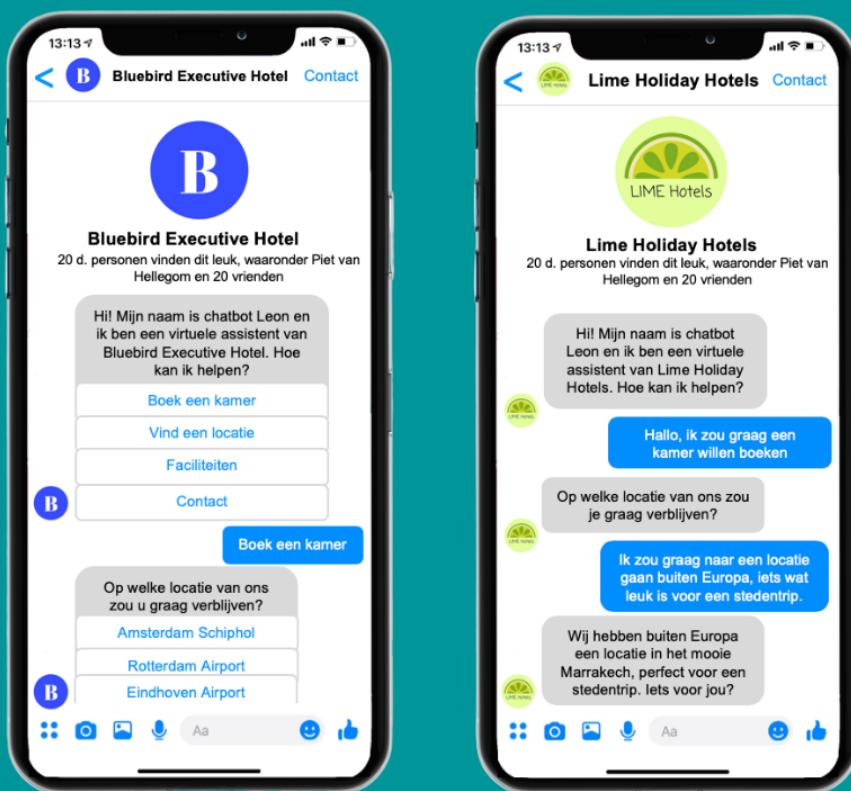


# THE ROLE OF BUTTONS IN THE CONVERSATIONAL INTERFACE OF CHATBOTS



UNIVERSITY  
OF TWENTE.

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COMMUNICATION STUDIES DIGITAL MARKETING

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# **The role of buttons in the conversational interface of chatbots.**

An experiment about the influence of buttons on the customer experience, brand attitude and brand trust by using chatbots.

Final thesis for the Master of Science in Communications Studies Digital Marketing.

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## Abstract

Nowadays, in the evolving era of digital marketing and technological developments, chatbots have emerged as a new type of conversational agent. There is a limited amount of studies on the conversational interface of chatbots. The purpose of this study is to understand the influence of buttons used by chatbots in the conversational interface, and its effects on the customer satisfaction, perceived usefulness, perceived ease of use, brand attitude and brand trust. Besides the main effect, this study also investigated the interaction of brand positioning and task complexity. According to previous studies, it is suggested to use buttons because they result in a more positive customer experience (customer satisfaction, perceived usefulness and ease of use), brand attitude and brand trust. This study tested the research model by conducting a 2 (presence of button: button vs. no button) x 2 (brand positioning: utilitarian vs. hedonic) x 2 (task complexity: complex vs. easy) online experiment, in which the Dutch participants (N=308) saw one of the eight manipulation and were asked to fill in the questionnaire. According to the outcomes of this study, the presence of buttons does not result in what was expected. It was expected that the presence of buttons resulted in higher outcomes. However, the outcomes of the results contradict the expectations. When looking at the means, it is noticeable that the mean score was always higher when buttons were absent. Unfortunately, the effects were not significantly supported and therefore the hypotheses were rejected. In order to clarify this, interviews were conducted. The most important outcomes that clarified the outcomes of the online experiment were the negative attitude towards the chatbot, the expectation of conversating with a chatbot, and the feeling of being trapped. The latter is because the interviewees had the feeling that, when buttons were presented, they were directed in a certain way and could not step aside from the conversation, and the conversation being too robotic. These arguments could justify why buttons do not result in a more positive outcome, but a lower score for the dependent variables. To answer the research questions, there is no main effect on the presence of buttons on the variables. Besides, there is no interaction effect of task complexity and brand positioning.

**Keywords:** Chatbot, customer experience, brand attitude, brand trust, conversational interface, buttons.

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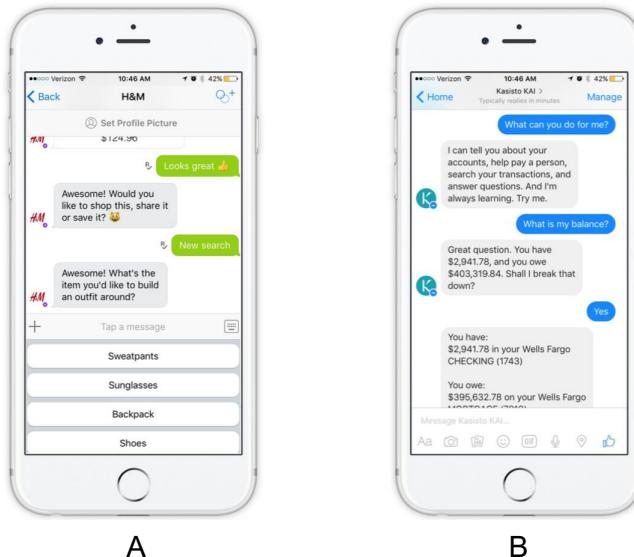
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## 1. Introduction

Service agents are crucial for solving customer problems. In the evolving era of digital marketing and technological developments, chatbots have emerged as a new type of service agent (Chung, Ko, Joung & Kim, 2018). A chatbot serves as a conversational agent stimulating an interactive human-like conversation based on artificial intelligence (Shawar & Atwell, 2007). Companies and organizations are increasingly deploying conversational chatbots to provide fast and efficient service. Currently, chatbots are mostly used for basic interactions that require a limited range of responses for example customer service related (Chung et al., 2018). The potential of chatbots to effectively compensate human customer services in an online context is promising. The chatbot is seen as a technological development that contributes to the improvement of the customer experience (Hill, Randolph-Ford & Farreras, 2015). A chatbot which runs on artificial intelligence is able to create a more personalized experience. Reports show that modern customers expect personalization from companies (Emarketer, 2015). According to Trivedi (2019), technological advancements are used to increase the customer experience. Chatbots positively contributes to the customer experience once the relevant information is provided, high systems are available, and personalized solutions are provided for customer's problems (Bernazzani, 2018).

According to Vugt, Bailenson, Hoorn, and Konijn (2010), the interface of a chatbot is important in order to increase the involvement and willingness of a customer to interact with a chatbot. A chatbot should demonstrate a rich social interaction while also taking into account to be functional and effective (Kuligowska, 2015). The author claimed that chatbots that use embedded links to understand complex tasks and coherent dialogue were assessed as very good compared to chatbots that did not use embedded links. Embedded links have the same functionality as buttons, the latter is designed differently. Buttons are mostly designed as rounded rectangle that provoke immediate responses. In the form of buttons used by chatbots, they can be selected by the customer in order to provide an answer. Fincher (2018) and Feng (2019) claim that buttons should be used to optimize the chatbot conversation. Buttons are offered to solve a customer's task efficiently and to prevent the chatbot from failing to solve the problem because, miscommunication could occur during the human-machine interaction (Fincher, 2018; Feng, 2019; Sproutsocial, 2019). However, according to different studies some chatbots are assessed as very good and did not use buttons in their conversation (Kuligowska, 2015; Siu, 2019; Brook, 2019; Chi, n.d.).

Figure 1. Chatbot presenting buttons (A) vs. a chatbot without buttons (B)



This research will focus on studying the effects of a chatbot's interface in which buttons are used when communicating with the user. There is a limited amount of studies on the conversational interface of chatbots. Conversational interface is the front-end of a chatbot that allows a chatbot and user to communicate by using buttons for example (McTear, 2017). It is interesting to understand how the presence of buttons influence the consumer's behaviour after communicating with a chatbot (McTear, 2017). Therefore, it is interesting to study the effects of the presence of buttons on the customer experience, brand attitude and brand trust. The three dependent variables are all determinants of the consumer's behaviour. According to Trivedi (2019), functionalities of a chatbot such as buttons are used to increase the customer experience. The customer experience determines the behaviour of a consumer towards a brand. The brand attitude is also a variable that strongly influence the consumer behaviour towards a brand (Rajumesh, 2014). Brand trust is also a strong predictor of the consumers' behavioural pattern towards a brand (Rajumesh, 2014).

The first dependent variable of this study is the customer experience. It is not academically studied whether the buttons are crucial for a positive customer experience when using a chatbot. This study will test the effect of the presence of buttons on the customer experience. This is interesting to study because it is important to create a unique and pleasurable experience for customers (Jain, Aagja & Badgare, 2017). A positive customer experience positively influences the consumer's behavioural intention, and this is interesting for a brand because it contributes to the purchase intention. This study will contribute to improving the experience because the presence of buttons in the conversational interface and its influence on the customer experience will be tested. Based on the outcomes of this study, companies should determine whether they implement buttons in their conversational interface of a chatbot.

Brand attitude is another important variable to study because it is defined as an individual's overall evaluation of a brand, which contributes to the behaviour toward the brand (Shimp, 2010). The effectiveness of the conversation with a chatbot is important for the level of brand attitude (Zarouali, Van den Broeck, Walrave & Poels, 2018). The usage of buttons is a functionality of a chatbot which potentially increases the effectiveness. Therefore, it is interesting to study the effect of the presence of buttons on brand attitude. It is relevant because it could clarify whether buttons should be presented in the conversational interface of a chatbot to increase the level of brand attitude.

Another main effect that is interesting to study is brand trust. Buttons are used by brands in order to assist the customer. It is promising to study whether the presence of buttons is perceived as, the brand acting and assisting the customer in the right way at the customer's best interest (Zarouali et al., 2018). Acting based on the customer's interest relates to the benevolence of a brand, which determines the level of brand trust. Also buttons contribute to solve problems efficiently, that is claimed to increase brand trust because it contributes to the brand's ability to solve the problem. Competence of a brand is another determinant of brand trust (Talmor & Bajewa, 2019).

Besides the main effects of the presence of buttons on the customer experience, brand attitude and brand trust being studied, the interacting effect of brand positioning will be studied. The behaviour of a consumer is based on hedonic gratification and utilitarian reasons. Hedonic gratification derives from experience of a service and utilitarian reasons are based on the functionalities of a product or service (Voss, Spangenberg and Grohmann, 2003). The type of conversational interface should be based on the goal that should be reached which is determined by the type of brand positioning. This study will focus on brand that position themselves as utilitarian or hedonic. When a brand position itself as utilitarian, the customers will also expect that the chatbot to be utilitarian. The chatbot from a utilitarian brand should present buttons in order to be functional and efficient. Whereas chatbots from a hedonic brand

focus on the experience and is used for example to entertain, in that case it could be that the presence of buttons is not required ((Voss et al., 2003; McTear, 2017). According to Voss et al. (2003), the hedonic and utilitarian dimensions enables the brand to test the effectiveness of the chatbot. Therefore, it is interesting to study whether there is an interaction between the brand positioning and the effects of buttons on the dependent variables.

The interacting influence of task complexity will also be tested. It is expected that complex tasks require the chatbot to present buttons in order to solve the task efficiently (Trivedi, 2019). The type of conversational interface should be based on the task that needs to be solved (McTear, 2017) and used where appropriate (Klopfenstein, Delpriori, Malatini & Bogliolo, 2017). Because the task complexity determines the type of conversational interface, it is interesting to study whether the task influences the presence of buttons on the dependent variables.

In order to test the influences on the customer experience, an online experiment will be conducted by using a 2 (button: button vs. no button) x 2 (brand positioning: hedonic vs. utilitarian) x 2 (task complexity: complex vs. easy) design. The participants are required to be between 18 and 65 because, this study will focus on a larger age group in order to get a broader overview. This research will specifically focus on the implementation of chatbots in the context of the hotel sector. The hotel sector is a great example in which utilitarian and hedonic brands are very different from each other. Utilitarian hotels focus on the business overnight stays and hedonic hotels focus on overnights stays for recreation.

The research questions central for this study are:

1. To what extent does the presence of buttons provided by the chatbot influence the customer experience, the attitude toward the brand and brand trust?
2. To what extent are the effects of the buttons provided by the chatbot on the customer experience, brand attitude and brand trust interacting with (a) hedonic/utilitarian brand positioning and (b) task complexity?

## **2. Theoretical framework**

### **2.1 The rise of chatbots**

In the evolving era of digital marketing, chatbots are promising to serve as a new type of service agent (Chung et al., 2018). A chatbot is defined as a conversational agent that stimulates an interactive human-like conversation mostly based on artificial intelligence (Shawar & Atwell, 2007). According to Lee and Choi (2017), chatbots are consistently available to solve customer problems, to build a relationship and contributing to increasing the customer experience. Human-machine interaction is increasingly becoming a prominent research topic (Hill et al., 2015). Chatbots serve as assistants providing information by means of customer service and to assist them in the decision-making process (Shawar & Atwell, 2007). Several studies (e.g. Shawar & Atwell, 2007; Trivedi, 2019; Androutsopoulou, Karacapilidis, Loukis & Charalabidis, 2019) show that chatbots are used in many different sectors such as banking, commerce, government, education and healthcare. Facebook and multiple online messaging systems such as Kik, Telegram, and WeChat opened up to developers offering to build chatbots. The bots offer high level of services such as messaging, payments, and authentication. User and conversational interface elements such as buttons, locations, images give developers the possibility to create an innovative experience (Klopfenstein et al., 2017).

Chatbots are becoming more advanced and many different types of bots arise, such as smart assistants with spoken language such as Google Home and Alexa. This study specially focuses on conversational bots that use chat as their language to interact with users. By analysing the most innovative and best chatbots, it is noticeable that most of the organizations which implemented chatbots are using buttons in the conversational interface (Siu, 2019; Brook, 2019; Chi, n.d.). However, there are many chatbots assessed as very good that do not use the buttons. It is claimed by Fincher (2018) and Feng (2019) that buttons should be used to optimize the chatbot conversation. Buttons are offered to solve a customer's query efficiently and to prevent the chatbot from failing to solve the problem because, miscommunication could occur during the human-machine interaction (Fincher, 2018; Feng, 2019; Sproutsocial, 2019). According to Höhn (2017), miscommunication could be divided into two types. First, non-understanding occurs when the chatbot is not able to process the customer's input. Secondly, a misunderstanding occurs when the chatbot mismatched the customer's input with another presentation. Misunderstanding and miscommunication result in a more negative customer experience and satisfaction with the brand and its chatbot. Buttons could prevent miscommunication during the customer's interaction with a chatbot (Fincher, 2018; Feng, 2019; Sproutsocial, 2019; Talmor & Baweja, 2019).

