Fig. 6: Perceived service quality of Lufthansa**

![Graph showing perceived service quality of Lufthansa](source: own illustration based on collected data)

In addition to the above mentioned data, the survey delivers information on the valuation of web or mobile phone interaction services. These can be described as services that increasingly integrate the customer into the service process. Service features like online booking or check-in via mobile phone can be named in this connection. Having taken the age
group of the customers into consideration, it is possible to make assumptions about coherencies between the passengers’ age and the degree of disapproval or appreciation of the utilization of these advanced technological features.

As this study does not primarily investigate the correlation between the aspects mentioned above, the assumptions that can be made are merely an indication of the true picture. To guarantee more accurate representation it would be necessary to focus more closely on this aspect and by that presenting a more balanced distribution of age group clusters. Nevertheless, on the basis of this study, it can be said that 46.15 % of the respondents aged over 55 years, decline web-interacted services whereas within the group of respondents that are under 35 only 6.9 % and within the middle age group only 10.5 % disapprove this modern service offer.

In general, it can be extrapolated from the responses that the use of web-interacted services is a benefit for 76.25 % of the passengers. Only 15 % refuse the recourse of modern technologies in this field by preferring to have a service employee who is interposed in the service process. The remaining 8.75 % of respondents tolerate web-interaction within bounds as long as the service personnel is not pared down and under the condition that the handling is not complicated. Some passengers remarked critically that, although there is no employee of the airline serving as intermediary, the costs are often the same.

The question about web and mobile phone interacted services was inserted into the questionnaire, to include findings about these current developments towards the integration of advanced technologies within the service sector, by referring it to the service quality of airline companies. It is noticeable that web services that integrate the customer into the service process are continually increasing and becoming more and more important in the future (Tian et al., 2004). Because of that, the quality in services depends, in addition to classical service attributes, more and more on the use of the internet and other modern information systems.

5.2. Presentation of the company perspective

The following section presents the empirical findings from the perspective of the airline companies. As mentioned before, Air Berlin and TUIfly were unwilling to co-operate by providing information about their company, in both cases the data could only be collected from the homepages and annual reports. That means that the data collection for these two airlines is limited on secondary sources. Unfortunately, this did not elicit the same range of
relevant information as the interview with M. Kluge of Lufthansa did (personal communication, 17 April 2009). In the case of Lufthansa, secondary, as well as primary sources were used. Consequently, the collected data from Lufthansa is more detailed and facilitates accurate insights into the situation within the company.

5.2.1. Air Berlin

With 28,559 passengers in the last year, Air Berlin is the second largest airline company in Germany that approaches domestic flight destinations as well as destinations all over the world (126 at all).\(^1\) This makes the airline particularly suitable for the implementation of a representative case study. The company exists since thirty years now, which implies that a lot of developments occurred during the time. To mention an example, Air Berlin gradually adapted its fares under the competitive pressure and, nowadays, it is the award winner in the category cost-effectiveness and short haul flights.\(^2\)

In the year 2008, Air Berlin realized the revenue of € 3,400,7 million. These are the values published in the annual report of the company in 2008. As can be derived from the annual report, the company consists of 8,311 employees with an upward trend.

The image that is connected with the brand ‘Air Berlin’ shall present the airline as a cost-efficient airline that approaches a large number of flight destinations. According to the annual report the company is presented, as a provider with competitive prices. Moreover, the company promotes with flexibility and high service quality for business passengers and families. Thus, Air Berlin offers two different products that are characterized as economy class and business class flights. Both products are available for bargain by assuring an individual support service.\(^3\)

Furthermore, Air Berlin benefits from the affiliation with a certain airline company network. This includes the cooperation with Niki, LGW, S7 and Hainan Airlines.

