Customers perception of Artificial Intelligence as Chatbots in CRM

Independent Project in Business Administration, 15 credits

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Preface

This bachelor thesis is the final examination of two students at the international marketing program at Halmstad University. The study process has been built on good planning and structure as well as good collaboration between the authors. The authors have worked together and taken responsibility for all parts of this bachelor thesis. This despite that everything has been completed entirely at a distance, over Facetime and Zoom, due to Covid-19.

We would like to thank all respondents who have shown interest in the subject and helped out by answering the survey. Without them it would not have been possible to fill the research gap and draw rewarding conclusions.

Finally, we would like to thank Klaus Solberg Söilen, professor of management, who has been our supervisor during the spring. He had helped us out through meetings over Zoom.

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ABSTRACT

Title: Customers perception of Artificial Intelligence as Chatbots in CRM

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Purpose: The purpose of this study is to determine the perception Swedish customers from Gen Z and Gen Y have of companies using chatbots in customer relationship management. Furthermore the study will analyze if the different generational groups perceive chatbots in different ways. The study also focuses on finding out what role chatbots play in terms of CRM.

Methodology: In this study a deductive research approach was used where the empirical study was collected through a survey. The survey had 212 respondents, 100 of them were between 15 and 25 years old and 112 were between 26 and 44 years old.

Conclusion: Gen Z and Gen Y have similar opinions about how they perceive chatbots. Both Gen Z and Gen Y prefer communicating with a human since chatbots are not living up to their expectations. However, they are optimistic that chatbots have the potential to improve customer services to the better. Companies need to make sure that chatbots create value for customers and not only for companies themselves. Chatbots need to keep developing and make progress to be beneficial for customers to use.

Implications: This study can contribute with new perspectives about chatbots and customer relationships that can be a big advantage for companies when implementing chatbots for their business. The study brings attention to the unexplored issue of Gen Z and Gen Y’s perception in this matter. This study can also be helpful for further research within the subject area.
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1. Introduction

In chapter one we will present why Artificial intelligence, Chatbots, Customer relationships management, Generation Z and Generation Y are important topics to study. Furthermore, the purpose of the study is described and the research questions are present. Finally the delimitations will be present.

1.1 Background

Digitization is transforming rapidly, and new technology is developing at a fast speed. It has led to that today we are living in what is called Industry 4.0, a time that allows and opens up for change and gives organizations new demands (Iveroth et al., 2019). In today’s highly competitive market, it is key to maintain good customer relationships to succeed in the supply chain. An effective customer relationship management (CRM) approach is crucial to gain competitive advantages. CRM can be described as the overall process of building and maintaining customer relationships (Buttle & Maklan, 2019). Companies have to provide high-quality products and services; they also need to develop long-term relationships with their customers to fulfill customer needs (Stephen WY, et al., 2016). Many companies are now applying customer-centric strategies, tools, and programs to develop an effective and efficient CRM strategy. New channels and technologies are changing how companies interface with their customers (Parvatiyar & Jagdish, 2001).

Many businesses have started to take advantage of artificial intelligence (AI) to improve their CRM and enterprises are overall more interactive with their customers (Salesforce, w.y). Artificial intelligence (AI) is an advanced computer system or a robot that exhibits intelligent behaviors by artificially imitating human ability (Gilan & Hammarberg, 2016). Today, people quickly want to access information, and using more advanced technologies allows companies to have around-the-clock interactions with their customers. It leads to companies being able to interact more with their customers through human interaction and with the help of AI. It also leads to companies being able to collect more data about their customers, and they are therefore in need of technology that can keep up (Salesforce, w.y).

Chatbots, which are part of AI, are conversational tools that are becoming smarter, faster, and more valuable every day. Companies have begun to integrate the device in many places in the digital world, commonly used for customer service. More and more companies can promptly implement the technology, and chatbots are becoming more popular, partly because barriers to entry have disappeared. Today a company can, for example, create a chatbot in Facebook messenger without any degree in computer Science (Shewan, 2020).

AI is no longer something that only appears in a science fiction movie, like Transformers, it has started to be a big part of real life, and it comes with an infinite number of possibilities (Gilan & Hammarberg, 2016). Several new technologies result from digitalization, such as
mobiles, chatbots, virtual reality, digital twins, and wearable technologies (Zaki, 2019). AI is a big part of new technology but still unfamiliar for many people. At the same time, we know that it affects our lives and will be a big part of the future. AI already has and will continue to change the way people’s daily lives are working (Mozeryte, 2019).

Two central questions of the universe have tried to be resolved for over two thousand years; How does the human mind work, and can non-humans have minds? The questions remain unanswered, but AI has been introduced as a way to make a computer’s software think intelligently in comparison with the way an intelligent human mind thinks. Information available on the internet is over trillions of times the knowledge any human being is given, meaning that theoretically, an AI system is already waiting to do something. It has not yet been broken up but is already outside human control and imagination (Johnsen, 2017).

AI is a technology that makes it possible for machines to have the same psychology and intelligence as a human. Humans program algorithms that make the device able to learn all data the device has access to and draw conclusions and solve problems (Dahlqvist & Pivén, 2020). In just a couple of minutes, this advanced technology will be able to scan thousands of different data (Inera, 2017). It will collect, analyze and apply information and even learn from it. Thanks to this, companies have started to understand that AI can help them with digital marketing. AI will facilitate and improve their work by giving companies more profound insights into customer behavior and demands. For example, to create an idea of customers’ buying patterns and preferences (Martin, 2018).

For users, AI makes search engines more efficient, helping users find what they need more efficiently. It especially applies when the user has a history of searching for similar information in the past. AI helps create a better interface for the user to find the information searched for in a considerably short time (Johnsen, 2017).

In 1956 there was a historic conference held in Dartmouth College, “The Dartmouth Conference” that is considered by many to be the starting point for AI as a research area. Shortly after this, computers became easier to work with; they became cheaper, faster, and more accessible. In 1980 the algorithmic toolbox expanded, and there was an increase in funds. John Hopfield and David Rumelhart developed techniques that allowed computers to learn from experience. A big step for AI was achieved in 1997 when Gary Kasparov, world chess champion, was defeated by a chess-playing computer program. It was not because we had learned more about how to code AI, because we had not. It was because we constantly learned how to store more on computers and because they became faster. According to Moore’s law, the memory and speed of computers double every year (Anyoha, 2017).

Today we live in the age of “big data”, a world where we have too much information for a human to process and remember (Anyoha, 2017). Chatbots never forget what to say and streamlines the business by having the capacity to handle all the company’s customers
simultaneously. Besides, they are available all day long and never get tired or ill, unlike humans (Ebbot, 2020). We have already been able to see that AI has been conducive in several industries, for example, marketing. AI can help humans to sort out the correct information from big data (Anyoha, 2017).

However, the full impact of AI is still uncertain. We know that marketers will need to focus on content considering users’ interests and backgrounds rather than key phrases and keywords. To create an effective marketing strategy, marketers need to change tactics adapting to the fact that the current emphasis on keywords is diminishing (Johnsen, 2017).

According to Nagy and Kölcsey (2017) Generation Z (Gen Z) is a generational group of people born between 1995-2010 and according to Williams and Page (2011) Generation Y (Gen Y) are born between 1977-1994. Gen Y are digital natives and Gen Z are the first generation that has lived in an era that is entirely digital (Marron, 2015). Both Gen Z and Gen Y require authentic customer service. They demand integrity, resolution to their product and service inquiries and they expect companies to use the latest technology. They prefer self-service but they also demand companies to have live contact with them (CommBox, 2021). However, each generation is influenced by different factors that are affecting their behaviors. Companies trying to reach out to more than one generational group needs to understand how to get their attention. They should not be treated in the same way and when they pay attention to their differences, it should be easier to gain trust and build relationships with customers from the generations (Williams & Page, 2011).

1.2 Problem Discussion

With new advancements in technologies come drawbacks. Today, it seems like the biggest drawback with AI is that marketers have difficulties keeping up with the latest technology. Older forms of SEO have less impact and are going out of date (Johnsen, 2017). Technology is evolving revolutionary, quickly and suddenly, but organizations are growing evolutionarily, at smaller steps at a time compared to technology. It takes time for organizations and people to keep up with the rapid development of technology (Iveroth et al., 2019).

