Estonian Business School

Department of Marketing and Communication

THE IMPACT OF ATTRIBUTES AND REVIEWS ON YOUNG ADULTS' DECISION-MAKING PROCESS IN HOTEL BOOKING

Bachelor's Thesis By Kristel Kõiva

Supervisor: Triinu Ojala

Tallinn 2016

I herewith declare that I have written the Bachelor Thesis independently. References have been indicated for the all publications, claims, opinions and different sources by other authors.

19 May 2016

...../Kristel Kõiva/

TABLE OF CONTENTS

IN	TRODUC	ΓΙΟΝ	6	
1.	THEORE	THEORETICAL FRAMEWORK		
	1.1 Consu	mer Decisions In Tourism	8	
	1.2 Consu	mer 5-stage Decision Making Process	9	
	1.2.1	Problem Recognition	10	
	1.2.2	Information Search	10	
	1.2.3	Evaluation of Alternatives	12	
	1.2.4	Purchase Decision	13	
	1.2.5	Post-purchase Behavior	13	
	1.3 Hotel	Purchase Decision Stage	14	
	1.3.1	Independent Variables	15	
	1.3.2	Control Variables	16	
2.	RESEAR	CH METHODS		
	2.1 Qualit	ative and Quantitative Research Methods		
	2.2 Resear	rch Model	19	
	2.2.1	Choice-based Conjoint Analysis	19	
	2.2.2	Adaptive Conjoint Analysis	20	
	2.3 Sampl	e and Data Collection	21	
	2.3.1	Attribute Measurements	21	
	2.3.2	Attributes and Performance Levels	22	
	2.3.3	Survey Design	23	
	2.4 Data A	Analysis	27	
	2.4.1	Modeling Preference	27	
	2.4.2	Modeling Importance	28	
	2.4.3	Sensitivity Analysis		
3.	RESULTS	S, DISCUSSION AND RECOMMENDATION	29	
	3.1 Result	s		
	3.1.1	Modeling Importance	29	
	3.1.2	Consumer Preference	30	
	3.1.3	Sensitivity Analysis	35	
	3.2 Discus	ssion		

3.2.1	Relative Importance of Attributes	
3.2.2	Consumer Preference Towards Attribute Levels	
3.2.3	Consumer Sensitivity for Changes in Attribute Levels	41
3.3 Recor	nmendation	43
CONCLUSION.		45
REFERENCES.		48
APPENDICES		53

FIGURES

1.	Buyer decision making process model	9
2.	Successive sets involved in consumer decision making	12
3.	Example of unacceptable choice question	24
4.	Example of the ranking question	24
5.	Example of the importance question	25
6.	Example of the paired comparison trade off question	26
7.	Example of the calibration question	26
8.	Part-worth model	27
9.	Relative importance of the included attributes	
	in the study for male, female and total	30
10.	Preference (utility) values for cleanliness score	31
11.	Preference (utility) values for location score	32
12.	Preference (utility) values for price per night	32
13.	Preference (utility) values for star rating	33
14.	Preference (utility) values for amount of reviews	33
15.	Preference (utility) values for review score	34
16.	Preference (utility) values for service/staff score	34
17.	Sensitivity analysis of cleanliness and service/staff	
	attributes for Hampstead Britannia hotel	35
18.	Sensitivity analysis of price per night	
	attribute for Hampstead Britannia hotel	36
19.	Sensitivity analysis of review score attribute for 9a Craven Road hotel	37
20.	Sensitivity analysis of hotel stars attribute for 9a Craven Road hotel	37

INTRODUCTION

The hospitality industry has changed a lot in the last decade. At the beginning of this millennium it was common to use travel agencies which accommodate consumers with the right flights and hotels for a fee. The travel agency knew the hotels and airlines personally or through connections, the consumer trusted the agency to deliver. Nowadays the 'middle man' (travel agency) is mainly put out of business due to the strong market gains of the Internet. Consumers can now be their own travel agents from their living room and search multiple booking sites (e.g. Booking.com and Airbnb.com) to find the best deals. As consumers are mainly looking for trips they did not do before, they are exploring the unknown which creates uncertainty about the presented product (e.g. hotel). To reassure consumers that the hotel they are viewing is a good hotel, the booking sites present review scores to customers. The review scores should represent the reassurance that the customer makes the right choice.

As the travel branch is a billion dollar industry it is important to understand which parts of review scores or possible other attributes influence the consumer to choose hotel A over hotel B. Young adults (under 26) represent a very interesting target market for hotels as they are known as active travelers and represent a greater part of the tourism industry every year (UNWTO 2011), however little empirical study has been done into this target group. Due to the size of the industry and the relevance of the topic about today's young travel consumers the focus will be on finding the specific attributes that influence young adults to choose hotel A over hotel B.

To understand which attributes influence the consumer I will make use of the conjoint analysis in this study. The conjoint analysis is considered as one of the most effective methods to analyze customer needs. The conjoint analysis presents which product/service attributes create the most value for consumer, how much they prefer one attribute over another and how sensitive they are to changes in the product/service. For this research to understand consumer behavior 50 respondents were interviewed in Estonian Business School on face-to-face computer-based survey method.

The main goal of this study is to locate which hotel attributes influence the young adults' decision making the most. Therefore, I propose the following research question:

How do different hotel attributes influence 18-26 year old consumers' decision making for hotel booking in 2016?

To answer the proposed research question, this paper has been divided in three sections: 1) theoretical framework, 2) methodology and 3) results, discussion, conclusion, limitations and recommendations.

The theoretical framework starts by introducing the 5-stage model that explains the process consumers have to go through when they decide to go on a trip. The 5-stage model explains at which stage the hotel attributes and review scores in booking sites influence the consumer decision making process. Different attributes are explored and the most important attributes are discussed on their possible impact on the consumer decision making process.

The methodology is split in 4 parts. The first part describes why quantitative research is used. The second part discusses the specific conjoint analysis model used for this study. Part three presents the sample used in the study and the data measurements. The last part explains which methods will be used to analyze the data.

In the last chapter the results are given which will be discussed in the discussion. After the discussion the conclusions are drawn from this study and which limitations where faced. The limitations and conclusions from this study also represent opportunities for other studies which are given in the recommendations.

1. THEORETICAL FRAMEWORK

Consumer behavior describes the process and activities individuals engage in that leads to the purchase of a certain product or service (Loudon and Bitta 2009). In this chapter the focus is on understanding the process consumers go through when going for a trip. The consumer process for booking a trip consists of different activities, these activities have to be classified in order to understand which attributes influence the decision making process when booking a hotel. Once the main influencing attributes are found the expected impact of each attribute is described.

1.1 Consumer Decisions In Tourism

Purchasing process brings many choices for consumers and since the outcome of a certain choice might be unknown, they deal with uncertainty or risk (Dellaert, Ettema and Lindh 1998). Consumers wonder if the purchase of the product or service will turn out to be good or bad and if they feel after purchase satisfied or dissatisfied. However, consumer's purchasing and risk taking might be influenced by how important and necessary the purchase is to them in that certain situation. Therefore, the processes of consumer decision-making are partly affected by the level of involvement and how much risk they put in the purchase (Laurent and Kapferer 1985). Low involvement is a situation where a consumer purchases products as their routine purchase with already known information about the product or service and the purchase does not have big impact on consumer's life (Radder and Huang 2008). Although, the most difficult buying decisions are those involving high risk, are costly, involve complexity of decision making and include usually new product or service for consumer (Branchik and Shaw 2015). Thereby, holiday planning can be considered as high-involvement purchase process where more intensive information search and evaluation is needed to overcome uncertainty (Brian and Luiz 2011, 191).

The high-involvement process of planning a holiday involves three activities, which are (1) recognizing the need for travel, (2) searching for a destination and related travel arrangements and (3) evaluating various options (Xiang and Gretzel 2010, 179). Nicolau and Mas (2006) are presenting idea from travelers' point of view. They consider two phases of decisions that a tourists have in the process of choosing a tourist destination. They suggest the first stage to be about whether to go on a holiday and the length and the second stage is selection of destination and other conditional decisions. According to Loudon and Bitta (2009) decision making process includes problem recognition, search and evaluation of purchasing process and post-purchase behavior. Kotler (2000) presented more detailed point of view examining five-stage model: problem recognition, information search, evaluation of alternatives, purchase decision and post-purchase behavior.

In the context of tourism, the purchase process is much more complex because of decisions like destination, transportation and hotel occur. Kotler's model presents all the stages that consumer goes through in high-involvement purchase. Therefore, his model will be used in this research to get better understanding of consumer decision making and understand the consumer behavior stages in more complex purchasing process.

1.2 Consumer 5-stage Decision-Making Process

The model was re-used in 2006 by Kotler and Keller who presented the relevance of the 5-stage model by describing process people go through before the final decision and the post-purchase behavior.

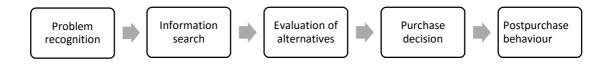


Figure 1. Buyer decision-making process model (Kotler and Keller 2006).Drawing by the author

Consumer starts with understanding the problem followed by finding more information and considering different options in the market. After reaching the final decision consumers still engage in post-purchase behavior. This model also presents purchasing as forward-moving process which shows that the process for buying something starts long before the purchase decision is made and actually continues after the purchasing (Gomegys, Hannula and Väisänen 2006). In some cases consumers might not go through all mentioned stages however it depends on the purchasing behavior and how much information and evaluation of options consumer finds important in the process or getting particular service or process (Kotler and Keller 2006).

1.2.1 Problem Recognition

The purchasing process starts as the buyer **recognizes a problem or unfulfilled need** (Bruner and Pomazal 1988, 54). Problem recognition occurs when there is a difference in what consumer wants or needs and what the actual situation is. Once a person recognizes and admits to having an unsolved consumer problem, it **must be defined** in such a way that the consumer can actually take further steps towards buying action (Brunel and Pomazal 1988, 54).

In this research, problem recognition starts with understanding the need for a holiday. After understanding the problem—the need for a trip—consumer makes a decision of going on a holiday or not. In case of solving the consumer problem and satisfying the need, people start with following their motivation and needs which lead to further search of information.

1.2.2 Information Search

After recognizing the need consumer is moving to information search stage where different **information about the destination, accommodation, transportation will be searched**. The literature suggests that decisions which are perceived to have higher levels of risk like travel decision making are more likely to include higher levels of information search (Gursoy and McCleary 2004, 353). Planning and searching for information offer tourists the opportunity to reduce uncertainty risk and disappointing experiences.

