How Strong Does a Defect of the Core or Supplementary Service Influence Customer Satisfaction?

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Submitted to Dr. Astrid Dickinger

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Abstract

This research was aimed at finding out how strong a defect of the core or supplementary services influences customer satisfaction. This question is essential to be answered for hospitality managers in order to know which parts of the service are most important to the customers. Understanding this matter should also influence decision making with the aim of improving the offering and consequently increasing customer satisfaction. Several service aspects are covered in this research, including the ‘flower of service’ which offers a detailed explanation of the core and supplementary services.

The research is based on hotel reviews from the internationally renowned travel review page TripAdvisor.com. These reviews stem from travelers worldwide and this is possible through Web 2.0. The technology of Web 2.0 has improved the ability to create user generated content and therefore travelers increasingly use the Internet to post and read travel reviews. 152 of these reviews of 38 hotels were used to conduct the research. Various core and supplementary services were regressed on the dependent variables overall rating, satisfaction, emotional and revisit. With this method it was found out which variables of the core or supplementary services had the most influence on the dependent ones. The outcomes of this research show that the core services in general have more influence on the ratings submitted online by reviewers than the supplementary services do. The most important attribute is the perceived value of the customers indicating that customers are satisfied when their expectations are met. This also takes into consideration the money they have spent for their hotel stay. The provided service seems to play an important role in the customer satisfaction as well. This supplementary service is essential in the hospitality industry. Further, the core service ‘rooms’ and ‘cleanliness’ are of great importance, as well as the supplementary service ‘staff’. Eventually, it could also be found out that there is no clear distinction regarding the service offering between three- and four-star hotels. These outcomes should build a base of decisive factors to emphasize for hotel management when revising their hospitality offer to ensure satisfied customers.
Declaration of Authorship

I declare that this dissertation is my own unaided work. I have not included any material or data from other authors or sources, which are not acknowledged and identified in the prescribed manner. I have read the section in the exam regulations on plagiarism and understand that such offences may lead the Examinations Board to withhold or withdraw the award of Bachelor of Business Administration.

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List of Abbreviations

B2C ......................................................................................................................... Business to Customer

UCG .......................................................................................................................... User Generated Content

SERVQUAL ............................................................................................................... Service Quality

CS/D ......................................................................................................................... Consumer Satisfaction/Dissatisfaction
1 Introduction

The goal of this bachelor thesis is to find out how strong a defect in the core or supplementary service influences customer satisfaction. First, the problem at hand will be defined stating the background of the problem as well as the research aims and objectives. Further, this paper will go into detail about the theoretical background for the research talking about the service elements, experiences, and the relevance of review platforms and the Web 2.0. It will also give an insight into TripAdvisor.com which is the main source of this research.

The research paper will then go in depth concerning the methodology – the data collection and the statistical analysis, followed by the results of the research. This part will give the sample description, test the previously developed hypotheses and discuss the research results. The conclusion will give a final overview and the limitations to the project.

2 Problem Definition

2.1 Background and Statement of the Problem

As we live in a service economy and the service sector is steadily increasing around the world it is very important to learn how to fully satisfy customers by offering them the most suitable core and supplementary services.

More people book travels online and therefore also read reviews on dedicated web pages in order to get an impression of the potential service to be purchased. Since services cannot be tested in advance, people trust in reviews they read online to get an impression of what they can expect of the service (WTO 2008). Thus, for a service providing company it is of utmost importance to understand which parts of the service affect the customers’ feelings most and which components contribute to positive or negative reviews. This is important in order to be able to create the offered service in such a way that people are pleased with those parts of the service that are most important to them. Service providing companies can then concentrate mainly on these parts and work on improving them, so that the customers are
satisfied with the whole service offering, while, of course, still not forgetting about all the other elements, because the whole service offering is evaluated by the customer and not just the parts of it by themselves.

2.2 Research Aims and Objectives

The aim of the thesis is to investigate whether customers share their positive or negative experiences rather when the core element or the supplementary element of the experienced service is affected. It is important to find out how the customers’ feelings get affected by the service experience. Therefore, in the thesis at hand reviews will be checked against various dimensions to explore the main reasons for customer complaints and to detect those parts of the service that are praised most often in online reviews. Therefore, this bachelor thesis will provide an overview and evaluation of the most important service components for customers in the hotel industry.

2.3 Research Question

As people like to share their travel experiences with others, they post reviews online stating the most satisfactory or most dissatisfactory elements of their journey. These reviews give organizations the possibility to improve their service by simply listening to the customers’ praises and wishes, or complaints and anger which they are willing to share publicly for no cost to the companies. Management can benefit from listening to their customers, so this bachelor thesis will give an overview of the main drivers of satisfaction and dissatisfaction and the question whether these drivers concern the core or the supplementary services.

This academic paper will elaborate on the question: “How strong does a defect of the core or supplementary service influence customer satisfaction?”
3 Theoretical Background

3.1 Defining Service

3.1.1 What is a Service?

In order to be able to work with the topic in further detail it has to be clear what a service actually is. Lovelock and Wirtz (2007, p. 15) define service as follows: “Services are economic activities offered by one party to another, most commonly employing time-based performances to bring about desired results in recipients themselves or in objects or other assets for which purchasers have responsibility. In exchange for their money, time, and effort, service customers expect to obtain value from access to goods, labor, professional skills, facilities, networks, and systems; but they do not normally take ownership of any of the physical elements involved.”

Or simply stated by Wilson et al. (2008, p. 24): “Services are deeds, processes and performances”.

Moreover, it might be of interest to distinguish between a product and a service. Services have some unique characteristics. These characteristics are intangibility, inseparability, perishability and variability (Rust, Zahorik & Kliningham 1996). From those four characteristics the generic differences, distinguishing service marketing from goods marketing, can be derived. These are the following (Lovelock 1991):

- Nature of the product
- Greater involvement of customers in the production process
- People as part of the product
- Greater difficulties in maintaining quality control standards
- Absence of inventories
- Relative importance of the time factor
- Structure of distribution channels
3.1.2 Three-Stage Model of Service Consumption

Moreover, it is interesting to understand how a customer goes through the service experience and therefore Lovelock, Wirtz and Chew (2009) introduce the three-stage model of service consumption. These three stages include the pre-purchase stage, the service encounter stage and the post-purchase stage. The pre-purchase stage comprises four steps which are the awareness of a need, information search, assessment of options and making a choice to buy a service. Throughout the service encounter stage, the consumer initiates, experiences and consumes the service. And in the post-purchase stage, an evaluation of the service performance determines future intentions such as willingness to purchase again from the same service provider or recommending the service to others.

The next paragraph will provide a more detailed insight into the encounter stage through explaining the servuction system which shows the customers’ contact to the service providing organization.

3.1.3 Servuction System

The servuction system stands short for service production system. This system illustrates all the characteristic interactions that are involved in a customer experience in a high contact service (Lovelock, Wirtz & Chew 2009).

Guests in a hotel, for example, interact with all the surroundings. These surroundings may be comprised of the service environment, the hotel staff and also other guests who are present at some point during the service encounter. Each type of interaction can create value for the guest (e.g. an appealing atmosphere, nice and skilled staff, and other guests that are found to be pleasant) or destroy value (e.g. a customer speaking loudly on a cell phone while another guest tries to interact with the service employee). Therefore, firms have to assure that every interaction between employees and guests is coordinated in such a way that the customers receive the value they expected from the offered service experience (Lovelock, Wirtz & Chew 2009).

As shown in Figure 1, this system is composed of a technical core which is invisible to the clients, and the service delivery system which is visible to them. The service
operations system represents the “technical core where inputs are processed and the elements of the service product are created” (Lovelock, Wirtz & Chew 2009, pp. 46). This is the part which is invisible to the client. In the service delivery system the elements are assembled and the client receives his or her product or service. This component of the system is visible to the customer. When talking about a hotel, this visible part may include the hotel building itself with its shape, colors, and decorations, equipment like computers, dishes, beds, etc., employees, and possibly also other present hotel guests (Lovelock, Wirtz & Chew 2009).

![Figure 1: The Servuction System](image)

*Source: Lovelock, Wirtz & Chew 2009*

After explaining what a service is, the next step is to look at what a service comprises. In the next section the different parts of the service will be followed by a more detailed description of core and supplementary services, which are an essential part to understand for this research.

### 3.2 What Makes a Service?

As stated by Rust, Zahorik and Kliningham (1996) the service consists of four components. These components are the physical product, the service product, the service environment and the service delivery.
The **physical product** is the tangible part that the company transfers to its customers (Rust, Zahorik & Kliningham 1996). In a hotel it might be the hotel room, the complimentary toiletries, or the food ordered from the room service.

The **service product** is “the core performance purchased by the customer, the flow of events designed to provide a desirable outcome. It refers to that part of the experience apart from the transfer of physical goods and typically includes interactions with the firm’s personnel” (Rust, Zahorik & Kliningham 1996, p. 16). In the hotel industry this might include the check-in at the front desk, a wake-up call in the morning or any other employee-customer interaction to ensure the creation of a memorable experience for the guest.

The **service environment** relates to the physical background of the actual service. This physical background may also be referred to as a “servicescape” (Rust, Zahorik & Kliningham 1996). Every customer might perceive the servicescape differently, which is due to “one’s own predisposition, expectations, motives, and knowledge gathered from past learning experiences” (Schiffman 2001 cited in Lin 2004, p.164). A human’s image of the world is a produced combination of all these elements (Schiffman & Kanuk 1978). Lin (2004, p. 165) says that “customers usually receive a variety of stimuli from a servicescape, they organize them cognitively into groups, and form images from the stimuli as a whole”. Therefore, it can be said that a customer does not see every single element of the service offering apart from each other, but rather sees the whole offering as one experience. Normally customers cannot distinguish between every single element, but they see the whole outcome. Lin (2004) explains this phenomenon with a guest’s perception of a hotel lobby. She argues that the customer does not only notice the front desk. He or she will also recognize the staff with their outfit and attitude and other guests who are present at the same time. Further, their mood will be affected by the colors used in the lobby, the lighting, decorations and furniture used to create the atmosphere. But also the sensory elements like music and scents can help forming the client’s image of a hotel lobby.