5.2.2. TUIfly

TUIfly is with 10.5 million passengers by possessing a destination network that includes 74 airports in 16 different countries the third largest German airline company. In contrast to Air Berlin, TUIfly already started its business with the focus on low costs, when it was established in the year 2007 through the amalgamation of Hapag-Lloyd Express and Hapagfly. According to investigations for this study, an annual report that deals with the results of TUIfly is not published on the internet. But it can be assumed that the revenue of TUIfly is lower than the revenue of Air Berlin and Lufthansa, as these airline companies are the two largest within the German market. As can be identified from the accessible data, TUIfly is not a member of a strategic alliance.

The image that is presented by TUIfly characterizes the airline as providing the customer with high quality at a fair and transparent price. This shall be reflected also by the appearance of the trade mark of the company. In terms of the mentioned brand associations, TUIfly is described as offering more than only a mere transportation service.4

The German consumer organization 'Stiftung Warentest' evaluated the information provision and booking process of TUIfly with ‘good’. Dr. B. Schmaul, a manager of TUIfly emphasizes in this connection that the results of this evaluation affirm the orientation of the company. According to Dr. B. Schmaul, this orientation is characterized by being focussed on the quality of the service and on customer satisfaction. Further, he positions TUIfly as an airline that offers individual services at fair costs.5

By that, the airline TUIfly is focussed on a one-product strategy. That means precisely that this airline company provides its passengers solely with economy class flights. Thus, the core service offer is identical for all passengers.

5.2.3. Lufthansa

The largest and most well known German airline company is Deutsche Lufthansa (simply called Lufthansa) that was established already in 1926.6 Throughout its whole existence, the airline has adapted its services to the changing needs of the passengers, a factor which underlies a permanent augmentation in complexity. This implies a long history of

learning processes concerning customer satisfaction. M. Kluge confirms that the development of augmenting complexity is apparent and can be traced back to an increasing knowledge on the part of the customer about what he should expect from the service. In this connection, M. Kluge further describes that, this is due to high quality standards by which the customers compare Lufthansa with its competitors and by that develop more selective expectations nowadays. This can be illustrated by presenting the case of the direct competitor Emirates, which has its place of business in the United Arab Emirates. According to M. Kluge, Emirates is equipped with an exceedingly large capital base that allows the airline to satisfy customer needs by offering extra service attributes without being bounded by limited financial resources. As Lufthansa does not possess the same high amount of capital, it cannot realize an equal level of service quality. This is clearly recognizable if customers complain about Lufthansa by comparing it directly with Emirates.

As distinct from TUIfly and Air Berlin, Lufthansa offers a more differentiated product programme. According to M. Kluge its products are categorized in economy, business and first class flights, whereas premium quality is the bedrock which underpins the entire image of the company. Because of being positioned as a so-called premium carrier, Lufthansa is able to justify a relatively high price segment. By following consciously the assumption that good quality has its price, they do not follow the price strategies of several other airline companies that rely on generally low-costs or special offers. M. Kluge further elucidates that the brand ‘Lufthansa’ suggests high safety standards and, as said earlier, a premium service quality that includes all service quality attributes.

In the year 2008, Lufthansa carried a total of 70.5 million passengers and realized the revenue of € 24.870 million. This is caused by the clear focus on a strong customer orientation. Consistent with that, the airline offers e. g. programs for frequent flyers that are customized to the needs of this customer segment. Moreover Lufthansa meets requirements of permanent innovation that offers a notable value for the customers. The companies target is to cover an ample destination network by providing the passengers with premium quality. Thus, Lufthansa is positioned in a relatively high price segment in comparison to TUIfly and Air Berlin.

In order to meet the desires of the passengers and, by that, to enhance their satisfaction, Lufthansa follows a concept of balance between the interests of the customers,
employees and shareholders. This enables a sustainable human resource management that secures the continual training and effective motivation of the employees. The performance of the whole workforce is attributed as the cause for the unique success and quality of the airline.

Referring to M. Kluge, the employment of on-board employees is subject to strict regulation and, accordingly, the requirements of the Assessment Centre are particularly high. Moreover, the employees are always supposed to attend job training sessions that are precisely oriented to their task field to optimize the service process. For example, for cabin employees that are entrusted with the first class service, it is mandatory to receive a founded training in enology. Some training courses can also be attended voluntarily to gain detailed information focussed on personal preferences of the employees. M. Kluge further mentions that employee motivation is not present all of the time, but this is compensated by a high degree of professionalism.