It is in human nature not to trust things they do not understand, and AI is not that easy for humans to fully understand. It will make consumers have a hard time building trust in this tool, which causes concerns (Rao & Euan, 2018). According to a study Pegasystems Inc did with 6000 participants, the biggest problem was that AI would never understand customer's personal needs in the same way as a human being would understand their needs. 70 % of the people in Pegasystems study had a hard time accepting and creating complete trust in AI, and 80 % of the participants answered that they prefer to communicate with a human instead of a machine. It is a big sign telling us that there can be complications in CRM by implementing AI systems if the customer does not have enough knowledge. Too little understanding of a
company's AI system will make the customers speculate if they are dishonest or have a hidden agenda with their work (Pegasystems, 2017).

Another drawback that can be faced in the future is that AI might lead to less optimal searches for the user. Potentially, AI in search engine query use will be so strongly developed that when the user is looking for something they have no history of finding before, it will lead to less ideal searches. It is due to that there will be no direct information available for the AI to match it with (Johnsen, 2017).

Until not long ago, the direct interface between companies and customers was mainly through service agents and salespeople. Today, customer relationships are maintained through different channels such as salespeople, call centers, online websites, marketing departments, service personnel, etc. It is also common that companies interface with their customers with cross-functional teams that include personnel from different departments, in case of larger customers. All units could operate separately, but they would still need to share information about customers on a real-time basis. When a customer places an order and then reaches out to the call center to get an order verification, the customer expects the staff at the center to know detailed information about the order (Parvatiyar & Jagdish, 2001).

Previous research by the authors Vesterberg. et al (2019) examined how companies in the consumer sector can use AI in digital marketing to create trusting relationships with their customers. It turned out to exist several opportunities for companies to build trusting relationships with customers through AI. Communication, sincerity, and control emerged as essential points for companies to keep in mind. The study also showed that AI would have a vital place for digital marketing, but it will be imperative to create trust and understanding among customers towards this technology.

During recent years, research related to AI and CRM has increased. According to previous studies, one of the most critical features in terms of AI is trust. The study shows that more than half of the respondents are not ready to utilize AI. If there is no trust for AI, this will lead to people resisting change. AI is considered unemotional and unreliable in the grand spectrum, regarded as a majorly important factor (Laaksonen, 2020).

Research examining chatbots shows that they are not sufficiently developed to deal with customers appropriately. The study is based on conversations made by both humans and chatbots. Results show that customers tend to leave conversations with chatbots earlier, and they also tend to purchase less. The study indicates that the customers believe the chatbots are less empathetic and lack knowledge and suggest that humans have a subjective perception of machines. They suggest that an explanation to their results is that, while talking to a robot, customers get a feeling of deception (Luo et al., 2019). Similar results were found in a study conducted by Rese et al., (2020) examining the acceptance of chatbots in customer communication. The sample used was students and most of them were between 18-25 years
old. The study showed that the respondents were skeptical to what the added value with a chatbot was compared to searching on the website on their own. They meant that the results could be achieved in an easier and less time-consuming way than with a chatbot. However, due to their respondents being students the authors suggest that the results could be strengthened by repeating the study examining students and non-students from the millennial age group.

Another research with compelling results, similar to the one conducted by Luo et al., 2019, examines the impact AI has on purchasing decisions. The study suggests that AI development has been so fast that it causes fears and insecurity in people. Most of those insecurities are influenced by movies about robots taking over jobs and the future existence. One of the study results is that only 42% of the participants believe that AI is helping to make the world a better place (Pticek & Dobrinic, 2019).

1.3 Purpose

To the writers’ knowledge, Gen Z and Gen Y’s perceptions about companies using chatbots for customer relationships have not been explored in the Swedish market. This study, therefore, aims to close this research gap. The purpose of this study is to determine the perception Swedish customers from Gen Z and Gen Y have of companies using chatbots in CRM. Furthermore, the study will analyze if the different generational groups perceive chatbots in different ways. The study also focuses on finding out what role chatbots play in terms of CRM.

With the purpose to examine and compare Gen Z and Gen Y’s perception, the authors are aiming to contribute with insights and knowledge to companies dealing with Gen Z and Gen Y in terms of CRM. The study is beneficial since the topic has not been researched in Sweden, and companies must understand Gen Z and Gen Y’s perceptions about chatbots. Examining Gen Z and Gen Y’s differences, companies can adapt their CRM strategies to the specific groups.

1.4 Research Question

- **RQ1**: How do Gen Z and Gen Y perceive chatbots in terms of customer relationship management?
- **RQ2**: Do Gen Z and Gen Y perceive chatbots in different ways?
- **RQ3**: How is the customer relationship affected by chatbots?
1.5 Delimitations

Artificial intelligence - Chatbots
We have selected to study AI as a chatbot, since AI is a broad topic. We chose to limit ourselves to chatbots because they integrate directly with the customers and are a significant aspect to study. It is easy for humans to create a perspective of their thoughts concerning this computer system.

Generation Z & Y
In this study, we will delimit the perception of Swedish customer's and the primary focus will be Generation Z and Generation Y. The study was limited to 212 respondents, due to the time limits of the study. If more time was given, more answers could have been collected and the validity would increase. We will create an understanding of how these generations react when companies use chatbots in CRM. We have excluded companies' perceptions because the research gap is how customers perceive and accept chatbots.
2. Frame of reference

Chapter two will present the results from previous research that will build the basis for our empirical study and the survey. The frame of reference is divided into four themes: Customer relationship management, Perception, Generation theory, and Artificial intelligence.

2.1 Customer relationship management

In terms of modern marketing, CRM is an essential concept. CRM can be described as the overall process of building as well as maintaining customer relationships. CRM involves focusing on the customer, the relationship companies want to build with them, and actively managing the process and resources that make it possible for these relationships to survive and develop so that there are benefits for both the customer and the company. Resources used to manage customer relationships are, for instance, people, software applications, data, devices, etc. In 10 years, CRM has changed a lot. Businesses no longer set the rules about how they interact with customers; customers decide how and when they interact with companies. There are numerous channels where they can do so, and communication methods range from email, face-to-face, chatbots, etc (Buttle & Maklan, 2019).

CRM is an integrated approach to managing relationships with a focus on developing relationships and customer retention. It is a combination of processes, people, and technology, and these need to have a balanced approach. Companies that succeed with implementing CRM will be rewarded with long-run profitability and customer loyalty. Today, many companies are racing to boost customer loyalty by strengthening their connections to new and existing customers. Some companies seem to be ahead of the game using technology-based and strategic CRM applications (Chen & Popovich, 2003).

2.1.1 Customer value and satisfaction

It can be challenging to attract and retain customers. There is usually a wide range of products and services for the customers to choose from. What company the customer decided to buy from depends on which of them offers the highest customer-perceived value. The customer-perceived value is the customer's evaluation, measuring the differences of benefits and costs comparably to the competitor's offers. The customer acts on a perceived value and does not usually judge costs and values objectively or accurately. Value has a different meaning to each customer. It might mean paying more to get more, and for others, it might mean sensible products at an affordable price (Kotler et al., 2017).

Customer satisfaction depends on the customer's expectations of a product relative to the product's perceived performance. If the performance is matching the expectations, the customer will be satisfied. However, the customer will be dissatisfied if the product's performance falls short and does not correspond to the expectations. The majority of studies...
show that companies that have higher customer satisfaction leads to substantial customer loyalty. In turn, this leads to better company performance. Companies that act intelligently and strategically, aim to provide customers products promising only what they can deliver and end up delivering more than they promised. Satisfied customers return for new purchases, but they will also be more willing to spread the word about the excellent experience they had with the company to others. Exceptional service and value usually become part of the company culture for companies putting weight in delighting customers. Most customers are not looking for a "wow" experience, and companies do not aim to maximize customer satisfaction. They want to deliver high customer satisfaction relative to their competitors because a company can always increase customer satisfaction in different ways. A company can improve their service or lower their prices; however, this will affect profits. Companies need to have a balance, even though generating customer value profitability is the purpose of marketing. Companies need to keep generating more customer satisfaction and value without giving away too much (ibid).