The conversational interface is defined as the front-end of a chatbot which allows the user to communicate with the chatbot by speech, text, and various other functionalities (McTear, 2017). Conversational refers to the interaction style with the chatbot. A type of interaction style that is basic but very effective is, an interaction based on turn-by-turn in which embedded links, buttons or drop-down menus are used. Another type of interaction style refers to a more flexible conversation in which a human-like conversation is stimulated by text or speech (McTear, 2017).

### **2.2 Chatbots using buttons as conversational interface**

Buttons are used to provide users with response options and a way to let customers respond to the chatbot in an unambiguous manner. This is an alternative for letting customers key in their requests and responses and is perceived to be efficient (Janarthanam, 2017). During the interaction, a chatbot could ask the customer a question that includes the possibility to answer by selecting a button. A button is a good example of a response that contributes to solving the

customers' query efficiently (Zarouali et al., 2018). When a customer starts talking to a chatbot, the first thing that could be asked by a chatbot is 'What can I do for you?'. Then, the chatbot offers the customer to reply by selecting a button for example 'I want to order something' or 'I want to return a product' to solve the query efficiently (Talmor & Baweja, 2019).

The buttons for instant replies are used to enhance the flow of a conversation. It is beneficial that buttons reduce interactions to a single tap and therefore typing is not required. However, according to Klopfenstein et al. (2017) the usage of buttons should be used where appropriate, and not when there is no added value for the user. This study also claimed that chatbots should not be designed too human-like because this could result in a negative experience. On the other hand, Feldberg, van Dolen, van Nes and Verhagen (2014) claimed that a negative feeling of social presence influences the satisfaction of the conversation. Using a conversational interface with buttons is not human-like but, it could result in a negative satisfaction because the social presence is lower when communicating with a chatbot that is more human-like and has an interface based on text or voice. The type of conversational interface, in this study the use of buttons, determines the experience.

Chatbots are used to adapt to the customer's needs and to enrich their experience (Horzyk, Magierski & Miklaszewski, 2009; Chung et al., 2018). According to Jain, Aagja and Badgare (2017) the customer experience is crucial in this era of digital marketing. It is important to "create a unique, memorable and pleasurable experience for customers" (p. 94). As defined by Jain et al. (2017) the customer experience is the aggregate of feelings, perceptions and attitudes that are shaped during the interaction, leading to cognitive, emotional, and behavioral responses. The customer experience is such a broad concept and therefore this study focuses on measuring the customer experience of using chatbots, based on the constructs: customer satisfaction, perceived usefulness, and perceived ease of use. Previous studies (Christodoulides, De Chernatony, Furrer, Shiu & Abimbola, 2006; Eeuwen, 2017; Trivedi, 2019) claimed that the constructs are significant predictors of measuring the customer experience by using chatbots.

As mentioned, this study will focus on the effects of a chatbot's interface in which buttons are used. There is a limited amount of studies on the conversational interface of chatbots. It is interesting to study the effects of buttons on the consumer's behaviour after communicating with a chatbot (McTear, 2017). The three dependent variables that are determinants of the behaviour and will be studied are customer experience, brand attitude and brand trust. As described earlier, the customer satisfaction, perceived usefulness and perceived ease of use are the constructs that measure the customer experience. Besides, the usage of buttons should be determined based on the brand positioning and the complexity of the task (Klopfenstein, 2017; McTear, 2017). Therefore, this study also tries to understand the interacting effect of brand positioning and task complexity. The next paragraphs describe and define the relation between the independent variable, the presence of buttons, and the dependent variables. Besides, the interacting effect of brand positioning and task complexity will be described.

### **2.2.1 Customer satisfaction**

It is expected that the conversations of a chatbot that use buttons results in a higher customer satisfaction compared to a chatbot that does not present buttons. Buttons are functionalities that contribute solving the problem and therefore it increases the communication quality. The customer satisfaction when communicating with a chatbot is based on the communication quality (McTear et al., 2016; McTear, 2017; Chung et al., 2018). If the communication quality increases because of the presence of buttons, the customer satisfaction also increases. Therefore, it is expected that the use of buttons result in a higher customer satisfaction.

Customer satisfaction is defined as the customer believes that using a chatbot should evoke positive feelings (Rust & Oliver, 2000). Previous studies (Lemon & Verhoef, 2016; Handro, 2018) claimed that customer satisfaction is also a component of the customer experience to measure the customer's feelings, the customer's cognitive evaluation. According to Chung et al. (2018), customer satisfaction by using a chatbot occurs when the chatbot exceed the positive expectations of the customer. Besides, satisfaction occurs when customers have the perception that they received quality communication. As proposed by McTear, Callejas and Griol (2016), the customer satisfaction can be measured based on factors related to the chatbot. The study claimed that the satisfaction can be predicted by the communication efficiency, that is determined by speed, dialogue conciseness and smoothness. Besides, the factors comfort and task efficiency can be used. The functionalities of the button enable the customer to communicate and solve the task efficiently with a chatbot, as well as very quick because immediate responses are given (McTear, 2017).

## **2.2.2 Perceived usefulness**

According to Rietz, Benke and Maedche (2019), functional design features have a significant effect on the perceived usefulness of chatbot. Buttons are seen as a functional design feature that is implemented in the conversational interface of a chatbot (McTear, 2017). Therefore, it is expected that the presence of buttons results in a more positive perceived usefulness. Besides, the presence of buttons allows customers to communicate with a brand quickly and to solve problems efficiently. This is also claimed to improve the perceived usefulness (Zarouali et al. 2018; Talmor & Baweja, 2019; Rietz et al., 2019).

Trivedi (2019) claimed that the perceived usefulness is also strongly related to customer experience. Perceived usefulness is the customer's belief that the chatbot enhances his or her performance (Davis, 1989). Many studies have proven that perceived usefulness is the strongest cognitive determinant for the acceptance of a new technology. Zarouali et al. (2018) claimed that perceived usefulness also plays a key role when determining whether an individual wants to use a chatbot and their attitude towards the chatbot.

## **2.2.3 Perceived ease of use**

According to Rietz et al. (2019), functional design features also have a significant effect on the perceived ease of use. The study tested functional design features and concluded that they positively influence the perceived ease of use. According to McTear (2017), the buttons used by chatbots are seen as a functional feature. Therefore, it is expected that the presence of buttons results in a more positive perceived ease of use compared to buttons being absent.

Perceived ease of use refers to the degree to which the user of a chatbot experience it as using it without any efforts (Davis, 1989). Segars and Grover (1993) claimed that the perceived ease of use is determined by whether it is easy to use, to learn and to become skilful. It has been identified as an important intrinsic motivator when accepting a new technology (Zarouali et al., 2018).

## **2.2.4 Brand attitude**

McTear (2017) and Rietz et al. (2019) claimed that utilitarian (cognition) and hedonic (affective) features of a chatbot have a significant effect on the effectiveness and outcomes of a chatbot conversation. According to Zarouali et al. (2018), the attitude toward brands providing chatbots is based on cognitive and affective determinants. The authors claim that perceived usefulness and perceived helpfulness are two cognitive determinants and positively related to the customer's attitude toward a brand. Pleasure, arousal and dominance are significant affective determinants of the customer's brand attitude. It is expected that the presence of the buttons

has a positive effect on the cognitive determinants and therefore creating a higher level of brand attitude. The effectiveness of the conversation with a chatbot is important for the level of brand attitude (Zarouali et al., 2018).

A button is a functional feature that increases the effectiveness of a chatbot conversation. The effectiveness of the conversation with a chatbot is important for the level of brand attitude, because it is a determinant of the overall evaluation of a brand (Zarouali et al., 2018). The customer's attitude toward a brand is defined by Mitchell and Olson (1981) as an individual's overall evaluation of a brand. This means that brand attitude mainly depends on a customer's perceptions regarding the brand that is claimed to be a reliable predictor of the persons behaviour toward the brand (Shimp, 2010). This study expect that the presence of buttons results in a higher level of brand trust, because miscommunication could occur when buttons are absent. If miscommunication occurs, the overall evaluation of a customer toward the brand and its chatbot is negative (McTear, 2017; Fincher, 2018; Feng, 2019).

## **2.2.5 Brand trust**

It is interesting to study whether the buttons have an effect on the customer's trust in a brand. Buttons can be used in order to direct the customer into the right way in the customer's best interest (Choudhury et al., 2002) and to create an unique and efficient experience by solving tasks (ability), that is expected to increase brand trust (Choudhury et al., 2002; Zarouali et al., 2018; Talmor & Baweja, 2019). Buttons are seen as a structured interface that focuses on solving the task efficiently (McTear, 2017). The level of brand trust increases because the brand is seen as benevolent when acting to the customer's interest by directing them into the right way by providing buttons. Besides, the brand could be seen as competent because the buttons are functional designs that are implemented in order to have a higher chance to solve the task (McTear, 2017). In summary, the presence of buttons results in a high level of benevolence and competence for the brand which influence the level of brand trust.

According to Mayer, Davis and Schoorman (1995) the dimensions of brand trust are ability, benevolence and integrity. This study will not focus on the latter because this focuses on a set of rules adhered by the trustor which are not measurable. Ability is defined by the authors as the "group of skills, competencies and characteristics that enables a party to have influence within some specific domain." (p. 717). Benevolence is defined by Mayer et al. (1995) as "the extent to which a trustee is believed to want to do good to the trustor, aside from an egocentric profit motive." (p. 718). Being responsive, favourable motives and having goodwill toward another are scale items of the trustee benevolence. Ability is measured as the capability, good judgment, expertness and dynamism (Choudhury, Kacmar & McKnight, 2002).

## **2.2.6 The interaction of hedonic and utilitarian brand positioning**

Brand positioning sets directions of marketing activities and involves the establishment of key brand associations in the customers minds (Keller & Lehmann, 2006). According to Voss et al. (2003), customers perform a consumption related behaviour for two basic reasons: (1) hedonic gratification and (2) utilitarian reasons. The hedonic gratification is described as the experience of using a product or service. Utilitarian reasons are based on the performed functions of a product or service. Brands position themselves and their products or services based on the hedonic or utilitarian dimension they perceive as more important. Therefore, the type of brand positioning is determinant when deciding the conversational interface of a chatbot (McTear, 2017).

When the chatbot focus on solving problems efficiently, it is communicating in a utilitarian way (Chung et al., 2018). The usage of buttons by the chatbot can be described as a functional aspect in order to solve problems efficiently. According to Viss et al. (2003), effectivity,

helpfulness, functionality, necessary and practicality are items that measures the utilitarian dimension. Therefore, a chatbot that is deployed by a brand that positions themselves as utilitarian should focus on the items previously mentioned. Products or services that are highly functional result in less involvement of consumers (Viss et al., 2003). According to Lardhare et al. (2017), utilitarian services are sought for objective, functional and instrumental benefits. Customers expect the chatbot of a utilitarian brand to focus on functionality. Therefore, chatbots deployed by utilitarian brands should focus on efficiency and provide buttons to improve the functionality of the service from a chatbot.

According to Voss et al. (2003), hedonic brands should focus on the experience of using a product or service, in the context of this study: a chatbot. For example, the use of entertainment is a hedonic way of communicating and it results in a positive customer experience. Efficiency and functionality should also be taken into account for a hedonic chatbot, but it is a secondary component. Customers of a hedonic brand expect the chatbot to be fun and entertaining (Chung et al., 2018). Hedonic brands are usually operative in sectors such as tourism, leisure, entertainment, fashion, and luxury (Ladhari, Souiden & Dufour, 2017). A previous study (Klopfenstein et al., 2017) claimed that only using buttons is not enjoyable to use, they should only be used where appropriate. Therefore, it is expected that hedonic brands should not use buttons because they should focus on the experience.

### **2.3.6 The interaction effect of task complexity**

It is expected that task complexity has an interaction effect with the buttons, because the type of conversational interface should be determined based on the task that needs to be solved (McTear, 2017). It is expected that complex tasks require the chatbot to present buttons in order to solve the task efficiently (Trivedi, 2019). If the customer's query cannot be solved because buttons are not offered during the conversation, negative customer experience will occur (Trivedi, 2019). Therefore, it is interesting to study the interacting effect of task complexity.

Task complexity is defined as the complexity of the customer's task that needs to be solved. Nowadays, chatbots are able to perform complex tasks. Complex tasks by chatbots are claimed to have higher ambiguity and uncertainty. For example, disclosing personal information to a chatbot in order to purchase a product requires a higher complexity because, complicated actions need to be done in order to solve the task (Androutsopoulou et al., 2019). Customers have the opinion that chatbots are not able to offer solutions for complex problems. However, they also expect that chatbots based on artificial intelligence increase their convenience of completing the tasks (Trivedi, 2019). Easy tasks focus on answering questions with basic information without complicated actions. Complex task focus on specific requests that need complicated actions to be taken (Fast, Chen, Mendelsohn, Bassan & Bernstein, 2018).

## 2.3 Hypotheses

As described, this research will focus on studying the chatbots with a conversational interface based on button and its effects on the customer satisfaction, perceived usefulness, perceived ease of use, brand attitude, and brand trust. Based on the described expectations, the first hypothesis is defined:

*H.1. The presence of buttons will result in a more positive (a) customer satisfaction, (b) perceived usefulness, (c) perceived ease of use, (d) brand attitude, and (e) a higher level of brand trust compared to the absence of buttons in a chatbot conversation.*

Besides the main effect of the presence of buttons on the dependent variables, the interacting effect of brand positioning and task complexity will also be studied. Based on the theoretical framework, the following hypotheses are defined:

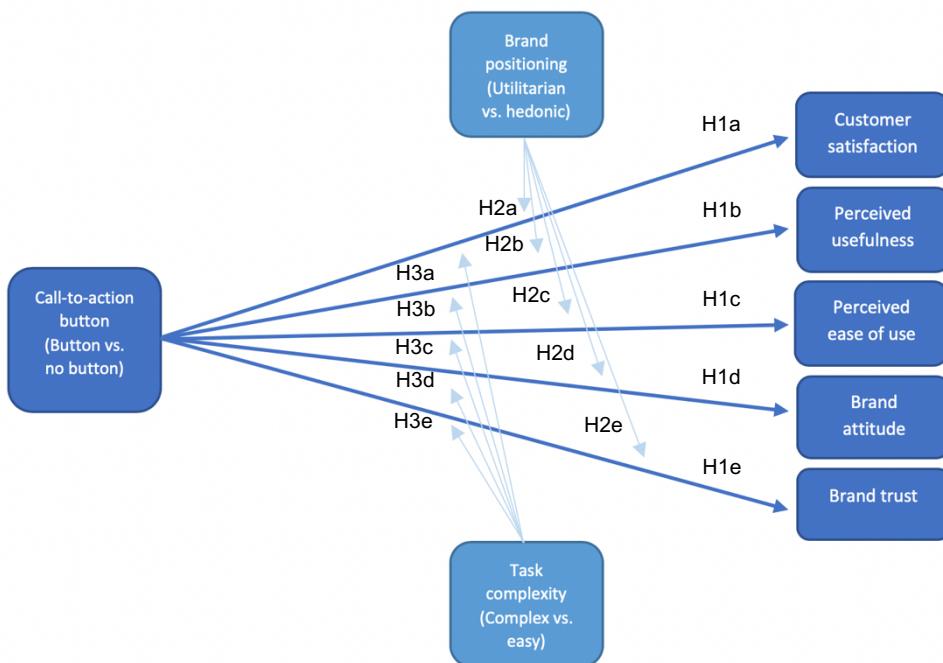
*H.2. The presence of buttons will result in a more positive (a) customer satisfaction, (b) perceived usefulness, (c) perceived ease of use, (d) a higher level of brand attitude, and (e) brand trust when used by a utilitarian brand.*

*H.3. For complex tasks the presence of buttons is necessary to create a more positive (a) customer satisfaction, (b) perceived usefulness, (c) perceived ease of use, (d) a higher level of brand attitude, and (e) brand trust.*

## 2.4 Research model

For this study, the effect of the presence of buttons on customer satisfaction, perceived usefulness, perceived ease of use, brand attitude, and brand trust will be tested. Besides, the interaction of brand positioning and task complexity on those effects will be studied. Figure 2 shows the research model central for this study.