The performance of the employees is always controlled by at least one supervisor, who bears the responsibility for all processes that belong to his or her area of accountability. In addition to that, the interview with M. Kluge provided the information that employees of Lufthansa are able to formulate their feedback concerning improvement proposals in terms of the so-called ‘COSMIC Reports’. That means that the employees are supposed to monitor the performance of their colleagues. The reports are regularly evaluated by the department of ‘production process and quality control’.

As the main function of the on-board personnel is safety, professionalism is indispensable. In this context, M. Kluge critically points out that customers often have the wrong assumption that the employees are merely waiting staff. Consequently, many customers value the service quality on the basis of the customer contact, but they overlook the fact that improvements in the field of catering or entertainment are correlated with the amount of time that is necessary to attend to security aspects and thus cannot be realized without any limits. Only if idle capacities exist apart from the primary task of the warranty of safety, additional service quality improvements related to catering and entertainment can be put into practise.

For gaining information on the actual service quality and on the level of customer satisfaction, Lufthansa uses different methods as M. Kluge reports. The first method is the handing out of questionnaires to the air passengers on a random basis. These are completed by

the passengers and after that evaluated by the responsible department within the company. The results are published by being classified on the basis of flight routes and travel classes. A second method used by Lufthansa is that complaints of the customers and proactive customer feedback are taken into account. A further method of obtaining information on service quality and customer perceptions is implemented through plain-clothes employees masquerading as regular passengers on a flight. These experience the actual situation at first hand. M. Kluge concludes that, relying upon the mentioned methods, Lufthansa is able to identify gaps between the expected and perceived service quality and by that deficits concerning customer satisfaction and then is in the position to deduce needs for action.

Lufthansa benefits from the affiliation with an airline company network called ‘Star Alliance’. The participation in the alliance offers great opportunities for the associated companies by creating synergetic effects and an opportunity to extend the destination network. The Star Alliance signifies high quality standards that pertain for all members of the alliance (Goh & Uncles, 2003). M. Kluge mentions that Lufthansa makes use of inter-firm comparisons with partners that belong to the ‘Star Alliance’. These concern, for instance, the contrasting of customer surveys from different member airlines. From these comparisons, rankings for the different travel classes (first, business and economy class) are developed to identify the position of Lufthansa and, should the occasion arise, needs for improvement can be inferred.

Furthermore, Lufthansa establishes benchmarks with other airlines based on the ‘IATA-GAP’ (IATA = International Air Transport Association, GAP = Global Airline Performance). This survey is mainly orientated towards the different flight routes or destination regions by ranking the airlines as well. This allows the identification of strengths and weaknesses in certain attributes in comparison with other companies.

6. Analysis

On the basis of the service quality model that was developed by Parasuraman et al. (1985), it is possible to relate the findings of the data collection to the underlying theoretical framework. According to the model, four service quality gaps can be referred to missing customer orientation, limited company resources, deficient employee performance or

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misleading external communication. As mentioned before, these gaps can be subsumed to a fifth gap that is described as the difference between the customers’ perception and the customers’ expectations concerning the qualitative attributes of a service. In other words, this subsumed gap evinces the degree of customer satisfaction in relation to the actually perceived performance (Hensel, 1990; Kotler et al., 2005; Lewis & Booms, 1983).

By inserting the findings from the survey into the formula of Parasuraman et al. (1985), the deviation between perception and expectation has been derived. In the following, the described gaps can be illustrated based on the application of the empirical data onto the theory. Moreover, the collected information of the airline companies can be related to the findings of the customer perspective. This shows how the companies act to minimize service quality gaps and, as a consequence, increase customer satisfaction.