The Swedish customer satisfaction barometer (Figure 2.1) contains four different factors of customer value and satisfaction. One of them is perceived performance (value), meaning what quality the service creates for the customer and what value the customer feels that the service gives them. It shows how much the customer can get out of the service. The better the perceived value is for the customer, the better the satisfaction will be. Perceived performance can create new experiences and live up to customers' expectations and create new expectations (Johnson et al., 2001).

It also includes customers' expectations that tell what expectations a customer has of a product or service. It is about what customers think they will get out of the service and how high or low expectations they have. The customer's expectations can be linked to perceived performance (value) as they think back on what service they have received before. Customer complaints mean that companies receive complaints, and customers leave and stop buying from the company. Through increased demands, complaints will decrease, and

Figure 2.1 Swedish customer satisfaction barometer (SCSB) model. (Johnson et al., 2001).
customers will stay, leading to the next point, which is customer loyalty. Customer loyalty means that customers continue to shop from the same company because they are satisfied; this is a goal for all companies. Through exemplary service to customers, companies can get customers who complain to become instead loyal and continue to use the service (ibid).

2.2 Perception

Perception is described as the process by which humans select, organize and interpret information and meaning from their surroundings. Every person receives, organizes, and interprets information individually. Their perception influences the way a person acts in a situation. Every day a person is exposed to a vast amount of stimuli. For instance, the amount of ad messages an individual is exposed to each day is estimated from 3000 up to 5000 (Kotler et al., 2017).

A person can't pay attention to all stimuli competing for attention. People screen out most of the information exposed to them, which is called selective attention. Thus, it is hard to attract the attention of customers, and marketers need to work hard. Even if one person notices stimuli, it does not come across the same to everyone. Each person has their existing mindset. People interpret information in a way that supports their beliefs, and this is called selective distortion. Information that supports a person's beliefs and attributes tends to stay and not be forgotten about. So, when people receive good points and information about a brand they favor, they tend to forget good things about other brands, even though they liked them. It is called selective retention (ibid).

What one person perceives can be majorly different from objective reality. It is because perception is based on what reality is for each person, not the reality itself. Many factors are operating when it comes to shaping and sometimes distorting perception. Individuals can be looking at the same thing, yet they perceive it differently. A person's characteristics majorly influence interpretation. For instance, if a person recently bought a new car and suddenly noticed many cars like their driving on the road, this is probably not because the number of that specific car has increased. Instead, the purchase of this car has influenced the person's perception so that they are more likely to notice them. Personal characteristics that affect perception include motives, expectations, attitudes, interests, and experience. For instance, events or objects that a person has never seen or experienced before will be more noticeable than things that have been seen or experienced in the past (Robbins P. & Judge T, 2009).
2.2.1 Technology Acceptance Model

![Technology acceptance model diagram]

*Figure 2.2. Technology acceptance model (Davis et al., 1989).*

Technology acceptance model (TAM), as shown in figure 2.2 is a model whose purpose is to understand how users accept and use information systems as the actual use of a system depends on how well people can use and accept the system (Davis et al., 1989). This model has been one of the most widely used models for technology acceptance (Charness & Boot, 2016). The model has two primary factors for measuring technology acceptance; perceived usefulness and perceived ease of use. From the model, we can read that perceived ease of use affects perceived usefulness and that both of these two factors are linked to attitude towards use. Perceived usefulness not only affects attitude; the factor also affects intention to use, which is also affected by attitude towards use. Intention to use is the penultimate step that leads to and is related to the last step, which is actual use (Davis et al., 1989).

Perceived usefulness means making sure that people find the technology useful to increase their productivity concerning what they are to implement. Fred Davis defined this as "the degree to which a person believes that using a particular system would enhance his or her job performance" (ibid).

Davis defined perceived ease of use as "the degree to which a person believes that using a particular system would be free from effort." In the model, we can also see that there are always different external variables that affect perceived usefulness and perceived ease of use (ibid).

Attitude towards use that is influenced by perceived usefulness and ease of use includes the different attitudes a person has about the technology depending on how previous factors have been. Depending on whether the technology improves performance or not and is easy to use or creates limits, people will have different attitudes towards use. Intention to use means that people create meaning and change behavior to streamline their productivity and positively impact what they implement (ibid).
2.3 Generation Theory

Not every generation is alike. Each generation has unique experiences, lifestyles, values, and expectations that influence their behavior and perception. Therefore, they should not be treated the same, and companies with a multi-generational target group need to understand this to get their attention. When paying attention to each generation's different characteristics and behaviors, gaining trust and building a relationship should become more manageable. Each generation comprises individuals born around the same time, and creating multi-generational brands is not uncommon. Different strategies are appropriate for each generation's characteristics and behaviors regarding communication, products and services, and segmentation (Williams & Page, 2011).

When growing up, different generations experience different types of environmental events. These events create a value that remains somewhat unchanged throughout a person's life. For those who are in the same age group, a common bond is created. When there are groups of consumers with this type of solid bond, it is easier for marketers to offer the same or similar product or communication and get the desired response. This type of group is called "cohorts." They are living during the same period and travel together through life. The environmental events experienced by the cohorts are "defining moments" which influence them, especially around the age of 17-23, which are highly influenceable years (Schewe & Meredith, 2004).

Generations are most commonly 20 to 25 years in length. That is the estimated time it takes for an individual to grow up and start a family. However, it depends on the external events that define it. The "defining moments" can be unique for a nation and do not only come from international events. Political, economic or technological change within a specific society could define a cohort (ibid).

2.3.1 Generation Z

Gen Z is a generational group of young people born between 1995-2010 (Nagy & Kölcsey, 2017). They make up the markets of "kids, tweens, and teens." This group of people represents tomorrow's market. The Gen Zers are comfortable and fluent in digital technology and take smartphones, social media, iPods, wireless internet, etc., for granted. This group is highly social and connected with their mobile phones. The online and offline worlds are seamlessly blended. Analysts say that if Gen Zers are awake, they are online and that "digital is in their DNA." Previous studies show that, even though this group is young, more than half of them do research about products before purchasing them or have their parents buy them. When Gen Z are shopping online, more than half prefer to shop online in categories like books, sports equipment, electronics, music, beauty products, shoes, clothes, and fashion accessories (Kotler et al., 2017).
Gen Z are self-controlled, they value the family unit, and they are embracing traditional beliefs. They are used to messages bombarding them from everywhere at any time since they have never lived without the internet. They are a group that values "realness" and authenticity. Being accepted by friends is important because Gen Z needs to feel that they belong somewhere. This is a diverse and global generation valuing security. Gen Z are possibly the generation that is the most imaginative, and they have a belief that they can make an impact on the world. They could be described as optimistic, confident, and they are ready to be on a mission. Gen Z has high demands when it comes to communication. Companies need to provide them with responses within 24 hours; if not, they will not be returning to the brand, and they will not trust it again either (Williams & Page, 2011).

2.3.2 Generation Y

Gen Y are born between 1977-1994. When they grew up, there were significant and fast-paced changes in different ways. Dual-income households became a standard when the full-employment opportunities for women became bigger. The respect for ethnic and cultural diversity increased significantly but also social awareness. Other than that, computers were available in households as well as schools. Gen Y were born in a society where global boundaries were becoming more transparent, and they are individuals that are wise for their age. Gen Y are independent and self-reliant. They have a large need to be accepted by friends, connect with them, and social networking is important. They would be described as optimistic, goal-oriented, open-minded, and motivated. Multitasking leads them to success, and some key values that define Gen Y are collaboration, innovation, speed, choice, and entertainment. Gen Y are impatient since they were raised in a world with instant gratification and technology (Williams & Page, 2011).

Gen Y believes that they can make the future better, and companies need to have a great purpose to attract this generation. Companies are seen as an instrument of change fighting issues such as global warming. Gen Y cares about experiences, and they value the truth and want to see what is real. Ads showing one race seem unnatural to them, and communicating diversity is important (ibid).

2.4 Artificial Intelligence

AI is created to help people with more straightforward tasks. AI is designed to solve problems, find logical conclusions, and make good decisions in the same way humans could.