Figure 2. The research model



### 3. Methodology

#### 3.1 Research design

As shown in figure 2, this study tested the research model by conducting a 2 (presence of button: button vs. no button) x 2 (brand positioning: utilitarian vs. hedonic) x 2 (task complexity: complex vs. easy) online experiment. During this experiment, the independent variables were manipulated in order to test the effects on customer satisfaction, perceived usefulness, perceived ease of use, brand attitude and brand trust. By using a 2 x 2 x 2 research design, participants of the experiment enrolled in one of the eight conditions in which a specific independent variable was manipulated. Table 1 shows the experimental conditions.

*Table 1. Experimental conditions*

Condition number	Presence of buttons	Brand positioning	Task complexity
Condition 1	Buttons	Bluebird Executive Hotels	Complex task
Condition 2	No buttons	Bluebird Executive Hotels	Complex task
Condition 3	Buttons	Lime Holiday Hotels	Complex task
Condition 4	No buttons	Lime Holiday Hotels	Complex task
Condition 5	Buttons	Bluebird Executive Hotels	Easy task
Condition 6	No buttons	Bluebird Executive Hotels	Easy task
Condition 7	Buttons	Lime Holiday Hotels	Easy task
Condition 8	No buttons	Lime Holiday Hotels	Easy task

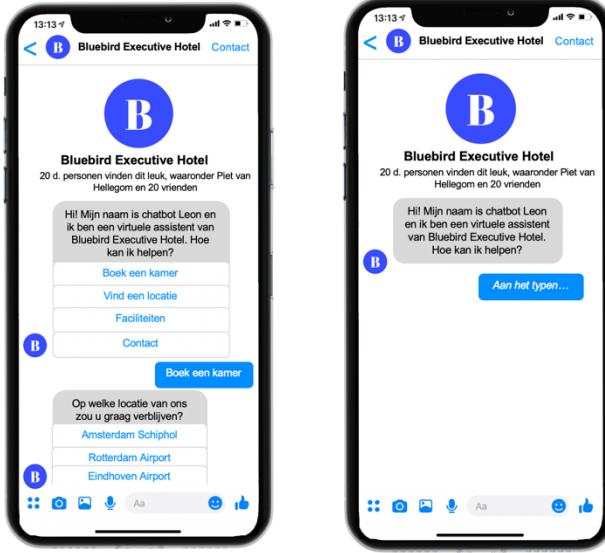
In order to test the eight different conditions, eight different chatbot conversations were designed by means of videos. For example, the chatbot conversation regarding condition 1 focused on a chatbot from BlueBird Executive Hotels that used buttons in their conversational interface. The task that needed to be solved was complex. The customer needed to book an overnight stay in the hotel by using the chatbot. The participants of the experiment were shown the video of the chatbot conversation, based on their perception they needed to answer the questionnaire.

Besides the online experiment, interviews were conducted in order to gather more in-depth information about the effects of buttons used by chatbots to clarify and justify the outcomes of the results. The interviewees were required to have participated in the online experiment and were interviewed to support and clarify the results from the online experiment. When starting the interviews, they were shown a video of condition 1 and condition 2 (Figure 3) to show them the difference between a chatbot that use buttons and one without buttons. After being confronted to the chatbot conversation, the interview questions were asked.

#### 3.2 Stimulus materials

In order to examine the 2 x 2 x 2 research design, eight different chatbot conversations were developed. Each participant of the online experiment was randomly assigned to one of the eight conditions. The first manipulation of the condition was the presence or absence of buttons in the conversational interface. When buttons were presented in the chatbot conversation, the user had to answer by touching an answer for a quick reply. For the conditions in which buttons were absent, the user had to key in the answer by themselves. Figure 3 shows the difference between a chatbot that present buttons and a chatbot that does not.

Figure 3. Buttons presented (A) and no buttons (B)



The second manipulation was brand positioning. In order to measure the interaction of brand positioning, fictional companies from the hotel sector were used that position themselves as utilitarian or hedonic. The fictional companies during the online experiment:

- Company 1 (Utilitarian): The first hotel was called "Bluebird Executive Hotel" and position itself as a utilitarian brand. Bluebird is a hotel chain with multiple locations in the Netherlands that focus on the business market.
- Company 2 (Hedonic): The second hotel was called "Lime Holiday Hotels" and position itself as a hedonic brand. Lime hotels is also a hotel chain that is well known its art and the playful and community atmosphere. Their target group are mainly students and young adults.

Finally, to measure the interaction of task complexity, two differential tasks were manipulated for this experiment. The first manipulation of task complexity had a higher level of complexity. Multiple complex actions were taken in order to solve the task. The second manipulation is an easy task in which a single or a few simple actions were taken in order to solve the task.

- Task 1 (Complex): The task focused on an interaction between a customer and chatbot in which the latter gave advice about the stay and the customer eventually made a reservation for an overnight stay. To complete this task, multiple actions were required to be taken. Besides, active thinking was required.
- Task 2 (Easy): The easy task focused on the customer that was asking the chatbot to receive information about the address of the hotel. A few actions were required to solve this task and minimal thinking was required.

### 3.3 Research procedure

This study specifically focused on people from The Netherlands. Therefore, the online experiment (the questionnaire and the chatbot conversations) was created in Dutch. By using the snowball sampling method, participants were gathered to enter the online experiment. The anonymous link was shared through WhatsApp, LinkedIn, Facebook and Instagram. After conducting the online experiment, interviews were conducted in order to gather more in-depth information about the presence of buttons and its effects. The following paragraphs describe the procedure of the online experiment and the interviews.

First, an online experiment was conducted to test the effects of buttons on the dependent variables and the interaction of brand positioning and task complexity. The online experiment existed of eight different manipulations in which buttons, task complexity and brand positioning were manipulated. Therefore, eight different conversations were created in order to conduct the online experiment. When a participant enrolled the online experiment through a shared link, he or she entered one of the eight conditions. Each condition had its own video of a chatbot conversation. The participants were shown a case and a video of a conversation between a chatbot and a customer. The case emphasized what the main goal of the user was to complete by using the chatbot and gave background information about the brand. Besides, it was addressed that the participants of the online experiment should place oneself in the position of the customer, because it was not possible to let the participants of the online experiment talk to the chatbot themselves.

After being exposed to the video of the chatbot conversation, the participants filled in a questionnaire in order to measure the effects on the presence buttons on the customer satisfaction, perceived usefulness, perceived ease of use, brand attitude and brand trust. After the questionnaire, the case and video of the chatbot conversation were shown again. By doing so, the manipulation check was conducted to test whether the manipulation worked. At the end of the online experiment, a few demographic questions were asked. Those were questions about their age, their highest level of education, where they live, and how many times they had used a chatbot before.

Second, interviews were held to support and clarify the results from the online experiment. In total, 16 interviewees participated in the short interviews. The participants of the online experiment were living in the Netherlands and their highest level of education is a bachelor at a university of applied sciences. Therefore, the respondents of the interview were required to meet the demographic criteria when participating to the interview. Besides, it was also required that they participated to the online experiment.

At the beginning of the interviews, the first two conditions were shown. By doing so, the interviewees were exposed to a chatbot conversation in which a button was used and not. The reason for this is that they might have seen a conversation without buttons, and they are not aware of chatbots using buttons as their conversational interface and vice versa. In-depth interviews were conducted with open ended questions in order to gather support and clarification for the outcomes of the online experiment (Minichiello, Aroni & Hays, 2008). The questions were drawn based on the dependent variables and the interacting effects of brand positioning and task complexity. The outcomes of the interviews were not transcribed fully and coded. However, notes were made (appendix 3), and quotes were used to describe and discuss the results. Table 2 shows the questions that were used for the interviews. The interview questions were formulated in Dutch because the interviewees were all from the Netherlands.

*Table 2. Interview questions (Dutch)*

Subject	Question
<i>Buttons</i>	<p>1. Nu je hebt gezien dat een chatbot buttons gebruikt of niet, welke krijgt dan jouw voorkeur? En waarom heeft de een jouw voorkeur?</p> <p>2. Heb je wel eens eerder met een chatbot gepraat die buttons heeft gebruikt? Zo ja, hoe heb je dat ervaren? Hetzelfde geldt voor zelf typen.</p>
<i>Customer satisfaction</i>	<p>3. Stel je voor dat je praat tegen de chatbot uit de video. Zou je dan meer tevreden zijn als je zelf gaat typen of wanneer je buttons selecteert? En waarom?</p> <p>4. Wat voor gevoelens zouden bij jou ontstaan als je alleen buttons aan moet klikken?</p>

	5. Hoe zou jij een gesprek ervaren met een chatbot waarin je buttons gebruikt?
<i>Perceived usefulness</i>	<p>6. Wat zou voor jou de toegevoegde waarde zijn van communiceren met een chatbot die buttons gebruikt? En een chatbot zonder buttons?</p> <p>7. Stel je voor dat je de taak opnieuw gaat uitvoeren met een chatbot die buttons gebruikt, in welk opzicht wordt de communicatie verbeterd met het bedrijf als je gaat kijken naar andere kanalen?</p> <p>8. Waarom zou jij wel of niet een chatbot met buttons eerder gebruiken dan een chatbot waar je zelf moet typen?</p> <p>9. Is het gebruik van een chatbot nuttig voor jou als je alleen buttons hoeft te selecteren? En waarom?</p>
<i>Perceived ease of use</i>	<p>10. Zou je het gemakkelijker vinden om een chatbot te gebruiken met alleen buttons of wanneer je zelf moet typen? En waarom?</p> <p>11. Is het gemakkelijk om de chatbot te gebruiken als alleen buttons worden gebruikt?</p> <p>12. Hoe zou jij de gebruiksvriendelijkheid ervaren als je een chatbot gebruikt die alleen met buttons werkt?</p> <p>13. Wat zouden jouw frustraties zijn als je je verplaatst in de klant?</p>
<i>Brand attitude</i>	<p>14. Hoe zou jij een bedrijf beoordelen die een chatbot met buttons gebruikt? En een bedrijf dat een chatbot heeft waarom alleen typen mogelijk is?</p> <p>15. Waarom zou je wel of niet tevreden zijn met het bedrijf?</p> <p>16. Op welke manier ervaar je het bedrijf? Probeer weer de afweging te maken tussen een bedrijf die een chatbot heeft zonder en met buttons?</p> <p>17. Wat zou jouw houding beïnvloeden ten opzichte van het bedrijf en waarom?</p>
<i>Brand trust</i>	<p>18. En in hoeverre zou jij vertrouwen hebben in het bedrijf? Beeld je jezelf voor dat je net een gesprek hebt gehad met een chatbot die buttons gebruikt?</p> <p>19. Vertrouw je een chatbot met of zonder buttons meer? En waarom?</p> <p>20. Denk je dat het bedrijf de buttons gebruikt om je te helpen, of eerder zou handelen in eigen belang? En wanneer je een gesprek aan zou gaan waarin alleen getypt wordt?</p>

### 3.4 Participants of the experiment

The snowball sampling method was used to gather participants for entering the experiment. In total 518 participants were recorded whom started the online experiment. 196 of those 518 did not complete the survey. Of the 322 participants who completed the survey, 14 participants were excluded because they completed the survey in such a short time, their answers were assigned as useless. The total useful respondents for analysis were 308.

The total of men (50.3%) and women (48.7%) participating to the online experiment was divided equally, and the mean age is 30 ( $S = 12.26$ ). Overijssel (49.75%) is the province in which most of the participants live. Besides, the highest level of education of the biggest group (38.3%) of the participants is a bachelor of the university of applied science (Hbo bachelor). To get an overview of the participant's previous experience with using chatbots, they were asked to indicate their frequent use of chatbots. It is notable that 92.2% of the participants never, rarely and now and then use chatbots to interact with companies. It is interesting to see the demographic characteristics of the participants across the eight conditions. Table 3 shows the total number of participants that enrolled in the conditions, the mean value for age and the distribution of gender.

Table 3. Demographics across the conditions

Condition	N =	Age	Gender
1: Pres. – Ut. – Compl.	38	M = 27, S = 8.49	42.2% (m) / 55.3% (w) / 2.6% (pref. no answer)
2: Abs. – Ut. – Compl.	36	M = 32, S = 14.66	55.6% (m) / 44.4% (w)
3: Pres. – Hed. – Compl.	45	M = 29, S = 10.92	46.7% (m) / 53.3% (w)
4: Abs. – Hed. – Compl.	42	M = 32, S = 13.65	47.6% (m) / 52.4% (w)
5: Pres. – Ut. – Easy	36	M = 31, S = 12.22	63.9% (m) / 36.1% (w)
6: Abs. – Ut. – Easy	37	M = 30, S = 12.27	59.5% (m) / 37.8% (w) / 2.7% (pref. no answer)
7: Pres. – Hed. – Easy	38	M = 32, S = 13.77	41.7% (m) / 55.6% (w)
8: Abs. – Hed. – Easy	36	M = 29, S = 11.39	50.3% (m) / 48.7% (w) / 2.8% (pref. no answer)
<b>Total</b>	<b>308</b>	<b>M = 30, S = 12.26</b>	<b>50.3% (m) / 48.7% (w) / 1% (pref. no answer)</b>

### 3.5 Pre-test

A pre-test was conducted to identify problems regarding measuring the variables and instruments being used. The presence of buttons was pre-tested by showing two videos of a chatbot conversation in which buttons were present and absent. The participants recognized when buttons were presented and when buttons were absent. The brand positioning was pre-tested by testing whether the companies are perceived as utilitarian and hedonic. Company 1 (Bluebird Executive Hotel) and company 2 (Lime Holiday Hotels) were compared to test whether they were perceived as utilitarian or hedonic. The difference between the companies was also recognized for brand positioning. The task complexity was pre-tested by comparing two tasks. Questions were asked to test whether the task was perceived as complex or not. Task 1 (Complex) focused on booking an overnight stay at the hotel with a chatbot. Task 2 (Easy) focused on a customer asking a chatbot about the address of the hotel. The questions asked measured the level of complexity of the tasks and the difference between the two was recognized.

