# CUSTOMER ENGAGEMENT THROUGH THE USE OF AI: A QUALITATIVE STUDY ON SMES AND THE USE OF CHATBOTS

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### ABSTRACT

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Abstract					

Technology is rapidly developing and the use of artificial intelligence (AI) in commerce keeps growing its importance. The use of AI is becoming common in companies' daily activities and even automated customer interactions are becoming popular. The importance of customer engagement (CE) is increasing in the digital era as company reputation is emphasized with the fast spread of information. This study focuses on the advantages and disadvantages of artificial intelligence usage on small and medium-sized enterprises' (SME) customer engagement.

The concepts of AI and CE have not been comprehensively studied together before. Previous studies of the field have mainly had their focus on the customer, and they have been conducted in the context of large corporations. This research is distinctive as it considers Finnish SMEs' AI usage for customer engagement by focusing on the usage of chatbots. The topic is approached from the point of view of the company.

The study has been conducted by interviewing representatives from Finnish SMEs, utilizing semi-structured interviews. The sample consisted of companies that were using chatbots and companies that were not using chatbots. Thematic analysis was employed, and the findings were then contrasted with prior research.

The research indicates that chatbots may bring advantage in efficiency for SMEs, relating to daily customer interactions. However, bots are not seen to be developed enough to provide reliable customer care. SMEs rely on good customer experiences as it is directly related to customer engagement and for that reason there is notable hesitation on using chatbots. Due to this, major technological improvements would be needed for the chatbots to provide desired quality of service for SMEs.

Key words

Customer Engagement, Artificial Intelligence, Chatbot, Small and Medium Enterprise Place of storage

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Teknologia kehittyy nopeasti ja tekoälyn käyttö kaupankäynnissä kasvattaa jatkuvasti merkitystään. Tekoälyn käyttö on yleistymässä yritysten päivittäisessä toiminnassa ja jopa automatisoitu asiakasvuorovaikutus yleistyy. Asiakassitoutumisen merkitys kasvaa digitaalisella aikakaudella, sillä tiedon levitessä nopeasti yrityksen maine on korostetussa asemassa. Tämä tutkimus keskittyy tekoälyn käytön mahdollisiin etuihin ja haittoihin pienten ja keskisuurten yritysten (PK-yritys) asiakassitoutumisen kannalta.

Tekoälyn ja asiakassitoutumisen käsitteitä ei ole aiemmin tutkittu kattavasti yhdessä. Aiemmat alan tutkimukset ovat olleet pääosin asiakaslähtöisiä ja niitä on tehty suuryritysten kontekstissa. Tämä tutkimus erottuu muista, sillä se pohtii suomalaisten pkyritysten tekoälyn käyttöä asiakkaiden sitouttamiseen keskittyen chatbottien käyttöön. Aihetta lähestytään yrityksen näkökulmasta.

Tutkimus on tehty haastattelemalla suomalaisten pk-yritysten edustajia hyödyntäen puolistrukturoituja haastatteluja. Otos koostui yrityksistä, jotka käyttivät chatbotteja ja yrityksistä, jotka eivät käyttäneet chatbotteja. Tutkimuksessa käytettiin temaattista analyysiä ja tuloksia verrattiin aikaisempaan tutkimukseen.

Tutkimus osoittaa, että chatbotit voivat lisätä päivittäisten asiakasvuorovaikutustilanteiden tehokkuutta pk-yrityksissä. Botit eivät kuitenkaan ole vielä tarpeeksi kehittyneitä tarjotakseen luotettavaa asiakaspalvelua. Pk-yritykset luottavat hyviin asiakaskokemuksiin, koska se on suoraan liitoksissa asiakkaiden sitouttamiseen, jonka vuoksi chatbottien käyttöön suhtaudutaan epäröiden. Tästä johtuen vaadittaisiin suuria teknisiä parannuksia, jotta chatbotit voisivat tarjota toivottua palvelutasoa pk-yrityksissä.

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# **1** INTRODUCTION

This study continues from the existing research on customer engagement and the usage of artificial intelligence in commerce activities (see table 1). Customer engagement (CE) refers to customers' interactive experience of a company or brand (Brodie et al. 2011). Whereas artificial intelligence, or AI in simple terms, refers to machines performing human-like tasks by using software and algorithms (Kumar et al, 2019). Both customer engagement and the use of AI in commerce are separately well studied, yet the topic of using AI for customer engagement purposes is still relatively new.

As the concepts of AI and CE have not been comprehensively studied together (Perez-Vega et al, 2021), the topic remains relevant and current, as the use of AI is continuously increasing in everyday business activities. The scarce studies on the subject have mainly considered the utilization of AI for customer engagement purposes in large corporations. The focus has been for the most part on the aspects of customer satisfaction and experiences from the point of view of the consumer (see table 1). On the note of these already conducted research, they present a good ground and an opportunity for studying the growing topic further in a more specific setting.

## 1.1 Research Gap

As technology keeps developing at a rapid pace, the use of technology in commerce grows its importance. The usage of artificial intelligence is becoming increasingly common in companies' day-to-day activities, and even their interactions with customers are becoming more automated. Chatbots are a rather new form of AI that is mainly used for automating these customer interactions (Adam, et al. 2021), presenting new possibilities and great growth potential.

Prior research on AI and chatbots has been collected in table 1, which indicates that the benefits and possible threats that the usage of chatbots may present to the company have not been comprehensively researched. The majority of existing research has been conducted from the viewpoint of the consumer, with a strong focus on customer satisfaction. In addition, the relevant research has been conducted by taking note of larger companies, thus the smaller enterprises have been left generally unobserved.

Prior studies show that chatbots can be beneficial for companies, as it has been proven that chatbots and AI algorithms can do a better job than humans in many cases, especially with predictions and effectiveness (Castelo, et al. 2019; Longoni & Cian, 2020). However, the studies on usage adoption and business activities development through AI have not considered all the possible benefits and threats that the usage of AI may introduce. These are especially lacking from the point of view of small and medium-sized enterprises (SME <sup>1</sup>), therefore all the benefits that such AI technology can offer may not be known.

Selamat and Windasari (2021) note that while the significance of chatbots has been studied previously, it has mainly been done in large companies. They highlight the importance of studying chatbots in small and medium-sized enterprises, as they may face different issues than big companies when adopting AI-based solutions (Selamat & Windasari, 2021). For instance, SMEs have limited resources which poses more risk to the company as new technology is taken to use, and furthermore, the benefits of chatbots for SMEs remain unclear and should be studied further to determine whether the advantages are worth the risk (Selamat & Windasari, 2021). The possibilities and threats of using chatbots in SMEs are largely undiscovered, as it is uncertain whether the studies conducted in larger corporations apply to SMEs. Therefore, this lack in the previous studies indicates that there is room for further research on the advantages and disadvantages that AI solutions bring, especially when considering SMEs, hence it is of interest to study these concepts in this particular context.

## 1.2 Research Objective

The objective of this research is to study the advantages and disadvantages of using chatbots in customer engagement activities, with a focus on the point of view of the company. Yet, previous studies on the subject are lacking. The majority of the prior research has focused on the customer point of view of AI in relation to customer experience, satisfaction, and loyalty, as represented in table 1. Moreover, most of the previous studies have been constructed from the customers' point of view, rather than focusing on the company, whereas this study aims to contribute to the theory by studying the company rather than the customers. Additionally, the use of chatbots in SMEs has not been broadly researched, and as the study is taking a country-specific standpoint, thereon the findings could be relevant for the Finnish trade. It is good to point out that in 2016, SMEs accounted for 98% of all companies in Finland (Tilastokeskus, 2017), hence studying the effects of technology could be of use for a large number of Finnish companies. Also, customer engagement can be highly beneficial for a company as it leads to customer loyalty and value co-creation (Sashi, 2012) which lead to both financial and non-financial gain.

This research considers the use of artificial intelligence for customer engagement activities in small and medium-sized companies. The study

<sup>&</sup>lt;sup>1</sup> SME generally refers to an enterprise that has a yearly turnover of fewer than fifty million euros and less than 250 employees in total (Tilastokeskus, n.d.).

concentrates on how Finnish SMEs use or could use artificial intelligence and specifically chatbots to their advantage as a customer engagement tool. Secondly, the study aims to determine what the disadvantages and possible threats of using chatbots are. The study mainly focuses on the effects of using chatbots in SMEs and their customer engagement. What are the possible advantages of using a chatbot for the company? On the other hand, what are the possible disadvantages of using chatbots?

From a theoretical standpoint, the study contributes to customer engagement theory by providing more market-specific niche insight on the subject. Moreover, the study contributes to the existing literature by providing more specific data on the benefits and possible threats that chatbot usage may have on SMEs. The study has been conducted by an approach that contrasts the findings of the study against prior research to build on the existing theory on customer engagement and AI in commerce. This style is often utilized with new theory building by using multiple case studies as a research method while the collected data is contrasted with existing theory, which helps the researchers build a stronger theory with a focus on validity and coherence (Eisenhardt, 1989, 2021).

#### **1.3 Research Structure**

In the introduction, the topic of the study has been established, and the research problem is outlined along with a short description of the main theoretical background. The paper continues with the literature review that comprises prior research related to the current study. Firstly, the theory on customer engagement (CE) is discussed along with subtopics on customer engagement pathways, customer engagement behaviors, and the benefits of customer engagement. The second part of the literature review is on Artificial Intelligence (AI). The section starts with an introduction to AI, then discussing the advantages and disadvantages of AI in commerce. Continuing with the different types of AI and introducing chatbots, which is the form of AI systems most relevant for the research. The section also presents some of the relevant previous studies of the area. The final section of literature review presents the theoretical framework, which indicates the connection of the two topics and describes how the theory is utilized in this study.

The third section describes the data collection and research methods that were used in the study. First, the qualitative research method in general was introduced to form a basic understanding of the research method employed in this study. This section is followed by data collection, which describes how the data was collected through semi-structured interviews. Lastly, the concept of thematic analysis was introduced along with the description on how the method was implemented in this research. Fourth section shows the findings of the research. This includes separate sections for companies using and not using a bot. After this the findings of these two groups are compared to each other in a separate part. Then the findings are discussed and contrasted in relation to the previous research. The final section presents the conclusions made based on the conducted research along with prior research. The closing section also includes the viable managerial implications, the limitations of the study as well as the possibilities for future research.

# 2 LITERATURE REVIEW

The main concepts and theories in this research are customer engagement (CE) and the use of artificial intelligence (AI) in commerce. More specifically, the study revolves around the use of chatbots in commerce and CE. There are several ways companies may utilize artificial intelligence, but the focus here is on the use of chatbots specifically. In this research, the use of AI in commerce is studied in an SME setting concerning customer engagement.