Thereby, to overcome uncertainty consumers use four types of information sources (Karunakaran 2009; Schiffman and Kanuk 2009):

- 1. Experimental source,
- 2. Commercial source,
- 3. Personal source,
- 4. Public source.

Authors state that how much influence these sources have on customers vary as they perform a different role in influencing buying behavior.

Experimental sources mean the situation where the user is handling, examining and using the product or service during information process to get better understanding (Gomegys et al. 2006, 338). Although, in the process of holiday planning, it could be difficult to go through this process. However, **commercial sources** like advertisements, websites and commercials are important in high involvement decisions where consumer is looking for useful information (Sachdeva 2015, 7). Therefore, that is perceived as a source which is the most influential for consumers for getting most of their product or service information.

On the other hand, Kotler and Armstrong (2009) state that the most effective information for consumer comes from personal or public sources. **Personal sources** refer to family and friends who in this case could give consumer advice in travel related decisions. **Public sources** are known as mass media, Internet and user generated platforms (Kotler, Keller, Brady and Hansen 2012). Specific to the hospitality industry, online consumer reviews have been recognized as one of the most influential resources of information transmission that could influence consumer decision making and hotel selection (Goldenberg, Libai and Muller 2001, 211; Pan, MacLaurin and Crotts 2007, 35). The electronic word of mouth (eWOM) provides both product information and recommendations which can satisfy various consumer segments (Park and Kim 2008, 399).

Thereby, we can say that consumers tend to rely on other's opinions or experiences as reference before taking an action, especially when the product quality is uncertain and they are in need for more information. After using information sources and gathering more information consumers learn more about different options on the market and knowledge of different products increases. Figure 2, shows the model where consumer eliminated the brands from consideration set while processing information and make a move closer to the final decision (Kotler et al. 2012).

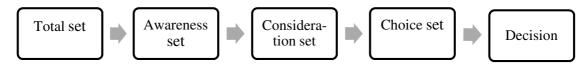


Figure 2. Successive sets involved in consumer decision making (Kotler et al. 2012, 272). Drawing by the author.

Thereby, total set represents all the possible hotels available for consumer. The size of the total set can depend on the characteristics of the consumer, the location and the budget for the trip (Goodall 1991, 59). Awareness set describes all the hotels known for the holiday-maker. The size of the awareness set is highly dependent on the information search, whether consumer has received and gathered external and internal sources (Goodall 1991). As the awareness stage can be intensive and consumers have certain criteria for products, it will be reduced to consideration set (Goodall, 1991). In other words it can be understood that total set, awareness set and consideration set has been seen as consumer ongoing decision-making cycle. The same process goes for every decision including destination and transportation before moving to choice set. Choice set helps to gather the most preferred selection of hotel to reach the final decision.

1.2.3 Evaluation of Alternatives

After gaining more knowledge about the product and services available consumer take a step towards evaluating possible alternatives. Firstly, during the evaluation process consumer is trying to **satisfy the need** (Kotler and Keller 2006). Secondly Kotler and Keller (2006) state that consumers are **looking for some benefits** in the product and thirdly they **see different attributes** in different products that could satisfy the need. Consumers form its attitudes on various product or service attributes, benefits of the product, and the utility they would get from the brand (Sachdeva 2015, 8). Thereby, evaluation stage helps consumer to find the attributes that would create more utility. Literature has suggested that **online hotel guest reviews** are characterized by a growing importance and impact on the consumer decision-making process while evaluating different product and services (O'Connor 2008, 47; Xie, Miao, Kuo and Lee 2011, 178). Travel reviews provide experience-based information that could shift the perceived need for travel of consumers (Hvass and Munar 2012, 93). O'Connor (2010) states that travelers use peer review sites during decision making process in order to choose from different alternatives. For example some consumers choose hotel based on its location, as the other one picks out a hotel based on price. This could help consumer deciding between different alternatives to reach to the purchasing decision.

1.2.4 Purchase Decision

After evaluation stage consumers have gathered set of alternatives and now consumer **forms preference** for certain product or service and considers its purchase (Kotler and Keller 2006, 197). From the evaluation of alternative stage economists were the first professional group to construct a specific theory of buyer behavior (Baker 2001). His theory holds that consumer buying decisions are based on rational and conscious economic calculations. The individuals try to spend the income on those goods that will deliver the most utility depending on his/her preferences and prices. Attributes that consumer finds important are increasing purchasing intention and usually different from competitors' offerings. In this stage consumer is making the purchasing decision and the purchase itself.

1.2.5 Post-Purchase Behavior

Post-purchase stage is the final stage in decision making process where consumer has used the product or service and they **experience satisfaction or dissatisfaction**. Tendency for consumers to **share their experiences** of a product or service is higher when their expectations are exceeded or unmet (Lee and Romaniuk 2009, 54). According to Kotler and Armstrong (2009) a satisfied consumer will purchase the product again and spread a positive word of mouth. These reviews might include these attributes other consumers find important to consider while booking a hotel and affect potential customers (Wong and Kwong 2004, 581).

Thereby, it can be said that this stage is creating input for people who are in information search, evaluation of alternatives or in purchase decision stage. Review sites make information delivery and creation easy (Egger and Buhalis 2008) and give consumers possibility to reduce risk. Also, post-purchase stage is useful for businesses itself. This stage will enable hoteliers to gain more insights on customers buying behavior and decision-making and create new opportunities for businesses.

1.3 Decision-making Influencing Attributes

With this thesis I want to find out how different attributes affect consumer decisionmaking in hotel booking process. Previous researchers have defined perceptions of hotel attributes as the degree to which travelers find different factors important for satisfaction (Wuest, Tas and Emenheiser 1996, 77). Thereby, to understand the important attributes the focus needs to be in decision-making stage where one hotel has been chosen over another for specific reasons.

Papers have presented important attributes like: service quality, location, staff, security, cleanliness, value, appealing image, business facilities, entertainment possibilities and reputation (Law and Hsu 2005, 493; Chan and Wong 2006, 481). All these attributes play an important role before making the final decision, but there are three key attributes that stood out the most in previous research: (1) cleanness, (2) location and (3) service. Also, large tourism websites like TripAdvisor, Airbnb and Booking.com have stated the scores of the main attributes consumers value the most. Comparing and advising website TripAdvisor provides reviewers with seven different factors to be rated; (1) value, (2) room, (3) location, (4) cleanliness, (5) check-in, (6) service, (7) business service (e.g. Internet access). Travel booking sites Booking.com and Airbnb have clearly stated different aspects by which people can rate accommodations. Booking.com is showing review scores for characteristics like: (1) cleanliness, (2) location, (3) staff, (4) free Wi-Fi, (5) comfort, (6) facilities and (7) value for money. On Airbnb booking site factors like accuracy, communication, cleanliness, location, check in and value are stated. TripAdvisor, Airbnb and Booking.com support the importance of the three key

attributes stated in literature review and therefore the focus is on the impact of these factors on consumer behavior.

1.3.1 Independent Variables

Following independent variables are stated based on previous literature and booking/review site criteria. These attributes have been seen to be influencing dependent variable and consumer behavior the most in the booking process.

Location. When consumer is booking a holiday then location of a hotel could be decisive in making the final decision (Chan and Wong 2006, 481). Having a hotel at good location increases consumer utility as they are located in the area they have been looking for and reduces walking unwanted distances. Although, Lewis (1984) found it important to separate business and leisure travelers as they are focusing on different attributes in the decision making for a hotel. This means that location factor matter differently, depending on the type of holiday consumer is looking for.

In addition, the fact that location is considered important in review sites shows the research by O'Connor (2010) who stated that location attribute is one of the most mentioned topics. That shows that consumers are sharing more information about location and they are interested in receiving information concerning location attribute.

Service. Demand for better customer service has considerably increased the need for managing service quality (Kuo and Wu 2012, 127). Having high service quality and living up to customers' expectations could influence the choice, lead to customer loyalty and their willingness to return (Choi and Chu 1999, 363; Chan and Wong 2006, 481). Thereby, hotels are focusing more on investing in service quality improvement which could result in better relationship with the customer (Jones, Mak and Sim 2007, 15). Based on above mentioned papers I expect a positive effect of service on customer decision making.

Cleanliness. Multiple research papers indicate that cleanliness of the accommodation is the most important attribute for travelers in hotel choice selection (Shanahan and Hyman 2006, 107; Schall 2003, 51). Providing hygiene factors like clean room will

decrease the possibility for dissatisfaction and increase consumer utility and increases likelihood of customers choosing one hotel over another.

1.3.2 Control Variables

Number of control variables have been provided in previous studies on consumer decision making process in hotel choice. In order to test the importance of previously mentioned independent variables (1) location, (2) cleanliness and (3) service the following section will present four control variables.

Price. Price has always been seen as an important factor in developing customer satisfaction. Also, Lewis (1984) determined that besides location, security, level of service, food quality and cleanliness, price is a top factor in hotel choice process. Customers tend to compare the prices during shopping with prices from different offerings to make their own understanding of price they are willing to pay (Kim, Xu and Gupta 2011, 241). Lee (2012, 405) states that in hotel business, reasonable price will give customer greater perceived value and greater intention to purchase. Price may pass information to the consumer about the service or product quality and value (Erickson and Johansson, 1985). Therefore, to get the most accurate results and to see what other factors could influence the choice besides location, service and cleanliness, price will be added as a control variable.

Hotel Stars. Hotel star rating is a classification of hotel quality managed by national hospitality institutions. The hotel is usually presented with one to five stars or without any star rating. The hotel star rating is a stable and reliable signal for good quality and is not very sensitive to changes comparing to other factors (Israeli, 2002). The hotel star rating increases consumer cognition of hotel quality and is more objective than other information provided online about the hotel (Lu, Ye and Law, 2014, 3). They also state that customers often still consider five-star hotel good choice compared to hotel with less stars even though many negative comments are presented. Consumer might see that high star rating itself presents more information and thereby word of mouth could be less influential. As in the case of low star rating consumers consider more reviews for decision making since the quality is not guaranteed by star rating (Lu et al. 2014).

Thereby, I can state that star ratings will influence customers' booking decisions, but will play a moderating role in consumer decision-making.

Average Review Rating and Number of Reviews. User generated information has become very important for consumers helping them to make the purchasing decision and to influence them to finally choose a certain hotel (O'Mahony, 2010). Research by Chevalier and Mayzlin (2006, 345) revealed that both the review rating and volume of reviews are important attributes.