These Processes Include:

1. Learning: Collect information and the rules that use this information.
2. Explanation: Find previous rules to be able to give approximate or fixed conclusions.
3. Spontaneous or self-correction.
To create AI and mechanizing the intelligent behavior in humans to a machine, we need:

1. Data system: Used to design information and knowledge.
2. Algorithms to outline the way of using this information.
3. Software language to design the information and algorithms.

(Al-Sukkar et al., 2013)

Intelligence contains giftedness, innovation, and control of movement, senses giftedness, innovation, and control of movement, senses, and emotions. AI is created by humans and therefore has a unique model to follow, unlike humans. Through human intelligence, a person can be creative, come up with new ideas and discuss and argue about many different things that AI does not have the capacity for since they only have the opportunity to implement what they have been programmed to do (ibid).

Due to Sci-fi movies and books where intelligence created by humans gets out of hand, AI has a negative image. People have a perception that AI can be a severe threat. This affects the trust people have in the technology. When studying the perception of new technologies among people, there is usually a group of resistant people. This is typically people who are not using technology themselves. When building trust for AI, representation is essential. Therefore, humanoid robots are popular. If a robot looks more like a human, people find it easier to connect with them on an emotional level. Another AI representation that humans seem to find easier to trust is if the robot looks like a dog. This is because dogs represent diligence and loyalty. People also tend to find AI more trustworthy if they understand how they work. If the behaviors of an AI robot are not explainable, the trust seems to be affected (Siau & Wang, 2018).

2.4.1 Chatbot

A chatbot is a computer program that integrates with people over the internet in the same way humans could. This automated conversation system has a natural language that has developed as AI has made progress. Today, many people use chatbots in everyday life as the primary purpose is to use chatbots in customer service to help customers by answering their questions. Chatbots can be found in retail, finance, information, and communication technology (Bertinussen Nordheim et al., 2019). A chatbot will answer with a short, structured, and simple message. They will find the answer by searching in a database to see previous users' responses (Ho Lee et al., 2020).

Chatbots can be available all day and night and an example of a company that created a chatbot to provide information all the time is the World Health Organization to offer instant and accurate information about COVID-19 through Facebook Messenger (Zhang et al., 2020). Except that chatbots can be available at all times, this technology can, for example,
lead to better customer service and is cost-effective. Many large technology companies such as IBM and Microsoft have made significant investments to use chatbots, and the market is estimated to have an expected growth of 25% per year until 2025. Companies expect that chatbots will be an important function for future customer service, but it has shown that customers have used this feature less than expected. It has been the technology that controls chatbots and focuses on users' perception that has been lacking. There are no models for customer's trust in chatbots, which leads to problems in being able to live up to customer's needs and desires (Bertinussen Nordheim et al., 2019).

Nowadays, the most common type of chatbots are rule-based chatbots. Their role is limited since they operate within the range of closed and specific databases. Therefore, people tend to be skeptical of their possibilities because their questions were beyond the chatbot's knowledge at that particular moment. However, chatbots learn and change over time. Implementing a chatbot that functions well will lead the potential buyer through subsequent stages of the transaction, and the company will have an advantage over competitors (Kaczorowska-Spychalska, 2019).

Chatbots have changed the way companies communicate and inform customers. Companies can now communicate with customers over messenger apps which customers usually use for private purposes such as chatting with friends and colleagues. Not only is this a new way of communicating, but communication can also take place 24 hours a day, seven days a week. Chatbots make it possible for companies to interact with customers independently of opening or working hours. Therefore, companies minimize the risk of not being reached outside business hours. They can also cut down on customer service personnel costs. Chatbots also lead to other potentials and opportunities for companies. For instance, they get to know their customers in new ways. Users of messenger apps usually link their profiles to the application, allowing companies to get to know their customer's preferences in new ways. Companies get access to customer's profiles, responses, and interests on another level. Even if the user has not linked their profile, the chatbot collects information during the dialog with the user. The chatbot can also store information about the user's previous purchases, activities, and requests. This makes it easier for companies to target customers, for example, with personal offers (Zumstein & Hundertmark, 2017).

Today, users usually have to browse and search on a website for a while before finding the information they were looking for. Examples of this could be contact information, price, or specific information about a product. For these kinds of customer service inquiries, chatbots are a great tool that is efficient and straightforward. However, even though chatbots are popular, they do not only come with advantages. In contrast to the benefits, companies need to be aware of the risks and downsides of the technology. Customers are not used to communicating with companies on messenger apps that they usually use to communicate with family or friends. Therefore, it will take time for them to adapt. Moreover, data protection could be another issue that companies will face when using a chatbot. Companies
have a responsibility for customer data and protecting information about the customer. If companies are using a chatbot at a third-party platform, like Facebook, this platform will collect data as well. One of the significant purposes of using a chatbot is to collect data that can be used for marketing and business reasons. However, companies need to be aware that chatbot providers, like Facebook, will collect data as well. When customizing offers, there is also a risk that customers will fear missing out on other offers that might be in their interest (ibid).
3. Method

Chapter three will present the study’s approach to the collection and processing of data. Furthermore, the chapter will discuss designing the questionnaire, selecting respondents, data collection, and method of analysis. The chapter justifies all choices made for the study so the reader will gain an understanding of the study’s approach. Finally, the chapter will describe the study’s reliability and validity.

3.1 General research approach

The authors began by processing theory from scientific articles, previous research, and books. Thereafter, empirical data was collected by conducting a quantitative study via the collection of answers through a survey. By processing the essay in this way, the authors have had a deductive approach.

3.1.1 Deductive research approach

The study started by taking part of scientific articles and by identifying a research gap. After that, a problem discussion was identified followed by implementing the empirics by constructing the survey. This approach is described as a deductive research approach and is explained as a process from theory to empirical data (Jacobsen et al., 2002). Therefore, the survey is based on previous research, which provides a solid theoretical basis and knowledge for the empirical data collection (Bryman & Bell, 2013).

3.2 Literature study

The literature study was conducted by reading, analyzing, and processing theories from scientific articles, previous research, and borrowed books. To find credible articles, the authors have searched via Halmstad University’s database, through Google Scholar and Web of Science. Theories have also been taken from relevant books borrowed from the library at Halmstad University. Inspiration for articles has also been sought by looking at articles previous students have used when writing essays within the subject. These essays have been found via uppsatser.se. Initially, broad searches were conducted on the topic to get a clear overall picture of the matter; during this period, the keywords artificial intelligence and customer relationship management were mainly used. The deeper the knowledge the authors gained, the more detailed the searches became. Concepts such as chatbots, customer satisfaction, and technology acceptance began to be used.

The American psychological association is the reference system used throughout this literature study. The American psychological association is abbreviated to APA. References are presented with the author’s last name and the reference’s year of publication in parentheses in the current text (Söderbom & Ulvenblad, 2016). This makes it easy for the reader to become aware of the reference when reading the text. In a reference list at the end...
of the essay, the references are presented in more detail and alphabetical order. APA is the most common and widely used way of referencing, making it essential to use (Mattsson & Örtenblad, 2008).

3.3 Empirical study

The empirical study was collected through a survey; according to Eliasson (2018), a survey is one of the most common collection methods for quantitative studies. To answer the research questions, a survey is an excellent way to get the most valuable information. The questionnaire can be found in the appendix.

The survey had 212 respondents after removing four non-completion answers, 100 of them were between 15 and 25 years old, and 112 were 26 to 44 years old. We used a sample size calculator from Creative Research Systems (2021) to ensure we had enough answers. To get a confidence level of 95% and a confidence interval of 6.8, we needed at least 208 valid answers on a population of 4 000 000. According to SCB (2020) Sweden had 3 976 711 people aged 15 to 44 year 2020.

3.3.1 Quantitative study

Since this study emanates from a consumer perspective, quantities are important to create a trustworthy result (Eliasson, 2018). Therefore, this study has used a quantitative method with the help of a survey. We believe this research method is a great way to collect as many answers as possible, which is vital for this study as it is crucial to reach a large population. A quantitative method makes it possible to compare as well as draw conclusions about Gen Z and Gen Y. In this study, using a survey as a research method made it easier to collect, compile and analyze the collected data. We identified that one difficulty with quantitative surveys could be that the right questions had to be asked immediately as it was not possible to change them once the survey was distributed.