Schiffmann (2001) says that researchers have found out that the interaction with the environment can influence someone’s behavior. Lin (2004) indicates that there are a variety of moderators and mediators that influence a human’s mental picture. The
researcher further states that a perception can be classified into a micro and macro perspective (see Figure 2: Consumer’s Evaluation Process of a Servicescape). The micro-perspective has to do with the matters that affect a person as an individual. These variables, for example, are personality traits, preconsumption expectations, goal behaviors, and cognitive style. As opposed to the micro-perspective, the macro-perspective deals with the outside of the person, which includes socio-cultural influences (e.g., individualism vs. collectivism) and aesthetic effects (e.g., interior decor and design) (Lin 2004, p. 166).

Taking all these factors into consideration, services might be enjoyed more if the customer is surrounded by a nice and clean environment. When offering massages, for example, it might be better to use relaxing wall coloring, quiet music and a nice aroma to make the customer feel comfortable while enjoying his or her massage.

Figure 2: Consumer’s Evaluation Process of a Servicescape

Source: Lin 2004, p. 167
The last service component, the **service delivery**, describes “what happens when customers buy the service. The service product defines how the service works in theory, but the service delivery is how the service works in actual practice” (Rust, Zahorik & Kliningham 1996, p. 17). Service providing companies should make sure that the services are always delivered as they were planned without any unexpected interferences.

### 3.2.1 Core and Supplementary Service

As in this thesis the goal is to find out how the core or supplementary services play a role in customer satisfaction, it is important to understand the difference between these two service elements.

“The core product is the most basic level of a product – what the buyer is actually buying” (Kotler, Bowen & Makens 2010, p. 231).

As regards the supplementary products there is a distinction between the facilitating and the supporting products, whereas “the facilitating products are services or goods that must be present for the guest to use the core product” (Kotler, Bowen & Makens 2010, p. 231) and the supporting products are additional products that are provided in order to add value to the core product. These supporting products should help to differentiate the own service from the competitors’ services (Kotler, Bowen & Makens 2010, p. 232). As stated by Kotler, Bowen and Makens (2010) the augmented product consists of accessibility, atmosphere, customer interaction with the service organization, customer participation, and the customers’ interaction with each other. “These elements combine with the core facilitating and supporting products to provide the augmented product” (Kotler, Bowen & Makens 2010, p. 233).

#### 3.2.1.1 The Flower of Service

The introduction part of this chapter explained the difference between core and supplementary services and provided details on the different types of supplementary services. In light of these introductory comments, a comprehensive model, the so-called flower of services, presents the two kinds of supplementary service—facilitating supplementary services and enhancing supplementary services.
Facilitating supplementary services include information, order-taking, billing, and payment. These elements are needed for the service delivery and help in the use of the core product (Lovelock, Wirtz & Chew 2009).

Enhancing, or also called supporting, supplementary services include consultation, hospitality, safekeeping, and expectations. These elements, as already stated, add value to the service and can assist in differentiating from competitors (Lovelock, Wirtz & Chew 2009).

The petals, as shown in Figure 3: The Flower of Service, are arranged in a clockwise manner around the core product. This sequence shows the likelihood in which they might appear (Lovelock, Wirtz & Chew 2009).

Figure 3: The Flower of Service

Source: Lovelock & Wirtz 2006, p. 77

Understanding the service concept, its stages, and its components, the meaning of experience will now be presented leading to the service quality section of this research.
3.3 What are Experiences and how are they Created?

As the hospitality industry is a unique industry it is important to understand it before the concept ‘experience’ actually can be elaborated. The hospitality industry consists of organizations that offer guests attentive, qualified food, drink, and lodging services, which can either occur separately or in combination (Ford & Heaton 2000). This industry is facing several challenges. For example a hospitality organization has to ensure that its personnel offer an adequate level of service that is required and expected by the guests at all times. Further, and as already implied in the service quality chapter, the guests individually define service quality and service value in their minds and it is not generally defined by the managers or other organizations. It is important to mention that the success or failure of the guest experience may depend on a single moment of truth (Ford & Heaton 2000) – the moment of truth being the encounter between the organization’s staff and the guest.

Ford and Heaton (2000) also use the word “guestology” in their book “Managing Guest Expectations in Hospitality”. This term originated from Bruce Laval of the Walt Disney Company and implies that you should treat customers like guests and manage the organization from the guest’s point of view. This statement actually shows how important the guests are to hospitality organizations and without them they would not be able to operate. Guests always arrive with specific expectations from the hospitality organization they chose. They may base their expectations on advertising, brands, imaginations or experiences of others if they have not been at this venue before. If they have visited the same site previously they will set their expectations according to their last experience (Ford & Heaton 2000). Zeithaml, Parasuraman and Berry (1990) also state factors that can influence expectations. One of these factors can be word-of-mouth, because people believe in what other people say more than what the company says about itself. Moreover, a person’s needs – individual characteristics and circumstances – may also influence expectations as well as past experiences, external communications and price. So, setting expectations and then creating an experience that meets or exceeds those expectations is of great importance to the industry.

Understanding the industry and the importance of guests in the industry, the word experience can now be defined as the overall amount of the guest’s experiences
with the service provider on a given time or set of events (Ford & Heaton 2000). Ford and Heaton (2000) also simplify this in a basic equation:

\[
\text{Guest experience} = \text{service product} + \text{service setting} + \text{service delivery system}
\]

This equation shows the components of the guest experience which will be explained in more detail in this paragraph. The **service product** is also called the service package or the service/product mix. This component is the reason why the customer actually visits the organization and it can be tangible or intangible or feature both elements. The **service setting** or environment is where the experience takes place and it is an important aspect to set the organization apart from its competitors. The **service-delivery system** includes the human components and the physical production process plus the organizational and information systems and techniques that facilitate bringing the service to the guest (Ford & Heaton 2000). The services produced by the service delivery system are experienced and thus the staff interacting with customers or guests is by far the most important element of the service delivery system. Unfortunately, this component is also the most challenging one to manage. The staff’s attitude, friendliness, genuine concern, and helpfulness are matters which mostly determine the value and the quality of the guest’s experience.

Knowing all these factors may lead to the conclusion that excellent service pays off by creating loyal customers – satisfied customers return to the organization and spread positive word-of-mouth (Zeithaml, Parasuraman & Berry 1990) – directly or via customer review platforms online.

Getting to know the principles of service and experience is essential to explore the research topic further and to understand how important service quality is. Therefore, this will be discussed in the following section.

### 3.4 Service Quality

It is vital to comprehend service quality in order to measure it, to detect the causes of service quality issues, and the design and implementation of corrective procedures. According to Lovelock, Wirtz & Chew (2009), there are four different perspectives of service quality:
1. **The transcendent view** of quality implies that individuals have to be subjected to an experience repeatedly in order to recognize quality.

2. **The manufacturing-based approach** is supply-based and primarily considers engineering and manufacturing practices. In services, it would be said that this approach looks at quality from the operations perspective. The focus is put on fulfilling internally developed standards which would normally serve to increase productivity and reducing cost.

3. **User-based definitions** takes into consideration that everyone has individual needs and wants. Therefore, this definition implies that quality lies in the eyes of the beholder.

4. **Value-based definitions** define quality in terms of value and price. Here, the trade-off by customers is taken into account.

Not only are the different perspectives of service quality important but also its dimensions. As stated by Lovelock, Wirtz and Chew (2009), Zeithaml, Berry, and Parasuraman have come up with five broad dimensions of service quality:

- Tangibles (appearance of physical elements)
- Reliability (dependable and accurate performance)
- Responsiveness (promptness and helpfulness)
- Assurance (credibility, competence, courtesy and security)
- Empathy (good communications, customer understanding and easy access)

The SERVQUAL model “defines a gap between what the customer perceives and expects” (Noe 1999, p. 34). The core of this model is the range of expectations a customer may possess, labeled “the zone of tolerance”. This represents the limits of customer satisfaction bounded at one end by a “desired level and at the other end by adequate service level” (Parasuraman, Zeithaml & Berry 1994). Rust and Oliver (1994, p. 6) say “the SERVQUAL instrument illustrates the core of what service quality may mean, namely a comparison to excellence in service by the customer”. Eventually, though, it is the perceived value that attracts a customer – with the value increasing as quality increases and price decreases.
The gap model in the next chapter will explain the different gaps and will show how the customer’s expectations and the actual delivery of the service may diverge.

### 3.4.1 The Gap Model

Understanding the gap model is essential for service quality. The gap model was first developed by Zeithaml, Berry and Parasuraman with five gaps and refined by Lovelock, Wirtz and Chew (2009) with a sixth gap that defines the difference between what customers had expected and what they think was actually delivered. This model should help to understand where the problem or misunderstanding occurs to be able to work on a solution and eliminate the problem.

**Gap 1: The Knowledge Gap.** The imbalance between the managers’ assumption of what customers might expect and what customers actually need and expect.

**Gap 2: The Policy Gap.** The disagreement between the management’s understanding of customers’ expectations and the service standards that are set for the service delivery.

**Gap 3: The Delivery Gap.** The variation between the company’s service standards and the actual performance delivered by the service team.

**Gap 4: The Communications Gap.** The difference between what the organization communicates, e.g. via its marketing tools, and what is actually delivered to its customers. Lovelock and Chew (2009) say that gap 4 is provoked by two sub-gaps. On the one hand, there is the internal communications gap which indicates the variation of what the organization’s advertising presents to possible customers, what is thought of the product’s features, performance, and service quality by the company’s sales staff and what the organization is capable of delivering to its customers. On the other hand, there is the overpromise gap. For this gap it can be suggested that sales staff may be evaluated by their generated sales which might be the reason why they overpromise what the offered service will deliver. Lastly, there is also the interpretation gap which presents the imbalance of what the organization actually promises within its communication and what the client believes was promised by the service provider.
**Gap 5: The Perceptions Gap.** The perception gap presents the difference between what is actually delivered to the customers and what they feel they have received from the service provider. It is stated that they “feel they have received” because customers are normally not able to judge service quality correctly.

**Gap 6: The Service Quality Gap.** The final gap of this model by Lovelock and Chew (2009) implies that there might be a variation of the customers’ expectation of what they will be delivered by the service provider and the perception of what was actually received throughout the service delivery.