### 3.6 Manipulation check

The questions that were asked during the online experiment that tended to measure the manipulations are shown in appendix 1. This study focused on measuring the effect of buttons. Therefore, during the experiment the presence and absence of the button was tested. An independent sample t-test was conducted to ensure the significant difference between the presence of a button. The results show a significant difference between the button presented ( $M = 3,08$ ,  $S = 1,05$ ) and the absence of the button ( $M = 4,09$ ,  $S = 0,65$ ), with  $t(306) = -10,19$ ,  $p < 0,000$ . According to the outcome of the independent sample t-test, the respondents recognized the presence and absence of the button. Despite the significant difference, the absence of the button was not perceived as being that absent since the mean is in the middle of the 5-point Likert scale.

The second manipulation check was conducted for the brand positioning manipulation. The independent sample t-test was used to test the significant difference between a hedonic and utilitarian brand positioning. The results show a significant difference for the two manipulations of brand positioning. The results show a significant difference between the hedonic brand positioning ( $M = 3,25$ ,  $S = 0,83$ ) and the utilitarian brand positioning ( $M = 3,02$ ,  $S = 0,77$ ), with  $t(306) = 2,52$ ,  $p < 0,006$ . However, the hedonic brand is not perceived as a brand that positions itself as hedonic compared to the 5-point Likert scale. This also applies for the utilitarian brand.

The last manipulation check tested the manipulation of task complexity. An independent sample t-test was also conducted to ensure the significant difference of task complexity. The results of the independent sample t-test show a significant difference between an easy task ( $M = 2,77$ ,  $S = 0,76$ ) and a complex task ( $M = 3,10$ ,  $S = 0,70$ ), with  $t(306) = 2,52$ ,  $p < 0,000$ . However, the complex task was not experienced as that complex to solve since the mean is somewhat in the middle compared to the 5-point Likert scale.

A factor analysis was performed for the manipulation items to determine the construct validity of the manipulations. In total four phases of the factor analysis were conducted. Table 4 shows the final factor analysis. The presence of buttons should have been measured by four items. However, the items "The chatbot gave possible answers on questions asked" and "The chatbot gave comprehensive assistance to answer questions" were not measured correctly. For this experiment it was proposed to study the brand positioning with ten scale items. However, after conducting the factor analysis, only two items measured the brand positioning correctly. Only one item for task complexity that focused on the task difficulty was not measured correctly.

*Table 4. Factor analysis manipulation items*

Item	Factor		
	1	2	3
Presence Button – Selection menu	,913		
Presence Button – Clickable answering options	,918		
Task Complexity – A few/Multiple actions			,803
Task Complexity – General/Specific questions			,636
Task Complexity – Low/High uncertainty			,492
Brand Positioning Hedonic – Dull/Exciting		,871	
Brand Positioning Hedonic – Not delightful/Delightful		,874	

	Button	Brand pos.	Task comp.
Initial Eigenvalues	1,757	1,642	1,261
Explained Variance	25,1 %	23,46%	18,01%
Cronbach's Alpha	,818	,744	,337

All the initial eigenvalues from the factors loading are above 1. In general, an item with an eigenvalue that is higher than 1, is perceived as a valid item. As shown in table 4, the total explained variance of the manipulation items is higher than 50%. As described in a study from Peterson (2000), the total explained variance of the constructs should be higher than 50% to be considered as good.

After the factor analysis was conducted, the reliability of the items was analysed by using the Cronbach's alpha. According to Dennick and Tavakol (2011), items are perceived as acceptable when ranging from ,70 to ,95. As shown in table 4, the items for the presence of buttons and brand positioning are acceptable values. The Cronbach's alpha, the reliability, of the items for task complexity is very low. Therefore, we cannot draw conclusions about the interaction effect of task complexity on the presence of buttons that are reliable.

### **3.7 Measurement items**

During the online experiment a questionnaire was used which used the 5-point Likert scale. The Likert scale ranged from "Strongly disagree (1)" to "Strongly agree (5)". The items from the questionnaire focused on measuring the constructs of customer experience: customer satisfaction, perceived usefulness and perceived ease of use. Besides, brand attitude and brand trust were measured. The measurement items that are shown in appendix 2 are in Dutch because this study focused on participants from the Netherlands.

First, the customer satisfaction of using chatbots is measured by using the multi-item scale from previous studies (e.g. Oliver & Swans, 1989a; 1989b; Jones, Mothersbaugh & Beatty, 2000). The seven scale items of customer satisfaction were measured by using a 5-Point Likert scale. The items tended to measure the satisfaction of the chatbot's provided assistance. Second, to measure the perceived usefulness the scale items from Davis (1989) were used and modified in the context of chatbots. The six scale items of perceived usefulness were measured by using a 5-Point Likert scale. Third, the items that tended to measure the perceived ease of use were used from the previous study of Davis (1989). Those were also modified in the context of chatbots. In total, six items were measured by using a 5-Point Likert scale.

Fourth, six scale items were used based on previous studies (Lamb & Low, 2000; Chan-Olmsted & Kim, 2007; Najmi, Atefi & Mirbagheri, 2012) that tended to measure the attitude towards the brand after being exposed to the conversation between the customer and the chatbot. Finally, the participant's level of trust in Bluebird Executive Hotels or Lime Holiday Hotels after experiencing the chatbot conversation was measured by using seven scale items from McKnight, Choudhury and Kacmar (2002). The constructs that were used to measure the level of brand trust were ability (4 items) and benevolence (3 items). The measurement items of the five dependent variables can be found in appendix 2.

### **3.8 Construct validity and reliability**

The construct validity was tested in order to demonstrate whether the online experiment measured what was supposed to be measured. In order to do so, a factor analysis was conducted. All the items from the questionnaire were analysed to see whether they loaded in the right construct or not. First, a factor analysis was performed for the measurements was conducted. In order to test the reliability of the constructs, the Cronbach's Alpha was used to test internal consistency within the constructs.

The importance of the factor analysis for the manipulation items was to determine the construct validity of the manipulations. Table 5 shows the final factor analysis for the measurement items. In total, three phases of the factor analysis were conducted. Three out of six items did not measure what they should have for perceived ease of use. Brand attitude and brand trust were loaded as the same factor. However, for this study a differentiation was made in the theoretical framework. Therefore, brand attitude and brand trust were loaded separately. Benevolence and competence are loading in one single factor, the factor for brand trust.

The initial eigenvalues from the factors loading are all above 1 except for the factor of perceived ease of use (.997). Besides, the total explained variance is higher than 50% for the measurement items. As shown in table 5, the factors for the measurement items all have a high Cronbach's Alpha value. The Cronbach's Alpha for perceived ease of use is below ,70. However, this is still very close to 0,70 and therefore the items could still be perceived as reliable.

Table 5. Factor analysis measurement items

Items	Factor				
	1	2	3	4	5
Customer satisfaction – Pleasant service			,727		
Customer satisfaction – Satisfaction of service			,765		
Customer satisfaction – Assist to solve problem			,745		
Customer satisfaction – Of good value			,760		
Customer satisfaction – Favorable			,560		
Customer satisfaction – Overall satisfaction			,679		
Perceived usefulness – Enable comm. easily				,627	
Perceived usefulness – Improves quality				,655	
Perceived usefulness – Achieve goal quickly				,699	
Perceived usefulness – Collect info easily				,697	
Perceived usefulness – Overall usefulness				,616	
Ease of use – Difficult to use					,828
Ease of use – Appearance frustrates me					,622
Ease of use – Overall easy to use					,533
Brand attitude – The brand is good		,688			
Brand attitude – Perceive brand as pleasant		,768			
Brand attitude – Satisfied with the brand		,638			
Brand attitude – Perceive brand as enjoyable		,768			
Brand attitude – Perceive brand as likable		,631			
Brand attitude – Positive feelings towards brand		,663			
Brand trust – Believe brand act in my interest			,747		
Brand trust – Brand would do its best to help me			,697		
Brand trust – Brand interested in my well-being			,632		
Brand trust – Brand is competent to help me			,555		
Brand trust – Brand perform its role good			,716		
Brand trust – Overall capable and proficient			,618		
Brand trust – In general very knowledgeable			,625		

	Brand attitude	Brand trust	Customer satisfaction	Perceived usefulness	Perceived ease of use
Initial Eigenvalues	11,854	2,381	1,320	1,175	,997
Explained Variance	43,9%	8,82%	4,89%	4,35%	3,69%
Cronbach's Alpha	,920	,883	,878	,843	,665

## 4. Results

### 4.1 Results of the online experiment

To analyse the results from the online experiment, a multivariate analysis of variance (MANOVA) was conducted to study different effects of the independent variable on the dependent variables. In order to test the different effects of the presence of buttons on the dependent variables, a Wilk's Lambda test was used. Based on the test it can be concluded that there is no significant main effect of the presence of the buttons on the dependent variables, with  $\Lambda = 0.984$ ,  $F (5, 296) = 3.060$ ,  $p = 0.430$ . It can be concluded that all the hypotheses are not supported by the outcomes of the online experiment. In order to test whether the interacting effects of brand positioning and task complexity, are significant, a Wilk's Lambda test was used. Based on the test it can be concluded that brand positioning, with  $\Lambda = 0.974$ ,  $F (5, 296) = 1.580$ ,  $p = 0.166$ , and task complexity, with  $\Lambda = 0.996$ ,  $F (5, 296) = 0.259$ ,  $p = 0.935$ , do not have a significant interacting effect.

*Table 6. MANOVA of independent variables*

<b>Effect</b>	<b>Wilks' Lambda</b>	<b>F-value</b>	<b>P</b>
<i>Buttons</i>	0.984	3.060	0.430
<i>Buttons * Brand Positioning</i>	0.974	1.580	0.166
<i>Buttons * Task Complexity</i>	0.996	0.259	0.935

*Table 7. The mean scores for the independent variables*

<b>Effect</b>	<b>Dependent variable</b>	<b>Manipulation button</b>	<b>Interaction effect</b>	<b>Mean</b>	<b>Std. deviation</b>
<i>Button</i>	Customer satisfaction	Presented		3,94	0,046
		Absent		4,02	0,047
	Perceived usefulness	Presented		3,48	0,059
		Absent		3,62	0,060
	Perceived ease of use	Presented		3,74	0,057
		Absent		3,71	0,056
	Brand attitude	Presented		3,35	0,058
		Absent		3,38	0,059
	Brand trust	Presented		3,40	0,052
		Absent		3,48	0,053
<i>Button * Brand positioning</i>	Customer satisfaction	Presented	Utilitarian	3,93	0,067
			Hedonic	3,96	0,064
		Absent	Utilitarian	4,01	0,068
			Hedonic	3,96	0,066
	Perceived usefulness	Presented	Utilitarian	3,42	0,086
			Hedonic	3,54	0,081
		Absent	Utilitarian	3,59	0,086

		Hedonic	3,64	0,084	
Perceived ease of use	Presented	Utilitarian	3,76	0,082	
		Hedonic	3,67	0,078	
	Absent	Utilitarian	3,71	0,082	
		Hedonic	3,77	0,080	
Brand attitude	Presented	Utilitarian	3,35	0,084	
		Hedonic	3,35	0,080	
	Absent	Utilitarian	3,35	0,085	
		Hedonic	3,41	0,082	
Brand trust	Presented	Utilitarian	3,45	0,076	
		Hedonic	3,35	0,072	
	Absent	Utilitarian	3,46	0,076	
		Hedonic	3,50	0,074	
<i>Button * Task complexity</i>	Customer satisfaction	Presented	Complex	3,90	0,064
			Simple	3,99	0,067
		Absent	Complex	4,04	0,068
			Simple	3,99	0,066
	Perceived usefulness	Presented	Complex	3,39	0,081
			Simple	3,58	0,086
		Absent	Complex	3,56	0,084
			Simple	3,67	0,086
	Perceived ease of use	Presented	Complex	3,70	0,078
			Simple	3,73	0,082
		Absent	Complex	3,78	0,080
			Simple	3,70	0,082
Brand attitude	Presented	Complex	3,35	0,080	
		Simple	3,35	0,084	
	Absent	Complex	3,43	0,082	
		Simple	3,33	0,085	
Brand trust	Presented	Complex	3,41	0,072	
		Simple	3,38	0,076	
	Absent	Complex	3,56	0,074	
		Simple	3,40	0,076	

The effect on each dependent variable is described in this chapter. When examining the results of the analysis, there seems to be a pattern in the answers given. Although it was expected that buttons presented resulted in a more positive outcome, the results showed the exact opposite. The means of the outcomes for the dependent variables was always higher when the buttons were absent. This is in contradiction with the outcomes of previous studies and the expectations, as described in the theoretical framework. The pattern is interesting to show because it is an interesting outcome for this study and future research. Table 7 shows the means of the effects of the manipulation on the dependent variables.

The first proposed main effect was the influence of buttons on the customer satisfaction. It was expected that the presence of buttons in a conversation with a chatbot resulted in a higher customer satisfaction. The results of the MANOVA analysis shows that the presence of buttons does not have a significant effect on the customer satisfaction, with  $p = 0.258$  ( $F = 1.282$ ), therefore hypothesis 1a is rejected. The second main effect was the influence of buttons on the perceived usefulness. It was expected that the presence of buttons resulted in a more positive perceived usefulness. Based on the outcomes of the MANOVA analysis, the presence of buttons does not have a significant effect on the perceived usefulness, with  $p = 0.103$  ( $F = 2.678$ ). Based on the outcomes, hypothesis 1b is rejected. The third proposed main effect was the influence of buttons on the perceived ease of use. It was expected that the presence of buttons resulted in a more positive perceived ease of use. Based on the outcomes of the MANOVA analysis, the presence of buttons does not have a significant effect on the perceived ease of use, with  $p = 0.762$  ( $F = 0.092$ ). Hypothesis 1c is also rejected based on the outcomes of the MANOVA analysis.