6.1. Gap analysis

6.1.1. Air Berlin

At first, the findings from the customer survey shall be analyzed by focusing on the identification of specific service quality gaps in the case of Air Berlin. By comparing figure 4 with figure 3, it can be seen that the competence of the employees and the communication to the customer are the service quality attributes that are connected with the lowest customer satisfaction. This implies that the widest quality gaps can be identified in the context of these two attributes. In relation to the service quality model of Parasuraman et al. (1985), the findings show that the third and the fourth gap are existent. Customer orientation that is described as the first gap is more satisfactory. Punctuality, on-board catering and on-board entertaining are attributes that can be referred to customer orientation. The perceived image of the catering and entertainment during the flight are on a low rank. They are not, however, among the essential needs to be improved by the airline company, as the grades 2.38 and 2.44 are sufficient to satisfy the majority of the passengers. That means that the gap between the perceived and expected catering is quite small and that the perception of the attribute entertainment is even better than its expectation. The attribute punctuality is less satisfactory. Thus, also for the first gap that is described by Parasuraman et al. (1985), need for action can be identified. According to the results of this study, the companies’ resources are sufficient in order to satisfy the customers. Consequently, the second gap of the service quality model is not very crucial in the case of Air Berlin.
6.1.2. TUIfly

The empirical findings that are provided by passengers of TUIfly, can be analyzed as follows: In comparison with Air Berlin, the third service quality gap that describes the level of customer satisfaction by means of the performance of the employees, is smaller. As the attributes competence and friendliness of the employees are graded with 1.77 and 1.87 (see Fig. 5), room for improvement is apparent but not primarily important by comparing with the importance of these attributes. For TUIfly it is valid that the widest gap can be identified in connection with customer orientation. The attributes punctuality, check-in process and handling of the homepage are fairly satisfying, but in the field of problem handling and interconnecting flight management, the image of the company could be improved. That means that here the first gap of Parasuraman et al.,s (1985) model is quite significant. The the second gap that deals with the companies’ resources can also be treated like in the case of Air Berlin. Consequently, TUIfly possesses sufficient resources to be able to meet the expectations of its passengers. But by comparing the resources of TUIfly and Air Berlin with the resources of Lufthansa, it appears that Lufthansa’s resources are much more extensive. As can be derived from the findings, the fourth gap is also not very decisive for the creation of more customer satisfaction. The messages that are communicated to the customer are perceived fairly identical by the customer. From this it follows that the companies’ need for improvement is lower and that, in general, the passengers of TUIfly are more satisfied with the offered service than the passengers of Air Berlin.

6.1.3. Lufthansa

The responses of Lufthansa passengers and the explanations of M. Kluge admit the assumption that the customers of Lufthansa have higher expectations towards the offered service quality as the customers of the other two airline companies. Their needs are more differentiated by expecting the provision of premium service attributes and they are willing to pay more money for that. Lufthansa customers evaluate the cost-effectiveness exceedingly good with the grade 1.675 (see Fig. 6), while TUIfly customers evaluate it only with 2.0 (see Fig. 5) and Air Berlin customers even only with 2.27 (see Fig. 4). By contrasting these grades with the expected importance of 2.10515 (see Fig. 3), it is apparent that the customers of Air Berlin and TUIfly may be fairly satisfied, but the expectations of the customers of Lufthansa
are eminently surpassed in this connection. As Lufthansa has the best perception of technical safety compared with the other two airline companies, it can be assumed that the price of the offered service has a decisive influence on the customers’ quality perception, because the safety standards should be the same for all German airlines.

Nevertheless, service quality gaps can also be identified in the case of Lufthansa. Thus, the competence of the employees is perceived by the respondents with the grade 1.7 (see Fig. 6), while the importance of this attribute is rated with the grade 1.45625 in advance (see Fig. 3). This implies that the third gap of the service quality model is existent and could be minimized by Lufthansa to increase customer satisfaction. As communication to the customer is connected with the widest gap of Lufthansa’s service quality, the image of this attribute that concerns the fourth gap of the theoretical model should be revised by the company. By regarding the information that is provided by the interview with M. Kluge, it is apparent that Lufthansa disposes of a high level of company resources. These are adequate to meet the needs of passengers to a great extent. But if the customers’ expectations depend on former experiences, for example on a comparison with Emirates, the needs of the customer are higher and more differentiated. The fulfilment of these needs, then, is restricted by a lack of financial resources that would be necessary to adapt to the quality standards of Emirates. As a consequence, the second gap of Parasuraman et al.’s (1985) theoretical model can be identified for Lufthansa if the expectations of the customers are influenced by earlier experiences. The first gap of the model is not in the significant need for improvement.