As the gap model shows it is really hard to meet the customers’ expectations without knowing what could go wrong before, in, or after the actual service delivery. A satisfied customer is always the best customer; therefore the focus of the next paragraphs is put on customer satisfaction. First, the term ‘customer satisfaction’ will be explained to then elaborate on the formation of the phenomenon.
3.5 Customer Satisfaction

As stated by Rust and Oliver (1994), the word “satisfaction” comes from the Latin words *satis* (enough) and *facere* (to do or make). They say that “these terms illustrate the point that satisfaction implies a filling or fulfillment. Thus, customer satisfaction can be viewed as the consumer’s fulfillment response” (Rust & Oliver 1994, pp. 3-4).

Rust and Oliver (1994) also cite Oliver’s views of satisfaction as a state of fulfillment related to reinforcement and arousal. In these views low arousal fulfillment is recorded as “satisfaction-as-contentment”, which supposes that the product/service performs satisfactorily in a continuous, passive sense. High arousal satisfaction is explained as “satisfaction-as-surprise”, which can be positive or negative. “Satisfaction-as-pleasure” eventuates when “positive reinforcement occurs, such as when the product/service adds utility or pleasure to a resting state” (Rust & Oliver 1994, p. 4).

If service providers want to enhance customer satisfaction they need to be aware of all the relationships that can be linked to customer satisfaction. Figure 5: Links Among Customer Assessments, Service Operations, and Outcomes, shows which factors play an important role in customer satisfaction to make service providing organizations understand the importance of all those aspects.

Noe (1999) says that the key to service satisfaction comes from the customer’s direct benefit. This means that the organization’s management has to be aware of what customers value and what they perceive as a beneficial experience. The company has to understand how important and significant the service offering is to the consumers. This shows again how much influence the customer has on the service outcome and to what extent the service providers have to understand their customers and act according to their wishes.
Although Oliver is already stated in this section, this research will go into further detail about Oliver’s satisfaction theory, which is explained in his research paper ‘Cognitive, Affective, and Attribute Bases of the Satisfaction Response’. In this research the focus is put even more on customer satisfaction and how it is created and therefore Oliver developed the theory described in the next chapter.

### 3.5.1 Oliver’s Satisfaction Theory

Oliver (1993) came up with a satisfaction model that is an enhanced model of Figure 6: Combined Cognitive and Affect-Augmented CS/D Model. Figure 7: Expanded Attribute-Based Satisfaction Model with Proposed Causal Paths, shows the part of
the original model that is displayed in bold in Figure 6. Figure 7 indicates an extension that is augmenting the affect chain, but to comprehend the extensions it has to be explained at first, which factors influence satisfaction according to Oliver (1993).

As the widely used phrase ‘the customer is king’ already says: the customers play the most important role for a business, therefore researchers put more and more focus on the study of consumer satisfaction/dissatisfaction (CS/D), because a satisfactory purchase experience does not seem to be the only reason for consumers’ repeated purchases. Therefore Oliver (1993) wanted to extend the knowledge about customer satisfaction and describes three bases of the satisfaction response, namely cognitive, affective, and attribute bases.

For the cognition in satisfaction the question ‘How do consumers process attribute experiences into summary form that later influences satisfaction?’ is crucial. Oliver (1993, pp. 418-419) says that in the expectancy disconfirmation model “consumers are posited to form preconsumption expectancies, observe product (attribute) performance, compare performance with expectations, form disconfirmation perceptions, combine these perceptions with expectation levels, and form satisfaction judgments”. This model explains how consumers go through the experience that influences satisfaction and therefore it answers the above asked question. As shown in Figure 6 performance can influence CS/D through two means, either directly through consumer observation of good and bad performance or indirectly as an input to the disconfirmation comparison (Oliver 1993; Bolton and Drew 1991). Oliver (1993) further states that direct effect of expectations or norms, as well as ideals and brand-based norms can explain additional variance in CS/D. The consumers’ level of expectation also creates the baseline for satisfaction judgments. Further, equity and attribution are cognitive themes which explain, that in general consumers are more satisfied when they think they are treated fairly. The cognitive attributes of Figure 6 are expectations, performance, disconfirmation, attribution, and equity/inequity. Affect is shown as augmentation of these variables in the prediction of satisfaction and, in addition, as mediating an indirect attribution influence (Oliver 1993).
This leads to the affect augmentation in satisfaction explained by Oliver (1993). Therefore he cites Westbrook (1987) in saying that consumers form two summary affect states, one based on the positive affects in consumption and the other on the negative affects. Westbrook (1987) found out that affects of joy and interest load on a factor separate from that of anger, disgust, and contempt, and that these factors are relatively unrelated. In general it can be said that positive and negative affects make independent contributions of satisfaction/dissatisfaction judgments and Oliver (1993) further states that different types of everyday experiences may directly generate different types of affect.

Figure 6: Combined Cognitive and Affect-Augmented CS/D Model
Source: Oliver 1993, p.419
In the research paper ‘Cognitive, Affective, and Attribute Bases of the Satisfaction Response’, Oliver (1993) further explains the ‘attribute basis’ of satisfaction. Oliver (1993) wants to make clear that positive and negative affects show concurrent effects. He proposes that “dual positive and negative affect influences in consumption can arise from dual concurrent positive and negative experiences at the attribute level” (Oliver 1993, p. 420). This means that different product attributes can create varied, positive or negative, experiences with a product or service and these direct and indirect attribute influences comprise the ‘attribute basis’ of satisfaction.

As already mentioned, Figure 7 shows the expanded model of Figure 6. Oliver (1993, p. 422) explains the figure as follows: “First, attribute influences are expressed as attribute satisfaction units. Second, attribute satisfaction and dissatisfaction are shown as antecedent to both positive and negative affect. Third, positive affect is now represented by the two affect states of interest and joy while negative affect is portrayed by the three attribution-dependent states of external, internal, and situational affect. Finally, overall disconfirmation is shown as directly influencing satisfaction to represent a cognitive source of CS/D response”. The three attribution-dependent states could be explained by the following: “Marketer-caused dissatisfaction is thought to be externally attributed, consumer mistakes are apparently internally attributed, while unfortunate environmental effects are expected to be situationally attributed” (Bitner 1990).
This research is about how customers react online to service outcomes. Therefore, not only the service aspect of the topic is important, but also the medium where customers are able to create their reviews. Hence, the next part will give an overview of online media and social networks and their relevance, and will also provide an introduction to the online platform TripAdvisor.com where the data for the research was taken from.

3.6 Power of Online Media

Having learnt about the service elements and customer experience it may be obvious that those elements do not only play an important role while experiencing a service but also after the service encounter when people talk about their experience. They might only talk about it face-to-face with their friends but they could also post a review online which has a considerably larger reach and may also
have more impact than telling the story to some friends. This is why the power of online media is discussed in this chapter – to show the importance of the Web 2.0 and online review platforms.

So, why Web 2.0? In contrast to the static internet sites where companies give general information about themselves, Web 2.0 makes it possible to interact with customers, provide timely information and let customers create content as well. Social media is expanding the company’s horizons in customer interaction by listening to what they have to say and getting important information from them.

As mentioned by Kotler, Bowen and Makens (2010) personal connections are the life of the new Web bringing together millions of bloggers and social network users. All these users have an impact on businesses because they create trends and the word is spread immensely fast – creating interest among all the users. “The new social networking technologies provide an authentic, peer-to-peer channel of communication that is far more credible than any corporate flackery” (Kotler, Bowen & Makens 2010, p. 156).

The WTO (2008) agrees with this statement and claims that travelers are increasingly using their friends and family as a valuable source of information, guidance and recommendation. The WTO also says that user-generated content influences over US$10 billion a year in online travel sales, because consumers think that UGC is more convincing than professional evaluations or information provided by tourism companies. However, a great part of consumers do support a brand whose management themselves respond to consumer-generated reviews (WTO 2008).

An article in brandweek.com also confirms this trend, stating that websites where consumers can read travel journals and reviews of hotels, cruise ships and attractions written by fellow travelers are rapidly gaining popularity (WTO 2008).

Wuyts & Van den Bulte (2007) mention that the decline in effectiveness of mass media may be the primary reason for B2C marketers’ renewed interest in social networks today and another trend is the consumers’ deepening skepticism of advertising and marketing. As traditional marketing communication becomes less effective, marketers are turning to new means of communication capitalizing on
consumers’ social networks to convey their message (Wuyts & Van den Bulte 2007, p. 4)

So marketers are trying to make use of the power of social networks to promote their products and build closer relationships with their customers. They hope for more interaction with their customers to decrease the one-way communication used up to that point. The control of the media content has shifted from brand marketers to the consumers (Kotler, Bowen & Makens 2010), so the importance of monitoring the online content is increasing so that businesses do not lose control.

While we are still in the beginning phase of Web 2.0, the discussion about Web 3.0 has already been raised which will create a unique fingerprint for each user based on a predictive model for what he/she “really wants” when going online for different purposes (Estis Green 2007). These fingerprints may create different search outcomes for people frequenting different pages online. So soon the Internet is likely to generate automatically prompts that anticipate the user’s needs after pattern detection is done on his/her history of online interactions. The term “semantic web” is used to describe the integration of data from many sources to drive queries and dialogue. The Web is getting more and more sophisticated which means that it will get more reliable and people will be using it even more than they already do today (Estis Green 2007).

3.6.1 Social Media and its Relevance

Evans (2008, p. 33) defines social media as follows: “Social media is the democratization of information, transforming people from content readers into content publishers. It is the shift from a broadcast mechanism to a many-to-many model, rooted in conversations between authors, people, and peers. Social media uses the “wisdom of crowds” to connect information in a collaborative manner. Social media can take many different forms, including Internet forums, message boards, weblogs, wikis, podcasts, pictures and video. Technologies such as blogs, picture-sharing, vlogs, wall-postings, email, instant messaging, music-sharing, group creation and voice over IP, to name a view.”
Social media marketing is defined as “a process that empowers individuals to promote their websites, products, or services through online social channels and to communicate with and tap into a much larger community that may not have been available via traditional advertising channels. Social media most importantly emphasizes the collective rather than the individual” (Weinberg 2009, p. 3). Weinberg (2009) further indicates that the social media marketers’ job is to control the communities in a way that it allows effective communication among the participants of the community.