Consumers use ratings as a fast and easy way to evaluate the hotel when having limited information (Dardis and Shen 2008, 225). Reviews show how satisfied consumers are about the product or service and the score reveals the level of utility consume receives. The number of reviews is perceived as the measure for volume of discussion that shows consumer the service or product popularity and the greater amount of review information (Park and Kim 2008, 400; Duan, Gu and Winston 2008, 233; Zhu and Zhang 2010, 133). The more reviews have information, the more consumer knowledge increases about the brand reducing the uncertainty of the purchase. Chevalier and Mayzlin (2006, 345) analyses revealed that the number of reviews influence purchase decision.

Thereby, we can say that the more reviews there are and the higher the review rating the more positive reflection it shows of the hotel and thereby creates less uncertainty and more value for a consumer.

Based on above mentioned literature, I can conclude that there are many different attributes that can influence consumer in hotel booking process. Although, now it is important to gain understanding of consumers' preferences in decision making process. Therefore, methodology part is introduced next.

2. RESEARCH METHODS

In this chapter I focus on the type of research performed, used conjoint analysis method and describe how the data is collected. In the last part of this chapter I discuss the models that help interpret the results.

2.1 Qualitative and Quantitative Research Methods

In this thesis I want to find an answer to what extent consumers are influenced by certain attributes while looking for a hotel. Researchers have used qualitative research methods to understand and measure consumer preferences (Jang, Prasad and Ratchford 2012). Qualitative research is characterized by its aim to understand aspect of consumers' life and its methods generate words, rather than numbers. Qualitative methods aim to answer questions about the 'what', 'how' or 'why' of a phenomenon rather than 'how many' or 'how much', which are answered by quantitative methods (McCusker and Gunaydin 2015). Qualitative research is used a lot as first steps into unknown research areas, which help to discover different aspects that can have influence on a dependent variable. In my study the different aspects have been discovered and the focus is on 'how much' consumers are influenced by the attributes rather than by 'what'. In addition, McCusker and Gunaydin (2015) have suggested that quantitative data has more definitive and clearer goals, whereas qualitative research might present and idea that could be difficult to answer.

Therefore, quantitative research will be used in this study to measure consumer preferences towards certain attributes in the hotel selection process. The quantitative research will help to find clear patterns in consumers' decision making and understand what is important.

2.2 Research Model

Conjoint analysis is one of the most known and used quantitative research method to measure consumer preference. Conjoint analyses methods help to answer day to day questions of consumers' choices of products or services. It helps to estimate how consumers feel about the product or service and their sensitivity for price or product characteristics. It has the possibility to find the utility of certain product or service for the customer and thereby calculate the relative importance of different attributes (Green and Krieger 1991). Also, conjoint analysis helps to answer important management questions like: why does a consumer choose one product or service over another and how do consumers react to product changes and new products (Green, Krieger and Wind 2001).

The conjoint survey has an advantage over other regular survey methods when it comes to consumer preferences as it allows people to make real life decisions. Conjoint survey gives consumers trade-offs based on multiple product attributes, rather than presenting a single attribute (Bajaj 1998). This allows to understand consumer preferences for products as a whole as people make a choice between different products with different attributes. This means that using traditional methods for my survey may lack the ability to place the importance or value of different attributes that the survey is about. Conjoint analysis compared to regular surveys do not ask respondents directly what is the most important attribute in the product but the importance is based on the process of ranking or evaluating different product and its attributes importance.

Conjoint analysis has two general models that have been developing and used the most by researches: (1) choice-based conjoint model and (2) adaptive conjoint model.

2.2.1 Choice-based Conjoint Analysis

One of the most used conjoint analysis methods is choice-based conjoint analysis (CBCA) which is used to measure consumers' preferences (Haaijer and Wedel 2007). The choice-based method is based on the same principle as every consumer acts: choosing the most preferred product or service amongst other products or services.

Consumers will be presented with profile description of the product or service of two more competitors which differ from each other (Green et al. 2001).

Also, they will be presented with different attributes and levels for ranking various options, rate them or choose the preferred one.

One of the disadvantages of CBCA is that it works poorly with smaller samples because through the process it is possible to get limited information about consumer preferences, leaving out the information about other alternatives which were not chosen (Elrod and Chrzan 2007). Also, in choice-based survey respondents previous answers are not adapted to following questions, which could affect the relevance of the final results. In addition, respondents' task can get overwhelming as there can be many scenarios presented with many different brands and attributes at once (Green et al. 2001).

2.2.2 Adaptive Conjoint Analysis

Another method of conjoint analysis is adaptive conjoint analysis (ACA). Adaptive conjoint analysis is a hybrid survey technique developed by Sawtooth Software. It tries to present consumer preference and impact of certain product features to overall preference. The advantage of adaptive analysis is that each respondent first performs a self-explication task, choosing the most important attributes and/or eliminating from the research the attributes that are unacceptable for them. For the next step respondent evaluates a set of partial-profile descriptions and paired comparison. Each respondent's previous answers are used in following steps to focus on what is important for particular respondent and thereby reach to the most relevant answers (Green and Srnivasan 1990). Adaptive conjoint analysis can also be described as respondents' decision making process. The two stage process starts with the stage, where consumer eliminates options which are unacceptable. In the second stage options are trade off on multiple attributes (Lussier and Olshavsky 1979). Also, CBCA respondents will be presented with many attributes to choose from, then with ACA in every section only one or few attributes will be showed so that the process would not be overwhelming. These advantages were considered and found that adaptive conjoint analysis is the most applicable for this research.

2.3 Sample and Data Collection

In this research the target group is 18-26 year old women and men. This is the group of people who are active travelers and represent the group of youth and young adults. United Nations World Tourism Organization (UNWTO) data states that 20% of the 990 million international tourists traveling the world in 2011 were young people (ITB 2013). The analysis done in 2013, estimated the global youth travel segment age 15-29 to represent around 23% of all arrivals in 2015 (ITB 2013). This is also the group of people who are actively using Internet, taking use of review sites and considering alternatives before choosing the most preferred product or service.

Conjoint analysis is computer based therefore 50 face-to-face interviews were held using Sawtooth Software 5.1.4. The fieldwork was carried out during the time period of two weeks among Estonian Business School students as it gave the best possibility to reach the youth segment.

2.3.1 Attribute Measurements

Dependent variable: consumer behavior

Individual preferences could be investigated in many ways in research. Asking to rank, score or to choose the most preferred option. Likert-scale is much used method in psychology and in social surveys to understand the attitudes of respondents. Respondents are asked to choose the preference on the scale e.g. from 1-10, where 1 stating the 'least favorable' and 10 the 'most favorable' option. Choosing the scale from Likert-scale 1-10 or using other metrics shows how much a respondent prefers one option over another and helps to make more precise conclusions.

Independent variables

In literature review three main influencing attributes on consumer behavior were presented: cleanliness, location and service. To include those variables in the research and measure the importance, specific measurements were chosen for every variable. In this case, Booking.com, and TripAdvisor were taken as the main bases to specify measurements for every variable. Those attributes were presented in mentioned review and booking sites on a 5 or 10-point Likert scale: ranging from 1, very poor, to 5 or 10 as excellent. The ratings are presented as averages of the reviews given on a specific hotel. Therefore, in this research cleanliness, location and service are measured by Likert scale from 1, very poor to 7 or 9 as excellent.

Control variables

Four different attributes were presented in this research as control variables: price, hotel stars, number of reviews and average rating scores. Similar to the independent variables, the measurement scales were taken from different booking sites like Booking.com and TripAdvisor. These sites present different variables using 1-5 scale range for hotel stars and 1- 10 scale for average rating score. Hotel stars are measured by presenting corresponding stars the hotels have stated.

Secondly—on those homepages—prices could be stated in different currencies, but in our case the price will be measured in euros. To use price in conjoint analysis and to see what consumers are willing to pay then price was classified into different groups. Classifying prices likely to Booking.com makes the received data easier to read and gives a rough picture of preferences. Thirdly, number of reviews are measured by the amount of reviews certain hotel has received. In this research these are also classified into groups based on Booking.com. Lastly, average hotel rating score represents the average rating given for the hotel by its customers. Likely to other booking sites, in this research Likert scale was used to measure the rating scores.

2.3.2 Attributes and Performance Levels

All seven attributes used in this research were gathered based on previous literature and Booking.com data. In addition, relevant performance levels for every attributes were chosen based on Booking.com criteria. Oppeval and Vriens (2000) indicate the importance levels used per attribute, considering around 4 levels per attribute. Moreover, it is necessary to consider before presenting the attributes and its levels what attribute classifications could consumers see in real life. Table 1 presents the chosen hotel attributes and its levels.

Attributes	Performance levels				
Location	0-6.9	7.0 – 7.9	8.0 - 8.9	9.0 - 10	
Service	0-6.9	7.0 – 7.9	8.0 - 8.9	9.0 - 10	
Cleanliness	0-6.9	7.0 – 7.9	8.0 - 8.9	9.0 - 10	
Price	Up to 50 EUR	51 –100 EUR	101 – 150 EUR	151 – 200 EUR	201+ EUR
Hotel stars	1*	2**	3***	4****	5****
Average review rating	Up to 6.0	6.0 - 6.9	7.0 - 7.9	8.0 - 8.9	9.0 - 10
Review count	0-50	51 - 100	101 – 500	501 - 1000	1000+

Table 1. Attributes and levels used in this research.

2.3.3 Survey Design

With every destination people have certain expectations and criteria in their hotel selection process as consumer preference depends largely on the reason of the trip. I can assume that leisure travelers are more likely to choose the hotel with the best location and reviews but business travelers pay less attention on the comfort of the room but more on the facilities and service. In order to get the most relevant information from our target group London was chosen as the one destination point for this research. London is well known cosmopolitan city and it is popular weekend city break destination.

In this survey real life hotel examples were not presented for attributes comparison, but instead attributes were chosen by the literature review findings and values were added according to Booking.com information and search criteria. The survey was structured so that each hotel attribute were rated in 1-7, 1-9 or 1-100 Likert scale, ranging from 1 as least favorable to 7, 9 or 100 accordingly as the most favorable. Also, variables like price range, review count and stars rating were gathered based on Booking.com's presented criteria.

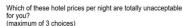
The survey had six different stages respondents went through:

Stage 1: Research Introduction and General Questions:

In the first stage, the idea of the research was described and more detailed description on measurements and scaling techniques used were presented. Also, questions like age, gender and approximate budget for the weekend trip was asked.

Stage 2: Preference for Levels

In the second stage of the survey respondents were able to show their preference toward certain attribute by eliminating attribute levels which are unacceptable for the respondent. In these questions answerers had the possibility to eliminate hotel prices for a night that they would not accept. Also, eliminating hotels based on stars help to understand the preferences for consumers in their decision making and what they would not consider in the booking process.



inium of 5 choices)					
	up to 50 EUR				
	51 - 100 EUR 101 - 150 EUR 151 - 200 EUR				
	101 - 150 EUR				
	151 - 200 EUR				
	201+ EUR				

Figure 3. Example of unacceptable choice question. Drawing from Sawtooth software.