6.2. Increase of customer satisfaction

6.2.1. Customer Orientation

A customer tries to satisfy his needs by obtaining a service. As a consequence, a service should always meet these needs as optimal as possible to ensure customer satisfaction. According to Bruhn and Stauss (2000), the most important factor in this connection is a long-term customer orientation. If customer orientation is missing, the first gap of Parasuraman et al.’s (1985) service quality model comes into existence. Especially, TUIfly is in the need to make efforts to minimize this gap. Therefore, it is important that the management identifies the needs of the customers precisely. Afterwards, the airline company has to develop strategies and activities that can be implemented in order to increase customer orientation. Based on this condition, the company is aware of how to influence the customers’ perception
to adapt it to the customers’ expectations. On that account the integration of the customer into
the process of service creation is of augmenting importance (Bruhn and Stauss, 2000). Thus,
the customer is a ‘co-producer’ and ‘co-designer’ of the service delivery. That means that a
service can only be provided if the customer is present during the service creation process and
certain tasks of the service delivery process are delegated to him or her. In the case of
passenger transportation, this approach is correct.

By observing the findings of the interview with M. Kluge, the passengers of Lufthansa
are able to give a feedback of the offered service. This feedback, in the form of questionnaires
or proactive responses, is evaluated by the company to deduce needs for improvement.
Accordingly, the passengers have an influence on the way the service is delivered in the
future by co-designing the service quality. It can be assumed that Air Berlin and TUIfly
utilize similar methods to integrate the customer, because they focus strongly on the needs of
the passengers as well.

The fact that all airline companies increasingly offer online booking and other services
that do not include the interaction with service personnel, illustrates that customer integration
attaches more and more importance. In accordance to the survey results, many customers
appreciate this development that leads to the situation that the customers’ role within the
service process is getting notably more active. Thus, the use of information technologies will
rise increasingly within the aviation industry. This affirms the assumptions of Tian et al.
(2004).

6.2.2. **Company resources**

From the theory, it can be learned that the value of a company consists of its internal
resources. These resources are specified by Greene and Brown (1997). As these factors are
mostly limited, a boundless allocation is not possible. Therefore, a deliberate use of resources
is eminently important to ensure a stable or improving market position, quality image and
competitive advantage (Collis & Montgommery, 1994). In particular, the case of Lufthansa is
illustrative in this connection. M. Kluge describes the competitive situation between
Lufthansa and Emirates by pointing out the great differences in financial resources. The
airline Emirates is not as cost-restricted as Lufthansa when it comes to the realization of
improvements. Thus, the second gap of the service quality model exists in the case of
Lufthansa if customers travelled with Emirates before. It can be assumed that the same
principle is relevant if Air Berlin and TUIfly, are compared with the German market leader Lufthansa that has a greater financial basis than the other two companies.

The three airline companies underlie severe restrictions concerning their technical resources. Consequently, the airplane fleet has to be modern and under continual control of its safety. As the same standards are valid for all German airline companies, Lufthansa, TUIfly and Air Berlin are equipped with the same high quality of their technical resources.

In order to enlarge resources and, by that to minimize the second gap, it is advantageous for an airline company to be a member of a strategic alliance (Achrol & Kotler, 1999; Goh & Uncles, 2003). Using the example of Lufthansa clarifies the opportunities of co-operating in the ‘Star Alliance’ as it is described before. Consequently, the assumption of Gallacher (1999) and O’Toole (2000) is affirmed. The membership within an alliance strengthens the competitive position of the airlines by being embedded into a mutually supporting network.