Social media is getting more and more important in today’s technology based world and this is shown in several surveys. A survey by Nielsen/Netrations (2007), for example, has found that travelers may be more convinced of user-generated reviews than they trust travel agents’ content: 20% of the survey participants stated that websites like TripAdvisor are the most reliable resource of information. Just 12% said that travel agents’ own websites were most reliable, and only 11% chose search engines (WTO, 2008). This shows how relevant online review websites are nowadays and how much customers rely on them.

Showing the relevance of user-generated content is important for this research in order to understand that those reviews used for this study have an influence on travelers who collect information online and want to hear opinions of other people who have already experienced what they are about to encounter. Thus, the next chapter will introduce the online review platform TripAdvisor.com where the research data is taken from. This section will give a brief overview about the website and explain how TripAdvisor actually works.

3.6.2 TripAdvisor

As this academic paper uses reviews from the Website TripAdvisor.com the next section goes into further detail about this online platform to get a clear understanding of the whole research process.

3.6.2.1 What is TripAdvisor?

TripAdvisor is a social network website that allows travelers to post reviews about travel experiences. TripAdvisor was founded in February 2000 and operates sites
27 countries of the world (TripAdvisor LLC 2011). It is the largest online travel community in the world with more than 40 million unique visitors per month (comScore MediaMetrix July 2010) and more than 20 million registered members (TripAdvisor LLC 2011).

### 3.6.2.2 How Does TripAdvisor Work?

TripAdvisor allows its users to post travel reviews. It also provides worldwide access to online travel agencies including Expedia, Orbitz, and hotels.com, but travels cannot be directly booked through TripAdvisor (Estis Green 2007).

Next to the common travel network for consumer reviews, TripAdvisor launched its Traveler Network in 2007 which allows any registered user to establish a personal network of family and friends where reviews can be exchanged. Users tend to trust those users more, so when they need travel reviews they can try to get reviews first from those people with whom they might have more things in common rather than taking suggestions from complete strangers.

Users can also pin the locations they have visited on an integrated Google map to show others where they have been. By this means users can also see which of their friends have visited the same places and get information about their trips (Estis Green 2007).

---

**Features of TripAdvisor.com** (TripAdvisor LLC 2011)

- More than 45 million honest travel reviews and opinions of real travelers around the world
- 1+ million businesses
- 85,000+ cities
- 474,000+ hotels
- 135,000+ attractions
- 675,000+ restaurants
- 6,000,000+ candid traveler photos
- Ninety-eight percent of topics posted in the TripAdvisor forums are replied within 24 hours

Having covered all the essential information which is important to understand the research topic, the subsequent chapter will address the development of the hypotheses that will be presented and discussed within the research.

3.7 Hypotheses Development

In this chapter hypotheses will be developed to be statistically tested later in this thesis. In order to acquire a thorough understanding of why certain hypotheses are created, the first part of this chapter will point out some useful information about customer expectations in the service industry.

According to Ford and Heaton (2000) guests have specific expectations when they visit a hospitality business for receiving a service. Most obviously they expect cleanliness, courtesy, responsiveness, reliability, and friendliness, but Ford and Heaton (2000) also state that customers criticize when they do not receive the expected outcome or when there are unexpected negative impacts within the service outcome. So, Ford and Heaton (2000) cite Berry with a list of the ten most common guest complaints which give an insight into the main reasons for complaining and suggested improvements.

1) Guest Complaint: Lying, dishonesty, unfairness.
   **Guest Expectation: To be told the truth and treated fairly.**

2) Guest Complaint: Harsh, disrespectful treatment by employees.
   **Guest Expectation: To be treated with respect.**

3) Guest Complaint: Carelessness, mistakes, broken promises.
   **Guest Expectation: To receive careful, reliable service.**

4) Guest Complaint: Employees without the desire or authority to solve problems.
   **Guest Expectation: To receive promote solutions to problems.**

5) Guest Complaint: Waiting in line because some service lanes or counters are closed.
   **Guest Expectation: To wait as short a time as possible.**
6) Guest Complaint: Impersonal Service.
   
   Guest Expectation: To receive personal attention and genuine interest from service employees.

7) Guest Complaint: Inadequate communication after problems arise.
   
   Guest Expectation: To be kept informed about recovery efforts after reporting problems or service failures.

8) Guest Complaint: Employees unwilling to make extra effort or who seem annoyed by requests for assistance.
   
   Guest Expectation: To receive assistance rendered willingly by service employees.

9) Guest Complaint: Employees who do not know what is happening.
   
   Guest Expectation: To receive accurate answers from service employees to common questions.

10) Guest Complaint: Employees who put their own interests first, conduct personal business, or chat with each other while the customers wait.
   
   Guest Expectation: To have their interests come first.

All these expectations should be part of the hospitality organization’s knowledge base and should be incorporated in everything the organization does. Further, knowing these expectations gives the business the chance to improve in those fields and to meet all the customers’ expectations at any time.

Wind et al. (1989) show other important aspects that should be considered for the hypotheses development for this research. When designing Marriott’s Courtyard they came up with seven facets of attributes for establishing an “optimal” hotel design. Those attributes include:

1) **External factors** – building shape, landscape design, pool type and location, hotel size;

2) **Rooms** – room size and decor, type of heating and cooling, location and type of bathroom, amenities;

3) **Food-related services** – type and location of restaurant, room service, vending services and stores, in-room kitchen facilities;

4) **Lounge facilities** – location, atmosphere and type of people (clientele);

5) **Services** – including reservations, registration and check-out, limo to airport, bellman, message center, secretarial services, car rental and maintenance;
6) **Facilities for leisure-time activities** – sauna, exercise room, racquetball courts, tennis courts, game room, children’s playroom and yard; and

7) **Security factors** – security guards, smoke detectors, 24-hour video camera, and so forth.

Understanding the importance of these factors, the hypotheses can now be developed after giving an overview of the core and supplementary variables of this research.

**Core Services**
- Room
- Room Size
- Value
- Cleanliness
- F&B

**Supplementary Services**
- Location
- Service
- Check In/Front Desk
- Staff
- Facilities
- Upkeep

- **Hypothesis 1**
  The core services influence the overall rating more than the supplementary services.

- **Hypothesis 2**
  The core services influence the customer satisfaction more than the supplementary services.

- **Hypothesis 3**
  The attribute of the core services that influences the overall rating most is cleanliness.

- **Hypothesis 4**
  The attribute of the supplementary services that influences the overall rating most is the staff.
• **Hypothesis 5**
The core service attributes influence the emotional attribute more than the attributes from the supplementary services.

• **Hypothesis 6**
The core services are more important for a customer to revisit a hotel than the supplementary services.

• **Hypothesis 7**
The satisfaction with service is higher with 4-star hotels than with 3-star hotels.

4 **Methodology**

This chapter is about the data collection and gives explanation about the different types of statistical analyses used for the research.

4.1 **Data Collection**

This research paper is based on previous research undertaken by Ahmed Shaath (2010) for his bachelor thesis “Dimensions of Negative WOM for Core and Supplementary Services”. Data were collected by him on TripAdvisor.com, skimming through hundreds of reviews posted on this travel review website. He then decided to use four reviews each for 38 hotels in the city of London, England as a sample. Each review was thoroughly assessed, the point-rating system was taken into consideration and the final evaluation was based on different dimensions. The point-rating system on TripAdvisor.com was used as shown in the following list:

1 = very dissatisfied
2 = dissatisfied
3 = neither satisfied nor dissatisfied
4 = satisfied
5 = very satisfied
The next list will give an overview of the dimensions that were observed in the reviews. Some stem from TripAdvisor.com and some were chosen by the researcher according to statements of the reviewers in the text they wrote online about the hotel experience.

The reviews were rated on the following criteria:

- Rooms
- Room Size
- Value
- Cleanliness
- Location
- Service
- Front Desk/Check In
- Staff
- F&B
- Facilities
- Upkeep
- Repeated Visit
- Satisfaction
- Overall Rating
- Emotion

### 4.2 Statistical Analysis

For this research statistical analysis is used in order to find out how overall customer satisfaction is influenced by each category used in the data collection process. Four different types of analysis are used for this academic paper with the aim to find significant results in testing the hypotheses. These analyses are correlations, cross tables, linear regression, and analysis of variance and will be further explained in the
next paragraphs to understand the processes of the analyses and meanings of the results better.

4.2.1 Correlations

Bryman and Cramer (1997, p. 172) state that the idea of correlation is one of the most significant and basic one in the elaboration of bivariate relationships. They say that “measures of correlation indicate both the strength and the direction of the relationship between a pair of variables”. Andy Field (2005, p. 107) describes a correlation as “a measure of the linear relationship between variables”. Researches often have the objective to conclude variables’ relationships, if there are any. Variables can either be positively related, negatively related, or not related at all. In statistics there are various kinds of correlations in use like the Pearson’s, the Spearman’s, or the Kendall’s tau correlation.

The Pearson’s correlation coefficient, or Pearson’s product-moment correlation coefficient, is a “standardized measure of the strength or relationship between two variables. It can take any value from -1 (as one variable changes, the other changes in the opposite direction by the same amount), through 0 (as one variable changes the other doesn’t change at all), to +1 (as one variable changes, the other changes in the same direction by the same amount)” (Field 2005, pp. 740-741).

“The Spearman’s correlation coefficient is a non-parametric statistic and therefore can be used when the data have violated parametric assumptions such as non-normally distributed data” (Field 2005, p. 129). For this test the data will be ranked first, and then the Pearson’s equation will be applied to those ranks (Field 2005).

Field (2005, p. 131) states that The Kendall’s tau is a “non-parametric correlation and should be used when there is a small data set with a large number of tied ranks”. This indicates that Kendall’s tau should be applied when a lot of ranked scores have the same rank (Field 2005).

4.2.2 Cross Tables

Cross tables can also be called cross tabulations or contingency tables and are, according to Field (2005, p. 726), “tables representing the cross-clarification of two
or more categorical variables”. In a cross table the levels of each variable are arranged in a grid, and the number of observations falling into each category is noted in the cells of the table. So in short, the relation of two variables can be analyzed by using cross tabulations which is important for this research in order to find out which variables influence others in customer satisfaction.

4.2.3 Linear Regression

Field (2005) explains that a projecting model is fitted to the data for a regression model which uses independent variables to forecast dependent ones. In regression the model is fitted in a linear model – linear models meaning ‘model based on a straight line’ – and can be imagined as trying to summarize a data set with a straight line (Field 2005).