Stage 3: Ranking

In the third phase, consumers' previous answers have been taken into account in terms of making new questions.

Please rank these hotel prices per night starting from the most acceptable!

Figure 4. Example of the ranking question. Drawing from Sawtooth software.

In this stage consumers had an option to rank previously not eliminated attributes with starting the most favorable attribute level.

Stage 4: Attribute Importance

In the fourth stage respondents rate the importance of the attributes on Likert scale 1-7, 1 as stating the least favorable and 7 as the most favorable. Using Likert scale helps to investigate the attitudes of respondents towards certain attributes. Respondents receive best and worst levels for each attribute according to their previous answers in ranking stage. If the respondent ranked that the hotel price per night up to 50 EUR is the most favorable before 51 - 100 EUR, then in this stage the question aims to understand the importance of that price range compared to lower ranked option (higher price). "How important is for you that the hotel price per night is up to 50 EUR instead of 51

- 100 EUR?"

Also this stage presents all other attributes listed to see the importance for every attribute and the importance of higher level compared to lower. For example question like: "How important is for you that the hotel cleanliness is 9.0 - 10 instead of 0 - 6.9?" Now the system has understood the most important attributes for the respondent and the survey will be focusing on the most favorable attributes for that specific respondent.

How important is for you:

Cleanliness 9.0 - 10						
		inst	tea	d o	f	
Cle	ear	nline	ess	; 0 -	6.	9
Not Important		Somewha Importan		Very Important		Extremely Important
1	2	3	4	5	6	7

Figure 5. Example of the importance question. Drawing from Sawtooth software.

Stage 5: Paired-Comparison Trade-off Questions

In the fifth stage, respondents are presented with paired-comparison trade-off questions. This question states two products at the same time with different attributes and its performance levels. The system will be presenting different combinations to understand the preference toward one attribute with different levels over another. In addition, it adds three different attributes at the same time to choose the most favorable based on Likert scale.



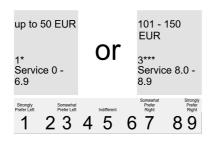


Figure 6. Example of the paired comparison trade off question. Drawing from Sawtooth software.

Stage 6: Calibrating Concept

The last stage of the survey calibration concepts are presented. Calibration concept presents three different concepts starting from the most undesirable to highly desirable based on the information of the previous answers. Respondents rate the attributes in 1-100 scale as showing the likelihood to book a hotel with stated attributes.

What is the po would book th	ossibility in 1-100 sc nis hotel?	ale that you
	up to 50 EUR	
	1*	
	Service 0 - 6.9	
	Review score up to	6.0
	Review count 0 - 50	
Wo	finitely uld Not 8ook	Definitely Would Book

Figure 7. Example of the calibration question. Drawing from Sawtooth software.

Also, calibration concept aims to understand the accuracy of the respondents' answers. This means that if the person has not paid attention, then the results are insignificant for the research and the answer for the certain person will be eliminated from the research.

2.4 Data Analysis

Conjoint analysis provides various outputs for analysis, including part-worth utilities, importance, shares of preference, and sensitivity analysis. This chapter discusses these measures and gives guidelines for interpreting results and presenting findings for the research. In this research the Market Simulator tool was used to make the most of the conjoint data and to communicate the results of conjoint analysis. The Market Simulator enables to use the gathered data and simulate expected behavior of consumers.

2.4.1 Modeling Preference

In this research it is necessary to find out consumers' needs and preferences of each attribute in hotel selection process. Conjoint analysis present a set of utilities (part-worth) that describe respondents' preferences at each level for an attribute. Looking at consumer behavior it is reasonable to assume that higher scores are preferred over average scores and that average scores are preferred over low scores. However, one cannot assume that the preference function is linear. The change from low score to average score might have a bigger impact on consumers' utility than the change from average score to high score.



Figure 8. Part-worth model. Drawing by the author

The part-worth model takes this into account by providing a piecewise linear curve between each change in level. Using the part-worth model helps to understand the differences between attribute levels i.e. how much consumers prefer one attribute level over another.

2.4.2 Modeling Importance

Looking only at average preferences (part-worth utilities) can mask important market forces caused by patterns of preference at the segment or individual level. Marketers are often not interested in averages, but in the target group behavior or individuals. Because of that, total attribute importance are presented in charts by gender to see the comparison of male and female attribute importance.

2.4.3 Sensitivity Analysis

Sensitivity analysis using market simulation offers a way to report demand scores at each level of each product attribute. The sensitivity analysis approach can show us how much we can improve (or make worse) a product's overall demand by changing its attribute levels one at a time, while holding all other attributes constant at base case levels. We usually conduct sensitivity analyses for products assuming no reaction by the competition. In this way, the impact of each attribute level is estimated within the specific and appropriate context of the competitive landscape. Conducting sensitivity analysis starts by simulating shares of choice among products in a base case market. Then, we change product characteristics one level at a time and see what happens to the demand curve when, e.g. improving or worsen the cleanliness score (holding all other attributes constant at base case levels).

So, we can say that sensitivity model is used for real life situation where scores of hotels had been put into simulator to find the effect of sensitivity of certain attribute. Therefore, for this research two hotels in London were chosen from Booking.com named Hampstead Britannia and 9a Craven Road. In this case I am focusing on the attributes that are low scored (0 - 6.9) but the hotel is actually able to influence. For hotel it is more difficult to change the location but have possibility to improve its service, change price and have higher cleanliness level. The results should indicate the impact of improving these attributes on certain hotel.

3. RESULTS, DISCUSSION AND RECOMMENDATIONS

This chapter includes results of conjoint analysis. Chapter 3.1 presents conjoint analysis results of the Market Simulator. Chapter 3.2 presents discussion about the received results and the final section 3.3 gives the conclusions, limitations of this study and gives recommendations for further research.

3.1 Results

The results are based on 49 respondents out of the 50 people who have completed the survey. One person filled in the calibration task with scores that did not correlate with evaluation to the attributes when answering trade-off tasks. This made the respondents survey unusable in the results part.

3.1.1 Modeling Importance

The importance model provides percentage based values (relative importance) for each attribute included in the research. The sum of the attributes importance share is 100 percent, which means that for this study only the included attributes influence the consumer behavior. All other attributes not included in this study therefore are left out of the scope of influence on the consumer decision for a certain hotel. The market simulator indicates that consumers are mostly influenced by location (17.99), price (16.47), cleanliness (15.37), and review scores (15.90) during the hotel selection process (see figure 9). Location strongly influences both gender respondents, however female respondents were influenced the most by location (18.87). Also female respondents put greater importance on the price per night (17.23) and cleanliness of the hotel (15.73). Male respondents put greater importance on the review score (16.74) than

female. The other attributes—Service/staff (12.34), review count (9.80) and hotel stars (12.14)—are more important in the male respondents decision making process than in the female respondents decision making process. Whereas the respondents value the review count the least important attribute in this study.

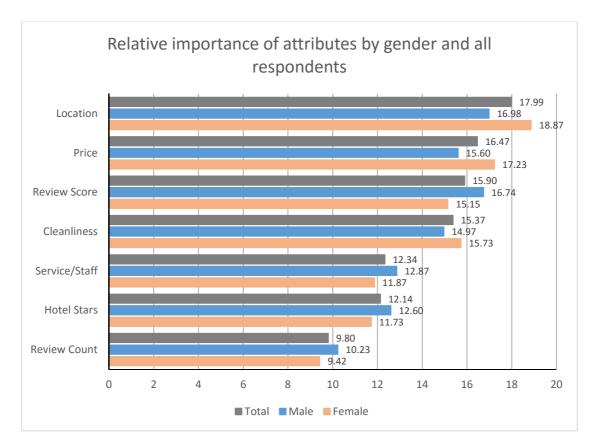


Figure 9. Relative importance of the included attributes in the study for male, female and total. Drawing by the author.

3.1.2 Consumer Preferences

In this part I use the part-worth method to understand how changes in the seven attributes performance levels could influence consumer preference towards a certain hotel. The utility levels are based on zero-centered differences, this means that the sum of the provided numbers in each figure sum up to zero. Due to the exclusion of price per night 200+ and hotel star rating 1* the sum of figures 12 and 13 do not sum up to 0. These attribute levels are excluded due to limited data points as many respondents found 200+ price per night and 1* hotels unacceptable.

Any number that is positive has an attracting effect, whereas negative numbers have a push effect on consumer behavior.

Figure 10 shows an increase in utility between each level of higher cleanliness score. The respondents' utility is negative till 8 score in cleanliness. The highest change in utility is from 0 - 6.9 to 7.0-7.9 (50.56), then the change from 7.0 - 7.9 to 8.0 - 8.9 (32.36) and lastly the change from 8.0 to 8.9 - 9.0 - 10 (22.91).

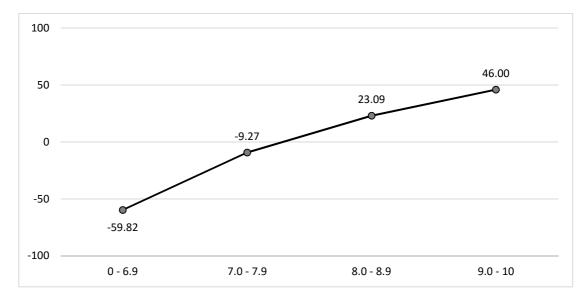


Figure 10. Preference (utility) values for cleanliness score. Drawing by the author.

Figure 11 shows an increase in utility between each level of higher location score. The respondents' utility is—same as for cleanliness—negative till 8 score in location. The highest change in utility is from 0 - 6.9 to 7.0-7.9 (67.08), then the change from 7.0 – 7.9 to 8.0 - 8.9 (32.29) and lastly the change from 8.0 to 8.9 - 9.0 - 10 (24.84).

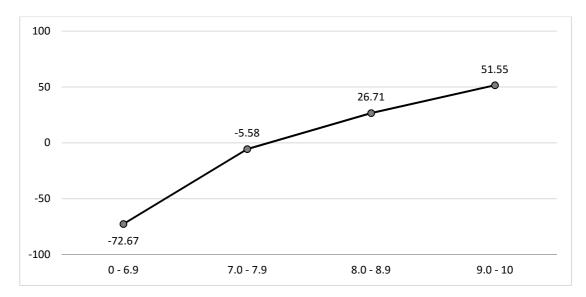


Figure 11. Preference (utility) values for location score. Drawing by the author.