The fourth proposed main effect was the influence of buttons on the brand attitude. It was expected that the presence of buttons resulted in a more positive attitude towards the brand. However, the outcomes of the MANOVA analysis showed that there is no significant main effect of the presence of buttons on the brand attitude,  $p = 0.707$  ( $F = 0.141$ ). Based on the outcomes, hypothesis 1d is also rejected. Finally, the last proposed main effect for this study was the influence of buttons on brand trust. It was expected that the presence of buttons resulted in a more positive brand trust. However, the outcomes of the MANOVA analysis showed that there is no significant main effect,  $p = 0.270$  ( $F = 1.222$ ). Based on the outcomes, hypothesis 1e is also rejected.

Besides the main effects, it was expected that the effects of buttons had an interaction effect with brand positioning and task complexity. The constructs that tended to measure the latter were not reliable and therefore the reliability of the outcomes is very low. The results from the MANOVA analysis also shows that there is no significant interaction effect of task complexity. The constructs that tended to measure the brand positioning were reliable. It was expected that the presence of buttons results in more positive outcomes when used by a utilitarian brand, and the absence of buttons will have no effects for hedonic brands. However, based on the results from the MANOVA analysis, it can be concluded that brand positioning does not have a significant interaction effect on the influence of buttons on the dependent variables. Based on the results of this study, the hypotheses from 2 and 3 are not supported. When looking at the descriptive statistics, it is noticeable that the mean score for the dependent variables is always higher when the button is absent, regardless of the type of brand positioning and the complexity of the task.

In summary, the proposed hypotheses are not significantly supported. Therefore, it seems that the presence of buttons has no significant effect on customer satisfaction, perceived usefulness, perceived ease of use, brand attitude and brand trust. Besides, brand positioning and task complexity do not have a significant interaction with the main effects.

## 4.2 Interview results

As mentioned in the previous chapter, there seems to be a pattern in the outcomes of the online experiment. It was expected that the presence of buttons resulted in a more positive customer satisfaction, perceived ease of use, perceived usefulness, brand attitude and brand trust. However, when examining the means according to the results, it is noticeable that the mean is always higher when buttons are not presented. For justification and clarification of this outcome, multiple interviews were conducted with participants of the experiment ( $N = 16$ ). The results from this interview are not coded, quotations are used to emphasize the most important findings from the interviews. The notes that were made during the interviews can be found in appendix 3. There are some outcomes that clarify the results from the online experiment.

First, an interesting outcome of the interview results was that the participants found it difficult to criticize the conversation because they did not experience it. Specifically, it was hard rate their satisfaction, to experience the complexity of fulfilling the task, and to experience the ease of use of the chatbot. As quoted by interviewee 11 (Appendix 3, p. 47): "It was weird to assess how challenging the task was because I did not solve the task myself, I saw a video.".

Second, issues were addressed regarding the customer satisfaction of the chatbot. It was indicated by the interviewees that they would be satisfied with the task being solved however, they would be less satisfied with the process of how the task was solved. When they would talk to a chatbot with only buttons, negative feelings would occur. A quote of interviewee 2 (Appendix 3, p. 48) perfectly addresses this negative feeling: "If I imagined myself talking to a chatbot by just pressing buttons, I would be satisfied when I booked my room. However, I would not be satisfied with the conversation, it seems boring. It is the same as booking something on the website and there you have probably more options too. It would be nice when you at least talk to someone.". Many of the interviewees had a negative feeling about the conversation. The negative feelings that arises were that the conversations they expect that the chatbot could not answer everything, they feel trapped and could not ask or say something else that the chatbot desired the customer to answer. This is in line with another outcome in which the interviewees have the feeling that the conversation is too robotic.

Third, another corresponding outcome of the interviews was the negative attitude toward the chatbot by beforehand. They expect by beforehand that the chatbot is not able to answer everything and they need to chat or call with a human service agent. This is an interesting result when discussing the perceived usefulness. As quoted by interviewee 16 (Appendix 3, p. 47): "I do not like to talk to chatbots. In the past, when I talked to one multiple times, I was forwarded to a human customer service agent because the chatbot did not understand me. I already expect that the chatbot is not able to understand an answer my question.". In the beginning of the interview, the interviewees were asked about previous experience with a chatbot. Another quotation from interviewee 15 (Appendix 3, p. 47) following from this question: "Recently I talked to a chatbot from ING and I contacted them because my wireless chip for paying with my iPhone did not work. However, the chatbot could not help me and I needed to wait for a real customer service agent for 15 minutes. So what is the point of these things.".

Fourth, the interviewees also addressed some issues regarding the perceived ease of use. Some interviewees mentioned that they liked the usage of buttons for quick problem solving but on the other hand disliked being framed in a certain direction, and not being able to get out of it. These issues were also addressed by other interviewees when questions were asked that tended to get more in-depth information about the level of brand attitude and brand trust. As quoted by interviewee 8 (Appendix 3, p. 48) that address these problems: "With the buttons it looks like you are being directed in a certain way, but you are not able to escape that directions

because you are stuck with the options, they give to you. Actually, you are just pressing the buttons of the room they want you to book.”.

Finally, there are some explanations why the absence of buttons results in a higher mean score for brand attitude and brand trust. The interviewees indicated that the absence of buttons appear as the brand being more professional and better developed compared to a brand that presents buttons in their conversational interface. As quoted by interviewee 1 (Appendix 3, p. 53): “When a company uses buttons, I get the impressions that they want to make it the customer as easy as possible. However, when the customer needs to type by themselves, I get the impression that the company is more developed.”. In addition to this, interviewee 2 (Appendix 3, p. 53) quoted: “When a brand does not use buttons it looks more professional because it is a real conversation. Because of this, it is more likely that I would trust the company behind the chatbot.”. Nevertheless, most of the interviewees indicate that their attitude and trust toward a brand is not influenced by the presence of buttons.

## 5. Discussion

### 5.1 Discussion of the results

Previous studies (Fincher, 2018; Zarouali et al. 2018; Brook, 2019; Feng, 2019) claimed that buttons should be used to optimize the chatbot conversations and the outcomes. It was expected that the presence of buttons results in more positive outcomes in contrast to buttons being absent. None of the formulated hypotheses for this study were supported significantly. Statements and findings from previous studies, best cases and chatbot experts are questionable and should be reconsidered. The results from this study contradict the statements and findings that claims buttons should be presented for more positive outcomes from the chatbot conversations.

First, it was expected that if buttons were presented, customers would have a more positive customer satisfaction compared to a chatbot conversation in which buttons were absent. The results from the online experiment shows that the presence of button does not have a significant effect on the customer satisfaction, and hypothesis 1a was not accepted. In contradiction to what was expected, the descriptive statistics shows that the mean value for customer satisfaction was lower when the buttons were presented compared to the absence of buttons. According to the results of the interviews, people were satisfied when they experienced their problem being solved. However, the level of satisfaction depends on the experience. During the chatbot conversation in which only buttons were presented, the feeling of social presence was low, and this effected the level of satisfaction.

As claimed by an interviewee, they were satisfied by the task being solved but not with the conversation. According to Feldberg, van Dolen, van Nes and Verhagen (2014), a higher level of social presence increases the customer satisfaction. According to the interviews, only pressing buttons when communicating with a chatbot and receiving instant answers felt too robotic. This influence the feeling of social presence and therefore it can be clarified why presented buttons results in a lower customer satisfaction. Besides, it was noticeable that people were less satisfied when they would talk to a chatbot with buttons instead of without buttons and that negative feelings appeared. This also clarifies why the customer satisfaction was lower when buttons were presented, feelings contribute to the measurement of customer satisfaction (Handro, 2018).

Second, the perceived usefulness was measured. It was expected that that presence of button results in a more positive perceived usefulness because it allows customers to communicate with a brand quickly and to solve problems efficiently (Zarouali et al. 2018; Talmor & Baweja, 2019; Rietz et al., 2019). The results of the online experiment contradict the expectation and

previous studies. The mean value for perceived usefulness was higher when the button was absent compared to the conversations in which the buttons were presented. Buttons used by chatbot should make the conversation efficiently. It seems that efficiency is not something that really benefits the customer and therefore buttons are not of great importance to the participants.

An explanation could be that that perceived usefulness could be predicted by perceived behavioural control and personal experiences (Gutteling, Horst & Kuttschreuter, 2007). Matching arguments from the interview could clarify why the perceived usefulness was lower. The interview results indicate that individual's felt they were being directed in a certain way or could not say something else when buttons were used, this could negatively influence the perceived behavioural control (Gutteling et al., 2007). According to the interview results, negative experiences influence the perceived usefulness. Another explanation according to the interview results could be, booking an overnight stay by just pressing buttons in the chatbot looks the same as booking on the website.

Third, the perceived ease of use was measured. It is the degree to which customers think and experience that the use of chatbots is easy. For this study, it was expected that the presence of buttons results in a more positive perceived ease of use compared to buttons being absent. The results from this study show that there is no significant effect on the presence of buttons on perceived ease of use. The mean score for perceived ease of use was higher when the buttons where absent. This contradicts the study from Rietz et al. (2018). The online experiment had a limitation, the participants of this study did not really used the chatbot but were viewed a video of a customer talking to a chatbot. Measuring the perceived ease of use requires a level of experiencing the technology (Zarouali et al., 2018). Besides, the Cronbach's Alpha (0.665) was not high and above the acceptable value of 0.70.

Before the start of the interviews, the interviewees were exposed to a conversation with and without a button. During the interviews they acknowledged that pressing buttons looks easier than texting by yourself and is easy to understand. Those two are also factors that increase the perceived ease of use (Davis, 1989). However, perceived ease of use is also measured by whether the customer is able to let the chatbot do what her/she wants it to do, if the chatbot is flexible in giving answers, and if the appearance is perceived as frustrating (Davis, 1989). The interviewees indicated that they perceived the chatbot with buttons as being too robotic and that it directs you in a certain way. Therefore, it is hard to let the chatbot do want the customer wants because everything is programmed up front. The chatbot was not perceived as being flexible in giving answers according to the interviews. This resulted in negative feelings. Although just selecting buttons is easy to do, it also results in issues that result in a lower perceived ease of use.

Fourth, this study expected that the presence of buttons has a positive effect on the cognitive determinants, and this results in a higher level of brand attitude (Zarouali et al., 2018). Based on the outcomes of this study, it can be concluded that the presence of buttons does not result in a higher level of brand attitude. An explanation could be that the attitude towards the brand was influenced by the participants attitude towards the chatbot and their salient beliefs about the chatbot attributes. This could be justified by a previous study from Mitchell and Olson (1981) who claimed that the attitude toward the brand was influenced by the attitude toward the advertisement and the salient beliefs about product attributes. The outcome of this study could also be applied for presence of buttons used by chatbots. The interview results show that multiple interviewees had a negative attitude towards the chatbots.

The salient beliefs of a person about technology is based on the perceived usefulness and perceived ease of use (Lin, 2006; Zarouali et al., 2018). As described before, this study shows

that the presence of buttons does not have a significant effect on perceived usefulness and perceived ease of use. Besides, the descriptive means shows that the mean value for both is higher when buttons are absent. This could indicate why the presence of buttons does not result in a higher level of brand attitude.

Finally, the last measured main effect is brand trust. It was expected that the presence of buttons results in a higher level of brand trust because its functionality is to direct the customer in the right way in his or her best interest which is related to benevolence (Choudhury et al., 2002). This study shows that the presence of buttons does not result in a higher level of brand trust, the effect is not significantly supported. Such as for the other dependent variables, the absence of buttons results in a higher mean value, compared to conversations in which the buttons were presented. An explanation for this outcome could be clarified by the interview results. It was expected that, with the presence of buttons, brand trust would increase because the brand is directing the customer in a certain way. The feeling of being directed in a certain way was addressed as a negative feeling by multiple interviewees. When chatbots present buttons, psychological reactance could occur because their actions are restricted (source). As described in the interview results, the interviewees experienced a certain level of reactance because they saw it was not possible to answer something else that was offered by the chatbot. This influences the trust in a person or organization (Hwang, Lee & Lee, 2014).

Besides the main effect, this study also tended to measure the interaction of brand positioning and task complexity. For brand positioning, it was expected that the presence of buttons will results in a more positive customer satisfaction, perceived usefulness and ease of use, and a higher level of brand attitude and brand trust when used by a utilitarian brand compared to a hedonic brand. The results from this study show that there is no significant interaction effect of brand positioning. The manipulation check proved that the difference between the utilitarian and hedonic brand was recognized by the participants. However, Bluebird Executive Hotels was not perceived as being highly utilitarian, and Lime Holiday Hotels was not perceived as being that hedonic. After presenting both brands to the interviewees, the differences between the brands were recognized. It is questionable whether the manipulation influences the outcome of this study. When looking at the descriptive statistics, the mean value for the dependent variables is always higher when the button is absent regardless the type of brand positioning. This is a better clarification why the presence of the button has no interaction with brand positioning.

For task complexity, it was expected that a complex task requires buttons being presented in order to create a more positive outcome. For easy tasks it was expected that the absence of buttons will have no effects on the dependent variables (Trivedi, 2019). The outcomes of this study conclude that there is no significant interaction effect of task complexity. The items that should measure the construct were not reliable. Therefore, the results from this online experiment regarding task complexity is not reliable. The manipulation was recognized by the participants during the online experiment. However, the complex task was not perceived as being that complex while it had a higher complexity compared to the easy task, this was also pre-tested. An explanation could be that the participants of the study did not used the chatbot but were shown a video which influenced the results from the online experiment. Participants did not use the chatbot but had to assess the complexity of the task based on a video, this is a limitation of the study and is an explanation for the results.

## **5.2 Implications of results**

### **5.2.1 Practical implications**

The outcomes of this study are of big influence for practical implications despite the hypotheses not being significantly supported. When we look at the descriptive statistics from the outcomes of the effects on the dependent variables in combination with the short interviews, it can be concluded that presenting buttons does not result in a more positive customer satisfaction, perceived usefulness and ease of use, and brand attitude and trust. However, only presenting buttons result in lower outcomes in comparison to not presenting buttons.

According to this study, it is better to not include buttons in the conversation in order to create better outcomes. Another possibility is the combination of presenting buttons and giving the possibility to answer with text. However, the conversation should focus on more text related conversation rather than answer by pressing buttons. Designers from the chatbots should focus on making the chatbot easy to use, but not being too robotic. Presenting the chatbot too robotic results in negative feelings from its users.

It was expected that utilitarian brands should present buttons because the customers expect a level of efficiency when communication with a utilitarian brand. However, when looking at the descriptive statistics of the dependent variables, the mean was always higher when the buttons were absent instead of presented. An explanation for this could be that the customer expects a certain level of professionalism (Viss et al., 2003) when communicating with a utilitarian brand, and presenting buttons is regarded as too robotic. Therefore, it is suggested that utilitarian brands focus on using a chatbot that is less robotic and use text when communicating.