This chapter begins by introducing the main concepts, starting with customer engagement. The subtopics of CE include the CE framework, CE pathways, CE behavior, and the benefits of customer engagement to companies. The chapter continues with basic information on artificial intelligence in commerce, the perceived advantages and disadvantages, and the types of AI, as well as the use of chatbots in commerce, including some previous research on the subject. Lastly concluding with the connection of the two main concepts, tying the topics together.

## 2.1 Customer Engagement

There has been a change over the years in the way customers have been managed as represented in figure 1. The previous focus in marketing was on customer transactions and their effect on company performance, from where the focus slowly moved to a relationship-based view where the goal was to create a good connection with customers and ensure customer satisfaction and loyalty, then finally the most recent field of interest has been in customer engagement and the emotional connection customers can have to a company or a brand (Pansari & Kumar, 2017). Bowden (2009) criticizes the focus on customer satisfaction as it fails to note the significance of customer-brand relationships and their impact on service performance.

# Engagement

Satisfaction and emotion

# Relationship

Trust and commitment

## Transaction

Monetary value

Figure 1. The evolution of customer management. Adapted from Pansari & Kumar, 2017, p.295

In recent years, customer engagement, consumer engagement, or CE for short, has been a widely studied concept and multiple researchers have made their definitions on the subject. One of the most popular definitions of CE is made by Brodie et al. (2011) who define it as a reactive customer experience between an object, as a company or brand, and the customer. According to this definition, there can be several different types and levels of customer engagement, depending on the conditions of the interaction, which all co-create value for the company (Brodie et al., 2011). In some contexts, CE can be a repeating process forming a relationship, which possibly results in more involvement between the object and subject as well as loyalty to the brand or company. Brodie et al. (2011) specify that the customers engaged in the process play a vital role in the case of viral marketing activities, in recommending and referring the company, service, or brand to others. Related to this is the later research from Brodie et al. (2013) which expanded on their theory and found that CE is important for company value as it can lead to a tight connection with the consumer, resulting in customer loyalty, satisfaction, trust, commitment, customer empowerment, and even strong emotional bonding.

Other definitions claim, for instance, that customer engagement refers to the actions a consumer takes beyond made purchases (Van Doorn et al., 2010), whereas it is also described as a motivational state of mind related to a brand, which is dependent on the context that ultimately leads to different levels of cognitive, emotional, and behavioral activities toward the brand (Hollebeek, 2011). Another theory was provided by Vivek et al. (2012), who define customer engagement as an individual participating in an organization's activities or as an individual's connection to the organization. This relation comprises various elements such as cognitive, social, and emotional connections. These then may result, for instance, in loyalty and trust and can be seen as activities such as involvement in the organization's communities and positive word of mouth. Word of mouth refers to the information flow through consumers speaking out about their experiences to others, which may be positive or negative thereon impacting the subject of the oral exchange depending on the nature of the experience.

Bowden (2009) proposes a customer engagement framework that is depicted in figure 2, which has a customer moving through a psychological sequence in which they become a loyal customer. The first stage is a state of calculative commitment in the case of new customers who have had a satisfactory experience with the brand. In the second stage, they may become more involved with the brand and become repeat customers as they develop more trust towards the company. In the final stage, a customer develops a more affective commitment to the brand and becomes an increasingly loyal customer. An affective commitment is a psychological bond a customer has with the brand that works as a motivator to stay loyal and connected to the company (Vivek et al., 2012). The model is more focused on the psychological commitment a customer has to a brand rather than the CE behaviors an engaged customer may take on.

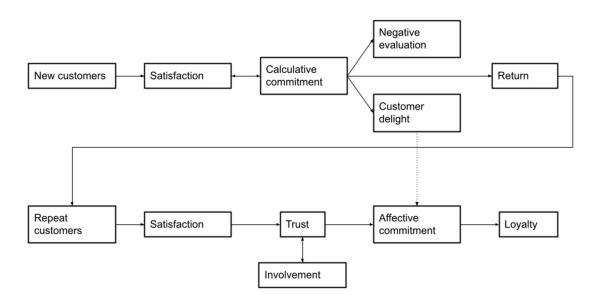


Figure 2. A Conceptual Framework for the Process of Engagement. Adapted from Bowden, 2009, p.66.

#### 2.1.1 Customer Engagement Pathways

To fully understand customer engagement, it can be clarified that CE can either be initiated by the company by using incentives to encourage the customer to interact or it may be initiated by the customers themselves, instinctively taking part in the company's activities without any more of an incentive than the participation (Beckers et al., 2018; Barari et al., 2021). Company-initiated customer engagement can also be referred to as a promoted pathway whereas customer-initiated CE can be referred to as an organic pathway. (Barari et al., 2021) These pathways are represented in figure 3.

The incentives used may greatly differ for each company and brand. These incentives may include free samples, discounts, vouchers, raffles, and so on. The idea of the incentive is to promote the product or brand and give the customer a reason to interact and possibly share their experience with others. With such efforts, companies are being proactive in initiating customer engagement, giving themselves the chance to initiate, manage and control customers' activities (Van Doorn et al., 2010). Barari et al. (2021) recognize two types of incentives companies may use – functional and experiential. The functional incentives are economic incentives, such as referral programs and vouchers, which are utilized to promote customer engagement behavior (Barari et al., 2021; Beckers et al., 2018, Harmeling et al., 2017). Social benefits are used to improve attitudinal engagement, and these experiential incentives are designed to create an experience for the customer that enhances their connection to the brand or company (Barari et al., 2021; Harmeling et al, 2021; Harmeling et al, 2017).

The organic pathway is more relationship-oriented and is based on the perception the customer has of the company and the kind of quality and value they perceive the company brings (Barari et al., 2021). Over time a customer creates a relationship with the company that finally turns into customer engagement through satisfaction, trust, and commitment to the company (Barari et al., 2021; Beckers et al., 2018; Bowden, 2009; Hollebeek et al., 2014; Palmatier et al., 2018; Vargo & Lusch, 2004). This engagement is realized in two different forms – attitudinal and behavioral engagement (Bowden, 2009; Hollebeek et al., 2014). Attitudinal engagement refers to the emotional and cognitive bond a customer has to the company whereas behavioral engagement is about the actual engagement behaviors a customer takes on, such as word-of-mouth or content creation (Barari et al., 2021; Beckers et al., 2013; Beckers et al., 2018; Bowden, 2009; Hollebeek et al., 2014; Palmatier et al., 2014; Palmatier et al., 2021; Beckers et al., 2021; Beckers et al., 2018; Bowden, 2009; Hollebeek et al., 2014; Palmatier et al., 2021; Beckers et al., 2018; Bowden, 2009; Hollebeek et al., 2014; Palmatier et al., 2021; Beckers et al., 2018; Bowden, 2009; Hollebeek et al., 2014; Palmatier et al., 2021; Beckers et al., 2018; Bowden, 2009; Hollebeek et al., 2014; Palmatier et al., 2021; Beckers et al., 2018; Bowden, 2009; Hollebeek et al., 2014; Palmatier et al., 2018; Vargo & Lusch, 2004).

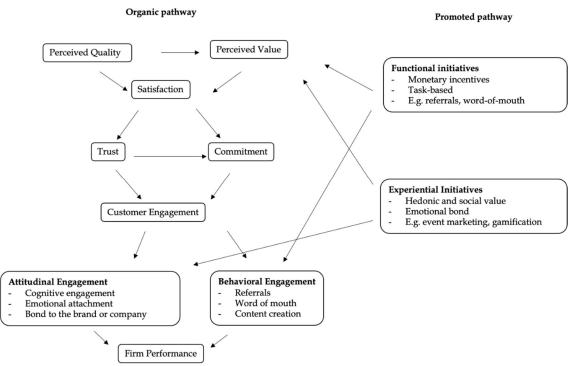


Figure 3. Customer engagement pathways. Adapted from Barari et al., 2021, p. 469

In turn, Sashi (2012) depicts customer engagement as a cycle that not only takes into consideration psychological commitment but customer engagement behaviors as well. The author sees that customer engagement is a matter of creating more value for the customers than competitors and harnessing that to create long-lasting relationships with the customers, who in turn become active collaborators that add value to the company. The customer engagement cycle consists of seven stages – connection, interaction, satisfaction, retention, commitment, advocacy, and finally engagement. This process is visualized in figure 4.

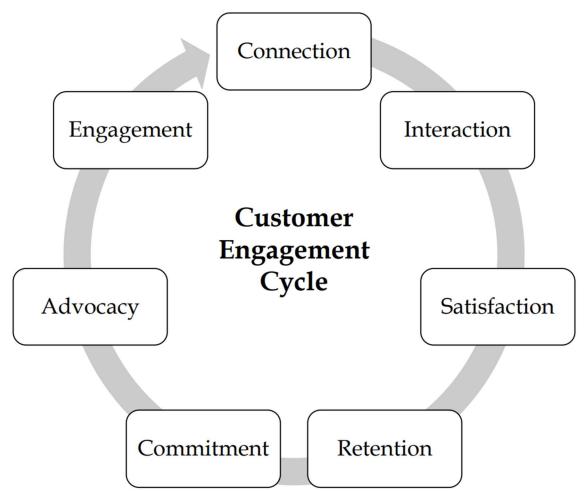


Figure 4. Customer engagement cycle. Adapted from Sashi, 2012, p. 261.

Customers may interact with a company in several ways especially now that technology has opened up new forms of communication. This interaction is an important opportunity for the company to create value for the customer and additionally for the customer to take part in the value creation process (Sashi, 2012). If the interactions are successful and the customer is satisfied, customer retention and positive connotations towards the company are possible, yet a satisfactory experience does not guarantee customer retention or commitment to the company (Sashi, 2012). Through retention, a customer may become both rationally and emotionally committed to the company, which means that the customer is more committed, and a long-term relationship may have been established (Sashi, 2012). Next, a committed customer may become an advocate for the company and take part in customer engagement behaviors, such as wordof-mouth communication. Finally, when a satisfied customer becomes an active participant who acts as an ambassador for the company, they have become engaged and have now established a strong emotional bond with the company, and so become a co-creator of value (Sashi, 2012).

#### 2.1.2 Customer Engagement Behavior

Van Doorn et al. (2010) define customer engagement behaviors as "the customers' behavioral manifestation toward a brand or firm, beyond purchase, resulting from motivational drivers". There is a large variety of CE behaviors, such as word-of-mouth, referrals, blogging, commenting on a company's post online, and so on. These manifestations can be positive or negative in nature as, for instance, word-of-mouth can be both positive and negative, from which the important notion is that customer engagement behavior goes far beyond purchase (Barari et al., 2021; Beckers et al., 2018; van Doorn et al., 2010).