From **figure 12** I can see that raising the price per night decreases the respondents' preference for a hotel; the cheaper the room, the room the more preferred the hotel is. Figure 12 furthermore shows that respondents' utility levels are most influenced when the price per night changes from 51-100 to 100-150 per night (-40.29). The respondents were, but less influenced by the price per night when they had to choose between a hotel that costs 0-50 and a hotel that costs 50-100 (-22.16), the same holds true for the choice between a hotel that costs 100-150 and a hotel that costs 150-200 (-17.17).

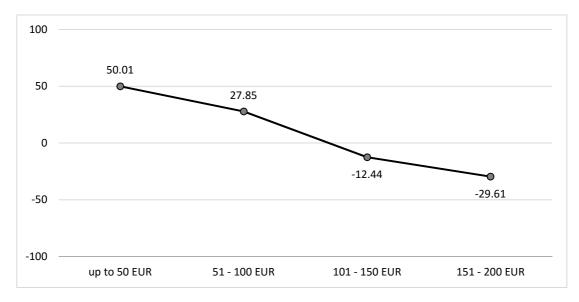


Figure 12. Preference (utility) values for price per night. Drawing by the author.

Figure 13 shows interesting results in the utility respondents get from different hotel star rating. The utility increases when stars increase from 2^{**} to 4^{****} , however people get reduced utility when the hotel has 5^{*****} compared to 3^{***} (-19.42) and 4^{****} (-21.29). The main gain in utility for hotels is by moving away from a 2^{**} hotel to a 3^{***} (38.57) hotel.

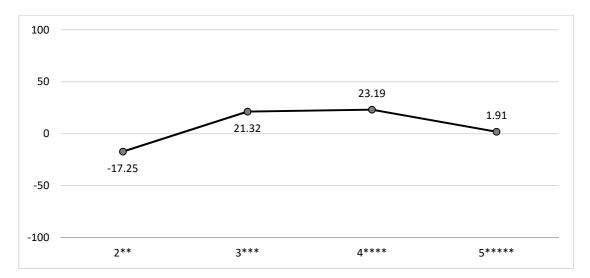


Figure 13. Preference (utility) values for hotel stars. Drawing by the author.

Figure 14 shows almost a linear increase in utility when the amount of reviews a hotel has goes up. Up to a 100 reviews have a negative effect on the consumer decision-making process whereas more than 100 has a positive effect.

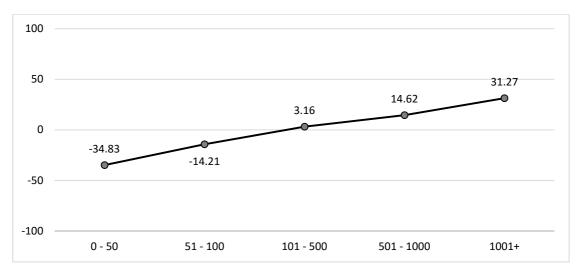


Figure 14. Preference (utility) values for amount of reviews. Drawing by the author.

Also, **figure 15** shows an increase in utility between each level when review score goes up. The review scores below 7 have a negative effect on consumer utility and from 7 have a positive effect. The increase between each level are: 24.33 (up to 6.0 to 6.0 - 6.9), 38.73 (6.0 - 6.9 to 7.0 - 7.9), 21.77 (7.0 - 7.9 to 8.0 - 8.9), 17.46 (8.0 - 8.9 to 9.0 - 10).

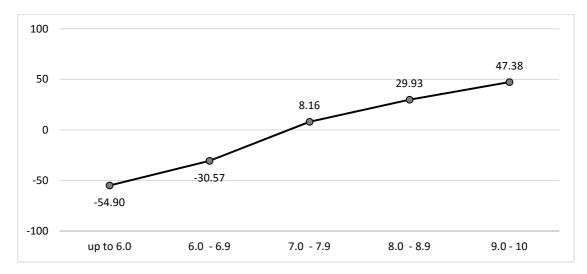


Figure 15. Preference (utility) values for review score. Drawing by the author.

Lastly, **Figure 16** shows an increase in utility between each level of higher service/staff score. The respondents' utility is negative till 8 score in service/staff. The highest change in utility is from 0 - 6.9 to 7.0-7.9 (35.00), then the change from 8.0 - 8.9 to 9.0 - 10 (26.29) and lastly the change from 7.0 to 7.9 - 8.0 - 8.9 (23.76).

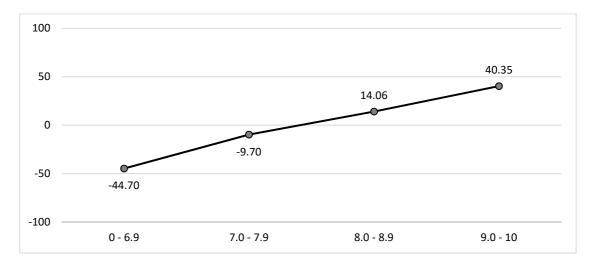


Figure 16. Preference (utility) values for service/staff score. Drawing by the author.

3.1.3 Sensitivity Analysis

For the sensitivity analysis two real life examples from Booking.com were chosen (Hampstead Britannia and 9a Craven Road). In this case I am focusing on the attributes that a hotel can actually influence in the short term. For a hotel it is quite impossible to change the location but has the possibility to improve its service, change price and work for higher cleanliness level.

Example 1: Hampstead Britannia

Hampstead Britannia hotel in London was chosen and the fictional hotel B represents the competition in the market stimulus. The base configuration is:

- 1. Price per night 50-100
- 2. Hotel stars 3***
- 3. Review count 1000+
- 4. Review score 6.0 6.9
- 5. Cleanliness 0 6.9
- 6. Location 7.0 7.9
- 7. Service/staff 0 6.9

Figure 17 and 18 show the value 50 as the point when all attributes between Hampstead Britannia and hotel B are the same (full market share is 100). **Figure 17** shows when Hampstead Britannia would improve their cleanliness level or service/staff level that they will gain market share if the competition (hotel B) does not respond. The figure shows that when moving from below 7 to 7.0-7.9 that the respondents were more sensitive to changes in cleanliness level (15.7 increase in market share) improvements than in service/staff improvements (10.84 increase in market share).

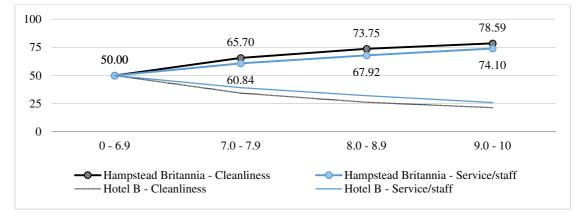


Figure 17. Sensitivity analysis of cleanliness and service/staff attributes for Hampstead Britannia hotel. Hotel B represents the competition in this market simulation. Drawing by the author.

Figure 18 presents the same idea but price has been taken for the changing attribute. If Hampstead Britannia hotel would decrease the price up to 50 EUR the market share would increase only by 3.67. But increasing the price to 101 - 150 EUR would lead to 11.57 loss of market share.

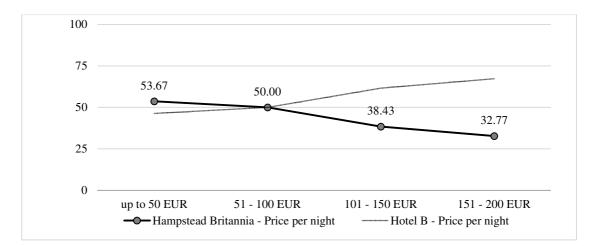


Figure 18. Sensitivity analysis of price per night attribute for Hampstead Britannia hotel. Hotel B represents the competition in this market simulation. Drawing by the author.

Example 2: 9a Craven Road

For the second real life example I chose a hotel A named 9a Craven Road and hotel B remained as the one representing the competition. This hotel was chosen based on the low review score as changes in important attributes like cleanliness and service/staff has a direct effect on improvement in the review score. Also the hotel stars were included, as bad review scores could indicate overall worsen quality in the hotel which can lead to star rating reduction. The base configuration is:

- 1. Price per night 50-100
- 2. Hotel stars 3***
- 3. Review count 101-500
- 4. Review score up to 6.0
- 5. Cleanliness 0 6.9
- 6. Location 7.0 7.9
- 7. Service/staff 0 6.9

Figure 19 shows that in case of increasing review scores from up to 6 to 6.0 - 6.9 would already give a small increase in market share, around 7.73. However, the respondents were more sensitive to the increase to from 6.0 - 6.9 to 7 - 7.9 (10.98).

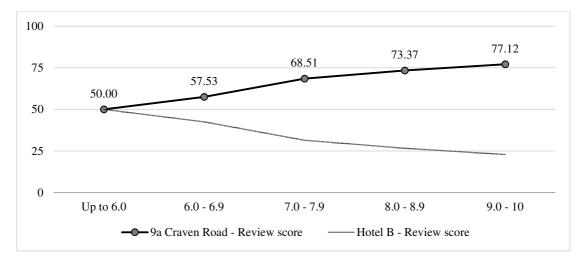


Figure 19. Sensitivity analysis of review score attribute for 9a Craven Road hotel. Hotel B represents the competition in this market simulation. Drawing by the author.

Figure 20 indicates the sensitivity to hotel star rating. As it can be seen on the figure, 1^* hotel has been removed from the analysis due to shortage of that low stared hotels in London. As seen on the previous figure 9a Craven Road hotel has low review score, however they are 3^{***} hotel. Changing hotel stars is very sensitive for this hotel. In a case of dropping to 2^{**} hotel they lose 11.42 market share, however when moving to 4^{****} hotel the sensitivity of the respondents is relatively small (2.55 increase in market share).

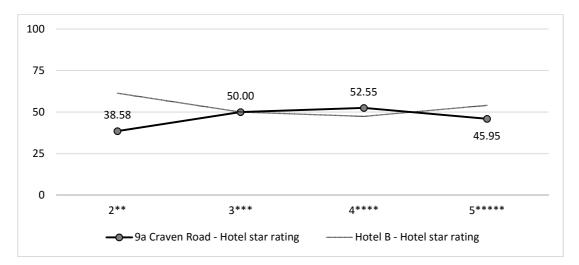


Figure 20. Sensitivity analysis of hotel stars attribute for 9a Craven Road hotel. Hotel B represents the competition in this market simulation. Drawing by the author.

3.2 Discussion

The 5-stage model helped to understand the process consumers go through while choosing between different products or services and how they reach to the final decision. The decision-making stage explains which attributes and its performance levels have been preferred by a consumer and why one hotel has been chosen over another. In this thesis, through the adaptive conjoint analysis the results were gathered in order to understand the importance of attributes in decision-making stage. This part will discuss the received results presented in 3.1.