Hardy and Bryman (2004) explain regression analysis as a technique for describing the relationship between one dependent variable and one or more other independent variables in a specific data set. Independent variables are usually conceived as causes of the dependent variable, although notions of causality are sometimes only implicit, frequently speculative, and usually informal. ‘Simple regression involves just one independent variable. Multiple regression involves more than one independent variable’ (Hardy & Bryman 2004, p. 166).

4.2.4 Analysis of Variance

Analysis of variance, also known as ANOVA, “is a statistical procedure that uses the F-ratio to test the overall fit of a linear model. In experimental research this linear model tends to be defined in terms of group means and the resulting ANOVA is therefore an overall test of whether group means differ” (Field 2005, p. 724). ANOVA has the benefit that it can be applied to investigate different situations where numerous independent variables are at hand. In these situations, ANOVA helps identify “how these independent variables interact with each other and what effects these interactions have on the dependent variable” (Field 2005, p. 724).
5 Results

5.1 Sample Description

The sample for the research has been chosen previously for the academic paper “Dimensions of Negative WOM for Core and Supplementary Services” by Ahmed Shaath (2010). All the hotels from the sample are located in London, England and were chosen because according to the Website tourmis.wu-wien.ac.at London is considered the busiest destination with the most bed nights and arrivals for the year 2009-2010 (Shaath 2010). The reviews were taken from the renowned social network Website tripadvisor.com in early 2010.

The sample includes 38 hotels in the 3- and 4-star categories, from which four reviews were gathered each, enabling the researcher to work with a sample of 152 reviews. Shaath (2010) states that only hotels from the 3- and 4-star categories were chosen because those tend to have the most meaningful reviews for the research at hand.

Figure 8 shows the distribution between 3-star hotels and 4-star hotels in the research sample. This figure demonstrates that there are 57.89 % 3-star hotels and 42.11 % 4-star hotels in the data set.
The subsequent list shows the hotels that were used for the research and their star-category.

**Following hotels are part of this research:**

1. The Continental Hotel, 3 stars
2. Crown Plaza London, 4 stars
3. The Leonard Hotel, 4 stars
4. The Lancaster Hotel, 4 stars
5. NH Hotel Kensington, 4 stars
6. The Caesar Hotel, 4 stars
7. Imperial Hotel, 3 stars
8. Reem Hotel, 3 stars
9. Hotel Westminster, 3 stars
10. The Gore Hotel, 4 stars
11. Hotel Opulence, 3 stars
12. The Chiswick Moran Hotel, 4 stars
13. Colliers Hotel, 3 stars
14. The Georgian Hotel, 3 stars
15. Berners Hotel, 4 stars
16. The Gresham Hotel, 3 stars
In the subsequent section, the results of reviews taken from TripAdvisor.com serve to expose the data in further detail. The first bar chart shows that the overall rating was rather constant among the five answer possibilities with 4 = satisfied being the one with the most occurrences and 5 = highly satisfied the one with the least.

<table>
<thead>
<tr>
<th>Overall Rating</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Valid</td>
<td>1</td>
<td>18,4</td>
<td>18,4</td>
<td>18,4</td>
</tr>
<tr>
<td>2</td>
<td>32</td>
<td>21,1</td>
<td>21,1</td>
<td>39.5</td>
</tr>
<tr>
<td>3</td>
<td>32</td>
<td>21,1</td>
<td>21,1</td>
<td>60.5</td>
</tr>
<tr>
<td>4</td>
<td>33</td>
<td>21,7</td>
<td>21,7</td>
<td>82.2</td>
</tr>
<tr>
<td>5</td>
<td>27</td>
<td>17,8</td>
<td>17,8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>152</td>
<td>100,0</td>
<td>100,0</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Frequency Table – Overall Rating
The next outcomes show the frequency of satisfaction. This bar chart shows that 27% were very unsatisfied with the hotel they stayed at, but also 25% were very satisfied. Another 23.7% were satisfied and the rest is similarly distributed between unsatisfied and neither satisfied nor unsatisfied.

Table 2: Frequency Table - Satisfaction

<table>
<thead>
<tr>
<th>Satisfaction</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>194</td>
<td>27.0</td>
<td>27.0</td>
<td>27.0</td>
</tr>
<tr>
<td></td>
<td>98</td>
<td>13.2</td>
<td>13.2</td>
<td>40.1</td>
</tr>
<tr>
<td></td>
<td>93</td>
<td>11.2</td>
<td>11.2</td>
<td>51.3</td>
</tr>
<tr>
<td></td>
<td>104</td>
<td>15.0</td>
<td>15.0</td>
<td>66.3</td>
</tr>
<tr>
<td></td>
<td>98</td>
<td>13.2</td>
<td>13.2</td>
<td>80.5</td>
</tr>
<tr>
<td>Total</td>
<td>152</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Figure 10: Bar Chart – Frequency of Satisfaction
Figure 11: Histogram – Satisfaction in 3-Star Hotels

Figure 12: Histogram – Satisfaction in 4-Star Hotels
In Figure 11 and Figure 12 the difference between the satisfaction of 4-star and 3-star hotels can be seen. Although there are more very unsatisfied cases for the 3-star hotels, the mean is still higher with 3.16 than the one from the 4-star hotels with 2.94. This is due to more very satisfied and satisfied reviewers for the 3-star hotels. It has to be said though, that there were more reviews from 3-star hotels included in the sample than from 4-star hotels.

5.2 Hypotheses Testing

Hypothesis 1

The core services influence the overall rating more than the supplementary services.

For the first hypothesis the observation point is the core and supplementary services regressed on the overall rating in order find out which services, the core or the supplementary, have the strongest influence on the overall rating of the sample.

Figure 13 lists all the services, separated into core and supplementary services with their beta value for the overall satisfaction. This should be an overview of the linear regressions conducted for this hypothesis testing.

Table 3 shows that the core services in general have a strong influence on overall satisfaction with value being the most important factor on overall satisfaction with a beta value of 0.562. The rooms rank second with a value of 0.240 closely followed by the core component cleanliness with 0.205. Value, rooms and cleanliness also show highly significant results with \( p < 0.01 \). The room size has the least or no influence on the dependent variable with a beta value of -0.088 followed by the F&B with a value of 0.036. Although the beta value of room size does not indicate strong influence on the overall satisfaction, the result is significant with \( p = 0.028 \). The only core service that does not show significant results is the F&B with a \( p \)-value of 0.356. All the other services provide highly significant results.
Table 3: Linear Regression – Core Services and Overall Rating

While Table 3 shows the core services regressed on the overall rating, Table 4 regresses the supplementary services on overall satisfaction. This should show whether the core services or the supplementary services have more influence on the overall satisfaction.
For the outcomes of the supplementary services regressed on the overall rating the beta values are also very important. These outcomes show that only one supplementary service has great influence on the overall satisfaction for the hospitality industry. This variable is service with a beta value of 0.508 and a significance level of $p<0.01$. All the other supplementary services have little or no influence on the overall satisfaction according to the beta values but upkeep and location show significant results.

### Table 4: Linear Regression – Supplementary Services and Overall Rating

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-.976</td>
</tr>
<tr>
<td></td>
<td>Location</td>
<td>.218</td>
</tr>
<tr>
<td></td>
<td>Service</td>
<td>.559</td>
</tr>
<tr>
<td></td>
<td>Check in/ Front Desk</td>
<td>.147</td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td>.085</td>
</tr>
<tr>
<td></td>
<td>Facilities</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>Upkeep</td>
<td>.256</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Overall Rating

### Table 5: Model Summary – Core Services and Overall Rating

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R</td>
<td>R Square</td>
<td>Adjusted R Square</td>
<td>Std. Error of the Estimate</td>
<td>R Square Change</td>
</tr>
<tr>
<td>1</td>
<td>.910</td>
<td>.828</td>
<td>.822</td>
<td>.589</td>
<td>.828</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), food and beverage, RoomSize, Cleanliness, Value, Rooms

Table 5 shows the model summary for the core services regressed on the overall satisfaction. In this table the $r^2$ is essential. R Square for this model shows an
outcome of 0.828 and therefore indicates that the model ‘core services and overall rating’ is a good one and thus, core services influence the overall rating.

Table 6 shows the model summary of the regression of supplementary services on overall satisfaction. As the $r^2$ with 0.735 is higher than 0.5 it shows that this is a good model as well and the supplementary services influence the overall satisfaction.

Bearing in mind all the regression outcomes, it can be concluded that hypothesis 1 is proven because core services have a greater influence on the overall satisfaction than supplementary services.

**Hypothesis 2**

_The core services influence the customer satisfaction more than the supplementary services._

For the second hypothesis the researcher intends to explore how the core and supplementary services influence the customer satisfaction. Therefore Figure 14 shows the beta outcomes of the linear regression for both, core and supplementary services. For information on the significance values Table 7 and Table 8 show the detailed results from the SPSS output.
When considering the beta values it is clear that only two of the core services have strong influence on the customer satisfaction. These two service components are rooms and value. The rooms have a beta value of 0.222 and the value shows a very strong influence with 0.605. These two components also show a highly significant result with p=0.004 for the rooms and p<0.01 for the value. But not only do those two show significant results, but also the food and beverage with p=0.013. The room size features a negative beta value with -0.087 and the cleanliness displays a value of 0.083.

Regarding the supplementary services it is obvious that there are also two service components with a beta value of more than 0.2. These two components are service with a beta value of 0.531 and staff with 0.207. This shows that these two supplementary services have a strong influence on the customer satisfaction. But there are more components that that only have a very weak or no influence at all on the satisfaction, like location with a beta value of 0.148, the check in or front desk with 0.043, the facilities with 0.018, and the upkeep with 0.141. While only two
supplementary services show high enough beta values to have influence on the dependent variable ‘satisfaction’, four of them show significant results. These are location with p=0.002, service with p<0.01, staff with p=0.001, and upkeep with p=0.004.