### **5.2.2 Theoretical implications**

Based on previous studies and articles written by chatbot expert, it was expected that buttons should be used in a chatbot conversation in order to create a more positive customer satisfaction, perceived usefulness, perceived ease of use (Horzyk et al., 2009; Chung et al., 2018), a higher level of brand attitude (Zarouali et al., 2018), and brand trust (Choudhury et al., 2002; Zarouali et al., 2018; Talmor & Bawea, 2019). Besides, it was expected that brand positioning and task complexity had an interaction effect. It was expected that chatbots from utilitarian brands should use buttons to result in more positive outcomes (Zarouali et al., 2018). When the customer needs to fulfil a complex task, it was suggested to present buttons in the conversation in order to create more positive outcomes (Trivedi, 2019).

Based on the outcomes of this study it can be concluded that the presence of button does not have a significant effect on the dependent variables. When looking at the descriptive statistics, it was noticeable that the mean was always higher when buttons were absent. However, there is no significant evidence to support the findings. To justify the outcomes, interviews were conducted with participants to get more in depth information on the outcomes. The interviewees experienced negative feelings during the online experiment when a conversation was shown in which buttons were presented. They felt being directed in a certain way, had a negative attitude towards the chatbot and negative expectations. Besides the main effect, the interaction effect of brand positioning and task complexity was also not significantly supported. A study from Klopfenstein et al. (2017) claimed that buttons should only be used where appropriated. The chatbots from this online experiment which presented buttons, used buttons only as their conversational interface. This results in a low feeling of social presence that results in a negative experience (Klopfenstein et al., 2017). According to Valério, Guimarães, Prates, and Candello (2017) buttons should only be used when necessary. When a chatbot

only use buttons in their conversational interface, the conversation is predetermined and therefore the conversation could lead to a dead end.

Researchers and academics should use the outcomes of this study in order to study to what extent conversational functionalities, such as buttons, could result in a more positive outcome when a customer is talking to a chatbot. This study showed that the presence of buttons does not result in a more positive customer experience, perceived usefulness, perceived ease of use, a higher level of brand attitude and brand trust. It is interesting to elaborate on the outcomes of this study and to focus a study on the absence of buttons. Future research recommendations are presented in the next paragraph.

### **5.3 Limitations and future research**

The study experienced limitations to some degree. The first limitation concerns the online experiment itself. The participants of the online experiment watched a video from one of the eight conditions, this results in a limitation that the participants did not experience using the chatbot. Therefore, it is questionable whether all the answers given by the participants are reliable. Secondly, the complex task was not seen as that complex which resulted in a not reliable measurement. This could be a result of showing a video instead of experiencing the chatbot conversation and therefore to fulfil the task. At last, this study experienced a limitation concerning the usage of wrong scale items to measure the manipulation of brand positioning. Only two out of ten scale items could be used for the brand positioning. When conducting a similar experiment in future research, it is recommended to let the participants experience a real chatbot conversation in which they need to fulfil a task. This will result in more reliable results and task complexity could also be tested as again with a higher reliability.

Future research could also focus on a study to understand why the presence of buttons result in negative feelings such as the feeling of being directed in a certain way, negative feelings and expectations towards the chatbot or the conversation being too robotic. This could be interesting since it was expected to result more positive outcomes. A chatbot that presents buttons is expected to be too robotic and therefore it results in negative feelings. Instead, using a chatbot that is very humanlike could result in more positive outcomes. It is interesting for future research to study to what extent social presence effects the dependent variables of this study. Besides, the feeling of social presence could be a moderator when measuring the absence of buttons and is an interesting topic for future research.

Another interesting topic for future research is to study to what extent the attitude towards the chatbot and the expectations contribute to the customer satisfaction, perceived usefulness, perceived ease of use, brand attitude and brand trust. The two variables were addressed by the interviewees and resulted in negative feelings. It is interesting to study the main effect of the attitude towards the chatbot and expectations of the chatbot on the dependent variables. Besides, attitude towards chatbot and expectations could be interesting to include when studying the effects of buttons.

## **6. Conclusion**

This research focused on studying the presence of buttons used by chatbots in a conversation with customers and the effects on the customer satisfaction, perceived usefulness, perceived ease of use, brand attitude and brand trust. Besides the main effect, this study also investigated the interaction of brand positioning and task complexity. According to previous studies, it is suggested to use buttons because they result in a more positive customer experience (customer satisfaction, perceived usefulness and ease of use), brand attitude and brand trust. According to the outcomes of this study, the presence of buttons does not have a significant effect on the dependent variables. All the hypotheses that were composed for this study are not supported. To answer the research questions, there is no main effect on the presence of buttons on the variables, there is also no interaction effect of task complexity and brand positioning.

However, when looking at the descriptive statistics from the results, it is noticeable that the mean score of the dependent variables was lower when buttons were presented. This means that the absence result in a higher mean score for the dependent variables and it is possible that the absence results in better outcomes. In order to justify and clarify these outcomes, interviews were conducted with participants of the online experiment. The most important outcomes that clarified the outcomes of the online experiment were the negative attitude towards the chatbot, the expectation of conversating with a chatbot, and the feeling of being trapped. The latter is because the interviewees had the feeling that, when buttons were presented, they were directed in a certain way and could not step aside from the conversation, and the conversation being too robotic. These arguments could justify why buttons do not result in a more positive outcome, but a lower score for the dependent variables. Another issue that was addressed in the interviews was the lack of experiencing the conversation, so that they can really address their satisfaction about using it.

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## Appendix 1 – Manipulation questions

### Button manipulation check

- Op basis van de video die ik gezien heb...

	Sterk mee oneens (1)	Oneens (2)	Niet mee eens maar ook niet mee oneens (3)	Eens (4)	Sterk mee eens (5)
Gaf de chatbot een keuzemenu weer tijdens het gesprek. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gaf de chatbot mogelijke antwoorden weer op de eigen gestelde vragen. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gaf de chatbot uitgebreide hulp om de vragen te beantwoorden. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gaf de chatbot een aantal opties die aangeklikt werden om de vragen te beantwoorden. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Brand positioning check

- Ik denk dat het bedrijf zichzelf positioneert als...

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Effectief	<input type="radio"/>	Niet effectief				
Behulpzaam	<input type="radio"/>	Onbehulpzaam				
Functioneel	<input type="radio"/>	Niet functioneel				
Noodzakelijk	<input type="radio"/>	Niet noodzakelijk				
Praktisch	<input type="radio"/>	Niet praktisch				
Niet plezierig	<input type="radio"/>	Plezierig				
Saai	<input type="radio"/>	Opwinded				
Niet beeldig	<input type="radio"/>	Beeldig				
Niet aangrijpend	<input type="radio"/>	Aangrijpend				
Onaangenaam	<input type="radio"/>	Aangenaam				

## Task complexity check

- Geef je impressie van de taak “boeken van een overnachting/adresgegevens”

	1 (1)	2 (2)	3 (3)	4 (4)	5 (5)	
Weinig acties om het doel te behalen	<input type="radio"/>	Meerdere acties om het doel te behalen				
Algemene vragen	<input type="radio"/>	Specifieke vragen				
Lage onzekerheid	<input type="radio"/>	Hoge onzekerheid				
Gemakkelijk te voltooien	<input type="radio"/>	Moeilijker te voltooien				

## Appendix 2 – Measurement items

### Customer satisfaction

- Op basis van de video die ik gezien heb...

	Sterk mee oneens (1)	Oneens (2)	Niet mee eens maar ook niet mee oneens (3)	Mee eens (4)	Sterk mee eens (5)
Was de hulp geboden hulp van de chatbot aangenaam. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zou ik tevreden zijn over de hulp van de chatbot. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heeft de chatbot goed geholpen bij het oplossen van de taak. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Was de hulp van de chatbot van goede waarde. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zou het gebruik van de chatbot leuk voor mij zijn. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zou het gebruik van de chatbot gunstig voor mij zijn. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Over het algemeen ben ik op basis van wat ik gezien heb tevreden met de chatbot. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Perceived usefulness

- Op basis van de video die ik gezien heb...

	Sterk mee oneens (1)	Oneens (2)	Niet mee eens maar ook niet mee oneens (3)	Mee eens (4)	Sterk mee eens (5)
Zou ik met behulp van de chatbot makkelijk met het bedrijf kunnen communiceren. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zou het gebruik van de chatbot de kwaliteit van de communicatie met het bedrijf verbeteren. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zou ik met behulp van de chatbot sneller mijn doel bereiken. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zou ik met behulp van de chatbot gemakkelijk informatie van het bedrijf kunnen verzamelen. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zou ik met behulp van de chatbot gemakkelijk een product van het bedrijf kunnen kopen. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geloof ik in het algemeen dat het gebruik van de chatbot nuttig zou zijn bij communicatie met het bedrijf. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Perceived ease of use

- Op basis van de video die ik gezien heb...

	Sterk mee oneens (1)	Oneens (2)	Niet mee eens maar ook niet mee oneens (3)	Eens (4)	Sterk mee eens (5)
Geloof ik dat het gemakkelijk is om de chatbot te laten doen wat ik wil doen. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geloof ik dat het moeilijk is om de chatbot te gebruiken. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vind ik de verschijning van de chatbot frustrerend. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vind ik de antwoorden van de chatbot gemakkelijk te begrijpen. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vind ik de antwoorden van de chatbot flexibel. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geloof ik in het algemeen dat de chatbot gemakkelijk te gebruiken is. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Brand attitude

- Op basis van de video die ik gezien heb...

	Sterk mee oneens (1)	Oneens (2)	Niet mee eens maar ook niet mee oneens (3)	Eens (4)	Sterk mee eens (5)
Geloof ik dat het bedrijf dat de chatbot gebruikt, goed is. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beschouw ik het bedrijf achter de chatbot als prettig. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zou ik tevreden zijn met het bedrijf dat de chatbot gebruikt. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ervaar ik het bedrijf dat de chatbot gebruikt als plezierig. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ervaar ik het bedrijf dat de chatbot gebruikt als sympathiek. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Heb ik positieve gevoelens ten opzichte van het bedrijf dat de chatbot gebruikt. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Brand trust

- Op basis van de video die ik gezien heb...

	Sterk mee oneens (1)	Oneens (2)	Niet mee eens maar ook niet mee oneens (3)	Eens (4)	Sterk mee eens (5)
Geloof ik dat het bedrijf in mijn beste belang zou handelen. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Als ik hulp nodig had, zou het bedrijf zijn best doen om me te helpen. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Merk ik dat het bedrijf geïnteresseerd is in mijn welzijn en niet alleen in zijn eigen belang. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geloof ik dat het bedrijf competent is om mij te helpen mijn doel te bereiken. (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geloof ik dat het bedrijf zijn rol als hotel goed vervult. (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geloof ik over het algemeen dat het bedrijf een capabel en bekwaam hotel is. (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Denk ik over het algemeen dat het bedrijf zeer goed geïnformeerd is over de hotelsector. (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## **Appendix 3 – Notes during the interviews**

### **Buttons**

1. Nu je hebt gezien dat een chatbot buttons gebruikt of niet, welke krijgt dan jouw voorkeur? En waarom?
  - a. Wanneer Interviewee niet kiest voor button – Vraag waarom de buttons dan niet voldoen aan zijn/haar behoeften?
  - b. Wanneer Interviewee kiest voor button – Vraag waarom de zelf typen dan niet voldoet aan zijn/haar behoeften?
2. Heb je wel eens eerder met een chatbot gepraat die buttons heeft gebruikt? Zo ja, hoe heb je dat ervaren? Hetzelfde geldt voor zelf typen.

Interviewee 1: Ik had dus de optie gezien van buttons in je enquête. Het lijkt mij leuker als je het gebruikt om dan zelf te typen. Of ik praat liever tegen een echt Interviewee. Maar als ik het zo bekeek, gaat het volgens mij toch wel sneller als je alleen die antwoorden hoeft aan te tikken. Nee, nog nooit gebruikt maar heb ze wel is voorbij zien komen als ik dan binnen kom op een website.

Interviewee 2: Ik weet niet waarvoor ik zou kiezen. Als de chatbot mij maar begrijpt en ik snel antwoord op mijn vraag krijg. Als ik buttons zou aan moeten tikken, zou ik moeten wachten tot ik bij het onderwerp kom waarover ik wil praten neem ik aan? Kan je eigenlijk wel een vraag stellen als je buttons gebruikt trouwens? Nu lijkt het erop dat je alleen iets kan doen. Nou dan zou ik als ik een vraag zou hebben willen typen, als ik iets moet doen zou ik buttons gebruiken. Ja voor werk heb ik een keer een chatbot gebruikt van een webdomein beheerde. Het leek echt nergens naar. Geen idee of het buttons had of niet.

Interviewee 3: Ik zou zelf kiezen voor typen. Je kan dan meer kanten op, alleen moet de chatbot je wel begrijpen. Anders kan je maar uit een paar dingen kiezen. Ik heb denk ik nog nooit met een chatbot gepraat, niet dat ik weet. Zoiets als die buttons kan ik me niet herinneren.

Interviewee 4: Ik zou gaan het klikken op de buttons, maar dat is omdat ik zelf lui ben. Als ik zo naar de filmpjes kijk is die met buttons ook veel sneller klaar. Zelf zou ik voor snelheid gaan en ik ben gewoon slecht in appen. Dus typen krijgt niet mijn voorkeur. Volgens mij heb ik geen chatbot gebruikt, ik zit ook niet zoveel op Facebook of dat soort dingen. Ik gebruik alleen YouTube en Instagram, daar heb je dat niet volgens mij.

Interviewee 5: Als ik moet kiezen ga ik voor typen, dat heeft wel te maken met iets wat ik laatst had met ING. Ik moest laatst met een chatbot praten van ING in de app omdat ik niet meer met mijn telefoon draadloos kan betalen. Alleen die chatbot kon mij dus niet helpen en toen moest ik wachten op iemand die het gesprek overnam. Moest gewoon 15 minuten wachten, dus snap niet waarom die chatbots gebruikt worden.

Interviewee 6: Het zou mij niet echt uitmaken zolang ik maar goed geholpen word, ik doe daar niet zo moeilijk over. Nee ik heb nog nooit een chatbot gebruikt, misschien dat het me daarom ook niet echt veel uitmaakt.

Interviewee 7: Ik zou voor de buttons gaan, dit gaat veel sneller aan de filmpjes te zien en als je bijvoorbeeld een kamer gaat boeken lijkt dat veel sneller te gaan. Ik heb wel behoefte aan snelheid inderdaad. Ik heb nog nooit een chatbot gebruikt, je ziet ze wel eens op een website ofzo, maar dan kijk ik liever zelf rond.

Interviewee 8: Op basis van de beide filmpjes zou ik kiezen voor typen. Met de buttons lijkt het net alsof je gemanipuleerd wordt, je hebt een paar opties waaruit je kan kiezen en hier kan je

niet van uitwijken. Bijvoorbeeld bij de kamer, kunnen ze net zo goed alleen kamers aanbieden waarvan ze willen dat je die gaat boeken.