3.2.1 Relative Importance of the Attributes

In the theoretical framework the most important attributes for consumers in decisionmaking stage were indicated as location, service and cleanliness whereas price, hotel stars and review count and scores also play a relatively important role. However, **analysis based on average importance attributes** from Market Simulation show that the most important attributes are location, price and review score and cleanliness, following service, hotel stars and review count. Therefore, I can say that as expected location and cleanliness have big influence on consumer decision making process for a hotel.

Results reveal that if the **location** is bad, it is influencing consumer by 18% in the decision making. Also, as the importance of attribute analysis were done by gender, the results show somewhat of a difference for women and men. Good location tends to be more important for women, which could be explained by the fact that women are less eager to walk long distances as men could spend money more on transportation or might not be bothered by longer distances.

Cleanliness is also an important factor in the decision making decreasing the possibility for dissatisfaction and increasing the likelihood for consumers to choose the hotel. The results show that cleanliness influences on average 16% of the choice. Based on gender, women find cleanliness more important than men. This could explain that due to

women's' nature they are used to paying more attention to cleanliness and thereby are more willing to book a hotel with higher cleanliness score.

Price is the **second most important** (16.5%) influencing attribute in the decisionmaking process of our respondents. During evaluation of alternatives, consumers tend to understand the prices in the market and what they would be willing to pay. From the results I can conclude that women are more **price sensitive** than men. This can be due to the fact of women tend to get less paid compared to men and they are more focusing on the prices to save money. Men are putting less importance on price, but put more importance on having good service and staying in a hotel with relatively better stars hotel for the price they pay. The reason that men put more relative importance on service and hotel star rating could have to do with showing lifestyle choice and prestige.

The importance of the **review score** for the respondents is higher than the expectation was based on the literature. The review score is the third most important influencing attribute (above cleanliness and service/staff) in the decision-making process. This could have to do with the fact that the review score is the average sum of the important attributes consumers are looking at when choosing between different hotels in evaluation stage. On Booking.com for example the average score is built up from location, staff (service), cleanliness, free Wifi, comfort, facilities and value for money, where 3 of the 7 attributes are included in this study.

3.2.2 Consumer Preference Towards Attribute Levels

In the second part of the results the utility values at each level were given for the attributes. As expected, the **lower the price the higher utility it gives to consumers**. The respondents are **more sensitive for price changes from 50-100 to 100-150** then the changes between other levels in the price per night attribute. This is expected to be caused by going through the barrier of 100 euros per night which for the respondent group could be a lot of money. Still the increase in price could be offset by the improvement in the other attributes as booking.com indicates **value for money** as an important attribute in the review score.

Interesting finding is the utility the respondents get from different **hotel star ratings**. The respondents tend to choose hotels which have either 3*** or 4**** star ratings rather than 5**** ratings. The focus group in this study is consumers till 26 years and many of them are students. When initiating the search for a hotel, the focus group expect 5**** hotels to be **out of their price range** and therefore tend to neglect it rather than include it in their search for a hotel. This could explain the lower utility level for 5**** hotels than for 3*** or 4**** star hotels, even though 5**** may actually present higher quality level.

When the **number of reviews** increases for a hotel, this increases the respondents' utility levels. When the number of reviews for a hotel is **below 100 it has a negative effect on the respondents' utility.** The reason behind the increase in utility when number of reviews goes up is due to **trustworthiness.** If only one person says something then you tend not to trust it. When more people share the same opinion your trust in the represented score tends increase, when your trust increases the uncertainty goes away which increases the utility.

The utility for review score shows that people are positively affected if the score is above 7. The utility changes between each score level are quite big, especially between levels 6.0 - 6.9 and 7.0 - 7.9. This comes back to human perception of scores. People tend to interpret a score in the 6.0 to 6.9 as a score that is just sufficient enough, but will most likely disappoint the consumer experience when visiting the hotel. A score in the 7.0 - 7.9 is experienced in the mind as good but nothing special. People accept good experience and this most likely explains the great jump in utility between these two groups. When the score goes above the 7.0 - 7.9 group this influences the consumers' utility as well as the expected experience at that hotel becomes better and better.

The 7.0 - 7.9 utility group in the attributes cleanliness, location and service/staff **cannot** be directly compared with the review score. This is due to the fact that the review score consists of five levels, 7.0 - 7.9 being the third level as opposed to four levels used in cleanliness, location and service/staff where 7.0 - 7.9 is the second level.

Cleanliness and location follow a similar pattern, where the jump in utility gain from the first level to second level is the biggest, second to third level the second biggest, and

from third to fourth level the smallest. It appears that for both cleanliness and location a score below 7 is almost a **deal breaker** for the respondent. Why the respondents tend to see 0 to 6.9 level as deal breaker is because when you are looking for a hotel the cleanliness cannot be low. You do not wish to lay in a dirty hotel room and also when going for a city trip you wish to stay in close proximity of the tourist attractions. The time and cost to travel when staying in a bad location offsets benefits in other attributes.

Service/staff utility goes up almost in a straight line but slightly less from the level 7.0 - 7.9 to level 8.0 - 8.9. This is expected to be due to the experience differences respondents expect between these groups. For both levels the respondents expect a difference but from good to very good, which has less effect than from very good to exceptional or from poor to good.

3.2.3 Consumer sensitivity towards changes in attribute levels

In the third and final part of the results the **sensitivity analysis** was done on real life hotel examples. The real life examples were taken based on **low score levels for cleanliness and service/staff** (Hampstead Britannia hotel) and for a **low review score** (9a Craven road hotel). In this case, the aim of the hotels would be understanding how they could improve the attributes and move consumers from evaluation of alternatives stage to purchase decision stage.

Hampstead Britannia Hotel, has low cleanliness and service scores, this in turn also affects the review score which is between 6.0 - 6.9. In order for that hotel to do better, the results indicate that in case of improving cleanliness and service they would be able to get more market share than its competitor. As discussed in the utility part of the respondents, low cleanliness score results in almost a deal breaker situation. Therefore when the hotel would **increase the cleanliness level** the respondent is already much more attracted to Hampstead Britannia hotel than a hotel that has low cleanliness level ceteris paribus.

The market share gain is service is also relatively high, but lower than for improving cleanliness from 0 - 6.9 level to 7.0 -7.9 level. As discussed in utility part, the respondents prefer better service and are influenced by it, however it appears not to

create a deal breaking situation for the respondent if the service is low. For Hampstead Britannia I also include **figure 18** to look at the price sensitivity. Lowering the price from the Hampstead Britannia hotel from the 50-100 price range to below 50 price range will only influence the respondents a little bit, so when focusing on gaining market share they can best focus on improving their cleanliness and service/staff in the hotel which will lead to higher review scores for these elements.

In the case on **9a Craven road hotel** the review score was lower than 6.0. Looking at the attributes and its scores, one of the influences for that low score is service and staff competency and poor cleanliness. In order to gain market share 9a Craven road hotel should improve its cleanliness and service/staff level. In the example of Hampstead Britannia we already discover which effect that will have on market share gains based on cleanliness and service/staff attributes. When parts of the review score start improving the review score will also move to a higher level. The first step for 9a Craven road hotel is to move from below 6 to 6.0 - 6.9 level which will gain a bit of market share, but especially moving from the 6.0 - 6.9 level to 7.0 - 7.9 level will improve the market share for the 9a Craven road hotel. Looking at the utility score for review score the step of moving from below 7 to a 7 or higher is a big one as the respondent's perception changes from dealing with a potential bad hotel experience to a reasonable/good experience.

For the 9a Craven road hotel I also looked at the effect of a change in the hotel's **current 3***** **rating** as the current customer experience score is below 6. Currently in the UK the Automobile Association (AA) does the ranking of hotels. When they decide to take away one star of the 9a Craven road hotel the market share drop will be big (more than 11%). Focusing on improving the attributes cleanliness and service/staff will have a positive effect on hotels market share plus that improving the attributes valued by consumers can help to stay at the 3*** level to not drop in market share.

3.3 Recommendations

The presented results and following discussion in this chapter are the basis for the recommendations to the study field of the consumers' decision making process for a hotel. Recommendations will be given to the hotel industry and to the field of study.

Hotel industry recommendations. This study allowed through the ACA method to create real life decision makings that provided the relative importance of each attribute for consumers. The study shows that location, price per night, review score and cleanliness are the main factors consumers are influenced by when making a decision for a hotels. Furthermore, when focusing on the utility the consumers get at certain attribute levels the results show that low scores on locations and cleanliness are almost deal breakers for a weekend trip to London. When the hotel does not have the best location it has to counterbalance with competitive advantages at other attributes otherwise the market share will be very small or not present. The level of cleanliness is something the hotel can do something about, providing high level of cleanliness are not able to offer satisfactory level of attributes and create enough utility then the hotel will not be passed from evaluation of alternative stage to final purchase stage.

Also, two hotels have been tested in a market sensitivity simulation which indicated that upgrading the attributes (review score, cleanliness, service/staff) level from below 7 to at least 7.0 - 7.9 gives the biggest increase in market share and utility gain for consumers. Improving the attribute levels to 8 or higher keeps increasing the utility for consumers however the impact on the market share will be less. Furthermore the young adults are looking for hotels in the price range up to 100 EUR per night and a hotel star rating of 3^{***} or 4^{****} stars.

The above results might be something expected by the hotel industry, however when looking at booking sites like Booking.com hotels still have low scores on these attributes (cleanliness, service/staff) at their hotel. In order to gain market share hotels drop prices, however upgrading the level of service and the cleanliness of the hotel can have a bigger impact on gaining market share than through a drop in the price. **Recommendations to the field of study.** This study used the ACA, which has been used for many studies. However, the ACA has hardly been applied for studies of consumer behavior in the hotel decision-making process. Based on the results discovered in this study, the ACA is recommended to use for further research into the hotel decision-making process by consumers. When the ACA model will include more attributes or different attributes that influence the consumers' decision-making process for hotel then an even more comprehensive picture can be given on why consumers choose hotel A over hotel B.

CONCLUSION

This study aimed to examine the importance of hotel attributes on consumer decisionmaking process of young adults for hotel booking. In the process of making a decision for a hotel consumers go through 5 stages to maximize their utility at a certain budget level. Based on previous research the three main influencing attributes are discover, which are: location, cleanliness and service/staff. Furthermore, four additional important attributes were mentioned in previous studies: price, review score, review count and hotel stars. To understand the attributes importance in this research, adaptive conjoint analysis was used. The conjoint survey helps to discover the relative importance of attributes and consumer preferences towards different attributes levels.