Customer engagement behaviors can be classified into three categories – resource sharing with the company, resource-sharing with other actors, and directly influencing (Barari et al., 2021). In the first two categories, customers share their resources such as knowledge and time either with the firm or, for example, other customers and thus take part in the value creation of the company (Barari et al., 2021; Jaakkola & Alexander, 2014). This can manifest, for instance, in the form of feedback or comments (Kumar et al., 2010). Feedback and suggestions can be used in product or service development and consequently, they create value for the company (Kumar et al., 2010; Barari et al., 2021). The third category consists of direct actions to change others' perceptions or opinions of the firm such as referrals, which is a way to acquire new customers (Kumar et al., 2010).

#### 2.1.3 Benefits of Customer Engagement

Many researchers have noted the positive effects of customer engagement, as it helps with company performance (Kumar & Pansari, 2016) and the customer contributions are also said to co-create value (Jaakkola & Alexander, 2014). In addition to the positive sides, it is good to mention that a study by Beckers et al. (2018) found risks related to company-initiated CE activities in addition to benefits. The risks were related to issues such as bad word of mouth and company-initiated CE activities even lead to decreased market value.

One way for engaged customers to create value for a company is through feedback and participation in product development (Kumar et al., 2010). Customers may take part in product innovation or product development, which can lead to shorter development times as well as enhanced products, and in addition, this interaction may have a positive reputational impact (Kumar et al., 2010). Jaakkola and Alexander (2014) recognize this aspect as well and note that customers may create value by donating their resources such as time and knowledge to develop the firm's offering. For instance, customers may participate in new-product testing or suggest additions to an existing product.

Additionally, customer engagement has been linked to company reputation, as engaged customers have an important role as ambassadors of the brand as they may recommend specific products or services to others (Brodie et al., 2011). The reputational impact of CE has also been linked to financial performance. Kumar and Pansari (2016) found that CE may have both direct and indirect effects on company performance. CE affects financial performance directly as engaged customers tend to buy from the company, they have a relationship with, and indirectly as engaged customers may influence others' purchase decisions through recommendations. Van Doorn et al. (2010) suggest that customer engagement may have both short- and long-term effects on the company. The long-term effects might be harder to measure or detect as they can be more about how CE affects other customers and the environment surrounding the brand, which in turn influences the success of the company.

## 2.2 Artificial Intelligence in Commerce

Systems' ability to attain set goals and perform tasks successfully by correctly interpreting and learning from data is called artificial intelligence (Kaplan & Haenlein, 2019). AI is generally thought of as the machine's ability to present intelligence, similar to humans (Kumar, et al. 2019; Kaplan & Haenlein, 2019). Artificial intelligence is a current topic, as technology keeps developing further and the potential of AI is great, yet vastly unknown. AI in business service is typically utilized in influencing customer interactions with the business, to gain positive customer encounters (Prentice, et al. 2020). AI can be useful for instance in automating simple repetitive tasks and enhancing algorithms for personalization, advertisements, and recommendations. In these ways, artificial intelligence is bringing value to both companies and consumers, by performing many of such tasks that humans could do, but performing them more efficiently as a machine (Kumar, et al. 2019).

The sets of steps that computers follow when performing a task are called algorithms (Castelo, et al. 2019). As these algorithms are the basis for machines being able to perform simple tasks automatedly, they can be grown better by implementing AI technology into them. This progress has given the algorithms the ability to produce and understand natural languages as well as learn from experience and even copy and recognize human emotions (Castelo, et al. 2019). Given these capabilities, it is said that AI suggestions are already more accurate than ones given by humans (Longoni & Cian, 2020), and it is seen that these smarter AI algorithms are continuously outperforming people (Castelo, et al. 2019). Keeping this in mind, due to the algorithms being able to follow and measure consumers' likes and dislikes very efficiently, it may even seem that the AI knows them better than they do themselves. This is due to these developed algorithms' abilities of going through massive amounts of different data of both past and present customers (Puntoni, et al. 2021), with this they may predict accurate recommendations to suggest, even for future consumers. It is believed that the next generation of AI technology may be something great for consumers and corporations alike (Huang & Rust, 2020).

AI in general gives companies the advantage of managing massive amounts of data instantaneously, also creating appropriate responses to customer queries according to the processed data (Perez-Vega et al, 2021). This can possibly be used when aiming for increased customer engagement. There have been suggestions on how customer engagement of companies could increase company profitability when artificial intelligence automation is utilized, as AI could provide real-time insight to the correct personnel, disbanding manual labor in processing customer insights, and even providing each customer with their own personalized responses (Perez-Vega et al, 2021). It is suggested that the usage of any of the three AI intelligences, as presented in figure 5, can give their individual special benefits for companies' customer engagement activities (Huang & Rust, 2020). However, using customer information in making communication with the consumers more personalized, both in marketing and customer service, is lacking (Perez-Vega et al, 2021). It is proposed that long-term research of AI usage in CE activities would be necessary to better present artificial intelligence's usability and importance for customer engagement (Lim et al, 2022).

#### Advantages and Disadvantages

AI today is good for taking a hold of more mundane day-to-day tasks through automation and it is additionally modifying the style of sales. The technology has developed enough to give accurate suggestions that can boost companies' sales productivity (Alavi & Habel, 2021), whilst providing more value to customers as well. Surely AI is already being utilized in information gathering to be able to provide the aforementioned services, which again can bring great advantage to those in charge of the collected data in question. However, businesses may struggle with addressing the customer concerns on algorithms as the usage of capable AI grows (Castelo et al, 2019), which eventually can lead to losing customers. Avoiding this, the consumers' hesitations concerning AI should be considered already when a company is planning on adopting new technology into their business. Particularly the data collection is an aspect that companies are encouraged to remain open about, as people may have data privacy and security concerns which won't be dwelled into any further in this study, the main point being that the user data is necessary for the new AI systems in order for them to learn.

Many points that are seen as advantages, especially from the company's point of view, when using AI can also be seen as negatives when looking at them from a different angle. As AI develops and gives more accurate suggestions to people, for consumers it can seem that they are no longer in control of their choices (André et al., 2017). Also, the mundane service tasks that AI can already perform means that the workers may be replaced, as they are no longer needed unless they learn or maintain usable skills (Huang & Rust, 2018). Yet, for AI to be able to take over any jobs in a company, they will need to adopt the new technology first and this adoption of AI is said to be difficult, especially for SMEs (Kumar & Kalse, 2021).

As AI has room for development, also the learning capabilities of the automated AI may need broadening, which again can bring difficulties, especially for the AI form that is directly facing the customers. This is due to customer responses' unpredictability causing issues for AI's autonomous learning. To keep the possible biases out of their artificial intelligence systems, especially the ones facing consumers, organizations need to be aware of them (Puntoni et al, 2021). If the systems were to mimic human behavior, there is a chance that the nature of the automated response may change to be inappropriate for some users. When something goes wrong with the direct responses and suggestions that the AI generates, unless these are monitored, the company will need to face the negative consequences. It may be that partly due to this possible uncertainty, the learning ability is often most disabled in many systems such as chatbots.

#### 2.2.1 Types of Artificial Intelligence

As AI can be seen to show some forms of human intelligence (Kumar et al, 2019; Huang & Rust, 2020), some tasks that previously required humans can now be performed by AI. This advancement shows that intelligence may also come with different levels of abilities for learning, connecting, and adapting, yet not all forms of AI are made to learn (Huang & Rust, 2020). The type of AI that can learn is however growing its popularity of being used in service (Rust & Huang, 2014), and as AI is seen to imitate the intelligence of humans, it suggests that machines can also be designed to include other human-like capabilities (Huang & Rust, 2022). A simplified categorization of the different types of artificial intelligence are presented to be mechanical, thinking, and feeling (Huang et al, 2019). Figure 5 presents the core ideas of the three intelligence categories.

	Types of Artificial Intelligence	2
Mechanical	Thinking	Feeling
Performs simple formulated tasks that need repetition (e.g., data gathering & simple responses)	Performs complex tasks that need organized and specific results (e.g., personalized recommendations & problem solving)	Performs complex emotional and empathetic interactions (communicative interactions between humans and machines)
Provides consistent results -Limited learning ability	Provides precise results -Learns independently from analyzing data patterns and regularities	Provides consistent, precise and emotional results -Learns independently from analyzing experience-based data
For: Repetitive services	For: Personalized services	For: Emotional relationships

Figure 5. Three types of artificial intelligence. Based on the research of Huang et al, 2019 and Huang & Rust, 2020, 2021.

**Mechanical AI** systems are made for performing easy, monotonous, procedural tasks (Huang & Rust, 2018, 2020, 2021, 2022). This type of automated AI is known for its consistency (Huang & Rust, 2021; ), which is why it can be relied on with these recurring tasks (Huang et al, 2019). The capability of its consistency derives from the narrow learning and adaptation capabilities (Huang & Rust, 2018, 2020; Huang et al, 2019). This limited learning is often most deliberate, for maintaining the desired steady results (Huang et al, 2019). Mechanical intelligence can be used for example in systems such as chatbots, performing automated day-to-day customer service activities. Also, data gathering is one of the major areas where mechanical AI can be routinely utilized (Huang & Rust, 2021).

**Thinking AI** is a more competent form of intelligence. It is made for more complex, structured, and precise tasks that are based on rules (Huang & Rust, 2020), being able to perform tasks that humans may not desire to do or ones that they are not capable of doing (Huang & Rust, 2022), thus saving time and effort. Thinking intelligence, as the name may suggest, independently learns, and adapts through the data (Huang et al, 2019; Huang & Rust, 2020). This form of AI possesses the ability to analyze data that it is given, recognizing different patterns and regularities, and making conclusions from them. (Huang & Rust, 2021, 2022). Thinking AI is capable of producing personalized outcomes from the processed data (Huang & Rust, 2021), especially if there are large quantities of carefully described data accessible (Huang & Rust, 2020). Using thinking AI can therefore be very useful for functions that especially benefit from personalized services (Huang & Rust, 2021), such as systems aiming to provide personalized recommendations.

Feeling AI means to fulfill consumers' social, and relationship needs (Huang & Rust, 2022). This form of intelligence has the competence for communicative interactions between humans and machines, being capable of acknowledging the emotions of people and responding to them in an emotionally suitable manner (Huang & Rust, 2020, 2021, 2022). Feeling intelligence may hold the capabilities of both mechanical and thinking AI, yet it applies them to analyzing experiencebased data (Huang & Rust, 2020). Therefore, it can perform better in understanding customers than the other types of AI, being advantageous for better understanding the needs and wants of both current and future customers, giving a great opportunity for further specific personalization with customer relationships (Huang & Rust, 2021). It is good to point out that a true feeling AI doesn't yet exist (Huang & Rust, 2021). However, it has been suggested that some AI can in the future be developed to have feeling intelligence and to communicate empathetically with humans (Huang et al, 2019), it is even believed that the machines which use the AI ability to learn humanness in the style of thinking and behavior, are becoming more human-like than being just machines (Perez-Vega et al, 2021). Nevertheless, it is believed to take a long time before AI is able to do

what humans can (Huang et al, 2019). Thus, tasks requiring feeling intelligence should mainly be performed by humans (Huang & Rust, 2020), for now.