Table 7: Linear Regression – Core Services and Satisfaction

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-1.479</td>
<td>.345</td>
<td>-4.289</td>
</tr>
<tr>
<td></td>
<td>Location</td>
<td>.225</td>
<td>.072</td>
<td>.148</td>
</tr>
<tr>
<td></td>
<td>Service</td>
<td>.666</td>
<td>.082</td>
<td>.531</td>
</tr>
<tr>
<td></td>
<td>Check in/ Front Desk</td>
<td>.057</td>
<td>.088</td>
<td>.043</td>
</tr>
<tr>
<td></td>
<td>Staff</td>
<td>.241</td>
<td>.068</td>
<td>.207</td>
</tr>
<tr>
<td></td>
<td>Facilities</td>
<td>.039</td>
<td>.098</td>
<td>.018</td>
</tr>
<tr>
<td></td>
<td>Upkeep</td>
<td>.212</td>
<td>.073</td>
<td>.141</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Satisfaction

Table 8: Linear Regression – Supplementary Services and Satisfaction

Facilities and the check in/front desk do not seem to influence the customer satisfaction at all – this is shown in both, the beta value and the significance output.
Table 9 indicates that the core service regressed on satisfaction produces a good model with $r^2 = 0.769$, while Table 10 presents that the supplementary services regressed on satisfaction create a good model as well with $r^2 = 0.756$.

Although this outcome is not very clear because both, the supplementary and the core services, had two components which showed a strong impact on the customer satisfaction, it can still be concluded that hypothesis 2 is proven. Still, the core services seem to influence the satisfaction to a rather high degree, because both core service components with strong influence (rooms: 0.222 and value: 0.605) are a more decisive factor for satisfaction than the supplementary service components with strong influence (service 0.531: and staff: 0.207).
Hypothesis 3

The attribute of the core services that influences the overall rating most is cleanliness.

Figure 15: Core Services' Influence on Overall Rating

As shown in Figure 15 the component cleanliness only has the second strongest influence on the overall rating with a beta value of 0.205 after value with 0.562. Therefore Hypothesis 3 is rejected because cleanliness does not have the strongest impact on the overall rating from the core services, but value does.

Hypothesis 4

The attribute of the supplementary services that influences the overall rating most is the staff.
As depicted in Figure 16, the supplementary service with the most influence on the overall rating is service. Staff is only on fifth place with a beta value of 0.083 and therefore occupies the second last place on the influence of the supplementary services. With such a low beta value the staff has supposedly no or almost no influence on the overall rating. The reason for such a low outcome could be that many reviewers did not write anything about their experience with the hotel staff and therefore the data might be misleading.

With the data at hand though, this hypothesis is to be rejected as the supplementary service component ‘staff’ is not the one with the greatest influence on the overall rating.
Hypothesis 5

The core service attributes influence the emotional attribute more than the attributes from the supplementary services.

Figure 17: Core and Supplementary Services’ Influence on Emotional

Figure 17 shows once again the comparison between the core and supplementary service – this time related to the attribute ‘emotional’. At first glance two variables of the core services and two variables of the supplementary services show a strong influence on the attribute they are regressed on. Table 11 gives detailed information about the linear regression conducted for the core services with the dependent variable ‘emotional’ and Table 12 shows the linear regression output of the supplementary services and ‘emotional’. Table 11 shows that all the outputs are significant (between 0.000 and 0.020) except cleanliness which has a p-value of only 0.225. As already mentioned, only two beta values show considerable impact on the emotional attribute. Those two attributes are rooms with a beta value of 0.233
and value with 0.611. Thus, they have a strong effect on the emotions. Less or no influence can be observed concerning the room size, cleanliness, and food and beverage.

### Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-8.336</td>
<td>.682</td>
<td>-12.230</td>
</tr>
<tr>
<td></td>
<td>Rooms</td>
<td>.738</td>
<td>.243</td>
<td>.233</td>
</tr>
<tr>
<td></td>
<td>RoomSize</td>
<td>-.436</td>
<td>.152</td>
<td>-.135</td>
</tr>
<tr>
<td></td>
<td>Value</td>
<td>1.882</td>
<td>.210</td>
<td>.611</td>
</tr>
<tr>
<td></td>
<td>Cleanliness</td>
<td>.246</td>
<td>.202</td>
<td>.078</td>
</tr>
<tr>
<td></td>
<td>food and beverage</td>
<td>.489</td>
<td>.207</td>
<td>.108</td>
</tr>
</tbody>
</table>

a. Dependent Variable: emotional

### Table 11: Linear Regression – Core Services and Emotional

As far as Table 12 is concerned, only one variable is obviously not significant, namely facilities. All the other supplementary services show significant results for the dependent variable ‘emotional’. Service shows the highest beta value with 0.474 and is therefore a strong factor of influence for a customer’s emotions. The second
variable that shows a higher beta value than 0.2 is staff with 0.204 and consequently also has a substantial effect on the emotions.

As already seen in the linear regression with the dependent variable ‘satisfaction’, supplementary and core services both have two variables with great influence on the dependent variable. However, this time the supplementary services have one beta value that is higher than one of the core services. As regards the highest beta value though, this one clearly comes from the core service attribute ‘rooms’. Therefore, in conclusion, concerning hypothesis 5, ‘rooms’ has the greatest influence on the dependent variable ‘emotional’.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.871</td>
<td>.759</td>
<td>.751</td>
<td>2.010</td>
<td>.759</td>
<td>91.295</td>
<td>5</td>
<td>145</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), food and beverage, Room Size, Cleanliness, Value, Rooms

Table 13: Model Summary – Core Services and Emotional

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.858</td>
<td>.736</td>
<td>.725</td>
<td>2.109</td>
<td>.736</td>
<td>67.359</td>
<td>6</td>
<td>145</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Upkeep, Location, Staff, Facilities, Service, Check in/Front Desk

Table 14: Model Summary – Supplementary Services and Emotional

Table 13 and Table 14 show again the model summaries for the regressions on the attribute ‘emotional’. Both, the core and the supplementary services create a
representative model for ‘emotional’ and therefore show that they influence the reviewers’ emotions.

**Hypothesis 6**

*The core services are more important for a customer to revisit a hotel than the supplementary services.*

In Figure 18 the core services are shown opposed to the supplementary services to indicate their decisive character for repeated visits. The figure shows the beta values of the linear regressions produced for this hypothesis. More detailed information on the SPSS outputs can be found in Table 15 and Table 16 below. For this hypothesis the research is carried out to find out which part of the service, the core or the supplementary service, has more influence on customers considering revisiting the hotel.

![Figure 18: Core and Supplementary Service’s Influence on Repeated Visits](image)
The core service attributes with a great influence on repeated visits are also the ones with significant values. ‘Rooms’, as shown in Table 12, has a p-value of 0.001 and a beta value of 0.259 and ‘value’, which is the most influential and significant variable, has a beta value of 0.541 and is highly significant with p<0.01.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>-568</td>
<td>.272</td>
<td>-2.090</td>
<td>.038</td>
</tr>
<tr>
<td>Rooms</td>
<td>.313</td>
<td>.097</td>
<td>.259</td>
<td>3.238</td>
</tr>
<tr>
<td>RoomSize</td>
<td>-.054</td>
<td>.061</td>
<td>-.043</td>
<td>-.885</td>
</tr>
<tr>
<td>Value</td>
<td>.638</td>
<td>.084</td>
<td>.541</td>
<td>7.630</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>.100</td>
<td>.080</td>
<td>.083</td>
<td>1.246</td>
</tr>
<tr>
<td>food and beverage</td>
<td>.186</td>
<td>.083</td>
<td>.107</td>
<td>2.250</td>
</tr>
</tbody>
</table>

a. Dependent Variable: RepeatedVisits

Table 15: Linear Regression – Core Services and Repeated Visits

The supplementary services also show two variables with a strong influence on repeated visits. Firstly, service is the one with the highest beta value with 0.496 and secondly, staff with 0.210. Service is also highly significant with p<0.01 as well as staff with p=0.001. Moreover, there are three more variables with a significant output, namely location with p=0.002, facilities with p=0.013 and upkeep with p=0.001.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>-1.943</td>
<td>.343</td>
<td>-5.662</td>
<td>.000</td>
</tr>
<tr>
<td>Location</td>
<td>.225</td>
<td>.072</td>
<td>.152</td>
<td>3.140</td>
</tr>
<tr>
<td>Service</td>
<td>.609</td>
<td>.081</td>
<td>.496</td>
<td>7.502</td>
</tr>
<tr>
<td>Check in/ Front Desk</td>
<td>-.001</td>
<td>.088</td>
<td>-.001</td>
<td>-.013</td>
</tr>
<tr>
<td>Staff</td>
<td>.239</td>
<td>.068</td>
<td>.210</td>
<td>3.510</td>
</tr>
<tr>
<td>Facilities</td>
<td>.245</td>
<td>.097</td>
<td>.118</td>
<td>2.519</td>
</tr>
<tr>
<td>Upkeep</td>
<td>.253</td>
<td>.072</td>
<td>.172</td>
<td>3.502</td>
</tr>
</tbody>
</table>

a. Dependent Variable: RepeatedVisits

Table 16: Linear Regression – Supplementary Services and Repeated Visits
Table 17: Model Summary – Core Services and Repeated Visits

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.859</td>
<td>.739</td>
<td>.730</td>
<td>.801</td>
<td>.739</td>
<td>81.954</td>
<td>5</td>
<td>145</td>
<td>.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig. F Change</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), food and beverage, RoomSize, Cleanliness, Value, Rooms

Table 18: Model Summary – Supplementary Services and Repeated Visits

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.865</td>
<td>.748</td>
<td>.738</td>
<td>.787</td>
<td>.748</td>
<td>71.739</td>
<td>6</td>
<td>145</td>
<td>.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R Square Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>df2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sig. F Change</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Upkeep, Location, Staff, Facilities, Service, Check in/ Front Desk

Table 17 and Table 18 show again that the models created with the core and supplementary services and repeated represent the influence on the dependent variable well. The models indicate an $r^2$-value of 0.739 for the core services and $r^2 = 0.748$ for the supplementary services.

Taking into account the highest beta values once again the core services certainly have the greatest influence on the repeated visits and we can therefore conclude that Hypothesis 6 is proven.
Hypothesis 7

The satisfaction with service is higher with 4-star hotels than with 3-star hotels.

Generally, it is suggested that guests of hotels in higher star categories are more satisfied with the service than the ones of lower star categories because more stars should represent a higher level of service. Therefore, the final part will test this hypothesis.