The results show that consumers are mostly influenced by location, price, review scores and cleanliness. Location being the most important attribute in the final decisionmaking stage reflects back to previous studies that describes the relevance. The increase in utility is the highest for the respondents when the location score level increases from 0 - 6.9 to 7.0 - 7.9. Also, as expected, **price** plays an important role. Consumers tend to compare different products and services in the evaluation of alternatives stage to understand the prices in the market and what they are willing to pay. In this study, the target group was young adults who are expected to be more price sensitive. The respondents were most influenced when the price per night changes from 51 - 100 EUR to 101 - 150 EUR, however they were less influenced when they needed to choose between 0 -50 and 51- 100. Also, **cleanliness** attribute influences consumer purchase decision. Consumers find clean rooms important in the hotel however, it is more likely that people choose a hotel based on some other attributes beforehand. They are just considering and evaluating hotel with certain cleanliness scores instead of making it the first criteria. Results show that hotels with cleanliness scores below 6.9 are likely to be avoided. Whereas, consumer utility increases if the score is 8 or more. That shows the average score a consumer expects from a hotel.

Interesting finding is that **service** quality was seen as less important by the respondents and that it has less influence on the utility level however researchers see it as an attribute influencing purchase decision strongly. The results did indicate a pattern that for men who value price less important than women do place higher importance on service. This indicates that when consumers become less price sensitive they put great importance on the attribute service. Furthermore, the focus group in this study were young adults who might be more price sensitive and therefore put less importance on the level of service.

The respondents do not make the decision for one hotel over the other solely based on **review count**. Respondents use the number of reviews given about a hotel as a trustworthiness measure of the scores given about the hotel. The more reviews a hotel has the less uncertainty the consumer faces if they can trust the review and attribute scores, this in turn increases the utility.

The respondents indicated the **review score** to be an important attribute in the decisionmaking process. Review scores below 7 have negative impact on the respondents' utility. It appears that hotels with scores below 7 are rather being avoided than considered as a potential option, as the review score is the overall impressions of multiple attributes. Furthermore, the sensitivity analysis indicates that moving from a score below 7 to the 7.0-7.9 score level has a great effect on attracting hotel guests.

Lastly, the results show that the respondents tend to prefer 3^{***} or 4^{****} hotel rating over other **hotel star ratings**. It is interesting that 5^{*****} rating gives lower utility to the respondents, most likely this has to do with the association of hotel star rating and price. When the hotel stars go up, the price is higher. As our respondents are young adults who might focus more on price, the 5^{*****} hotel is not seen as a reasonable option although speaks for higher quality.

These findings help to better understand consumer preferences before purchase decision and could give hotel businesses necessary information about attributes importance and how improvements in these attributes might influence the market share. This gives an **idea for further researches**, that more attributes could be used in sensitivity analysis to see how different levels could create value for consumers and for business. Also, further researches might consider analyzing different attributes than mentioned in this thesis. Doing more research beforehand to understand consumer behavior in hotel decision-making can help to present the attributes that matter for consumers the most in that certain time, rather than being dependent on previous literature.

Also, the study had some **limitations**. The survey asked consumer age in relatively big scale: younger than 26 years or older than 26. However, it would have been more interesting to see the results by each age group and through that make more precise conclusions. Also, price 201+ EUR were included in survey based on Booking.com criteria however, in this target group the price scale was strongly unacceptable for the consumers which in the end could affect the data. Lastly, the conjoint analysis is computer-based survey which limits the chance for great number of respondents. With this study 50 face-to-face interviews were held however greater number of people in the survey could give more information about preferences and which can lead to more reliable results.

REFERENCES

Bajaj, A. 1998. Technology Factors Influencing Senior Information Systems Managers' Decisions to Adopt New Computing Architectures. Pittsburgh: The Heinz School, Carnegie Mellon University.

Baker, J. M. 2001. Critical Perspectives on Business and Management. Vol5. New York.

Branchik, J. B., Shaw, H. E. 2015. Net Transaction Value: A model of High-Involvement Decision-Making in Buyer Choice Behavior. *Atlantic Marketing Journal*. Vol.4, 2. <u>http://digitalcommons.kennesaw.edu/amj/vol4/iss2/1</u>. (2015).

Brian, X., Luiz, M. 2011. The Role of Brand Image, Product Involvement, and Knowledge in Explaining Consumer Purchase Behaviour of Counterfeits: Direct and Indirect Effects. *European Journal of Marketing*, 191-216.

Bruner, C.G., Pomezal, J.R. 1988. Problem Recognition: The Crucial First Stage of the Consumer Decision Process. *Journal of Consumer Marketing*. Vol.5, 54-56. https://www.researchgate.net/publication/235253191. (28 March 2016)

Chan, E. S.W. and Wong, C.K. S. 2006. Motivations for ISO 14001 in the hotel industry. *Tourism Management*, 27(3), 481-492.

Chen, P.Y., Wu, S.Y. and Yoon, J. 2004. The impact of online recommendations and consumer feedback on sales. Proceedings of the International Conference on Information Systems, Association for Information Systems, Seattle, WA. 711-24.

Chevalier, J. A., Mayzlin, D. 2006. The Effect of Word of Mouth on Sales: Online Book Reviews. *Journal of Marketing Research*, 43, 3, 345-354.

Chu, K. S. R., and Choi, T. 1999. An importance-performance analysis of hotel selection factors in the Hong Kong hotel industry: a comparison of business and leisure travelers. *Tourism Management*. 363-377. <u>http://myweb.ncku.edu.tw/~cfchen99/ipa-hotel%20choice.pdf</u>. (2000).

Dardis, F. E., Shen, F. 2008. The Influence of Evidence Type and Product Involvement on Message-framing Effects in Avertising. *Journal of Consumer Behaviour*, 7, 3, 222-238.

Dellaert B, Ettema D, Lindh C. 1998. Multi-Faceted Tourist Travel Decisions. A Constraint-based Conceptual Framework to Describe Tourist's Sequential Choices of Travel Components. *Tourism Management*. 19(4): 313–320.

Duan, W., Gu, B., Whinston, A. B. 2008. The Dynamics of Online WOM and Product Sales: An Empirical Investigation of the Movie Industry. *Journal of Retailing*, 84, 2, 233–242.

Egger, R. and Buhalis, D. 2008. eTourism Case Studies: *Management and Marketing Issues*. Burlington, MA: Elsevier.

Elrod, T., Chrzan, K. 2007. The Value of Extent-of-Preference Information in Choice-Based Conjoint Analysis. Conjoint Measurement. Methods and Applications, 4th Editon. Berlin; 133–144.

Erickson, G. M. and Johansson, J. K. 1985. The Role of Price in Multi-Attribute Product Evaluations. *Journal of Consumer Research*, 12(2).

Goldenberg, J., Libai, B., Muller, E. 2001. Talk of the Network: A Complex Systems Look at the Underlying Process of Word-of-mouth. *Marketing Letters*, 12, 3, 211–223. http://www.complexmarkets.com/files/TalkofNetworks.pdf. (February 2001).

Gomegys, C and Hannula, M., Väisänen, J. 2006. Longitudinal comparison of Finnish and US online shopping behaviour among university students: The five-stage buying decision process. *Journal of Targeting, Measurements and Analysis for Marketing*. Vol. 14, 4, 336 356.<u>http://search.proquest.com/business/docview/236969045/fulltextPDF/F8E0887770504468PQ/8</u>. (2 September 2015).

Goodall, B. 1991. Understanding Holiday Choice. *Progress in Tourism, Recreation and Hospitality Management*. Vol.3, 59-77.

Green, E. Paul. and Krieger, M. A. 1991. Segmenting markets with conjoint analysis. *The Journal of Marketing*. 20-31.

Green, P E., Krieger, M. A. and Wind, Y. 2001. Thirty Years of Conjoint Analysis: Reflections and Prospects. Vol 31, 56-73.

Green, P. E., Srinivasan, V. 1990. Conjoint analysis in marketing: New developments with implications for research and practice. Journal Of Marketing, 54(4), 3-19. http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=9102183222&site= ehost-live. (1 October 1990).

Gursoy D, McCleary, K. W. 2004. An Integrative Model of Tourists' Information Search Behavior. Annals of Tourism Research. Vol. 31(2), 353-373. <u>https://www.researchgate.net/profile/Dogan_Gursoy/publication/222575199</u>. (April 2004)

Haaijer, R., Wedel, M. 2007. Conjoint Choice Experiments: General Characteristics and Alternative Model Specifications. *Conjoint Measurement. Methods and Applications*. Springer: Berlin; 199–229.

Hvass, K. and Munar, A. 2012. The takeoff of social media in tourism. *Journal of Vacation Marketing*, 18(2), 93-103.

Israeli, A. A.2002. Star Rating and Corporate Affiliation: Their Influence on Room Price and Performance of Hotels in Israel. *Hospitality Management*, 21, 4, 405-424.

ITB. 2013. ITB World Travel Trends Report 2013/2014. Berlin. (December 2013).

Jang, S., Prasad, A., & Ratchford, B.T. 2012. How Consumers Use Product Reviews in the Purchase Decision Process. *Marketing Letter*, 23, 825-838.

Jones, D. L., Mak, B., Sim, J. 2007. A New Look at the Antecedents and Consequences of Relationship Quality in the Hotel Service Environment. Services Marketing Quarterly, 28, 3, 15-31.

Karunakaran, K. 2009. Buyer Behaviour (Consumer Behaviour), Marketing Management. 2nd ed. Himalaya Publishing House. 55-76

Kim, W. H., Xu, Y. and Gupta, S. 2011. Which Is More Important In Online Shopping, Perceived Price or Trust? *Electronic Commerce Research and Applications*. 11, 241-252.

Kotler, P. 1965. Behavioural Models of Analysing Buyers. Journal of Marketing, 29, 4, 37-45.

Kotler, P. 2000. *Marketing management*. The millennium edition. New Jersey: Prentice Hall International, Inc.

Kotler, P. and Armstrong, G. 2009. The Principles of Marketing. 13th Edition. Prentice Hall. 744

Kotler, P. & Keller K. 2006. Marketing management. Twelfth edition. New Jersey: Pearson Prentice Hall.

Kotler, P., Keller, K. L., Brady, M. and Hansen T. 2012. *Marketing Management*. Second Edition, Essex, England: Pearson Education Limited.

Kuo, Y. F. and Wu, C. M. 2011. Satisfaction and Post-Purchase Intention with Service Recovery of Online Shopping Websites: Perspectives on Perceived Justice and Emotions. *International Journal of Information Management*. Vol. 32. 127-138.

Laurent, G., Kapferer, J. 1985. Measuring Consumer Involvement Profiles. *Journal of Marketing Research*. 22, 41-53.