The types of artificial intelligence are in this case organized from the 'simplest' to the 'hardest' in the development point of view. Starting with the mechanical AI that is already settled and in use, after which comes the vastly developing thinking AI, and lastly, the feeling AI that is still at the beginning of its journey of becoming practically usable (Huang et al, 2019). It is good to note that this way of categorizing the AI intelligence types does not mean that the intelligences couldn't be connected or mixed. Some application forms of the intelligences may include aspects from other intelligences, in which case, not only the smartest intelligence can have the abilities of the less developed intelligences but also vice versa. Huang & Rust (2018) suggested this already in their study including mechanical intelligence, that it may in some forms include the aspects of higher AI. However, this may make indicating a system into one specific field harder, which is why they tend to be categorized in the intelligence form that they most represent. In the case of conversational AI, like chatbot applications, they remain in the mechanical intelligence category, even though they are developing and may already present some form of thinking and feeling intelligence qualities (Huang et al, 2019; Huang & Rust, 2020).

#### 2.2.2 Chatbots

Chatbots are machine agents that can connect a user, through natural language using text or voice, to data and services (Brandtzæg & Følstad, 2018), this technology shows vast business potential (Luo et al, 2019). In the study, the focus will be solely on text-based chatbots. These are software systems that are specifically designed for communicating with people (Adam, et al. 2021), they belong to one of the branches of artificial intelligence, called mechanical AI (Huang & Rust, 2020; Huang & Rust, 2021), which companies mainly use for customer interactions. Another name that they may be referred to as, is conversational agents (Grewal et al., 2019). Chatbots are created to interpret customers' written queries, giving them assistance or relevant information quickly and efficiently in an appropriate manner (Brandtzaeg & Følstad, 2017; Wilson & Daugherty, 2018; Toader, et al. 2019). These bots can handle large quantities of simple customer questions, they are cost-efficient and fairly easy to implement (Huang & Rust, 2021). Even though chatbots are a rather new topic, their efficiency has been noted and promoted in multiple studies (Luo et al, 2019; Huang & Rust, 2021; Brandtzaeg & Følstad, 2017; Wilson & Daugherty, 2018; Toader, et al. 2019).

As the consumers have smart technology that enables them constant access to the internet, and all that comes with it, this brings great accessibility for companies as well, as it enables a constant engagement opportunity with their customers (Grewal, et al. 2017), as chatbots can be used to interact with customers

around the clock. Even though these conversational agents tend to be often most only used to handle the basic customer service activities (Huang & Rust, 2021), they are developing quickly and can also be used to promote the brand and company as well as their sales and profits through personalization (Wilson & Daugherty, 2018; Toader, et al. 2019). For this, the chatbots should be designed for the company, to provide the wanted services in a manner that promotes the company's own values and image, this way the bots could also affect the customers' view of the company itself and even encourage them for more interactions. Chatbots have become great tools for direct customer engagement for service and marketing activities (Moriuchi, et al. 2021), and due to the current pandemic situation, it is seen that such tools may grow their importance and usefulness in the future as well (Rajaobelina & Ricard, 2021).

#### Advantages & Disadvantages

Chatbots are now seen as effective tools in handling basic customer queries, and they keep rapidly developing, whereas they have the potential for future in handling more complex issues as well as promoting sales and in their way also boosting company profits (Toader, et al. 2019; De Keyser, et al. 2019). Chatbots are not too costly for the company, especially when thinking of them in the long run (Wirtz, et al. 2018), as even with the trouble of starting to use such a text-based bot, it is still ought to be more cost-efficient than the hiring and training of new employees for the same task. Especially as the increasingly popular chatbots can offer customer service in real-time (Adam, et al. 2021), being available around the clock, 24 hours a day (Rajaobelina & Ricard, 2021). Therefore, chatbots are said to be even more productive than human agents, due to automation and at the same time they are being more cost-efficient (Brachten et al, 2021; Wilson & Daugherty, 2018).

As the chatbots develop and become more personalized, giving customers accurate recommendations, this tends to give people the same concern as for AI in general, as for privacy and security. However, there is also the perception that customers may have, which is that people are better than the bots (Chong, et al. 2021). People could want interpersonal interaction, whereas there may be possible drawbacks as the agents aren't human. For such cases the companies would need the bots to appear more human-like, so people would rather continue the interactions with them (Adam, et al. 2021; Chong, et al. 2021). This brings us to the worry for companies themselves, as chatbots still have limited capabilities, whereas there is a need for speedy development in bettering the product, as there are user expectations for the companies to keep up with (Chong, et al. 2021).

#### 2.2.3 Prior Research

Some of the relevant previous research that has been conducted on the use of artificial intelligence and chatbots in commerce has been compiled and are presented in table 1. As can be seen in table 1, the subject has been studied in various industries in recent years. Most studies concentrate on the customer's experience while using a chatbot or other forms of AI. However, studies concentrating on the experiences that SMEs have using chatbots as well as customer engagement and AI together, are sparse.

Table 1. Prior research of artificial intelligence and chatbot usage in commerce.

Author(s)	AI in general	Chatbot	Company type	Key focus	Key findings
Ameen, et al. (2021)	V	V	Beauty brands	Customer experience of AI- enabled customer service	Emotions and feelings remain important aspects in customer experience, even with AI – After initial experience is created with a brand, consumer commits to maintaining a ongoing relationship
Brachten, et al. (2021)		V	Multinational corporation	Employees' acceptance and usage of new tech	Employees' personal attitude is what majorly influences the acceptance and intention of using chatbots in the company
Chung, et al. (2020)		V	Luxury brands	Customer reactions on brand chatbot usage	Chatbots can help increase customer engagement in simple queries as long as they are trustworthy, yet for broader interactions luxury brand customers prefer human agents
Kasilin- gam (2020)		√	Online retail	Customers' attitudes towards chatbots	The attitudes are directly influenced by multiple different variables

Kumar & Kalse (2021)	√		SME	Using AI to develop business activities in SMEs	AI can give advantage considering safety, customer satisfaction, business activities and against competition
Luo, et al. (2019)	V	V	Online financial services	Conversatio nal chatbots and the effects on purchase decisions on disclosing chatbot identity to customer	Chatbots don't need to be disclosed, they can outperform humans, their growing potential brings a trend of replacing human workers
Lupa- Wójcik (2019)		√	University	Students' attitudes towards chatbot customer service	Students' attitudes toward chatbots are positive, often cannot separate them from humans in customer service interactions
Nichifor, et al. (2021)		√	Online retail	Using chatbots in the communicat ion process with customers	The usage of chatbots is encouraged, with managerial preparations
Pillai & Si- vathanu (2020)	✓	√	Hospitality industry	The adoption of AI and chatbot services and effects on customer satisfaction	Chatbots are seen to have specific limitations, yet more useful qualities are being used for cost savings and providing prompt service
Prentice, et al. (2020)	√		Hospitality industry	Customer loyalty and satisfaction through AI	AI tools give some convenience, yet human contact in the area of business shows importance

			application services	when considering customer satisfaction
Rajaobe- lina & Ri- card (2021)	√	Insurance providers	Consumer interest in chatbot and live chat services	Presents classification example of people according to their interest in chatbot services
Rese, et al. (2020)	√	Online retail	Customer satisfaction on using Chatbot services	Advantages are seen for consumers and companies in the use of chatbots, however, the communication structure of chatbots affects their acceptance by consumers
Selamat & Windasari (2021)	<b>√</b>	SME	Chatbot adoption and the best features for SMEs	Enjoyment and usefulness encourage consumers to SMEs services, whereas the best chatbot feature combination is, responsive; simple steps for actions, human-like conversations and personal recommendations
Toader, et al. (2019)	V	Crowd- sourcing marketplace	Negative and positive aspects of customer encounters with chatbots	Gender cues are present in gaining positive responses and errorless communication is important for engagement and purchases
Tran, et al (2021)	√	Online retail	Customer opinions on chatbots in comparison	With caution and preparations, chatbots may be incorporated to

			to human agents	provide quick responses to consumer queries, to increase customer satisfaction, yet they shouldn't fully replace human agents
Trivedi (2019)	V	Financial service	Customer views on banking services using chatbots	Banks may better the brand relationship and loyalty with their customers by offering chatbots that fulfill customer expectations

On the topic, the online retail industry seems to be one of the most researched fields with a strong focus on customers (Kasilingam, 2020; Nichifor, et al. 2021; Rese, et al. 2020; Tran, et al. 2021), considering opinions, satisfaction, attitudes, and overall communication process with a chatbot. These previous studies may still provide some pointers for future research on AI and chatbots in other industries and other areas of focus as well. Studies from the customer point of view have also been conducted in other industries, such as brands (Ameen et al, 2021; Chung et al, 2020), financial services (Trivedi, 2019; Luo, et al. 2019), and the hospitality industry (Pillai & Sivathanu, 2020; Prentice, et al. 2020).

Additionally, some research has been conducted, for instance, on employee acceptance of chatbot technology (Brachten, et al. 2021), university student attitudes towards chatbots in general in customer service (Lupa-Wójcik, 2019), the positive and negative chatbot encounters on a crowdsourcing platform (Toader, et al. 2020) and customer interest in interacting and doing business through AI agents in the insurance industry (Rajaobelina & Ricard, 2021). There have been few studies on SMEs about how chatbot usage can be adopted and what features may best fit them (Selamat & Windasari, 2021), and how AI can develop their business activities (Kumar & Kalse, 2021). Selamat and Windasari (2021) also point out that previously chatbots have been studied mainly from the customers' point of view and the companies have been large corporations and brands, which indicates that the research on SMEs remains scarce.

## 2.3 Theoretical Framework

A theoretical framework is used to connect the central concepts and theories and to present their relationships. The central contents of the research have been introduced in the sections above. This segment aims to clarify the connection between the themes of AI and CE and how these concepts are utilized in this particular study. The previous research on AI and CE are investigated and later contrasted against the empirical findings.

**Customer engagement** is considered to be a cooperative relationship between a customer and an object such as a company or a brand (Brodie et al, 2011). These relationships may vary in type and level of involvement, but all of them co-create value in different ways and are a valuable asset for the company. This relationship may result in loyalty and can have an importance through different activities, such as recommendations or other activities that the customer participates in (Brodie et al., 2011, 2013). The main models used for this research are the customer engagement framework (Bowden, 2009), customer engagement pathways (Barari et al., 2021) and customer engagement cycle (Sashi, 2012).