6.2.3. Employee performance

Especially in the case of Air Berlin, but also for Lufthansa it is important to increase customer satisfaction in this context. In order to reduce this third gap of the service quality model, the employees of the airline companies are faced with a strict selection and then have to absolve an intensive job education with continual further training sessions that contains functional and social skills (Vandermerwe, 1994). In particular, this is important, because the service production and the service consumption are inseparable (Doyle, 2002; Kasper et al., 1999; Kotler et al., 2005). Based on the instrument SERVQUAL, the employees can be evaluated by the passengers and by superior employees within the company (Parasuraman et al., 1988). As described by M. Kluge, the employees of Lufthansa, who are in direct contact with the passengers, are always controlled by supervisors that give feedback to the management of the company. Voluntary job trainings that deal with individual interests of certain employees improve their performance by targeting on an increase of motivation and consequent satisfaction (Heskett, 1994; Mefford, 1993). In addition to that, motivation shall be encouraged through the ‘COSMIC Reports’. These have the effect that the employees are provided actively with more competence and influence on the design of service quality. Thus, the employee values himself or herself with a higher importance for the company.

The airline companies Air Berlin, TUIfly and Lufthansa are positioned successfully in the German aviation market. By realizing the highest number of passengers, the airlines are
the three largest companies in this sector. Consequently, they can differentiate themselves from other German airline companies and, by that, avoid to be ‘stuck in the middle’ (Porter, 1985). Porter (1985) further mentions that this is only possible if all activities within ‘The Value Chain’ are accomplished on the basis of excellent performance of every employee of the company. The realization of this TQM and, by that, ‘Total Service Quality’ is, assumedly, pursued by all three airline companies (Mefford, 1993).

6.2.4. External Communication

By looking at Air Berlin that describes itself, as the leading airline in the context of cost-effectiveness that wants to secure this position in a sustainable way, the image is not perceived by the customers exactly like it was intended. The findings evince that TUIfly and Lufthansa gain the advantage in this connection, while Air Berlin is evaluated with a lower perceived cost-effectiveness. Thus, for Air Berlin the fourth gap of Parasuraman et al.,s (1985) theoretical model can be significantly identified.

In order to address the customer and, at the same time, differentiate from other competitors, companies send out various messages to the customers. These have to be carefully considered by presenting the service of the company exactly as it is. If this is not ensured, the customer develops expectations dissonant from the intrinsic image that the company wants to establish. This can differ from the intended image so far that the customer is dissatisfied when it comes to the consumption of the service (Jevons et al., 2005). Thus, Air Berlin has to conceive its messages, published on homepages or by means of advertising, by controlling it through a normative-actual value comparison. From this it follows that the associations that the customer connects with the company, favours the creation of a certain brand image (Martínez Salinas & Pina Pérez, 2008; Torres & Bilmolt, 2008).

6.3. Service quality attributes

From this it can be followed that it is crucial for the airline companies to set priorities by making decisions about service quality improvements. According to figure 3, there are service attributes that are more important and service attributes that are of secondary importance (Chen, 2008; Pakdil & Aydin, 2007; Wang, 2007). But the implementation of improvement strategies is limited by the availability of company resources and, because of
that, it is often impossible to accomplish the optimal configuration of each attribute (Collis & Montgomery, 1995; Grönroos, 1992). As a consequence, the company has to differentiate between core and secondary service attributes. These are illustrated in figure 7 on the basis of the results of this study.

**Fig. 7: Core and secondary service attributes of airline companies**

In order to take the customers’ needs into account and, by that, attempt to achieve a leading position within the competitive market of a high number of similar airline companies, many airlines try to differentiate from one another in certain service attributes. If the airline companies do not distinguish themselves from their competitors, the threat comes into existence that the company is ‘stuck in the middle’ (Porter, 1985).