3.3.2 Designing the questionnaire

The instrument used in the study is a web survey constructed in Google Forms (https://www.google.com/forms/about/). The questions were designed based on the collected theoretical framework described in the chapter frame of reference. Previous research on Gen Z and Gen Y has been of great importance in developing questions as we have wanted to test the frame of reference against this group of individuals. The topic was explained briefly to the respondents through a descriptive text at the beginning of the survey so that the respondents could easily understand the purpose. The respondents had to take a stand on twenty different closed questions. Two questions were answered through a semantic differential scale, five questions were multiple-choice, where the respondent could choose several alternatives, and fifteen questions were multiple-choice, where only one answer could be chosen. According to Ejlertsson (2019) a semantic
differential scale is a scale where the respondent takes a stand on one question formulated with a measuring scale consisting of bipolar adjectives.

According to Eliasson (2018), open questions can be beneficial since the respondents express their opinions more thoroughly. However, when processing, sorting and compiling the data, it takes much time. According to Eliasson (2018), closed questions are easier for the respondents to answer, usually resulting in more responses. For this study, closed questions were preferable to include as many respondents as possible while still processing the data efficiently. One of the significant risks of using closed questions is that some respondents could find the alternatives not suitable for their opinion. Eliasson (2018), therefore, explains that adding an option called “other” or similar allows the respondent to give an answer that reflects their opinion. This alternative was added to the survey, where there were questions with several options. This results in more work, but still less work than only using open questions.

To ensure the respondents that their integrity is protected, it was written clearly when sharing the survey that the survey was anonymous. The purpose of the study was to examine how larger groups perceive chatbots, and an individual’s answer itself is not important since each person’s answer is representing a bigger group. According to Eliasson (2018), informing respondents about anonymity is essential since every left-out answer makes it harder to draw conclusions about the group being examined.

3.3.3 Selection of respondents

To get answers from the right people, the purpose was in mind. The respondents consisted of a selection of Swedish people aged from 15 years up to 44. A simple random sample decided which people would be answering the survey, as long as they were within the framework of criteria, this to be able to generalize the result to apply to everyone in our criteria. The criteria were that the person lived in Sweden and were between 15 to 44 years old. By letting simple random samples decide, people with different personalities, experiences, and attitudes towards chatbots could participate, and there was a spread among the answers. When making a sample selection of respondents, this group represents a bigger population. According to Ejlertsson (2019), if the sample is not done correctly there is a risk of the results being biased. To avoid the results of the survey being biased, the survey was answered by a big enough group to give it a valid result. Ejlertsson (2019) describes that if the sample is too small, the survey results are not usable, and this was avoided by gathering enough answers to represent the whole population.

The delimitation to only have respondents from 15 years up to 44 means that we did not include the youngest people in Gen Z. This was because we wanted to get answers from people who had been active online for a long time and had been able to have discussions with chatbots.
3.3.4 Data collection

To answer the research questions, primary data has been collected through the survey. The primary data was collected by distributing the questionnaire on well-selected forums in various digital channels. It was shared on Linkedin, in our Facebook feeds, in different marketing groups on Facebook and through email. This so that the survey can be spread throughout Sweden. People who were between 15 and 44 years old and lived somewhere in Sweden could answer the survey through the web. The survey was internet-based, meaning the survey only reached people with access to a computer or another device connected to the internet. The time frame for the survey was from the 15th of March until the 8th of April.

Secondary data is our literature that is described in chapter 3.2.

3.3.5 Method of analysis

The answers were collected and compiled in a structured way. This to get statistical data where patterns about Gen Z and Gen Y’s perspective, attitudes, and habits towards chatbots could be found. Using Google Forms, answers were automatically transferred to an Excel document that was divided into two different excel sheets depending on age after closing the survey. The answers were then transcribed into Canva (https://www.canva.com), where they were compiled into pie charts and bar charts. The survey resulted in four non-completion responses, which were removed since the respondents were not familiar with what a chatbot was. A condition for participating in the survey was that the respondent knew what a chatbot is.

For the questions that had the alternative “other” we did a data analysis with the help of the Gioia methodology. To get a bigger picture and more easily present the results, we compiled the meanings and used meaning categorization to code the quotes into different themes. This by first compiling all sentences as 1st order concepts and then dividing them into 2nd order themes and finally creating aggregated dimensions. According to Gioia et al. (2013) this is a way to code your results.

3.4 Reliability and validity

When sending out the survey, every respondent got the same information and the same questions no matter when or where they answered the survey. Eliasson (2018) emphasizes that anyone could easily interpret the data if the questionnaire would be repeated. To increase the reliability, some questions measured the same variable in different ways. At the beginning of the survey, there was a short information about what a chatbot is so that the respondent knew exactly what it is. By giving the respondent the correct information and instructions, the reliability increases since it decreases the uncertainty. Before sharing the survey on the
chosen platforms, the survey was tested by selected individuals. According to Eliasson (2018) it is important to check that data from the survey is registered correctly and, in our case, automatically transferred to Excel. Therefore, having people test the survey before sending it out was helpful.

According to Eliasson (2018) high reliability provides better conditions for a high validity. By going through steps that increase the reliability, we measure what is intended to be measured. A risk when using surveys to collect data is that there can be misunderstandings regarding questions. The respondent might not understand the question, and this could result in the respondent giving an unreliable answer.

If the wrong person answers the questionnaire, fair conclusions cannot be drawn from the survey. Therefore, if a respondent would not be familiar with what a chatbot is but still completes the survey, the validity will decrease (Ejlertsson, 2019). For this reason, we included questions to make sure that the respondent was aware of what a chatbot is.
4. Empirical data

Chapter four presents the empirical results that have been collected through the survey. The result will be presented through diagrams and with an attached describing text.

Figure 4.1 examines the age. It was designed to see the age of the respondents to make sure they were in our frame of criterias. Furthermore, the variable is vital to divide the respondents into the generational groups, Gen Z and Gen Y. 47.2% of the respondents are in Gen Z and 52.8% in Gen Y.

![Figure 4.1. Age](image)

The question in figure 4.2 was designed to examine if all respondents know what a chatbot is, so their answer will be valid. 98% of Gen Z answered yes and 2% were not sure, the respondent that answered not sure answered later that they had interacted with a chatbot and their answers will, therefore, have validity. 100% of Gen Y were familiar with chatbots.

![Figure 4.2 Do you understand what a chatbot is?](image)
The purpose with this question, figure 4.3, was to get an understanding of how common it is that people have interacted with a chatbot. 89.8% of Gen Z answered yes, 4.1% not sure and 6.1% no. Gen Y had interacted with chatbots more than Gen Z and 95.5% answered yes, 3.6% not sure and only 0.8% gave the answer no.

**Figure 4.3 Have you ever interacted with a chatbot?**

This question, figure 4.4, was designed to provide an understanding of whether Gen Z and Gen Y have good or bad past experiences with chatbots. Gen Y has almost twice as many respondents who have had bad experiences with chatbots, 20.2% of Gen Z and 38.7% of Gen Y. Gen Z has an average of 3.01 and Gen Y has an average of 2.67, on a scale from 1-5.

**Figure 4.4 If yes, how has your experience with chatbots been?**
This question, figure 4.5, examines if customers are comfortable with businesses using chatbots or if they feel uncomfortable with new technology. The diagram does not show any noticeable differences between the generations. Gen Z has an average of 3.17 and Gen Y has an average of 3.32. The respondents were very divided in their answers and there are no big differences in the results between two to five. Number one stands out with only three Gen Z and seven Gen Y that feel very uncomfortable.

Figure 4.5 Comfortability of businesses using chatbots
In this question, figure 4.6, the respondent could choose more than one answer. This question was designed to get an understanding of customers' expectations regarding what a chatbot is capable of doing. There are no big differences between Gen Z and Gen Y. The most common answer is that chatbots can solve problems, with 72 answers from Gen Z and 76 answers from Gen Y. A big part of the respondents think that chatbots have the ability to replace human interaction, replace human jobs, ability to learn and that they can think logically. Not that many think that chatbots have the capacity to run surveillance, feel emotions, control people's minds or take over the world.