**Artificial intelligence** considered in this study is a form of mechanical AI, based on the research of the types of AI by Huang et al, 2019 and Huang & Rust, 2020, 2021 (see figure 5). Focusing specifically on mechanical AI in the form of a text based chatbot. This mechanical agent uses natural language for interactions (Brandtzæg & Følstad, 2018), and they are exclusively made for interactions with people (Adam, et al. 2021). The bots keep developing in a fast phase, yet their capabilities are limited. Yet, AI can give enterprises the advantage of handling vast amounts of data and providing instantaneous answers to queries thanks to that processed data (Perez-Vega et al, 2021). Chatbots are currently used by companies in responding to queries, often helping them lessen the daily workload and increasing efficiency with fast response rates.

AI can be utilized for customer engagement by creating automated messages or responses that promote company-initiated CE, for example pushing discounts, vouchers, or raffles to the customer in accordance with their personal preferences. Providing automated services and personalized recommendations can create a satisfactory customer relationship that may then lead the customer to more engaging behavior with the company or brand. Such direct engagement can be seen to be functional in creating attitudinal behavior (Barari et al., 2021). To promote more customer-initiated CE activities, AI needs more long-term uses to provide greater value to the customer, for example in the case of chatbots by providing continuous quality assistance. By doing this the AI has a chance to promote more behavioral engagement in addition to the attitudinal engagement from the customer. This behavior can include further actions after the interaction, by then promoting the company in some way (Beckers et al., 2018).

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However, it should be stressed that the behaviors that the customers generate, may have either a positive or a negative sound to them, depending on their experience (Van Doorn et al., 2010). For example, a negative experience may occur if something goes wrong in the automation or training process of the AI as the responses that they generate to the customers may not be appropriate or correct. In addition, when the company decides to make the AI generate promotions and recommendations for the consumers according to their activities on their sites, the customer may feel they are being pushed, and even that they are not controlling their choices (André et al., 2017). This only place more weight on planning and training the AI-generated responses, especially as word spreads fast in the digital realm. Beckers et al. (2018) even warn of the risk that the negative outcomes of CE may be amplified in this digital era.

It can be seen that AI can offer possibilities for companies' customer engagement and that the usage of the three AI intelligences can each provide their individual benefits for CE (Huang & Rust, 2020). Furthermore, AI can help in the internal communication and information processing whilst also providing personal responses to consumers accordingly (Perez-Vega et al, 2021). Yet, the insights are lacking as the subjects of CE and AI have not been studied together more broadly. Therefore, more long-term studies on CE activities performed by AI are recommended to provide more insight into the importance and usability (Lim et al, 2022).

In this study, the concepts of customer engagement and chatbots are studied together in an SME setting. The focus of the study is on the chatbots' ability to assist SMEs with customer engagement and the perceptions the managers have of chatbots concerning customer satisfaction and engagement. It is researched whether chatbots can be utilized as a tool for value creation between the customer and the company or if they hinder the process. The prior research on AI and CE is contrasted against the findings of the study.

# **3 DATA AND RESEARCH METHOD**

This section of the study elaborates on the chosen research and data collection method. Additionally, the section aims to justify the research method that has been employed in the research. The section covers the qualitative research method, semi-structured interviews, and the handling of the data. The study is conducted through qualitative research and by implementing semi-structured interviews with representatives from Finnish SMEs. The chapter begins by introducing the qualitative research method followed by data collection and implementation, and finally presenting the thematic analysis method.

## 3.1 Qualitative Research

There are two types of research methods - qualitative and quantitative. This study is conducted using qualitative research, which according to Braun & Clarke (2013) aims to answer questions about why and how in a particular situation and setting. Typically, it is argued that the context of the study should be considered when analyzing the data gathered through qualitative research. In other words, the results of a qualitative study are tied to the context and framework of the study (Braun & Clarke, 2013). Additionally, qualitative research can accept multiple realities simultaneously and does not require one correct knowledge or answer to be found (Braun & Clarke, 2013; Flick et al. 2004). Patterns and similarities are sought, but differences and comparisons are explored and the unusual is rather used as a source of insight (Braun & Clarke, 2013; Flick et al. 2004). According to Braun & Clarke (2013), comparatively, quantitative study usually utilizes numerical data and statistical techniques and aims to seek consensus and to generalize findings.

## 3.2 Data Collection

This study is carried out by implementing the qualitative research method and interviews. Interviews play an important role in field research. They allow the researchers to make findings that they cannot gather through observation (Singleton & Straits, 2018). Arksey and Knight (1999) describe interviews as a group of research approaches that employ conversation between people where one takes the role of researcher. Interviews are a good tool for discovering the attitudes and opinions people have as well as specific features an event or issue has (Arksey & Knight, 1999; Singleton & Straits, 2018). This study aims to uncover the opinions, attitudes, prejudices, and anticipations companies have on AI and chatbots specifically. Additionally, the research is intended to explore the experiences the participants have had with AI in the past and how these experiences have shaped their thoughts and opinions.

According to Longhurst (2003), there are three types of interviews: structured, semi-structured, and unstructured. This study utilized semistructured interviews that Longhurst describes as a discussion between two people where the other is trying to get information from another by asking questions. They utilize an interview guide that is based on key questions that are selected to best answer the research question (Arksey & Knight, 1999). Furthermore, Longhurst expands further that in a semi-structured interview, a list of questions is prepared before the interview but the process of asking questions is informal in nature. Through the flow of the conversation, new topics may be introduced and explored, and it is not necessary to adhere strictly to the interview guide (Longhurst, 2003). Semi-structured interviews were chosen as the best fitting interview method as they are usually more feasible and allow a more relaxed flow of conversation (Arksey & Knight, 1999). Corbin and Strauss (2015) argue that researchers choose semi-structured interviews as they allow the interviewers to carry out the research consistent with the topics and themes being predetermined. However, semi-structured interviews allow some flexibility in the interviews as the timing and manner of presenting the topics can be determined during the interview. Additionally, the researchers may elaborate on a topic and go into more detail as they discover something intriguing or ask additional questions for clarification (Arksey & Knight, 1999).

#### 3.2.1 Recruitment of Participants and Interview Implementation

In order to find the most suitable interviewees, purposive or judgment sampling was selected. In purposive sampling, a specific participant is selected due to their qualities such as knowledge, interest, experience, or abilities (Etikan et al., 2016). Etikan et al. elaborate that the reasoning behind purposive sampling is that the researcher deliberately selects interviewees that can best contribute to the research. All companies selected to be interviewed are SMEs operating in Finland, but there were distinctions between the firms. The companies are service providers that operate in industries such as IT, accounting, marketing, and consulting. Two types of companies were selected to be interviewed - companies with chatbots in use and firms not utilizing chatbots. This was done in order to see whether experience using a chatbot for business affected the thoughts and opinions of the participants. Furthermore, those with chatbots were asked specific questions on the benefits and disadvantages of using chatbots while those that did not have chatbots in use were asked about their precautions and expectations of chatbots.

The semi-structured interviews were conducted from March 2022 to April 2022. The interviews lasted from 17 minutes up to 42 minutes and they were

conducted through video calls. The interviews were recorded with the consent of the participants with an audio recorder. Later the audio recordings were transcribed for the analysis. Lastly, both the audio recordings and transcripts were deleted in accordance with the General Data Protection Regulations (GDPR). All information considering the company and personnel participating in the interview have been anonymized accordingly.

The interviews were based on an interview frame that was prepared in Finnish and later translated into English. The Finnish version that was used in the interviews can be found in appendix 1 and the translated version in appendix 2. The interview guide included topics such as the use of AI and chatbots in general, customer satisfaction and retention, and customer engagement.

#### 3.2.2 Sample

The study has been carried out by conducting six interviews with relevant people from Finnish SMEs operating in different industries. The interviewees have been managing directors of the SMEs or personnel responsible for the company's customers or marketing activities. The interviews have been conducted both in companies that are or have used some form of chatbots and ones that have not used them. Information on the companies studied in this research can be found in table 2, where the companies have been labeled alphabetically, according to the order in which the interviews were held.

The research consists of two interview groups - SMEs using chatbots and SMEs not using chatbots. The results from the interviews are compared and contrasted to find both similarities and differences through thematic analysis of the interview data. The criteria for the interview groups are company size and experience with chatbots. The selected interviewees work in positions such as CEO, marketing representative, or customer relationship manager to possess the required insight for the purposes of the research.

Company	Industry	Company Size	Used a Bot (yes/no)	Type of bot	Interview Duration
А	Accounting	1-10	No	-	24 min
В	Accounting	50-100	Yes	Clickable chatbot in a chat win- dow	31 min
С	Marketing	10-50	No	-	20 min
D	Marketing	10-50	Yes	Clickable Chatbot in a chat win- dow	17 min
Е	Consulting	10-50	No	-	19 min
F	IT-services	50-100	Yes	Clickable bot imbed- ded on the website	42 min

Table 2. Information on the interviews, labelled alphabetically by interview order.

## 3.3 Thematic Analysis

The data is analyzed using thematic analysis, which Braun and Clarke (2012) describe being an increasingly popular and flexible research method. In thematic analysis, themes or patterns are recognized across a set of data, organized, and explained systematically. A singular observation is not the focus of the analysis but rather the commonalities and themes identified in all of the data. As commonalities or themes are recognized, they are analyzed to make further conclusions (Braun & Clarke 2012).

In this research, thematic analysis was used as follows. The interviews were recorded to allow a deeper familiarization and analysis of the data. These recordings were listened to multiple times after which they were transcribed. The transcripts were then read several times to familiarize with the data. This also helped with getting a better understanding of the interviewees.

Whilst the data was being reviewed different themes and repeating subject matters were found in the interviews. After the arisen topics and themes had been noted, these were then highlighted in the transcripts. This was done by color-coding the phrases according to the different themes, such as the negative effects of chatbots and other perceptions of chatbots. After this, the phrases were examined closer and grouped together for further examination.

The quotes from the interviews were compiled according to the relevant categories. One included the strengths, weaknesses, opportunities, and threats of bots and another included the customer engagement specific categories of CE activities and benefits. After the simple categorization of the quotations, they were simplified and moved to specific themes, from where the main points could be easily collected, and observations could be derived from. Based on this categorization of data, the quotes were grouped and analyzed. Lastly, conclusions were made based on the excerpts and recurring themes arising from the interviews.

# **4 RESEARCH FINDINGS**

Here the collected main findings that were gathered from the analyzed interviews are gone over, with the connections made to the theory. As the interviews were conducted in Finnish, the used quotes have been translated into English, and all of the original quotations can be found in appendix 3. The questions that were the same for all the companies interviewed are gone through together in the section below. Then the questions specific to the companies are analyzed separately in their own sections. Finally, the findings are discussed.

#### 4.1 Mutual Observations

A common point arose when the interviewees were asked about their personal opinions on chatbots, as some rather negative views were expressed, including the frustration of chatbots' common inability to respond to questions. It can be gathered that the limitations of chatbots were a cause of frustration to the participants and additionally, the difficulty of getting an actual representative on the line to respond to the query was seen as a common issue. This brings us to the most important point that was common with all of the respondents, which is the importance of customer experience and the effort put into improving this.