At this point it can be asked if quality expectations vary on the basis of the price level that is related with the offered service. Do customers abandon their expectations of higher quality if it is substituted by a lower price? The question can be affirmed with one restriction. Passengers appreciate low-cost flights only if the core attributes of figure 7 are assured. This, however, concerns the segment of price-conscious passengers who set no great value on secondary quality attributes like travel comfort or on-board catering. As this customer segment is very extensive, it is often the case that a low price can lead to decreasing...
requirements if the crucial service quality features are present. These coherencies can be deduced from the valuations of the quantititative survey and from exploratory conversations with several respondents after they filled in the questionnaire. Moreover, M. Kluge affirmed that this relationship between price and quality expectations is empirically observable. Airline companies that offer flights at high prices are meant to provide the passengers with higher service quality and vice versa. This is in accordance with the assumption of Doole and Lowe (2008). With this, M. Kluge emphasises that the development of service expectations, introduced by Parasuraman et al. (1985), can be applied to the reality if it is extended by the factor price.

7. Conclusion

As can be derived from the findings of this study, the airline companies deal with different strengths and weaknesses concerning the fulfilment of customer needs. Thus, for Air Berlin the third and the fourth gap of the service quality model are the crucial gaps that can be identified. In order to minimize these gaps, Air Berlin needs to improve the image of the competence of their employees and revise their external communication. Therefore, they could highlight the excellent education of the employees a bit more and communicate it to the customer. Moreover, the company should make use of a normative-actual value comparison to adapt the actual brand image to the perceived brand image, especially in the case of cost-effectiveness.

By regarding the findings of TUIfly, it can be seen that the widest gap can be identified in connection with customer orientation, which is the first gap of the theoretical model. To increase customer satisfaction, the company should focus the improvement of problem handling and interconnecting flight management. Unfortunately, for TUIfly, as well as Air Berlin no detailed data about how the companies actually reduce these gaps could be collected. This is different for the case of Lufthansa. Here, for example the third gap that concerns employee performance is significant. M. Kluge provided much information about the strategies of Lufthansa to increase customer satisfaction. From this it can be derived that, besides intensive job trainings, the employees are controlled by supervisors and their performance is improved through the ‘COSMIC Reports’.
All of the three airline companies dispose of sufficient resources to implement satisfying customer strategies. Thus, the second gap of Parasuraman et al.,s (1985) model is not as crucial as the other gaps for the chosen companies. Only in relation with companies that are equipped with more resources, customer expectations can be higher and, as a consequence, can result in lower satisfaction. But the choice if improvements shall be realized or not is highly dependent on the resources a company possesses. As described before, limited resources compel the airline companies to plan its allocation carefully. The distinction between core and secondary quality attributes is crucial to assign priorities. Only if the major gaps are minimized and resources are still available, minor gaps should be minded. In order to have access to more resources, Air Berlin and Lufthansa benefit from the co-operation with other airlines. The following table presents the described priorities in a summarized way.

Table 1: Quality improvement priorities

<table>
<thead>
<tr>
<th></th>
<th>Wide gap</th>
<th>Small gap</th>
<th>No gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core quality attribute</td>
<td>Eminently high need for improvement → highest priority</td>
<td>High need for improvement</td>
<td>No need for improvement</td>
</tr>
<tr>
<td>Secondary quality attribute</td>
<td>High need for improvement</td>
<td>Need for improvement only if other gaps are already minimized and additional resources are available</td>
<td>No need for improvement</td>
</tr>
</tbody>
</table>

Source: own illustration based on collected data
Further findings that become obvious by developing this study are that the requirements of the passengers rose in the course of time. M. Kluge affirmed this trend by regarding the situation of Lufthansa passengers. Their requirements are getting more and more differentiated. This is also favoured by the current importance of modern technologies that, partially, integrate the passenger into the service process. Thus, the passengers appreciate it to be less passive by the purchase of a service. Consequently, the airline companies have to deal with a continual learning process that requires ongoing adaption to the customers changing needs and expectations.

8. Implications for future research

It can be assumed that the results of this dissertation can be generalized to many other airline companies and their customers as long as similar service quality standards restrict the strategies and operations of the companies. This is the case for at least all airline companies that are located in developed countries as they have to comply with comparable conditions. Also the membership within a strategic alliance implies that similar circumstances are apparent that allow a generalization of the findings of this study.