*Figure 4.6 What can a chatbot do?*
These answers in the diagram, shown on figure 4.7, are linked to figure 4.6. In figure 4.6 two of the respondents from Gen Z answered “other” and 14 respondents from Gen Y. The result from the respondents that answered “other” shows that 4.5% of Gen Y had very bad expectations and think that chatbots are not helpful in any way. 2.7% of Gen Y and say that chatbots cannot do any of the above. 2% of Gen Z and 4.5% of Gen Y describe that chatbots can answer simple questions.

![Figure 4.7 What can a chatbot do? “Other”](image-url)

*Figure 4.7 What can a chatbot do? “Other”*
In this question, figure 4.8, the respondents could choose as many alternatives as they found suitable. This question was designed to get an understanding of what communication tools customers prefer when they need customer service. This to examine if customers prefer places where chatbots are common or not. The most popular communication tools for both generations are online chat with 69.3% of the answers from Gen Z and 75.4% from Gen Y. The second most common is over the phone with 42.8% answers from Gen Z and 37.2% from Gen Y. Not that many prefer social media, 11.2% of Gen Z respectively 12.7% from Gen Y. The option to go into a store was more popular among the younger people in Gen Z with 34.7% and only 14.5% from Gen Y prefers to go into a store.

Figure 4.8 Preferred channel of contact when needing customer service
These answers from this diagram, figure 4.9, are linked to figure 4.8. In figure 4.8 three persons from Gen Z answered “other” and eleven persons from Gen Y. Two of these persons from Gen Z prefer email and so did ten persons from Gen Y. One person from Gen Z specified that they prefer Instagram and one person from Gen Y thinks that the most important thing is that they are talking to a human.

Figure 4.9 Preferred channel of contact when needing customer service “other”
This question, figure 4.10, was designed to see if any of the respondents prefer chatbots over a person or if it is of no importance. The majority of both Gen Z and Gen Y prefer to chat with a person, 87.8% of Gen Z respectively 87.3% of Gen Y. 11.2% of Gen Z and 12.7% of Gen Y have no preference and only 1% of Gen Z prefer chatbots and none of Gen Y.

![Figure 4.10](image1)

*Figure 4.10 When you use an online chat, which do you typically prefer to chat with?*

This question, figure 4.11, was designed to get an understanding about if the respondents prefer chatbots over frequently asked questions or if it does not matter. This to get a better understanding if people prefer to chat with a chatbot to get information or do their own search. The majority of both Gen Z and Gen Y prefer FAQ, 55.6% of Gen Z respectively 59.1% of Gen Y. 27.3% of Gen Z and 29.1% of Gen Y prefer talking to a chatbot and 17.2% of Gen Z and 11.8% of Gen Y has no preference.

![Figure 4.11](image2)

*Figure 4.11 Chatbots or FAQ when searching for answers online?*
In this statement, figure 4.12, the respondents could choose as many alternatives as they wanted. The purpose with this statement was to understand in which industries customers are most open to using chatbots. The industry where both generations feel most comfortable is online retail with 61.2% of Gen Z and 57.2% of Gen Y. Subscription services are not far behind with 55.1% of Gen Z and 42.7% of Gen Y. It is a lower number who feel comfortable when it comes to banking, financial advice, insurance, car dealership and government. When it comes to health care only 12.2% Gen Z and 87.2% Gen Y feel comfortable communicating with a chatbot.

Figure 4.12 Situations where respondents feel comfortable communicating with a chatbot
Since chatbots are based on data and information about the customer this statement, figure 4.13, was interesting to ask to understand if the respondents believe that a chatbot knows their preferences well enough, compared to a human. To understand if the respondents had a negative attitude towards chatbots compared to humans this statement was asked. For Gen Z the majority, 40.8%, believed that a chatbot is not going to know their preferences as well as a human. For Gen Y the same option got 45%. However, a larger group of Gen Y seems to have a positive attitude that chatbots potentially could know their preferences just as well as a human being. 37.6% of Gen Y disagrees with the statement and 29.6% of Gen Z.

![Figure 4.13: A chatbot is never going to know me and my preferences as well as a human being](image)

With this statement, figure 4.14, the purpose was to examine how the respondents perceive chatbots. The answers from Gen Z (58.6%) and Gen Y (62.2%) were similar and shows that neither of the two groups perceive chatbots as scary. Only 15.2% of Gen Z and 15.3% of Gen Y agreed with the statement. 26.3% of Gen Z and 22.5% of Gen Y have no opinion.

![Figure 4.14: A chatbot has too much information about me and that scares me](image)
This statement, figure 4.15, had its purpose to understand if the respondents believe that chatbots are a great tool for customer service and if they can actually make a good difference. Less than 50% of Gen Z (45.8%) and Gen Y (48.6%) thought that chatbots can change customer services for the better. For Gen Z, the options “disagree” and “neither” ended up with 27.1% each. For Gen Y 28.4% answered “neither” and 22.9% answered “disagree”.

**Figure 4.15. Chatbots can change customer service to the better**

This statement, figure 4.16, examines whether the respondents believe that a chatbot can help them 24/7. This statement is interesting because companies using humans for customer service might not be able to help their customers during late evenings, nights etc. If a large group thinks that chatbots are helpful 24/7 this might be a solution for companies. Almost 70% of Gen Z and Gen Y agree that chatbots can help them 24/7. Gen Z and Gen Y have similar attitudes to this question.

**Figure 4.16. Chatbots can help me to get my inquiries solved 24/7**
This statement, figure 4.17, had its purpose to examine whether the respondents are open to using a chatbot if it was in any way helping them in their daily life. Over 80% of Gen Z and Gen Y agreed that they would be more open to using a chatbot if it could help them in their daily life. Only 12.1% of Gen Z and 10.8% of Gen Y would not like to use a chatbot even though it could help them.

![Figure 4.17. If a chatbot can help me in my daily life I am open to use it](image1)

With this statement, figure 4.18, the purpose was to understand what opinions the respondents have about chatbots capabilities of answering complex questions. Around 70% of both Gen Z and Gen Y did not think that chatbots are able to answer complex questions. They are therefore aware of the limited capacity that a chatbot has. This question is linked to the next question, figure 4.19.

![Figure 4.18. Chatbots can answer complex questions](image2)
This is a follow-up question to the previous figure, figure 4.18. The purpose of this statement was to understand if the respondents expect chatbots to answer complex questions, after answering if they think they can answer complex questions. It is interesting to know if their opinion and their expectations are matching. However, neither Gen Z or Gen Y seems to have high expectations of chatbots when it comes to answering complex questions. 57.1% (Gen Z) respectively 67% (Gen Y) do not expect chatbots to answer complex questions. One thing that is notable though, is that the number of respondents believing that chatbots can answer complex questions is lower than the number of respondents expecting chatbots to answer complex questions. So, the expectations of the chatbots in this area seems to be higher than the reality.

![Figure 4.19. I expect chatbots to answer complex questions](image)

This statement, figure 4.20, was designed to get an understanding of if Gen Z and Gen Y value chatbots the same, or even higher, than a human for customer service issues. The majority of both Gen Z and Gen Y disagreed with the statement, 70.7% of Gen Z respectively 68.5% of Gen Y. The amount of respondents that agreed or did not have a preference was similar for both Gen Z and Gen Y.

![Figure 4.20. A chatbot can provide the same, if not better, levels of customer service](image)
This statement, figure 4.21, was included in the survey to find out if Gen Z and Gen Y believe that chatbots could affect customer service in a good way. 73.4% of Gen Y agreed and though that chatbots had a great potential for this issue while 69.7% of Gen Z thought so too. The respondents from Gen Z and Gen Y had similar opinions to this question.

**Figure 4.21. A chatbot has the potential to improve customer service**

This statement, figure 4.22, is linked with the following figure, figure 4.23. The purpose of this statement was to examine whether the relationship with the brand is negatively affected by a badly functioning chatbot. Each respondent that contacts customer service and ends up having a conversation with a chatbot, contacted them for different reasons. Therefore, “a badly functioning chatbot” is individual depending on the issue that the respondent has. From the results Gen Y seems to believe that a bad functioning chatbot ruins their relationship with the company more than Gen Z.

**Figure 4.22. A badly functioning chatbot ruins my trust with the brand**
This statement, figure 4.23, is linked with figure 4.22. The purpose of this statement was to examine whether the relationship with the brand is positively affected by a good functioning chatbot. In this question the answers by Gen Z and Gen Y are very similar. If a chatbot is working well the majority, 61.2% of Gen Z respectively 56.9% of Gen Y, of both Gen Z and Gen Y believes that it strengthens their trust for the brand.