For the seventh and last hypothesis a cross tabulation is used in order to find the differences in the service satisfaction between 3-star and 4-star hotels. The Chi-Square Tests in Table 20 show that the results of this output are not significant and therefore give rise to the conclusion that the customers’ satisfaction with service is not dependent on the star category of a hotel. As shown in Table 19 the reviewers were even more satisfied with the 3-star hotels’ services than with the service of the 4-star hotels. Very satisfied were 13.6 % of the customers of 3-star hotels and only 10.9 % of the 4-star hotels. Furthermore, 25 % of the 3-star hotel users were satisfied with the service whereas only 23.4 % of the 4-star hotel users were satisfied with the service. The very unsatisfied customers are more frequently represented by the 3-star hotels with 19.3 %, while the 4-star hotels only have 12.5 % very unsatisfied guests. Dissatisfied reviewers are less in the lower star category with 11.4 % and the higher star category represents 20.3 % dissatisfied customers. The neither satisfied nor dissatisfied guests are similarly represented in each star category: 30.7 % in the 3-star hotels and 32.8 % in the 4-star hotels.
star category * Service Crosstabulation

<table>
<thead>
<tr>
<th>star category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>17</td>
<td>10</td>
<td>27</td>
<td>22</td>
<td>12</td>
<td>88</td>
</tr>
<tr>
<td>% within star category</td>
<td>19.3%</td>
<td>11.4%</td>
<td>30.7%</td>
<td>25.0%</td>
<td>13.6%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Service</td>
<td>68.0%</td>
<td>43.5%</td>
<td>56.3%</td>
<td>59.5%</td>
<td>63.2%</td>
<td>57.9%</td>
</tr>
<tr>
<td>% of Total</td>
<td>11.2%</td>
<td>6.6%</td>
<td>17.8%</td>
<td>14.5%</td>
<td>7.9%</td>
<td>57.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Count</th>
<th>8</th>
<th>13</th>
<th>21</th>
<th>15</th>
<th>7</th>
<th>64</th>
</tr>
</thead>
<tbody>
<tr>
<td>% within star category</td>
<td>12.5%</td>
<td>20.3%</td>
<td>32.8%</td>
<td>23.4%</td>
<td>10.9%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Service</td>
<td>32.0%</td>
<td>56.5%</td>
<td>43.8%</td>
<td>40.5%</td>
<td>36.8%</td>
<td>42.1%</td>
</tr>
<tr>
<td>% of Total</td>
<td>5.3%</td>
<td>8.6%</td>
<td>13.8%</td>
<td>9.9%</td>
<td>4.6%</td>
<td>42.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Count</th>
<th>25</th>
<th>23</th>
<th>48</th>
<th>37</th>
<th>19</th>
<th>152</th>
</tr>
</thead>
<tbody>
<tr>
<td>% within star category</td>
<td>16.4%</td>
<td>15.1%</td>
<td>31.6%</td>
<td>24.3%</td>
<td>12.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Service</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>16.4%</td>
<td>15.1%</td>
<td>31.6%</td>
<td>24.3%</td>
<td>12.5%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Table 19: Cross Tabulation – Service and Star Categories

<table>
<thead>
<tr>
<th>Statistics</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>3.315*</td>
<td>4</td>
<td>.507</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>3.317</td>
<td>4</td>
<td>.506</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.012</td>
<td>1</td>
<td>.912</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>152</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. 0 cells (0%) have expected count less than 5. The minimum expected count is 8.00.

Table 20: Chi-Square Tests – Service and Star Categories

In conclusion, hypothesis 7 has to be rejected because customers do not seem to be more satisfied with the service in 4-star venues than with the service in 3-star hotels.

5.3 Discussion

As the results show, four out of seven proposed hypothesis could be proven. Hypothesis 1, 2, 5 and 6 all stated that the core services have more influence on the regressed upon variables than the supplementary services have. These variables were overall rating, satisfaction, the willingness to revisit a hotel and how emotional the customers react on diverse service outcomes. In general, as the hypotheses
already suggested, the core services most likely influence the service outcome the most.

Hypothesis 1

*The core services influence the overall rating more than the supplementary services.*

The variables that influence the overall rating most are value, followed by the supplementary service attribute ‘service’, and then rooms and cleanliness. This indicates that the customers’ perceived value influences the overall rating most. So, if guests think that the hotel offered good value for the money spent they will most likely evaluate the overall rating better than when the perceived value is low. Not surprisingly, service ranks second as the only supplementary service showing influence on overall rating. Humans get influenced easily by the way they are treated by others and the way inquiries are handled by the employees. If the level of service is adequate for what the guest pays and the service is friendly and efficient and executed as expected, the customers submit more points for the overall rating. The variable ‘rooms’ shows the third strongest influence on the overall rating. Rooms are obviously a very important factor when staying at a hotel. If the room is not satisfactory to the customers, they are most likely to complain which has a negative impact on the overall rating. When visiting a city people usually do not spend extremely much time in their hotel rooms because they want to see and experience the new location. But this does not mean that there should not be a minimum standard met by the hotel in order to receive a high overall rating on reviews. According to the written parts of the reviews on TripAdvisor hotel guests expect the bed to be comfortable, the linens to be fresh and not too worn out and often also a TV set that works. Further, they expect the rooms to be clean which leads to the fourth influential variable ‘cleanliness’ on the overall rating. Many reviewers complained about the hotel rooms being dirty and about stains on the carpets and duvets. Moreover, there were many complaints about mold in the bathrooms and unappealing shower curtains. The subsequently listed variables give an overview of the most influential factors on the overall rating. This list also suggests to which of the factors hotel management should draw its attention most, in order to receive a high overall rating:
1. Value – Core Service
2. Service – Supplementary Service
3. Room – Core Service
4. Cleanliness – Core Service

Hypothesis 2
The core services influence the customer satisfaction more than the supplementary services.

For Hypothesis 2 the results showed significant outcomes with a strong influence on satisfaction of the variables value, service, rooms, and staff. Value is once more the highest influence factor, this time on satisfaction. Generally, as a guest, if you give many satisfaction points, you also give a high amount of points at the overall rating. So, this might explain the same independent variable being the highest influencer on two different dependent variables. As already mentioned for hypothesis 1, guests are more likely to be highly satisfied when they receive good value for their money spent on the hotel visit. Service is ranked second for satisfaction as well, stating that a good service offer influences customer satisfaction substantially. Not surprisingly, rooms are ranked third which can be due to the similar understanding of ‘overall rating’ and satisfaction for the many reviewers. This shows, as previously mentioned, that the condition of the room plays an important role for the guests’ satisfaction. The unexpected fourth variable which showed a strong influence on customer satisfaction is staff. Staff resembles the service attribute to some extent, although staff is more concerned with the employees themselves than with the service offering and execution of the service. Staff is one key factor in the hospitality industry to make a guest’s stay as pleasant as possible. Independent of the star category, staff should be competent, friendly, and courteous. The different star categories should only show minor differences in how the staff behaves in an encounter with the guest. Staff being on fourth place indicates how important this variable is for customer satisfaction and that guests are more likely to evaluate satisfaction positively when the staff behaves appropriately to the industry they are working in.
Hypothesis 3

The attribute from the core services that influences the overall rating most is cleanliness.

As shown with the outcome for the aforementioned hypothesis 1, cleanliness is not the core service variable that influences the overall rating most. Cleanliness has a strong influence on the overall rating. Nevertheless, it only ranks third after value and rooms. The following list gives an idea of how the core services are ranked according to the influence they have on the overall rating.

1. Value
2. Rooms
3. Cleanliness
4. F&B
5. Room Size

Cleanliness was expected to be the most influential variable on the overall rating, because if a guest has to stay in a dirty surrounding, he or she will most likely be dissatisfied, which would lower the points they distribute to the overall rating. Taking another perspective though, the guest expects the room to be clean either way and will not make cleanliness the most important factor when allocating points to the rating. As a room is supposed to be clean in the first place guests are not excited about the fact that the room is clean, but are rather dissatisfied when the room is dirty. So, cleanliness could be seen as a hygiene factor for the hospitality industry – guests are not delighted about a clean room, but they will be dissatisfied if there is a lack of cleanliness in the hotel they are staying in. Herzberg’s motivator and hygiene factors (Herzberg, Mausner & Snyderman 1959) were eventually used as indicators of job satisfaction, but they can be perfectly utilized for explaining the example of cleanliness in the hospitality industry. When guests receive good value for their money, it will highly influence the overall rating they submit on online review platforms.
Hypothesis 4

The attribute from the supplementary services that influences the overall rating most is the staff.

Parts of this hypothesis’ outcome were already discussed in the output of hypothesis 1 as well and therefore it could already be argued that hypothesis 4 could not be proven. Staff only ranks fifth within the supplementary services and does not show any strong influence on the overall rating. The following list shows the ranks within the supplementary services:

1. Service
2. Upkeep
3. Location
4. Check In/Front Desk
5. Staff
6. Facilities

This list indicates how the supplementary services are ranked when regressed on the overall rating. Service occupies the top rank, which is not surprising, given that service plays a major role in the hospitality industry. Upkeep seems to have some influence on the dependent variable as well, although this influence could be minor because the beta results did not show any strong influence on the overall rating. The only supplementary service attribute that shows a strong influence on the overall rating is service, all the others only show minor or no influence. The reason why not more attributes show a stronger influence on the overall satisfaction might be because reviewers cannot always distinguish between all of those variables, like for example service, staff and check in/front desk. These might seem similar to the reviewer because employees are involved in all of these variables. In this study some attributes were directly taken from TripAdvisor and for the others relevant information was taken from the written part of the review. Thus, the outcome may be influenced, because some reviewers mentioned specific factors that might not have been mentioned by other reviewers. Therefore, this review variable was set to the unbiased value 3 which indicates that the reviewer is neither satisfied nor
dissatisfied. This might deviate the outcome to a certain extent. Therefore, service is the variable which seems to display the strongest impact on the overall rating and it is also the only one which actually has a considerable influence on the overall satisfaction according to the research outcomes.