Interviewee 9: Ik zou gaan voor zelf typen. Het lijkt dan toch of je meerdere kanten op kunt als die chatbot vraagt wat je wilt. Bij buttons kan je een paar opties aanklikken, maar wat nou als je iets anders hebt? Ja ik heb best wel vaak een chatbot gebruikt, maar dat komt ook omdat bij bedrijf x werk als marketeer en we daar nu mee bezig zijn. Chatbots zijn al zo robotachtig dus daarom maakt typen het nog iets persoonlijker.

Interviewee 10: Mijn voorkeur gaat naar typen. Dit lijkt mij gewoon fijner als je meerdere vragen hebt, anders moet je steeds wachten met een nieuwe vraag tot de vorige is beantwoord. Dan krijg je weer te zien, heb je nog andere vragen. Ja ik heb wel eens een chatbot gebruikt, niet heel vaak hoor.

Interviewee 11: Ik zou het niet weten. Wat ik wel raar vond aan het onderzoek is dat we dus een gesprek moesten beoordelen op hoe moeilijk het was om een kamer te boeken, maar dat kan je toch niet weten als je het ziet. Misschien heeft die persoon er wel 10 minuten over gedaan omdat hij niet wist wat ie moest doen.

Interviewee 12: Ik heb niet echt een voorkeur. Heb het sowieso niet zo erg met chatten met een bedrijf. Als ik iets wil weten dan zoek ik het liever zelf op via de website ofzo. Als ik echt niet geholpen kan worden dan bel ik gewoon.

Interviewee 13: Ik ga dan liever typen dan iets aanklikken, lijkt dan net of je tegen een robot praat. Ja dat doe je inderdaad wel maar toch voelt het anders, het is allemaal al geprogrammeerd. Ja ik heb vroeger wel eens gechat met een robot, dat was nog in de tijd van msn toen kon je gewoon praten met een robot. Nee laatst niet gedaan, zou ook niet weten waar je die chatbots nu tegen kan komen.

Interviewee 14: Mij maakt het niet uit hoe ik praat met een chat, zolang ik maar geholpen word en niet doorverwezen wordt naar een persoon of dat ik moet bellen. Als ik ergens een hekel aan heb is het bellen, doe mij dan maar liever zo'n bot. Word je tenminste snel geholpen.

Interviewee 15: Ik zag in de enquête een gesprek met typen, dat zag er wel gewoon persoonlijk uit. Alleen dat gesprek met die buttons gaat toch wel sneller. Ik zou kiezen voor buttons als ik haast heb, anders bel ik gewoon.

Interviewee 16: Ik weet het niet. Ik vind het sowieso niet chill om te praten met een chatbot. Ik heb wel eens gehad dat ik iets moet oplossen en meerdere keren het gesprek overnieuw begon. Uiteindelijk werd ik doorverwezen naar een echt iemand. Dit is nu al vaker gebeurt dus waarom zou ik sowieso met een chatbot praten, hij gaat me toch niet begrijpen.

## Customer satisfaction

3. Stel je voor dat je praat tegen de chatbot uit de video. Zou je dan meer tevreden zijn als je zelf gaat typen of wanneer je buttons selecteert? En waarom?
4. Wat voor gevoelens zouden bij jou ontstaan als je alleen buttons aan moet klikken?
5. Hoe zou jij een gesprek ervaren met een chatbot waarin je buttons gebruikt?

Interviewee 1: Als beide chatbots hetzelfde oplossen? Dan zou ik voor buttons gaan want dat gaat toch sneller. Ik zou blij zijn dat het snel gaat maar het lijkt me wel saai. Ik ben wel benieuwd hoe slim die dingen zijn. Dus ik zou eigenlijk liever zelf wel typen dan, dan heb je toch een meer voldaan gevoel als die je goed helpt. Anders doe je alles toch zelf.

Interviewee 2: Als ik me zou inleven in die klant en alleen maar op knoppen druk, zou ik tevreden zijn dat mijn kamer is geboekt. Alleen de manier waarop is wel saai, dus ik zou meer

tevreden zijn als ik zelf typ. Anders kan ik net zo goed naar de website gaan en het daar zelf boeken toch.

Interviewee 3: Zoals ik net zei zou ik meer tevreden zijn als ik zou typen. Je kan dan meer kanten op. Met de buttons zou ik me dan beperkt voelen en dat is nooit fijn. Stel je voor mijn vriendin en ik zijn 3 jaar samen, dan kan ik niet vragen om rozenblaadjes neer te leggen in de kamer.

Interviewee 4: Ik ben lui zoals je weet, dus ik zou gaan voor de buttons. Als die het probleem oplossen ben ik gewoon tevreden. Bij de buttons is het gewoon dom klikken neem ik aan, dus denk niet dat ik iets anders ga voelen.

Interviewee 5: Ik zou gaan voor typen. Net wat ik had bij de ING, met buttons gaan ze niet alles begrijpen wat je wilt zeggen. Als ik alleen buttons kan aanklikken zie ik er sowieso op tegen, komt ook omdat ik dit gewoon nog nooit goed heb ervaren. Dus dit moet wel heel goed door ontwikkeld worden, dan zou ik het eventueel prima vinden. Maar nu heb ik gewoon voorkeur voor zelf typen.

Interviewee 6: Als ik kijk naar de video, zou ik niet meer tevreden zijn met buttons of zelf typen. Net zei ik ook al dat het me niet echt uitmaakt. Ik zou beide prima vinden, dus als ik alleen buttons kan gebruiken dan is dat maar zo.

Interviewee 7: Ik zou dan weer voor de buttons gaan omdat dit gewoon sneller gaat. Hoe sneller het gaat, hoe meer tevreden ik ben. Het zou wel een beetje saai zijn, maar als het maar effectief is vind ik het prima. Zo zou ik ook het gesprek ervaren.

Interviewee 8: Duidelijk voor typen dan. Met buttons zou ik niet tevreden zijn. Zoals ik net zei word je gewoon een kant op gestuurd en willen ze dat je de duurste kamer boekt. Heel slim van ze, maar dat werkt gewoon niet bij mij. Prima als ik de kamer kan boeken via de chatbot, maar de manier waarop staat mij gewoon niet aan.

Interviewee 9: Vooral als marketeer weet ik gewoon hoe erg je in een bepaalde richting geduwd kan worden door een bedrijf, met buttons is dat wel heel erg. Ik zou dan meer tevreden zijn met een chatbot die echt de moeite neemt om je te helpen in plaats van eentje met buttons. Je doet alsnog zelf alles.

Interviewee 10: Nou zoals ik aangaf ga ik voor typen. Dan ben ik meer tevreden omdat je meerdere vragen tegelijk kan stellen. Het lijkt er met buttons niet op dat je een kamer kan boeken maar ook iets kan vragen. Dus ik zou veel meer waarde hechten aan zelf typen dan buttons klikken.

Interviewee 11: Als ik me echt probeer in te leven in de klant, dan zou het gesprek met buttons fijner lijken. In principe wordt in beide gesprekken hetzelfde opgelost toch. Die met buttons is veel sneller dus doe mij die maar.

Interviewee 12: Ook al heb ik geen voorkeur, doe mij dan toch maar zelf typen. Voelt wel een beetje hetzelfde als typen. Je kan veel meer vragen over het hotel. Dus dan zou ik ook meer tevreden zijn.

Interviewee 13: Ja doe maar dan maar typen, hier zal ik meer tevreden mee zijn. Met buttons doe je zelf gewoon alles, kan je net zo goed zelf boeken. In principe doe je bij booking.com hetzelfde, je klikt dan gewoon aan wat je wilt. Echt contact lijkt je met buttons niet te hebben. Als je typt heb je toch iets meer contact met het hotel.

Interviewee 14: Mij maakt het niet uit. Als ik zou moeten kiezen zou ik dan willen typen. Straks krijg je bij die buttons weer dat je moet bellen. Zoals ik je net gezegd heb hier een hekel aan. Loop je weer te bellen terwijl je ook al 5 minuten met die chatbot in gesprek bent.

Interviewee 15: Als ik echt moet kiezen doe mij dan maar buttons. Dat gaat veel sneller en dan zou ik meer tevreden zijn. Het echte contact mis je dan wel, maar je bent wel lekker snel klaar en kan weer iets gaan doen. Hetzelfde als je online boekt, binnen 5 minuten kan je al klaar zijn en dat is gewoon fijn.

Interviewee 16: Ondanks dat ik dus liever niet praat met een chatbot, zou ik wel zelf willen typen denk ik. Dan heb je tenminste nog het gevoel alsof je praat met het bedrijf terwijl je gewoon tegen een robot praat. Maar dan moet de chatbot je wel begrijpen, dit is dus wel vaker niet het geval geweest. Als die buttons dan zorgen voor minder problemen, dan kies ik daar liever voor.

### **Perceived usefulness**

6. Wat zou voor jou de toegevoegde waarde zijn van communiceren met een chatbot die buttons gebruikt? En een chatbot zonder buttons?
7. Stel je voor dat je de taak opnieuw gaat uitvoeren met een chatbot die buttons gebruikt, in welk opzicht wordt de communicatie verbeterd met het bedrijf als je gaat kijken naar andere kanalen?
  - a. Indien voorbeelden noemen van kanalen, social media, de website, een boekingssite als booking.com.
8. Waarom zou jij wel of niet een chatbot met buttons eerder gebruiken dan een chatbot waar je zelf moet typen?
9. Is het gebruik van een chatbot nuttig voor jou als je alleen buttons hoeft te selecteren? En waarom?

Interviewee 1: De toegevoegde waarde zou zijn dat het snel gaat zoals ik net zei. Zonder buttons zou je meer kwijt kunnen denk ik, misschien is dat ook meer voor de lol dan. Met een chatbot heb je wel meerdere mogelijkheden om te praten met een bedrijf, plus een voordeel is dat je niet hoeft te bellen en dan half uur in de rij te staan. Ik denk dat het nuttig is om te gebruiken, en dan kom je weer bij het punt dat het snel is. Dus effectief.

Interviewee 2: Ik zie niet echt de toegevoegde waarde in van het drukken op buttons. Het heet toch ook een chatbot, iets waar je mee hoort te chatten. Anders noemde ze het wel een buttonbot. Nou op basis van eerdere ervaringen vind ik niet dat de communicatie beter wordt. Bijvoorbeeld met die webhost partij, daar heb ik nu negatieve ervaringen mee. Heb ik net al aangegeven, ik zou het liever niet gebruiken en zie het nut er niet van in.

Interviewee 3: Kom ik toch weer terug op de vorige antwoorden. Heel leuk die buttons, maar zelf typen is toch veel nuttiger uiteindelijk. Die buttons zorgen gewoon voor snelheid, maar als je een vraag hebt die niet in het menu staat aangegeven, wat moet je dan. Ik zou dus gewoon typen.

Interviewee 4: De toegevoegde waarde voor mij zou zijn dat het snel gaat. Zonder buttons moet je weer typen en daar ben ik gewoon te lui voor. Opzich vind ik het wel goed dat er chatbots komen, je hebt zo gewoon veel meer mogelijkheden om met iets of iemand van een bedrijf te praten.

Interviewee 5: Ik zou dan gaan voor zelf typen. De toegevoegde waarde van buttons is voor mij ver te zoeken. Je verwacht ook wel van chatbots dat ze tenminste kunnen reageren op je vragen dus die buttons is wat mij betreft verleden tijd. Ik vind het wel goed dat er meer

mogelijkheden zijn om te communiceren met een bedrijf. Alleen dan moeten ze wel optimaal werken.

Interviewee 6: Ja het maakt mij echt niet uit of ik met buttons praat of zelf praat. Het is wel gewoon makkelijk inderdaad dat de chatbots er zijn. Je komt veel sneller in gesprek met een bedrijf tegenwoordig. Als ik moet kiezen zou ik zelf liever typen in plaats van buttons. Je kan dan net iets meer kwijt.

Interviewee 7: Ook zou ik tevreden zijn met buttons omdat het dus sneller gaat. Voor de communicatie met een bedrijf is het gewoon ook fijn. Je wordt tegenwoordig veel sneller geholpen door die chatbots.

Interviewee 8: Ja echt een afkeer tegen buttons. Doe mij maar lekker zelf typen. Daar zie ik ook veel meer toegevoegde waarde in. Denk dan dat de communicatie met bedrijven ook veel waardevoller is omdat je zelf je richting kan kiezen die je op wilt gaan. Het is dus ook niet nuttig om buttons te gebruiken.

Interviewee 9: Nog steeds zelf typen. De kwaliteit wordt er echt niet beter op. Denk dat heel veel mensen argwanig worden als ze zien dat op de website weer goedkopere kamers staan bijvoorbeeld. Als merk kan je jezelf echt de put in werken denk ik.

Interviewee 10: De waarde van buttons zou zijn dat het snel gaat, maar ik hecht meer waarde aan kwaliteit. Gewoon extra vragen kunnen stellen is heel normaal, maar met buttons blijkbaar niet. De kwaliteit van het gesprek met een merk wordt dus ook niet beter naar mijn mening als er buttons zijn.

Interviewee 11: Buttons lijken toch veel efficiënter te zijn, zonder buttons kan het nog wel eens fout gaan denk ik. Als je als bedrijf dan meer klanten kan helpen zonder dat het fout gaat, denk ik dat buttons wel waardevol zijn ja.

Interviewee 12: Gewoon buttons aanklikken is gewoon gemak, het lijkt me wel saai. Zoals ik al aangaf doe mij maar typen. Als bedrijf breng je wel gemak aan de klant, denk dat dat wel gewaardeerd wordt. Tegenwoordig willen we wel dat het ons zo gemakkelijk mogelijk wordt gemaakt.

Interviewee 13: Ik zie niet de toegevoegde waarde van buttons, je kan het net zo goed zelf boeken. Net zoals op de website klik je op knoppen. Als je typt heb je gevoelsmatig wel contact met het hotel. Ik denk dat dat ook veel waardevoller is. Buttons zorgen ervoor dat je niet echt contact hebt met het hotel, dus denk zeker niet dat dit ten goede is.

Interviewee 14: Nog steeds geen buttons voor mij. Denk dat hierdoor een probleem veel minder succesvol aangepakt kan worden waardoor je op een andere manier in contact moet komen met het bedrijf. Dat is ook niet goed voor zijn reputatie, dan word je moeilijk bereikbaar net als de belastingdienst.

Interviewee 15: Buttons zorgen toch voor snelheid, dus dat is wel waardevol. Ligt er ook maar net aan hoeveel haast je hebt. Anders zou typen wellicht meer waardevol zijn. Als een bedrijf alleen buttons aanbiedt kan het zo zijn dat het niet meer persoonlijk is. Dat verwacht je toch bij een hotel.

Interviewee 16: Ik zie gewoon echt geen toegevoegde waarde van buttons. Het is een chat gesprek. Dus typen zou veel waardevoller zijn. Voor een bedrijf is het ook veel waardevoller om typen aan te bieden. Met alleen buttons lijkt je alsnog slecht bereikbaar omdat niet alles opgelost kan worden.