All the interviewees found customer experience to be very important for the company. As customer experience can be connected directly to customer engagement, which is basically seen to be a reactive customer experience that can then co-create value (Brodie et al., 2011). The companies are also recognized to have different methods of improving customer experience such as continuous service development, quality customer service, and making changes based on customer feedback (Brodie et al., 2011). These actions can also be seen to deepen the customer relationships and enhance the positive impacts throughout the engagement process, which is described in Figure 2.

Some simple customer engagement activities initiated by the company can be, for instance, free samples, vouchers, or discounts (van Doorn et al, 2010). The participants however, mentioned activities such as newsletters, interaction with customers, and holding webinars and events as their company-initiated CE activities. These can be seen as more interactive and long-term than mere attempts of gaining one-time business transactions. Additionally, some of the participants mentioned customer-initiated CE as their customers recommend their services to others, after being content with the company and their offerings. Related to this, another topic common to all interviews was raised on the importance of the user-friendliness of the webpages and how easy it is for a customer to contact the company, which can also greatly affect customer experience. For this, all the companies could be seen to have made an effort into providing multiple ways for the customer to reach them with ease. All the while, the importance of customer service itself was promoted, as it can be seen as a way to mend things with the customer if something is lacking or has gone inconveniently, especially when customers are mainly using self-services.

#### 4.2 Companies Using a Bot

In this section, the most significant responses of companies B, D, and F, that are using or have used a form of a bot are gone through. The tables 3 and 4 introduce themes, with translated quotes from the interviews. The original quotations can be found in Appendix 3. After the theme and quotes are introduced, the main points arising from the responses are collected from where an observation is made. These responses are considered separately in their own part to avoid confusion with the other responses and to make further conclusions, as this is considered one of the main topics of the research.

It is good to point out, as can be seen in table 2, that one of the interviewed companies uses a bot that is embedded on the webpage instead of having a popup window like the other two. However, the type of function doesn't differ too greatly, but instead of customers being able to write they are prompted to click through the text that the bot offers. This is also the basis for commonly used mechanical chatbots, hence all the interviewees' responses are seen to be equally valuable for this study.

Information from the responses considering the purpose of the bot and how it affected the company can be seen in table 3. From these, it can be gathered that bots are most often the first thing that the customer sees and interacts with on the company webpage. The bots are seen to be effective in swiftly handling some of the most common customer queries, and simply instructing the customers to the services on the page. Hence, easing the interactions and so bringing value both to the company and the customer. These insights agree with multiple studies that promote chatbots being a great tool for reliably handling large quantities of simple written queries (Brandtzaeg & Følstad, 2017; Wilson & Daugherty, 2018; Toader, et al. 2019; Huang & Rust, 2021). It seems that the respondents especially appreciate the bot's ability to lessen the daily workload as the number of repetitive queries had decreased since using a bot. Table 3. Interview responses on the bots purpose.

Purpose of the bot	Main points	Observation
<ul> <li>B "Chatbot greeted the customers arriving at the site and asked how they could assist them. So the bot informed either the FAQ or contact details for the customer service so the customer could get the needed help"</li> <li>D "For the customer to get a quick response to their question for example considering our service packages So they could get as fast service as possible and of course to lessen the workload"</li> <li>F "Clicker bot was taken to use to test if it could help the marketing and sales opening up the everyday questions that customer service receives a zillion daily, so that it could be there to give an instant response to those"</li> </ul>	Greeting the customer, asking if they could be of help. Responding to simple queries, using the frequently asked questions. Giving quick responses to customers about the products and other simple queries. Lessening the daily workload. Helping different teams in lessening the amount of daily customer queries, by responding to the most common questions instantly.	Bots are seen as an effective tool in promptly handling simple customer queries.

In table 4, the noted advantages and disadvantages of bots that arose in the interviews are gone through. From the responses, it can be collected that bots have their uses even in SMEs, but the potential of chatbots is questioned and people are still seemingly preferred in customer interactions over bots. This finding of the interviewees coincides with the research of Chong et al. (2021), where customers are seen to perceive human agents better than bots. Additionally, even though the bots were said to lessen the workload, it became apparent that a chatbot had in one case increased the amount of customer contacts with their simple queries, yet they could later be checked by the personnel from where they could gather some sales leads. Hence, chatbots offer potential for the promoted pathway of CE, which refers to the CE activities initiated by the company (Barari et al., 2021). One negative aspect was also indicated, as the interviews deemed that the bots made mistakes during the customer interactions. This could lead to negative forms of customer engagement such as reputational effects or bad word of mouth and even a decrease in market value Beckers et al. (2018). However, the chatbot is a form of mechanical AI that is not made to learn on its own (Huang et al, 2019), which is why it is necessary and important to have the bot properly trained, specifically for the company's purpose before it is taken to use.

Advantages & Disadvantages	Main points	Observation
<ul> <li>B "The amount of customer contacts was high in comparison to before the chatbot was in use. Through these contacts we were also able to generate sales leads Surely the bots couldn't always help the customer to the right place of personnel when it was needed. The biggest concern however was on how the customers reacted to the bot instead of a person, as we want to offer personal service Chatbot could seem to be cold with its repetitive messages the chatbots did handle a record amount of customer contacts for us in a short period of time, however we ended up abandoning their use"</li> <li>D "We have had our chatbot there as a test and I must say that at least there have been challenges I don't know if the quality-price ratio is in place It has probably brought more disadvantages than advantages, but we have had it for a short period of time and in practice it has caused more work than it has helped and the feedback on it has unfortunately been quite negative. It would probably take more effort before it would start working reliably and so that the answers would actually be found there. Right now, it</li> </ul>	Received more contacts when the chatbot was in use, generating new possible sales leads. The bot didn't always direct the customer to the correct place or personnel. The chatbot may seem cold and off putting rather than welcoming, with its repetitive responses. The quality-price ratio of a bot is questionable as it takes a lot of effort. More disadvantage, as it would need a lot of work to bring advantage. Negative feedback from customers as bot doesn't know how to respond to queries, but only directs customers elsewhere. Quick and efficient, lessens the workload by giving answers to customer questions, without contacting personnel. Helps customers understand	Bots can be quick and efficient for simple queries and may increase the amount that customers use chat service, and create sales leads. Chatbots tend to make mistakes before properly training for the interactions specific to the company. A bot embedded on the webpage can be seen as very useful for both company and customer.

Table 4. Interview responses on the advantages and disadvantages of the bot.

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usually doesn't know how to respond and guides to the customer service or to a contact form instead"	the products and services offered, guiding them through the processes.	
<b>F</b> "In my opinion an advantage is the fastness and the fact that it helps decipher our services that are often quite hard to comprehend Often the customer can already get the needed response from the website, they don't need to call sales or contact customer service In my opinion it guides and helps. I don't see any negatives in it, only positives"		

From the responses, it can be gathered that the bot embedded into the webpage received the most positive feedback when compared to the two others using a chatbot window, where the customer could directly type in their own questions. It can also be concluded that bots are an effective tool in handling simple questions and so help with lessening the amount of daily work for people. This agrees with the argument of Hung and Rust (2021) that indicated bots being great at sorting large amounts of customers' simple queries. However, all the companies viewed chatbots as lacking for they cannot be used as the sole form of customer service to be offered, but people are still needed for the majority of the customer interactions. Additionally, the methods for creating customer engagement for SMEs through chatbots is limited as the respondents found that people are needed to ensure a positive experience with the company.

### 4.3 Companies Not Using a Bot

In this section, some of the responses of the interviewees' A, C, and E, that have not used any form of a bot are presented. The topic and the quotes from the interviews are introduced in the tables below, from where the main points are indicated, from which further observations are made. The quotations found in the tables have been translated from Finnish and the original quotes can be found in Appendix 3. These responses are introduced separately to ponder on the reasoning for not using a chatbot and whether or not the companies would consider starting to use a bot in the future. The responses are to provide more

insight into the research from the point of view of those SMEs that have not yet used a bot in their business.

When questioned about why the companies are not using a chatbot, as seen in table 5, the responses indicated doubt on the capabilities of chatbots as they were not perceived to be smart enough to respond to more difficult questions. Thus, they would not be able to work as an effective tool for customer engagement as CE builds on positive interactions with the customer and the trust the customer builds based on these experiences (Barari et al., 2021). Another major reason was that the chatbot is not seen to be useful for a small company, as they don't need help in handling the amount of customer interactions that they currently get. In addition to this, the bots weren't seen as trustworthy, and perhaps in a way, they were described as being possibly cold toward the customer. Which is not seen to be suitable when the smaller companies drive for more personal and trusty connections with the current and possible future customers. This agrees with some of the studies that consider customers' opinions on people being rated higher over the bots (Chong, et al. 2021). Pointing to the want and possible need to interact with humans instead of machines, whereas bots would need to be in a way more human-like, to keep people's interest in chatting with them (Adam, et al. 2021; Chong, et al. 2021).

Reasoning for not using a bot	Main points	Observation
<ul> <li>A"it is probably due to the questions that would be asked</li> <li>They are of the sort that the chatbot couldn't easily respond toFor now, our company is not so big that we would have a need for it."</li> <li>C"We have not even intended to try out a chatbot We simply don't see a need for such, and we want to be in touch with our customers personally and offer attending and reliable service"</li> </ul>	The customer queries may be too difficult for chatbots to respond to. The company is too small to see a need for a chatbot. Want to offer trustworthy and present customer service, no trust in chatbots capabilities to offer this.	Smaller companies don't need a chatbot, the bot couldn't offer personal and trustworthy support as the queries can be complex.
E"the reason is mainly that they are not quite functional and we haven't had a need in such a small company We have time to directly respond to the customers, so there won't be anything unclear or issues		

Table 5. Reasoning for not using a bot.

with chatbots. At least right now it is	
not relevant for us"	

Continuing from the reasoning of not using a bot, the questions turned to asking whether in the future a chatbot could be seen as a useful tool for the company, as shown in table 6. Some questioned the future of chatbots, as they did not believe in their development. This agrees with Chong et al. (2021) mentioning the need for quick development of chatbots, to provide the desired quality of service. However, the belief that the interviewees had is very much in discord with the research on the subject, that indicate the vast development and future potential of chatbots (Toader, et al. 2019; De Keyser, et al. 2019), and for AI possibly even acting like humans in the future (Perez-Vega et al, 2021). From the answers, it could be gathered that other tools can be seen to be more beneficial for the companies and the common opinion is that chatbots simply aren't developed enough to handle the more complex queries that the companies receive. In addition, the interviewees had concerns that chatbots would cause frustration as they might not be able to resolve the issue a customer has. This could potentially have adverse effects on customer engagement development.