**Hypothesis 5**

*The core service attributes influence the emotional attribute more than the attributes from the supplementary services.*

In general, the core services are considered always most influential of the dependent variable, because this is what the customers actually pay for and the reason why they visit the hotel. Although, deeply reflecting and rethinking hypothesis 5, service and staff which are supplementary services, seem to influence the customers’ emotions more than the core services would do. The way guests are treated by the service staff can set the customer’s mood and attitude towards the hotel already during the first moments when checking in. So, normally it would be expected that the emotional attribute was more affected by the aforementioned supplementary services. The outcome of the hypothesis testing shows that the core service attribute ‘value’ is the most influential variable on the guests’ emotions. This indicates that the customers’ emotions are mostly affected by the perceived value. Therefore, they are highly emotional in a positive sense when the perceived value is high and they tend to show negative emotions when the perceived value does not come up to their expectations. The variables with a strong influence are listed below.

1. Value – Core Service
2. Service – Supplementary Service
3. Rooms – Core Service
4. Staff – Supplementary Service

The second core service that influences the emotions of the customers is ‘rooms’ on third place. This leads to the assumption that a guest’s satisfaction with his or her room will strongly influence the emotions that are shown in the written part of the online review. On the one hand, customers might be very enthusiastic about the
room they occupied throughout their stay at the hotel and therefore they might praise the hotel in their review. It can be that customers are really enthusiastic about the great room they occupied throughout their stay at the hotel and therefore talk in a really nice way about the hotel in the review. On the other hand, it can also happen that a guest is so outraged about the room being filthy and not meeting his or her expectations that they might bring into disrepute the hotel when submitting an online review.

The supplementary services that show influence on the emotional attribute are service and staff. This fits perfectly the researcher’s thought, which was clothed in words previously, that the employees have strong influence on the guests’ emotions. The better the service, the more positive emotions are shown by the reviewer and on the contrary, the worse the service, the more negatively affected are the guests’ emotions. Staff can easily delight a customer but also easily ruin an experience for him or her.

**Hypothesis 6**

*The core services are more important for a customer to revisit a hotel than the supplementary services.*

Hypothesis 6 states that the core services are more important for a guest to come back to the same hotel than the supplementary services are. This hypothesis could also be proven and therefore indicates that core services have more influence on the intentions to revisit a hotel. The outcomes are similar to the ones with the dependent variable ‘emotional’ with the beta values and are exactly the same according to the ranking.

1. Value – Core Service
2. Service – Supplementary Service
3. Rooms – Core Service
4. Staff – Supplementary Service

Value occupies again the first rank and this indicates for this hypothesis that the guests are likely to come back if the perceived value was met or exceeded when
staying at the hotel. This does certainly not mean that guests would come back to
the hotel for every occasion but for occasions that are similar to the one when they
stayed at the hotel. Many reviewers stated that some hotels are good for one night
if the traveler is a city tourist who only wants to have a place to sleep. They often
would not recommend it for a romantic weekend though, because it would not meet
those guests’ expectations who are planning to spend a romantic weekend with
their partner. When analyzing the results this has to be taken into consideration in
order to not receive false interpretations. Great service is also an important factor
for guests to revisit a hotel as well as staff. Some people tend to build relationships
with the service employees and are pleased when they are known by name when
coming back to the same hotel. They also tend to like it when the staff knows what
they prefer and therefore can offer great service. People like to know what to expect
and therefore they revisit a hotel when they are satisfied with the previous
experience. Thus, in this example staff and service play closely together in making a
guest want to come back. Of course rooms play an important role as well because
customers want to feel comfortable in their surroundings. So, when they are happy
with their accommodation they are more likely to revisit the same hotel.

Hypothesis 7
The satisfaction with service is higher with the 4-star hotels than with the 3-star
hotels.

Hypothesis 7 showed surprising results. As already mentioned, the outcome of this
hypothesis testing would be expected to be different. The results show that there is
no relationship between the star category and the level of service. Surprisingly, the
3-star hotels had more very satisfied customers with the service than the 4-star
hotels. This is the result in spite of the fact that a better level of service and
therefore higher customer satisfaction with service would be expected of the 4-star
hotels as opposed to a 3-star hotel. Normally, customers chose a higher star
category in order to receive better service, but this does not seem to have any
influence on the service satisfaction after all. This might be due to the data set used
for this research or it could also indicate that 4-star hotels’ management should
work on offering better service in order to set themselves apart from the lower star
categories and to not ruin their reputation.
6 Conclusion

This is the result in spite of the fact have more influence on the dependent variable used in this research. The dependent variables are overall rating, satisfaction, emotional, and revisit. Even if all the hypotheses which stated that the core services have more influence on the dependent variable could be proven, the supplementary services with strong influence should not be forgotten when considering improving one hotel’s attributes. In most cases the supplementary services had similar beta results with only minor differences from the core services. This indicates that they often showed almost as much influence on the dependent variable as the core services did.

As all the dependent variables (overall rating, satisfaction, emotional, revisit) are indicators of the guests’ satisfaction with the hotel, it can be concluded that the core services show more influence on the overall satisfaction. Value is the most influential variable on all of the dependent variables. Therefore, a hotel’s management has to make sure that the perceived value meets or exceeds the customers’ expectations. It does not make sense to promise something the hotel is not able to deliver, as much as it does not make sense to overprice the hotel stay. To charge a high amount of money for a hotel makes the customers think that they will receive great value and therefore set their expectations high. When the expectations cannot be met the customer is dissatisfied very easily and will not intend to write a good review about the hotel, not to mention to be a repeat customer. The hotel’s advertising, be it in brochures, catalogues, the hotel’s own website, or on platforms like TripAdvisor, which also rate the hotels, should never promise anything they cannot effectuate. This might bring people to the hotel if they have not read any reviews online or have not heard any stories about the hotel, but it will definitely not bring valuable customers who are willing to come back. Bad reviews can destroy a hotel’s reputation and can therefore destroy its business because millions of people have access to those reviews presented online.

Service is the supplementary service attribute which influences the overall customer satisfaction most. It shows only slightly less influence on the dependent variables than the core service attribute ‘value’ does. Using this information could be very
valuable for a hotel’s management. This information should make the management aware of how important service actually is to customers and should make them work on improving this supplementary service. Obviously, service is of great significance to be successful in the hotel industry. It should also be considered that service should be offered according to standards of the star category the hotel is based on. Higher star categories should offer more and better service. For example customers should be able to orient themselves better and pay for what they actually get. Promising a great service and delivering a bad one can easily destroy the hotel’s reputation. Therefore value and service should be taken into consideration together in order to market what can be offered and then deliver what was offered.

The core service ‘rooms’ is the one attribute that customers are actually paying for and this is shown in the results. Rooms are, according to the research, an important factor on customer satisfaction because this is the attribute why the customers actually stay at the hotel – to occupy a room. Naturally, hotel guests are more satisfied when the room meets their expectations. Therefore, the hotel should be kept in good condition and should be renovated or refurbished from time to time to ensure that customers are willing to pay for the room they are staying in. New beds should be brought in to make customers come back and enjoy their stay in a comfortable bed. Pillows, duvets and linens should also be exchanged frequently, so they never look so worn out that the guests are unwilling to cover themselves with them. When carpets are covered with stains they should be replaced as well as moldy spots should be taken care of. In order to earn money, money must be spent. If the hotel’s management is not willing to invest in the upkeep of the hotel, they will either have to put the price extremely low so that customers are coming because of the price or invest in the upkeep and receive a higher price for the hotel rooms, because guests actually like staying there. This might also help with better reviews.

As the results in the testing section showed, staff also plays an important role in customer satisfaction. This means that hotel guests are more likely to be satisfied when the staff treats them appropriately. In many reviews it was stated that the staff did not seem to care. This seems to influence the customer satisfaction accordingly and does not represent a hotel well. In the hospitality industry it is of
utmost importance to have competent staff which is friendly and courteous. Guests will feel more comfortable if they are welcomed in a friendly way by the employees. Staff is an important asset to a hotel, therefore it has to be ensured that they act as required for this industry and show respect to the customers. Training in customer care might help to improve customer satisfaction when reviews show that many guests are disappointed with the staff. Hotel management could also implement a customer satisfaction tool like ‘employee of the month’ where guests rate the employee who took care of them. The employee with the best ratings will get some kind of remuneration.

At last, the core service ‘cleanliness’ also showed a strong influence on one of the dependent variables and should be mentioned again to ensure that this variable is not taken out of consideration. As previously mentioned cleanliness can be seen as hygiene factor which should always be intact. If cleanliness is not in place, customers are more likely to complain because it is seen as a minimum requirement. Therefore, the housekeeping team has to ensure that the rooms are always perfectly clean because already one other person’s hair in the bed or bathroom can destroy a guest’s experience.

In conclusion, defects in the core service ‘value’ influence the customer satisfaction most, closely followed by the supplementary service attribute ‘service’. Furthermore, a defect in the core service ‘rooms’ has great influence on customer satisfaction, as well as the supplementary service attribute ‘staff’ and the core service ‘cleanliness’.

6.1 Limitations

The limitations of this research include the fact that all hotels chosen to be part of this research are located in London, England. This limits the results to that specific area and it may not be possible to generalize the findings of the research to hotels in the entire world. It should also be taken into consideration that the results may be limited to city hotels and not on resorts or conference hotels. Moreover, the research sample only contains 3- and 4-star hotels which limits the results to such. In addition, when ratings were missing from a review it was automatically set to the value 3 by the researcher, stating that the reviewer was neither satisfied nor
dissatisfied with this part, which withholding the actual feelings of the customer for this section of evaluation. Additionally, the results of the statistical outputs cannot just be used in the way they are presented in the tables. They have to be interpreted accordingly and different viewpoints should be taken into consideration.
7 References

Barsky, JD 1995, World-Class Customer Satisfaction, McGraw Hill, USA.


Ford, RC & Heaton CP 2000, Managing the Guest Experience in Hospitality, Delmar/Thomson Learning, Albany.


Gretzel, U 2007, ‘Role & Impact of Online Travel Reviews’, Online Travel Review Study. Laboratory for Intelligent Systems in Tourism, Texas A&M University, College Station.
Gretzel, U & Hyun Yoo, K 2008, ‘Use and Impact of Online Travel Reviews’, Laboratory for Intelligent Systems in Tourism, Department of Recreation, Park, and Tourism Sciences, Texas A&M University, viewed 2 February 2011, <http://www.springerlink.com/content/x740x784r6w527t0/>.


Wuyts, S & Van Den Bulte, C 2007, Social Networks and Marketing, Marketing Science Institute, Cambridge.