## **Perceived ease of use**

10. Zou je het gemakkelijker vinden om een chatbot te gebruiken met alleen buttons of wanneer je zelf moet typen? En waarom?
11. Is het gemakkelijk om de chatbot te gebruiken als alleen buttons worden gebruikt?
12. Hoe zou jij de gebruiksvriendelijkheid ervaren als je een chatbot gebruikt die alleen met buttons werkt?
13. Wat zouden jouw frustraties zijn als je je verplaatst in de klant?

Interviewee 1: Buttons zou makkelijker zijn omdat je alleen aan hoeft te tikken. Dan is chatten ook automatisch makkelijker lijkt me. Ik kan me voorstellen dat mensen zich frustreren aan het feit dat je maar een paar opties hebt.

Interviewee 2: Het zou inderdaad makkelijker zijn maar wel tegen het principe in van een chatbot. Het is ook niet echt vriendelijk vanuit het bedrijf omdat je maar een paar antwoorden kan aangeven. Ja dat is ook gelijk een frustratie. Het bedrijf helpt je maar tot zekere hoogte.

Interviewee 3: Makkelijk te gebruiken maar minder effectief. Uiteindelijk ga je iets nodig hebben buiten de buttons om alleen dan kan je niet typen. Misschien kan het dan wel maar snapt de chatbot je niet.

Interviewee 4: *Niet verder gevraagd, antwoordt was al gegeven in eerdere vraagstelling(en).*

Interviewee 5: Ben het er mee eens dat het gemakkelijk is om te gebruiken. Maar ik zie gewoon de toegevoegde waarde niet in.

Interviewee 6: Ik weet niet wat gemakkelijker is. Allebei heeft zo zijn voordelen, buttons zijn snel te gebruiken want je tikt het aan. Zelf typen geeft wel meer mogelijkheden dus dat is ook gemak toch. Buttons zijn wel gebruiksvriendelijk denk ik, meestal kom je bij het goede eind. Ik zou niet echt frustraties hebben denk ik.

Interviewee 7: Buttons zijn wel gewoon makkelijk te gebruiken, typen is ook niet echt moeilijk eigenlijk. Dat doen we dagelijks. Ben ook wel benieuwd of het heel veel sneller is, en die ene minuut maakt dan toch niets uit. Als buttons uiteindelijk het probleem oplossen, is het gebruiksvriendelijk vind ik. Alleen je bent beperkt met antwoorden dus dat zou een frustratie kunnen zijn denk ik.

Interviewee 8: Het is gemakkelijk maar niet gebruiksvriendelijk. Mijn frustratie zou in ieder geval zijn dat je niet meerdere antwoord mogelijkheden hebt, iets wat je wel hebt als je gaat typen.

Interviewee 9: *Niet verder gevraagd, antwoordt was al gegeven in eerdere vraagstelling(en).*

Interviewee 10: Het is gemakkelijk en dat is fijn. Maar typen is toch net zo gemakkelijk? Misschien nog wel makkelijker. Wat nou als je iets verkeerds aan klikt, moet je helemaal opnieuw beginnen lijkt me. Nee vindt het dus ook niet echt gebruiksvriendelijk. Opnieuw beginnen is een frustratie lijkt me?

Interviewee 11: Buttons zijn veel gemakkelijker dan zelf typen. Denk dat de kans groot is dat je iets fout typt, de chatbot je niet begrijpt. Dat vind ik ook veel gebruiksvriendelijker dan. Het lijkt mij in ieder geval frustrerend als je iets wilt typen dat de chatbot het niet begrijpt of iets anders kiest. Als je zelf met buttons iets kan aangeven kies je toch echt zelf.

Interviewee 12: Ik vind beide makkelijk. Maar zelf typen heeft nog steeds mijn voorkeur. Bij de buttons ga je je toch snel vervelen. Snap wel dat het voor oudere mensen makkelijk kan zijn, die typen bijvoorbeeld niet zo snel.

Interviewee 13: Het is wel gemakkelijk maar gewoon niet van waarde voor mij. Ik vind het ook niet gebruiksvriendelijk vanuit de chatbot en het bedrijf. Je wilt toch echt contact met de klant lijkt me.

Interviewee 14: Ondanks dat je alleen hoeft aan te tikken wat je wil, ben je toch beperkt in opties. Dus zo gemakkelijk is het niet eens. Met zelf typen heb je alles meer in de hand. Nee buttons zijn niet gebruiksvriendelijk want ze zijn heel beperkt. Die beperking zou mij frustreren.

Interviewee 15: *Niet verder gevraagd, antwoordt was al gegeven in eerdere vraagstelling(en).*

Interviewee 16: Het zou dan wel gemak kunnen bieden, maar geen kwaliteit. Denk dat dat iets belangrijker is.

### **Brand attitude**

14. Hoe zou jij een bedrijf beoordelen die een chatbot met buttons gebruikt? En een bedrijf dat een chatbot heeft waarom alleen typen mogelijk is?
15. Waarom zou je wel of niet tevreden zijn met het bedrijf?
16. Op welke manier ervaar je het bedrijf? Probeer weer de afweging te maken tussen een bedrijf die een chatbot heeft zonder en met buttons?
17. Wat zou jouw houding beïnvloeden ten opzichte van het bedrijf en waarom?

Interviewee 1: Als het bedrijf alleen buttons gebruikt denk ik dat zij er alles aan willen doen om het de klant zo makkelijk mogelijk te maken. Bij zelf typen heb ik het idee dat het bedrijf verder ontwikkeld is. Of het probleem wordt opgelost bepaald of ik tevreden ben, de manier waarop maakt niet zo veel uit voor mij.

Interviewee 2: Ik vind een bedrijf dat alleen buttons aanbiedt niet echt vriendelijk, het oogt heel beperkt in tegenstelling tot zelf typen. Ik zou het bedrijf die zelf typen mogelijk maakt wel anders ervaren, dit oogt veel professioneler dan alleen buttons aanbieden.

Interviewee 3: In mijn ogen neemt het bedrijf minder moeite om met je in contact te komen als ze alleen buttons gebruiken. Ik zou dan meer tevreden zijn als ik echt chat met een bedrijf.

Interviewee 4: Voor mij maakt het niet uit of een bedrijf een chatbot heeft met of zonder buttons. Ik ga niet anders kijken naar het bedrijf daardoor.

Interviewee 5: Het bedrijf voegt meer waarde toe als ze typen mogelijk maken in plaats van buttons. Dus ik zou wel meer tevreden zijn met het bedrijf dat typen mogelijk maakt.

Interviewee 6: Voor mijn gevoel maakt het niet echt uit, ik zou niet meer of minder tevreden zijn met het bedrijf zolang ik maar een kamer kan boeken dan. Ik zou wel verschil zien in professionaliteit. Voor mij is een chatbot waartegen je kan praten veel moderner en dat idee krijg ik dan ook van het bedrijf.

Interviewee 7: Ik zou het frustrerend vinden als een chatbot je maar 1 mogelijkheid biedt om mee te communiceren. Het zou natuurlijk mooi zijn als je kan typen, buttons kan gebruiken of zelfs voice berichten. Ik vind wel, hoe geavanceerder de chatbot hoe cooler het merk achter de chatbot is.

Interviewee 8: Ik zou het bedrijf zonder buttons veel meer waarderen. Maar ga niet nog een keer vertellen waarom ik buttons zo irritant vind. Als een bedrijf echt probeert te communiceren met je en je vrijlaat in antwoorden, dan krijgt het mijn respect.

Interviewee 9: Zoals ik zei vind ik buttons bij een chatbot slecht voor een merk. Alsof je een bepaalde kamer moet kopen, als je alleen maar kan kiezen uit twee dure kamers en je komt op de website erachter dat er veel goedkopere zijn, dan zou ik boos worden op het bedrijf.

Interviewee 10: Mij maakt het niet uit. Ik zou tevreden zijn als een van de opties mijn antwoord gewoon oplost. Het is natuurlijker wel een leukere ervaring als je zelf typt, dan zie je ook hoe ver de technologie is. Dus wat mij betreft zou een bedrijf daar punten mee kunnen scoren.

Interviewee 11: Ik waardeer het wel als een bedrijf je zo optimaal mogelijk wilt helpen. Zij hebben ervaring en met de buttons geven ze mogelijke antwoorden. Dus ik zou een bedrijf dat mij optimaal helpt wel erg waarderen.

Interviewee 12: Ligt eraan wie de doelgroep is denk ik. Kijkend naar de oude groep mensen, ik denk dat meer mensen van 65 plus tevreden zijn als ze alleen maar buttons hoeven aan te klikken. Als het bedrijf je zo optimaal mogelijk ondersteunt, is het gewoon goed.

Interviewee 13: Voor mijn gevoel als je typt heb je veel persoonlijker contact met het bedrijf, daar hecht ik waarde aan. Daarom zou ik ook meer tevreden zijn met een bedrijf.

Interviewee 14: Volgens mij gaf ik dat in het begin aan, ik denk dat buttons slecht kunnen zijn voor je reputatie als bedrijf zijnde als je daardoor geen problemen op kan lossen of mensen over iets anders willen hebben. Als ik hoor dat een bedrijf bereikbaar is via een chatbot alleen die werkt voor geen meter, dan zoek ik al snel een andere manier of kijk ik bij de concurrent.

Interviewee 15: Ik denk dat je juist het persoonlijke weghaald met buttons. Al heb ik dat idee al sowieso met chatbots. Ik snap dat het moeilijk is voor een bedrijf om overal op te reageren, maar ik zou liever chatten met een echt persoon. Als je dan in de wacht staat, kan je ondertussen toch iets anders doen.

Interviewee 16: Ik zou meer tevreden zijn met buttons als ik op zoek ben naar gemak. Maar als ik echt iets belangrijks doe, zoals het boeken van een kamer, dan wil ik kwaliteit. Volgens mij zag ik ook dat je je creditcard gegevens kan achterlaten in de chatbot? Oke, dan verwacht je wel meer van het bedrijf lijkt mij.

### **Brand trust**

18. En in hoeverre zou jij vertrouwen hebben in het bedrijf? Beeld je jezelf voor dat je net een gesprek hebt gehad met een chatbot die buttons gebruikt?
19. Vertrouw je een chatbot met of zonder buttons meer? En waarom?
20. Denk je dat het bedrijf de buttons gebruikt om je te helpen, of eerder zou handelen in eigen belang? En wanneer je een gesprek aan zou gaan waarin alleen getypt wordt?

Interviewee 1: Ik zou het bedrijf wel meer vertrouwen als ik zelf kan typen. Zoals ik zei, ik denk dat ze dan meer ontwikkeld zijn dus dan vertrouw je ze ook wel. Geen idee vanuit welk belang ze handelen, denk eigenbelang. Misschien zijn bedrijven met buttons niet echt ontwikkeld genoeg.

Interviewee 2: Ja meer professioneler dus als het gewoon een echt chat gesprek is. Geen idee vanuit welk belang ze het doen. Ik denk wel dat bij een chat gesprek er meer waarde wordt gehecht aan jouw problemen.

Interviewee 3: Ik zal niet meer of minder vertrouwen hebben in een bedrijf op basis van buttons of chatten. Daarbij kijk ik echt naar het feit of ik bekend ben met het bedrijf of niet.

Interviewee 4: Nee dat maakt mij niet uit. Ik lees dan wel de reviews als ik iets ga kopen.

Interviewee 5: Nee ik zou dus wel meer tevreden zijn, maar voor het vertrouwen maakt dit niet echt uit. Wel heb ik het idee dat ze bij buttons meer vanuit eigen belang werken. Ze bieden natuurlijk alleen opties voor antwoorden aan die zij hebben ingesteld. Daarin zou ik wel meer wantrouwend zijn naar het bedrijf.

Interviewee 6: Ja zoals ik aangaf de professionaliteit en modern zijn. Is toch wel bepalend of je een bedrijf vertrouwd of niet. Als ik naar een website ga die er heel oud uit ziet, dan vertrouw ik hun ook niet zo snel.

Interviewee 7: Nee wel vind ik het merk cooler dus als het meer kan, maar voor mijn vertrouwen heeft dit geen invloed. Of ze uit eigen belang handelen kan ik niet zeggen. Ik weet wel dat een chatbot zonder buttons heel moeilijk te programmeren is. Dus misschien kunnen ze dit wel gewoon nog niet.

Interviewee 8: Is wel duidelijk denk ik. Met buttons is gewoon manipulatief in mijn ogen. Daardoor denk ik ook niet altijd dat ze in mijn belang zullen handelen, maar meer in die van hun zelf.

Interviewee 9: Ligt eraan. Als ik dus door heb dat er alleen twee dure kamers worden aangeboden, dan word ik boos en vertrouw ik het bedrijf niet. Voor mijn gevoel heb je dit veel minder als je daadwerkelijk chat, word je toch minder een bepaalde kant opgeduwd.

Interviewee 10: *Niet verder gevraagd, antwoordt was al gegeven in eerdere vraagstelling(en).*

Interviewee 11: Ik zou wel het bedrijf meer vertrouwen als ze buttons aanbieden. Dit laat zien dat ze je echt daadwerkelijk willen helpen en gewoon gemak bieden. Dat idee heb ik minder wanneer je zelf moet typen. Als de chatbot je dan ook niet begrijpt, dan zou ik ook vraagtekens hebben bij het bedrijf.

Interviewee 12: Als het bedrijf handelt in belang van de doelgroep dan vind ik dat wel. Voor de oudere mensen is het bijvoorbeeld veel meer vertrouwd om buttons aan te klikken omdat ze dan echt geholpen worden. Voor mijzelf zou ik het ook waarderen van het werkt snel, de bedrijven weten ook echt dat wij daarop zoek naar zijn denk ik.

Interviewee 13: *Niet verder gevraagd, antwoordt was al gegeven in eerdere vraagstelling(en).*

Interviewee 14: Ik zou een bedrijf niet snel vertrouwen als zij alleen buttons gebruiken en ik meerdere keren geprobeerd heb om te communiceren met een bedrijf, alleen dat het nooit echt lukt. Dan vertrouw je ze toch niet op hun kennis. Echt chatten oogt veel professioneler en denk dat dit zeker ten goede is van je vertrouwen.

Interviewee 15: Ik vraag me überhaupt af of je door een chatbot een bedrijf meer vertrouwd of niet. In mijn ogen niet echt namelijk. Ze hebben toch niet echt controle hierover? Of buttons gebruikt worden of niet maakt me dan niet echt uit. Doe mij maar gewoon een echte servicemedewerker, dat is veel vertrouwder.

Interviewee 16: In het voorbeeld van de kamer boeken, zou ik veel meer vertrouwd zijn als de chatbot kan typen. Je geeft wel je creditcard gegevens weg, dus dan verwacht je ook wel klasse en een professionele manier van communiceren.