Would they use a bot in the future?	Main points	Observation
A "I suppose that it would need to be quite large of an accounting firm to want to use a chatbot. So, I don't see that our company would ever use a chatbotSurely it could be possible and would require for us to change our ways of working so that we would get it to do the trick. And sure, it should be more advanced Perhaps it could make use for example as an offer calculator Though I don't know if that would need a chatbot or rather a separate offer calculator." C "I don't believe that chatbots would develop to be human-like, so I doubt those would offer a lot of help in our business before we grow big and get so many contacts that we cannot respond to all of them within a couple of days, though then I believe we would hire	Company is too small to see any use for a chatbot. Doesn't see a way they would ever use one as to use a chatbot the way of work would need to change too. There are other tools they could possibly use rather than a chatbot. No trust in the advance of chatbot development, as they will never be like humans. May provide to be useful if the company vastly grows in the future, however they can handle their customers personally for	Other tools can be seen as more useful for a small company as chatbots are not developed enough.

Table 6. Would the bot be used in the future?.

more personnel for the task to guarantee the reliability and quality for the service"	now. Having personnel to deal with customers is seen as more trustworthy and assures	
<b>D</b> - Would not consider using a chatbot	quality	

As a conclusion to these responses, it became clear that none of the three companies are considering starting to use a chatbot now, or in the future. For this, it can only be pondered how big of an impact the individuals' personal experiences of chatbots have on the matter. As indicated in the section considering all the interviewees, including the ones from companies that are using some form of a bot, of which all have had negative encounters with chatbots. From this discovery, it can merely be speculated whether these personal encounters have had an impact and are a part of the cause of the companies not seeing chatbots in a positive light and therefore not considering using them even in the future.

### 4.4 Interviews in Comparison

When comparing the responses of the interviewees that have not used a bot and the ones that have, there were notable similarities even with the perceived advantages and disadvantages of bots. It is agreed that the bots can be a helpful tool in lessening the workload when there are plenty of daily customer contacts in the company, yet it is clear that this may not be necessary for smaller companies when the amount of customer contacts is manageable. Surprisingly, some of the fears that the interviewees that were not using a chatbot presented in regard to chatbots being unable to respond to some queries and possibly making mistakes, were also present in the interviews of the companies using a bot. As it happens, some mentioned the bots making mistakes before being properly trained for the specific interactions. The interviewees as a whole agreed that having a representative behind the bot would be necessary to provide the desired positive result of the interaction with the customer.

In the interviews, both interview groups had reservations on the possibilities of chatbots. They agreed that further technological improvements would be necessary for bots to become advantageous for SMEs. The interviewees did not consider that human representatives would become obsolete, but they would be needed beside the bot to provide quality customer service. It has been argued that customers perceive human agents to perform better than chatbots (Chong et al., 2021), and based on the interviews it can be stated that SME representatives present a similar view. In addition, there are difficulties present

when adopting the AI technology in an SME (Kumar & Kalse, 2021). The interview groups agreed as it is time-consuming to adopt chatbots and uses an SME's limited resources.

## 4.5 Discussion

The goal of the thesis was to determine if the use of chatbots hinders or supports customer engagement in SMEs and in what ways. The main focus was on the advantages, disadvantages, opportunities, and threats that the bots may bring to a Finnish SME. The research was conducted by studying six Finnish SMEs through semi-structured interviews and comparing the data with prior research. The results of the study are discussed below.

The interviews presented a good insight on the companies' CE activities and values within the activities. All the companies agreed upon the fact of customer experience being a big part of the core for success in an SME. Customer engagement can be beneficial to companies in many ways, as for instance customers' participation in company activities are seen to create more value (Kumar et al., 2010 & Jaakkola and Alexander, 2014). In the interviews, the main ways in which value is seen to be created are word of mouth, customer retention and customers' effects on company reputation. From these customer actions the companies can get financial gain, find more customers, and it also helps with the competition when they are being promoted by the customers themselves. Also Sashi (2012) argued that CE can lead to financial and non-financial gain through value co-creation. From the interviews it could be gathered that SMEs use for instance, events, webinars and newsletters to promote customer engagement activities. It can be deduced that SMEs use more continuous CE activities for customer retention purposes.

Currently AI can only offer limited possibilities for CE activities. The AI bots in question can assist customers with simple queries, by providing fast and efficient service (Brandtzaeg & Følstad, 2017; Wilson & Daugherty, 2018; Toader, et al. 2019). The interviewed SMEs use the bots for the aforementioned purposes. This relates to customer engagement as the bot may offer help with smooth interaction and so creating a positive customer experience. Bowden (2009) connects the customer experience to customer engagement as positive experience leads to loyalty and commitment as also depicted in figure 2.

In contrast to the positive effects of CE, the companies were also well aware of the issues that negative customer experiences may bring. What became apparent in the interviews is the incapability of the bots and the possibility for error, which may lead to negative experience and negative customer engagement behavior. Especially the negative word of mouth, when customers relay the negative experience to others, was mentioned to be a possible cause of harm for a smaller company. As Beckers et al. (2018) warn of the amplification of negative customer experiences that are shared online. For SMEs, even on a smaller scale, sharing such experience may be highly damaging. Therefore, the companies tend to push towards excellence on that aspect of customer service, where the key may not be speed, but quality.

As the findings are contrasted to the prior research (see table 1), some differences can be detected. Brachten et al. (2021) found that the main reason for accepting and using a chatbot in a multinational company relies on employees' attitudes and use of chatbots. However, in this research, the personal attitudes towards bots do not seem to affect the usage of the bots in SMEs as the representatives of firms utilizing chatbots had a negative attitude towards chatbots, but regardless had employed a chatbot in their company. Kumar and Kalse (2021) argued that AI can be used in the development of business activities in SMEs and may bring advantage in, for instance, safety, customer satisfaction and competition. Yet, in this study, no mention of competitive or safety related advantage was found. Also, as Luo, et al. (2019) studied companies operating in online financial services and suggested chatbots bringing a trend of replacing human workers. However, this did not become apparent in the interviews whereas it could be suggested that such trend does not, at least yet, appear in the SME setting in Finland.

Some similarities could also be found from prior research (as seen in table 1) to the study findings. The interviews agree with the research of Tran, et al (2021) and Prentice, et al. (2020) that both suggest AI applications bringing some help to the company but admit that they are not as relevant as real human contact is for customers, which cannot yet be fully replaced by technology. In addition, Chung, et al. (2020) who studied luxury brands, as well as Pillai & Sivathanu (2020) studying the hospitality industry, found chatbots being a great tool for prompt service but having limitations. In an SME setting, the research findings are similar as it was found that the bots can handle simple interactions and so help with daily customer contacts, yet their capabilities are very limited as bots cannot deal with complex queries.

# 5 CONCLUSIONS

The focus of the study was on AI, more specifically chatbots, and what kind of effect the bots may have on customer engagement in SMEs. This differs from previous research that has focused on the customer as it contributes to the theory by examining the company point of view. Additionally, the effects of AI on the customer engagement of SMEs have not been comprehensively researched previously. In this study, the theory of customer engagement and AI was explored and prior research on the subject matter were introduced. Additionally, six SMEs were studied by conducting interviews to find themes related to CE and chatbots to determine what kind of advantages and opportunities chatbots may provide but on the other hand, what disadvantages and threats they may pose. The observations and analysis from the interviews were compared and contrasted to the prior research and existing theory.

Based on this research and observations, chatbots are not currently a widely used tool among SMEs, and they cannot be used as a replacement for a human working in customer service. The technology is still lacking and cannot provide a sufficient service for SMEs to trust their customer service to be handled by AI alone. Some SMEs may utilize AI and chatbots in some parts of their customer service but nevertheless, they rely heavily on human interactions and personal customer support. In fact, Chong et al. (2021) stated that customers may perceive people being better than chatbots.

It can be concluded that chatbots do bring some advantage in efficiency for SMEs, relating to daily customer interactions. However, these smaller companies may not have a need for such constant customer support tools, that cannot always properly respond to the customer. As the importance of customer engagement for SMEs is deemed to be very high, they push for customer satisfaction which a bot cannot always promise with their currently available skills. SMEs aim to obtain more long-term customer relationships, instead of single transactions. It seems that SMEs put more value on keeping one customer, rather than continuously gaining new ones. This again proves the importance of CE activities, which is shown as SMEs seem to highly rely on word of mouth and good reputation. Hence, based on the interviews, SMEs want to keep their customer experience quality high and are hesitant to employ chatbots as major technological improvements would be needed for the chatbots to provide a desired service quality.

#### **Managerial Implications**

The thesis aimed to gain an understanding of the use of chatbots and their effects on customer engagement in SMEs. This research is particularly useful for smalland medium-sized companies as the results are relevant when considering the use of chatbots in their customer service operations, especially in an SME setting. Furthermore, the study focuses on the uses and opportunities as well as the negatives of chatbots for SMEs, which can provide SMEs with information to support their decision-making.

It is important to note that the SMEs considered chatbots to possibly be disadvantageous for customer engagement, as they might not be able to handle all customer inquiries. This could possibly result in a negative customer experience and lead to a bad reputation or negative word-of-mouth. As of yet, chatbots have not reached technological maturity and are only able to answer rudimentary questions and this might bring on some challenges. Even so, these issues could be resolved in the future through technological advancements.

#### Limitations

There are several limitations in this study that have to be considered. For instance, the sample size, the possible biases of the interviewees, the inexperience of the researchers, and the difficulties in gathering data. As well as a chance for error in the analysis of the data, as this is a qualitative study where the abilities and the interpretation of researchers may have an impact on the outcome of the study.

There were challenges in finding suitable and willing interviewees for the study and the number of interviews was limited to six SMEs from a couple of industries - accounting, IT services, marketing, and consulting. The limited sample size and the selection of industries in connection with the qualitative study method result in research that is not generalizable. The study provides an insight into the current situation for the SMEs studied in these specific industries that can be used as a basis for future research, but the results cannot be used as an indication of the entire population or all types of companies. In addition, the research was conducted in Finland and the findings may not be directly applicable to other countries.

#### **Future Research**

In future research, different study methods, industries, and countries could be considered to validate the outcome of this research and to add to it. This research was within the first ones to study the connection between AI and customer engagement in SMEs. This research fills a research gap of that nature, but there are multiple directions for future research. For example, further studies on AI and customer behavior with different study methods, like quantitative, could be conducted. More research may also be necessary on SMEs benefiting from chatbots in the future as for their continuous development. Additionally, the role of chatbots in each stage of customer engagement cycle could be studied.

In addition, when considering the personal negative attitudes towards chatbots, present in the held interviews, there may be possibilities for further research on personal attitudes toward chatbots affecting their use in SMEs or even bigger companies. In addition, as it was rather difficult to find SMEs using a chatbot to participate in an interview, a future study could consider researching the SMEs on the trend of using a chatbot. As it can be seen that SMEs have not, at least yet, come around to the chatbot trend. Then when thinking of the possible reasoning for this, the costs of chatbots could be questioned and studied. As Wirtz, et al. (2018) suggested chatbot not being too costly in the long run. However, is it truly cost-efficient for an SME after all, if the prices don't differ no matter the size of the company?