"A WELL FUNCTIONING CHATBOT STRENGTHENS MY TRUST FOR THE BRAND"

Figure 4.23. A well functioning chatbot strengthens my trust for the brand
5. Analysis

Chapter five presents the analysis. Collected empirical data, previous research, and theories processed in the frame of reference are analyzed to make comparisons, find patterns and create meaning to the collected material.

According to Bertinussen Nordheim et al. (2019), companies have put a lot of effort into implementing chatbots. Many well-known companies have made significant investments to use chatbots, and the market has an expected growth of 25% per year until 2025. Despite all these investments, the tool has been used less than companies hoped for, but as we can see in the empirical study, figure 4.3 shows that as many as 89.8% Gen Z and 95.5% Gen Y have interacted with chatbots.

Figure 4.4 shows that not many of these people have had a very good experience with chatbots, but there is at the same time a big difference between the generations when looking at this question. When it comes to Gen Y, 38.7% have had a bad experience compared to 20.2% of Gen Z, which is similar to a good experience for Gen Z with 19.1%. Gen Z has a total of 50.6% that stands neutral to this question, where Gen Y only has 30.2% answers. According to Williams and Page (2011), generations have different perspectives of things. They have unique experiences and should therefore not be treated in the same way by companies. As we can see in our result in figure 4.4 the generations have different experiences. What influences people to think differently explains Johnson et al. (2001) has to do with customer’s expectations of the service and previous experiences.

Figure 4.6 clearly shows that people have high expectations for chatbots; as many as 73.5% of Gen Z and 69.1% of Gen Y explain that chatbots can solve problems, and 45.9% of Gen Z and 51.8% of Gen Y clarify that they can replace human communication. At the same time figure 4.7 shows that 4.6% of Gen Y think that chatbots are useless and not helpful in any way and figure 4.4 shows that not more than 5.6% of Gen Z and 3.8% of Gen Y have had a very good experience with chatbots. Johnson et al. (2001) believe that this number can increase through improved perceived performance. New experiences can be created and live up to customer’s expectations, creating entirely new expectations. Kotler et al. (2017) prove this theory by saying that companies with a smart and strategic plan provide customers only with what they are promising that they can do but deliver a better service. The service will then live up to customers’ expectations.

According to Buttle and Maklan (2019), customers are in the power of deciding where companies can interact with them, and the companies are not in any position of setting rules for this. Companies have to be aware of what channels they can expect to interact with their customers as there are many different communication tools. The study shows that the most popular communication tools for both generations are online chat, with 69.3% answers from Gen Z and 75.4% from Gen Y. According to Bertinussen Nordheim et al. (2019) this is a tool
where chatbots can be used as they can integrate with people over the internet in the same way as a human could do. Chatbots can also be found on social media, but only 11.2% of Gen Z and 12.7% from Gen Y prefer social media as a communication tool. Zumstein and Hundertmark (2017) strengths this result as they mean that customers are not used to communicating with companies on messenger apps; they usually use to communicate with family or friends, so it will take time for customers to adapt. One other struggle with social media is when customers and companies communicate through, for example, Facebook, they will also collect data from the conversation.

Rao and Euan (2018) describe that humans have a hard time creating trust in things they do not fully understand and that AI is hard to understand. Therefore chatbots will make people feel insecure as long as they do not understand the technology behind them. As we can see in our study, figure 4.5 shows that the respondents in both generation groups are very divided in their answers about how comfortable they feel when companies use chatbots. There are no significant differences in the results between uncomfortable to very comfortable, and not that many respondents admitted feeling very uncomfortable. This can be linked to Rao and Euan (2018) article as it describes that people’s trust depends on their understanding of the technology.

Even if a big part of the respondent feels comfortable chatting with a chatbot, most of both Gen Z and Gen Y prefer to chat with a person. Figure 4.10 shows that 87.8% of Gen Z respectively 87.3% of Gen Y prefer chatbots over a person and only 1% of Gen Z prefer chatbots, and none of Gen Y and the remaining have no preference. This can also be linked to Rao and Euan (2018) article as people think it is hard to create trust in things they do not know much about. It can also be linked to Siau and Wang (2018) studying the perception of new technologies among people and could draw the conclusion that usually there is a group of people against new technology. This is usually people who have not used the tool to a greater extent yet, and according to Zumstein and Hundertmark (2017), chatbots are a new way for people and companies to communicate. This can also be proved by figure 4.11, where the majority of both Gen Z and Gen Y answered that they prefer frequently asked questions rather than using a chatbot. Zumstein and Hundertmark (2017) mean that today there is so much information, and much searching has to be done to find the correct information. Instead of browsing on a website, a chatbot can be a more efficient and easier way to get accurate information. Even if the majority answered FAQ, we could see in figure 4.11 that as much as 27.3% of Gen Z and 29.1% of Gen Y prefer talking to a chatbot, and 17.2% of Gen Z and 11.8% of Gen Y have no preference.

As we could see in figure 4.10, people prefer talking to a person over a chatbot. This can be linked to figure 4.20 that examines whether Gen Z and Gen Y believe that chatbots provide the same or better customer service than a human. Around 70% of both Gen Z and Gen Y believe that chatbots do not offer the same levels of service as a human. This is supported by research conducted by Luo et al. (2019), which argues that chatbots are not sufficiently
developed to deal with customers appropriately. The study also suggests that chatbots lack knowledge and therefore cannot provide the same service levels as humans. This is also supported by Pegasystems (2017), where the study examined if the participants would prefer communicating with a human or a machine, 80% would rather communicate with a human. The empirical study, figure 4.20, shows that Gen Y and Gen Z have an attitude that a chatbot provides more inadequate service than a human. This is supported by Pegasystems (2017) where their study suggests that AI will never understand the customer’s personal needs in the same way as a human being can.

Today, customer relationships can be maintained through different channels such as salespeople, call centers, online websites, marketing departments, service personnel, etc (Parvatiyar & Jagdish, 2001). Chatbots can be found in retail, finance, information, and communication technology (Bertinussen Nordheim et al., 2019). Figure 4.12 examines where the respondents feel comfortable interacting with a chatbot. As Bertinussen Nordheim et al., (2019) describes, chatbots can be found in many different industries. Zhang et al., (2020) explain that the World Health Organization has offered help from a chatbot through Facebook Messenger during the pandemic. However, figure 4.12 shows that neither Gen Z nor Gen Y seems positive to interact with a chatbot regarding healthcare; only 12.2% of Gen Z and 7.2% of Gen Y. Both Gen Z and Gen Y felt most comfortable interacting with a chatbot in terms of online retailing, such as personal recommendations of items, or subscription services, such as a Netflix subscription. In total, healthcare was the industry where Gen Z and Gen Y felt least comfortable interacting with a chatbot.

Zumstein and Hundertmark (2017) describe that chatbots are a significant advantage for companies and can open up new opportunities. A chatbot can get a large amount of information about the customer. It can get access to helpful information from customer’s profiles, responses, and interests on another level compared to a human. Chatbots can also store information about the user’s activities and be available even when companies are closed. However, the empirical study, figure 4.13, shows that for Gen Z, 40.8% believed that a chatbot is not going to know their preferences as good as humans, and 45% of Gen Z agrees to this. There are respondents with a more positive attitude that chatbots could potentially know their preferences just as well as a human being with 29.9% Gen Z and 37.6% Gen Y. Siau and Wang (2018) mean that people do not trust things they are scared of. AI is a technology that people think can be a severe threat and have negative images because of how it has been displayed in movies. Rao and Euan (2018) strengthen this by describing that it causes concerns when people do not fully understand the technology. Despite this, the empirical study, figure 4.14, shows that as much as 58.6% of Gen Z and 62.2% of Gen Y do not perceive chatbots as scary. This can be linked to that Rao and Euan (2018) also means that it depends on how much they know about chatbots if they get scared.