Law, R., & Hsu, C. H. C. (2005). Customers' perceptions on the importance of hotel web site dimensions and attributes. *International Journal of Contemporary Hospitality Management*, *17*(6), 493-503. http://search.proquest.com/docview/228386311?accountid=43107. (2005).

Lee, F. S. J. 2012. The Consumer Price-Perceived Quality Heuristic on the Hotel Industry. *Review of Business Research*, 12(1).

Lee, R. and Romaniuk, J. 2009. Relating Sweitching Costs to Positive and Negative Word-of-Mouth. *Journal of Consumer Satisfaction, Disssatisfaction and Complaining Behavior*, 22, 54-67.

Loudon, L. D., Bitta, J. A. 2009. Consumer Decision Processes. *Consumer Behavior*, 4th Edition, Tata-McGraw Hill. 481-593.

Lu, Q., Ye, Q. and Law, R. 2014. Moderating Effect of Product Heterogeneity between Online Word-of-Mouth and Hotel Sales. *Journal of Electronic Research*. Vol. 15, 1-13.

Lussier, Dennis A. and Richard W. Olshavsky. 1979. Task Complexity and Contingent Processing in Brand Choice. *Journal of Consumer Research*, 6 (September), 154-65.

McCusker, K. and Gunaydin, S. 2015. Research Using Qualitative, Quantitative or Mixed Methods and Choice Based on the Research. *Perfusion* 30, no. 7: 537-542. <u>http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=110353127& site=ehost-live</u>. (April, 2016).

Nicolau J. L., Mas F. J. 2006. Elección de la duración vacacional: una aproximación con modelos de recuento. Revista Europea de Dirección y Economía de la Empresa 15, 2, 99–116.

O'Connor, P. 2008. User-Generated Content and Travel: A Case Study on Tripadvisor.Com. *Information and Communication Technologies in Tourism*. Vienna. 47–58.

O'Connor, P. 2010. Managing a Hotel's Image on TripAdvisor. Journal of Hospitality Marketing & Management, 19, 7, 754-772.

O'Mahony, M. P., & Smyth, B. B. 2010. A Classification-based Review Recommender. *Knowledge-Based Systems*, 23.4, 323–329.

Oppewal, L, H & Vriens, M. 2000. Measuring Perceived Service Quality Using Integrated Conjoint Experiments. *The International Journal of Bank Marketing*. 18(4):154-169.

Pan, B., MacLaurin, T. and Crotts, J. 2007. Travel blogs and the implications for destination marketing. *Journal of Travel Research*. Vol. 46, 35-45.

Park, D.H, S. Kim. 2008. The Effects of Consumer Knowledge on Message Processing of Electronic Word of Mouth via Online Consumer Reviews. *Electronic Commerce Research and Application*, Vol. 7, 4, 399-410.

Radder, L., Huang, W. 2008. High-involvement and low-involvement products: A comparison of brand awareness among students at a South African university. *Journal of Fashion Marketing and Management*. 232-243.

Schall, M. 2003. Best Practices in the Assessment of Hotel-Guest Attitudes. *The Cornell Hotel and Restaurant Administration Quarterly*, 44(2), 51-65. <u>http://www.sciencedirect.com/science/article/pii/S187704281200523X</u>. (19April 2012).

Shanahan, K. J. and Hyman, M. R. 2006. An Exploratory Study of Desired Hotel Attributes for American Tourists Vacationing in China and in Ireland. *Journal of Vacation Marketing*. 13, 107-110.

Shiffman, L. and Kanuk, L. 1994. Consumer Behaviour. New Jersey: Prentice Hall Schiffman G L and Kanuak L. L. 2009. Consumer Decision Making and Beyond. *Consumer Behaviour*, 9th Edition, Prentice Hall, 544-579.

Sachdeva, R. 2015. A Scale to Assess the Efficacy of Consumer Decision Making. *IUP Journal of Marketing Management*. Vol. 14, 2, 7-25. http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=108447082&site=e host-live. (5 September 2015)

Soloman, M. R., Surprenant, C., Czepiel, J. A., Guttman, E. G. 1985. A Role Theory Perspective on Dyadic Interactions: The Service Encounter. Journal of Marketing, 99-111.

UNWTO and WYSE. 2011. The Power of Youth Travel. Vol.2

Wong, C. S. and Kwong, W. Y. 2004. Outbound Tourists' Selection Criteria for Choosing All-inclusive Package Tours. Tourism Management, 25, (5), 581-592. http://dx.doi.org/10.1016/j.tourman.2003.06.002. (2016).

Wuest, B. E., Tas, R. and Emenheiser, D. 1996. What Do Mature Travelers Perceive as Important Hotel/Motel Customer Services? Journal of Hospitality & Tourism, 20, 2, 77-93.

Xiang, Z., Gretzel, U. 2010. Role of social media in online travel information search. *Tourism Management*. Vol 31, 2, 179-188.

Xie, H., Miao, L., Kuo, P. and Lee, B. 2011. Consumer' Responses to Ambivalent Online Hotel Reviews: the Role of Perceived Source Credibility and Pre-decisional Disposition. *International Journal of Hospitality Management*, 30, 178-183.

Zhu, F. and Zhang, X. 2010. Impact of Online Consumer Reviews on Sales: The Moderating Role of Product and Consumer Characteristics. *Journal of Marketing*, 74, 2, 133-148

APPENDICES

Appendix 1. Conjoint analysis survey for this study

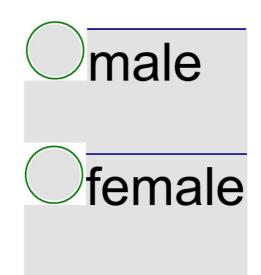
The survey is presented here, please take into account that for the paired comparison trade off questions and the calibration the questions stay the same as no input has been given at the moment. Therefore only the type of questions is shown. 20 paired comparison questions were asked in total and 3 calibration questions.

Welcome to the survey!

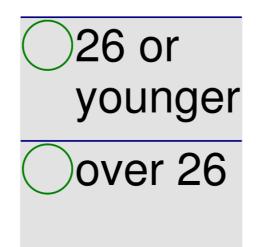
Thank you for taking time to fill in this survey measuring customer behavior in hotel selection process. Answering to this survey, imagine yourself booking a hotel for a weekend trip in London, UK. All the attributes are listed in 1-10 scale, in star ratings and in EUR, likely to other booking sites. Please give answers the most relevant for you! Survey should not take more than 5-10 minutes and answers given will be confidential.

Thank you!

Are you...



What is your age?



What is your budget for this trip inlcuding hotel and other expenses on the spot?



Which of these hotel prices per night are totally unacceptable for you?

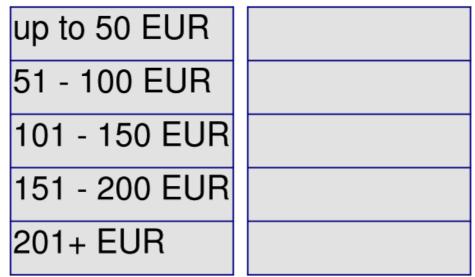
(maximum of 3 choices)



Which of these hotel stars are totally unacceptable for you? (maximum of 3 choices)

1*
2**
3***
4***
5****

Please rank these hotel prices per night starting from the most acceptable!



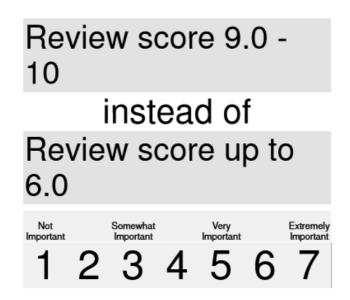
Please rank hotel stars, starting from the most acceptable for you while booking a hotel!

1*	
2**	
3***	
4****	
5****	

How important is for you that the price is:



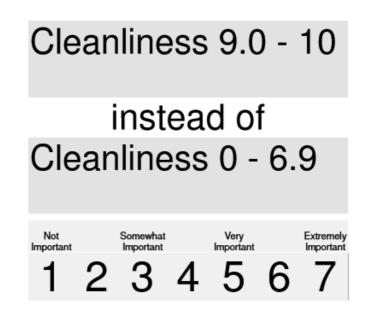
How important is for you that:



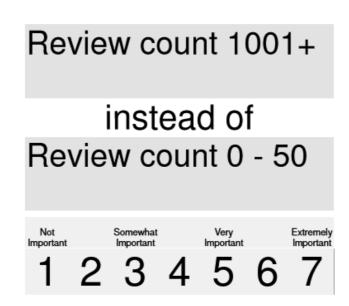
How important is for you that the hotel has:



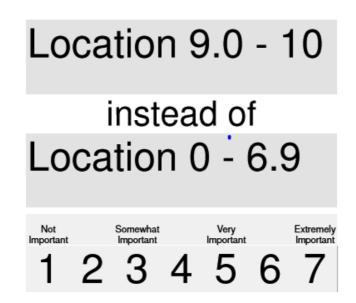
How important is for you:



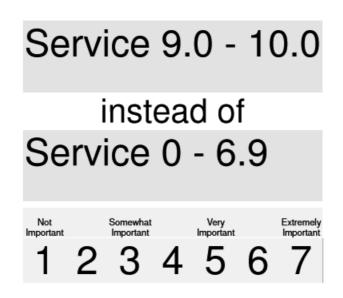
How important is for you:



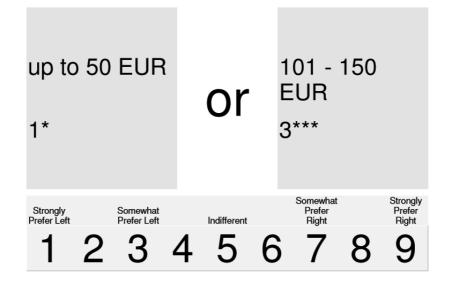
How important is for you:



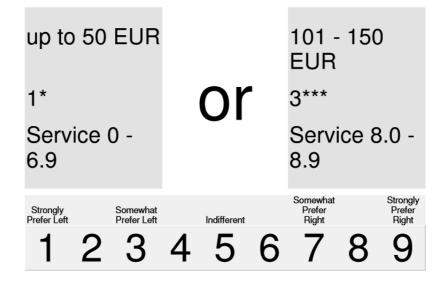
How important is for you:



Which and how strongly would you prefer?



Which and how strongly would you prefer?



What is the possibility in 1-100 scale that you would book this hotel?

up to 50 EUR 1* Service 0 - 6.9 Review score up to 6.0 Review count 0 - 50

Definitely Would Not Book Definitely Would Book

Thank you for your time!