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# APPENDIX 1 Haastattelurunko

- Esittely (Tutkimusaihe & ihmiset) -

## Pohjustavat kysymykset

- Kertoisitko teidän yrityksestänne? (*Mitä yritys tekee? Toimiala, paikkakunta, henkilöstön määrä yms...*)
- Mikä on roolisi yrityksessä?
- Minkälaista teknologiaa yrityksenne käyttää asiakasrajapinnassa? (millaista teknologiaa asiakas kohtaa/nettisivut-mitä siellä sivuilla on...etc / kuinka asiakas saa yhteyttä..)
- Kuinka tärkeäksi näet asiakaskokemuksen? Mitä yrityksenne tekee asiakaskokemuksen eteen/parantamiseksi?

## Kysymykset yritykselle, joka käyttää/käyttäneet bottia

- Mitä yrityksenne tekee kannustaakseen asiakkaita osallistumaan yrityksen toimintaan ja vahvistaakseen suhdetta asiakkaisiin? (esim. onko mm some kampanja, kokemusten jakamis kannustusta yms..)
- Mitä hyötyä asiakkaan osallistumisesta tai hyvästä asiakassuhteesta on sinun mielestäsi yritykselle?
- Mikä on mielipiteesi chatboteista? Millaisia kokemuksia sinulla on chatbotin käytöstä? (*hyviä/huonoja*?)
- Mihin tarkoitukseen käytätte tai käytitte chatbottia? (*mitä ominaisuuksia, toimintoja, missä chatbot on näkyvissä sivustolla*?)
- Miten päädyitte käyttämään chatbottia? (*Tarjottiinko tai ehdotettiinko tätä yritykselle käyttöön, vai olitteko itse yhteydessä chatbot palvelun tarjoajaan? tms*)
- Kuinka chatbotin käyttö vaikuttaa/vaikutti yrityksen toimintaan? Mitkä ovat/olivat tämän hyödyt ja haitat?
- Mitä uhkia tai mahdollisuuksia näet chatbotin käytölle pk-yrityksissä?
- Kuinka näkisit chatbottien vaikuttavan asiakassuhteeseen tai asiakkaan osallistumiseen yrityksen aktiviteetteihin?
- + Oletko sinä asioinut / onko kokemusta jonkin toisen PK yrityksen kanssa jolla on ollut chatbot käytössä?
  - (Avoin sana olisiko lisättävää) -

### Kysymykset yritykselle joka ei käytä bottia

 Mitä yrityksenne tekee kannustaakseen asiakkaita osallistumaan yrityksen toimintaan ja vahvistaakseen suhdetta asiakkaisiin? (esim. onko mm some kampanja, kokemusten jakamis kannustusta yms...)

- Mitä hyötyä asiakkaan osallistumisesta tai hyvästä asiakassuhteesta on sinun mielestäsi yritykselle?
- Mikä on mielipiteesi chatboteista? Millaisia kokemuksia sinulla on chatbotin käytöstä? (*hyviä/huonoja*?)
- Miksi ette ole päätyneet käyttämään chatbottia? (Onko tarkempaa syytä, onko tarkoitus alkaa käyttämään)
- Mitä uhkia tai mahdollisuuksia näet chatbotin käytölle pk-yrityksissä?
- Minkälaisia muutoksia tarvittaisiin, jotta ottaisitte chatbotin käyttöön yrityksessänne? (*Teknologista kehitystä, muutoksia yrityksessä yms...*?)
- Kuinka näkisit chatbottien vaikuttavan asiakassuhteeseen tai asiakkaan osallistumiseen yrityksen aktiviteetteihin?
- + Oletko sinä asioinut / onko kokemusta jonkin PK yrityksen kanssa jolla on ollut chatbot käytössä?
  - (Avoin sana olisiko lisättävää) -

# APPENDIX 2 Interview Frame

- Introduction (Research subject & people) -

# **Grounding questions**

- Could you please tell us about your company? (*Industry, location, size...*)
- What is your role in the company?
- What kind of technology do you use in the customer interface? (*Tech that customers meet on the webpages/ how does the customer reach out...*)
- How important do you think customer experience is? What do you do to improve customer experience?

# Questions for company that <u>is using/has used</u> a bot

- What does your company do to engage customer in the company activities? *(e.g., social media campaigns, encouraging sharing experiences etc...)*
- What benefits do you see the company gaining from customer involvement and good customer relationship?
- What is your opinion of chatbots? (*Personal experiences*?)
- For what purpose is or has your company used a bot? (*What features/ where on the webpage...*)
- How did you end up using a bot? (*Was it offered for them/self-initiated*)
- How does / did using the bot affect the company activities? What were the advantages/disadvantages?
- What kind of threats and possibilities do you see a chatbot having on SMEs?
- How do you see chatbots affecting customer relationships or customers participation in the company activities?
- + Do you remember having done business with another SME that was using a chatbot?
  - (Open word anything to add) –

## Questions for company that is not using a bot

- What does your company do to engage customer in the company activities? *(e.g., social media campaigns, encouraging sharing experiences etc...)*
- What benefits do you see the company gaining from customer involvement and good customer relationship?
- What is your opinion of chatbots? (*Personal experiences*?)
- Is there a reason why you haven't ended up using a bot? (*Are there specific reasons/do you plan on starting to use one*)

- What kind of threats and possibilities do you see a chatbot having on SMEs?
- What kind of changes would be needed for you to start using a bot? (*Technological advancement/ changes in the company...*)
- How do you see chatbots affecting customer relationships or customers participation in the company activities?
- + Do you remember having done business with another SME that was using a chatbot?
  - (Open word anything to add) -

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# APPENDIX 3 Original Quotations

#### Table 3: Interview responses on the bots purpose.

**B** "chatbot... tervehti sivustolle saapuvia asiakkaita ja tiedusteli kuinka voisi auttaa. Botti siis ilmoitti joko UKK asiat tai asiakaspalvelutiedot, jotta asiakas saisi tarvitsemansa avun."

**D** "…siihen, että saisi nopeammin asiakas vastauksen kysymykseen vaikka meidän paketteihin liittyen.. et sais mahdollisimman nopeata palvelua ja tietenkin vähentäisi …työkuormaa…"

**F** "Klikkailubotti... otettiin kokeeksi siihen et auttaisko se markkinointii ja myyntii... se avais just semmosii jokapäiväsii kysymyksii mitä aspaan tulee tsiljoona päivittäin että josko se oiski siinä nii sais heti vastauksen niihin"

#### Table 4: Interview responses on the advantages and disadvantages of the bot.

**B** "Asiakasyhteydenotto määrä oli huima verrattuna aikaisempaan chatbotin ollessa käytössä. Näiden yhteydenottojen avulla saimme myös liidejä generoitua... Toki Botit eivät aina osanneet auttaa asiakasta aivan oikeaan paikkaan saati henkilökunnalle kun tarpeen oli. Huolenaiheena kuitenkin eniten oli se kuinka asiakkaat reagoivat bottiin ihmisen sijasta, sillä haluamme tarjota henkilökohtaista palvelua.. saattoi chatbot vaikuttaa kolkon kylmältä toistuvine viesteineen... chatbotit käsittelivät meille ennätysmäärän yhteydenottoja lyhyellä aikavälillä, mutta päädyimme kuitenkin jättämään chatbottien käytön"

**D** "meillä on siis ollut tossa kokeilussa toi meidän chatbot ja täytyy sanoa, että haasteita on ainakin ollu.. en tiedä, että onko ihan se hinta-laatusuhde siinä kohdillaa... varmaan enemmän kyllä haittaa kun hyötyä, että meillä on se ollut aika lyhyen aikaa käytössä vielä ja se on työllistäny enemmän ku auttanu.. ja palautekin on ollu sen suhteen vähän negatiivista valitettavasti. Se varmaan vaatis vielä paljon työtä, että se toimis luotettavasti ja että oikeasti ne vastaukset sit löytyis. Tällä hetkellä yleensä se ei osaa vastata ja ohjaa sitten asiakaspalvelijalle tai yhtyedenottolomakkeeseen."

**F** "Mun mielest hyötyy tulee joo, nimenomaan se nopeus ja se et se helpottaa avaa näit meidän aika vaikeeta palveluita... et se asiakas saa usein jo vastauksen tosiaan nykyään sieltä verkkosivuilta, ei tarvii soittaa myyntii ei tarvi ottaa yhteyttä aspaan...mun mielestä se ohjaa, auttaa. Et mä en nää siin kyl oikeesti mitään negatiivista et pelkkää plussaa."

#### Table 5: Reasoning for not using a bot.

**A** "...se on ehkä sen takia että ne vastaukset mitä meiltä kysyttäis... Ne on sellasia mihin se chatbotti ei pystyisi helposti vastaamaan. ...toistaiseksi meiän yritys ei oo niin iso et meillä ois tarvetta."

**C** "Meillä ei ole tosiaan ollut aikomustakaan edes kokeilla chatbottia… Emme yksinkertaisesti näe tarvetta moiselle, ja lisäksi haluamme henkilökohtaisesti olla yhteydessä asiakkaisiimme ja tarjota aina läsnäolevaa ja luotettavaa palvelua."

**E** "...se on lähinnä se syy, että ne ei vaan oikeen oo tarpeeks toimivia, eikä oo ollut tarvettakaan näin pienessä yrityksessä...me keretään hyvin vastailla suoraan asiakkaille, eikä sitten tuu mitään epäselvyyksiä tai mitää ongelmia chatbotin kanssa. Ei ainakaan tässä vaiheessa oo meille ajankohtainen"

## Table 6: Would the bot be used in the future?.

**A** "Mä luulen että sais olla aika iso tilitoimisto että haluais ottaa chatbotin käyttöön. Eli mä en nää että meidän yritys tulee ikinä ottamaan chatbottia käyttöön... ...se vois olla mahdollista ja se vaatis meiltä omien toimintotapojen muuttamista et se saatais periaattees toimimaan. Ja toki myös että se on edistyksellisempi se.....ehkä just se että se vois toimia tommosena tarjous laskurina vaikka.. Toki emmä sitte tiedä että tarviiko siihen chatbottia vai tehäänkö erillinen tarjouslaskuri."

**C** "En usko että chatbotit kehittyisivät ihmismäisiksi, joten näistä tuskin saisi paljoa apua meidän yrityksessämme, ennenkuin kasvamme suureksi ja yhteydenottoja tulee niin paljon ettemme saisi kaikkiin yhteydenottoihin kontaktia muutamassa päivässä, tosin tuolloin uskon että palkkaisimme työhön enemmän henkilökuntaa luotettavuuden ja laadun takaamiseksi palvelussa"

D -