Nevertheless, differences can occur if the study would be repeated, for instance, with low-cost airlines that mostly offer only the core service quality attributes. Another aspect that could modify the findings is the incorporation of cultural particularities or the differing wealth of countries. These would influence the establishment of customer expectations and perceptions. If this study should be developed further, the researches could investigate how cultural backgrounds affect the coherencies. Maybe the quality image of the three airline companies is different in other countries. Another aspect that could be analyzed more in detail is the influence of different travel class passengers that are divided in economy, business and first class passengers and the meaning of the income of these customers.

Moreover, this research could be extended if interviews with Air Berlin and TUIfly are conducted. The additional data can serve as a basis for further illustrations. In general, more information from surveys or interviews, also from companies apart from Air Berlin, TUIfly and Lufthansa, would support the validity of this study anymore.

The basic framework of the dissertation can probably also be applied on other service sectors. But if this generalization is possible can only be proven through further research.
References

Literature


Web pages

Air Berlin


Lufthansa


**TUIfly**


**Interview**

Mr. Manuel Kluge, Deutsche Lufthansa AG, 2009-04-17.
Appendix

*Questionnaire concerning Service Quality of an Airline*

**Gender:**
- Female [ ]
- Male [ ]

**Age group:**
- under 35 [ ]
- between 35 and 55 [ ]
- over 55 [ ]

Name of the airline you are travelling with: ___________________________

**Expectations of Service Quality**

1. Which quality attributes do you expect from an airline company? Please name spontaneously three attributes that have the highest importance from your point of view.

   1. _____________________________________________________________
   2. _____________________________________________________________
   3. _____________________________________________________________

2. How important are the following quality attributes for you?
   Please rank on a scale from 1-5.
   1 = exceedingly important, 2 = high importance, 3 = moderate importance, 4 = low importance, 5 = no importance at all

<table>
<thead>
<tr>
<th>Attribute</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>Friendliness of the employees</td>
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<td>Competence of the employees</td>
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<td>Communication towards the customer</td>
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<tr>
<td><em>(e.g. information about delays, travel weather)</em></td>
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<tr>
<td>Luggage safety</td>
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<tr>
<td>Quick Check-In</td>
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<td>Easy handling of the homepage</td>
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<td>Good cost-effectiveness</td>
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<tr>
<td>Quick problem handling</td>
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<td><em>(e.g. if luggage disappears)</em></td>
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<tr>
<td>High technical safety</td>
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<td>Punctuality</td>
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<tr>
<td>High travel comforts</td>
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<td><em>(e.g. seat comforts, cleanliness, good state of the cabin)</em></td>
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<td>On-board catering</td>
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<td>On-board entertainment</td>
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<td>Good interconnecting flight management</td>
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<td>Extended destination network</td>
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</table>
What do you think about the increasing integration of the customer in the service process? *(that means: online booking, online check-in, check-in and choice of seat via mobile phone)*

- Bothersome! This should be done by service employees.
- Very useful! I like to use these services.
- Other: ___________________________________________

**Perceived Service Quality (Image of the airline you mentioned above)**

Please rate again on a scale from 1-5.

1 = very good, 2 = fairly good, 3 = neutral, 4 = fairly bad, 5 = very bad

(4) **How do you perceive the service quality in general?**

- [ ]
- [ ]
- [ ]
- [ ]
- [ ]

(5) **How do you evaluate the following single service quality attributes?**

<table>
<thead>
<tr>
<th>Service Quality Attribute</th>
<th>1</th>
<th>2</th>
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<td><em>(e.g. Information on delays, travel weather)</em></td>
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<td>Luggage safety</td>
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<td>Check-In-Process</td>
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<td>Handling of the homepage</td>
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<td>Cost-effectiveness</td>
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<td>Problem handling</td>
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<td>Travel comforts</td>
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I wish to thank you for your cooperation and time exposure!!