According to Vesterberg et al. (2019) there are several opportunities for companies to create trusting relationships with their customers. AI is one of them, and it is majorly important that
customers understand this technology and trust it to strengthen the relationship with a company. Figure 4.22 shows that Gen Y are particularly sensitive when it comes to a badly functioning chatbot. Approximately 82% believe that their relationship with the brand is ruined if a chatbot is functioning poorly. Comparing this to figure 4.23, almost 57% of Gen Y believes that their relationship with the brand is strengthened if the chatbot is functioning well. Figure 4.23 shows that Gen Z and Gen Y have similar opinions regarding whether a well-functioning chatbot enhances the relationship with the brand or not. Figure 4.22, on the other hand, shows that Gen Z are not as negatively affected as Gen Y when communicating with a bad functioning chatbot. According to Robbins P. & Judge T (2009), interpretations are majorly influenced by a person's characteristics. Some of the motives affecting perceptions are interests, expectations, and past experience. Williams & Page (2011) describes that every generation has unique experiences, values, and expectations that influence their behavior and perception. This needs to be paid attention to to build a relationship with Gen Z and Gen Y.

Figure 4.21 shows that most of both Gen Z and Gen Y believe that chatbots can improve customer service. Bertinussen Nordheim et al. (2019) explain that chatbots can lead to better customer service and that companies expect that chatbots will be a vital function for future customer service. The empirical study suggests that both Gen Z and Gen Y have a similar attitude to this since the majority believe that chatbots have the potential to change customer service. This can also be linked with what Davis et al. (1989) explain about perceived usefulness. The concept is about making sure that people find the technology useful, which Gen Z and Gen Y do since they believe that chatbots have a great potential to improve customer service.

Figure 4.18 suggests that Gen Z and Gen Y both have similar attitudes regarding chatbots answering complex questions. 70% of Gen Z think that chatbots cannot answer complex questions, while 75% of Gen Y have the same opinion. Like Figure 4.20, this can be connected to the study conducted by Luo et al. (2019), where it states that chatbots are not sufficiently developed to deal with customers and lack knowledge.

Figure 4.18 examines if Gen Z and Gen Y believe that a chatbot can answer complex questions, while 4.19 examines whether they expect chatbots to answer complex questions. From the empirical study, a larger number of respondents from Gen Z and Gen Y expect chatbots to answer complex questions than respondents who think that chatbots can answer complex questions. For Gen Z, 15% believe that chatbots cannot answer complex questions; on the other hand, 26.5% expect them to. Gen Y, 11.9% believes that chatbots cannot answer complex questions, but 18.3% expect them to. This means that the expectations of chatbots answering complex questions are higher than their perceived performance. Kotler et al. (2017) explains that customer satisfaction depends on the customer's expectations relative to the perceived performance. When the performance and the expectations are not matching, the customer will be dissatisfied and correspondingly in the other direction.
However, from the empirical study, figure 4.18 and 4.19 suggest that the majority of both Gen Z and Gen Y do not think that chatbots can answer complex questions and do not expect them to either. 69% of Gen Z does not think chatbots can answer complex questions, and 75.2% of Gen Y does not think chatbots can answer complex questions. For both Gen Z and Gen Y, the percentage of respondents not expecting chatbots to answer complex questions is lower, 57.1% of Gen Z and 67% of Gen Y. The Swedish customer satisfaction barometer (SCSB) by Johnson et al. (2001) suggests similar theories as Kotler et al. (2017). The SCSB accounts for that customer’s expectations are linked to the perceived performance. Customer satisfaction is about what the customer thinks they will get out of the service and how high or low the expectations are. In this case, looking at the parts of Gen Z and Gen Y not thinking chatbots can or expect them to answer complex questions, both Gen Z and Gen Y have lower expectations than the perceived performance is.

Figure 4.17 is not examining the function of the chatbot. It examines the respondent's attitudes towards using the technology if it is or if it would help them in their daily life. The attitude towards using a chatbot if it helps the respondents in their daily lives is positive among Gen Z (81.8%) and Gen Y (85.6%). This can be compared to figure 4.21, where the results also showed an overall positive attitude towards chatbot's potential to improve customer service. The majority of Gen Z and Gen Y would be open to using a chatbot if it helps them in their daily life, and they also see that chatbots have great potential. Davis et al. (1989) describe theories about attitudes towards technology in the Technology Acceptance Model (TAM). The variables that figure 4.17 and 4.21 measure can be connected to the TAM model about attitudes. Perceived usefulness means whether people find the technology useful or not. Depending on if the technology is easy to use, create limits, or improve performance, people will have different attitudes towards using it. Davis et al. (1989) explain further that perceived usefulness does not only affect attitude; the factor also affects the intention to use the technology. Intention to use can be connected to figure 4.17 and 4.21 in how the respondents show an overall positive attitude towards chatbots.

Chatbots can be available all day and night, and figure 4.16 examines if the respondents believed that chatbots could be useful and help them 24/7. Almost exactly 67% of both Gen Z and Gen Y believe that chatbots can help them any time of the day or night. According to Zumstein and Hundertmark (2017) chatbots make it possible for companies to interact with customers outside of opening or working hours since there is no need for humans to interact with them. Companies, therefore, minimize the risk of customers not being able to reach them outside of working hours. Williams and Page (2011) explain that Gen Z has exceptionally high demands for communication. They expect fast answers, and if a company does not respond to them in 24 hours, they will not return to the brand, and the trust for the brand will be harmed. As previously mentioned, from our empirical study, figure 4.16 shows that 67.7% of Gen Z answered that they believe that chatbots can help get their inquiries solved 24/7. Bertinussen Nordheim et al. (2019) opine that chatbots can lead to better
customer service and that chatbots are cost-effective. Regarding costs, Zumstein and Hundertmark (2017) have similar opinions and state that chatbots give companies the possibility to cut down on customer service personnel costs.

According to figure 4.15 from our empirical study, less than 50% of Gen Z (45.8%) and Gen Y (48.6%) believe that chatbots can change customer services for the better. According to Kaczorowska-Spychalska (2019) people tend to be skeptical of chatbot possibilities. This is because the most common type of chatbots is rule-based, and therefore their role is limited. Some questions asked are beyond the chatbot's knowledge at that specific moment, and therefore people are not satisfied. Luo et al. (2019) explain that chatbots are not sufficiently developed to deal with customers appropriately. However, Kaczorowska-Spychalska (2019) states that chatbots can change over time, and having one can be a competitive advantage for companies.
6. Conclusion, contribution and further research

In chapter six, the authors of this study have drawn conclusions that will be presented below. The conclusions are based on the analysis in chapter five. In the contribution section, the benefits of the study have been presented, i.e. for whom and how the study has created benefits. Finally, proposals for further research are presented.

6.1 Conclusion

The purpose of the study was to determine what perception Swedish customers from Gen Z and Gen Y have of chatbots and companies using them as a way to communicate. Furthermore, the study aimed to understand if Gen Z and Gen Y perceive chatbots differently and if they believe the customer relationship is affected by the technology.

RQ1: How do Gen Z and Gen Y perceive chatbots in terms of customer relationship management?

The analysis of the collected data, connected to customer relationships, gives a slight indication that both Gen Z and Gen Y have higher expectations of chatbots than the perceived performance is. When customers contact customer service, they expect their inquiries to be solved correctly and promptly, no matter if they communicate with a chatbot or a human. People do expect chatbots to be able to solve problems and be able to replicate human interaction. Despite this, most respondents from both Gen Z and Gen Y would rather be communicating with a human than a chatbot. Theories highlight that it takes time for people to get used to new technology, and through the result, it can be concluded that people prefer service tools that have been around for a longer time.

In conjunction with previous studies, a conclusion can be drawn that chatbots cannot answer complex questions and are not sufficiently developed to do so yet. Chatbots lack knowledge and cannot yet replace humans in customer services. However, both Gen Z and Gen Y seem to be optimistic that chatbots have great potential. This goes along with previous studies claiming that chatbots can learn and develop over time. Several variables in the analysis of the collected data indicate that Gen Z and Gen Y are positive to chatbots even though they might not fulfill their inquiries and demands at this given moment. If a company’s chatbot is not performing very well and can only answer FAQ, it might harm the relationship more than strengthen it. This conclusion can be drawn since both Gen Z and Gen Y incomparably prefer chatting with humans or finding answers in the FAQ.

RQ2: Do Gen Z and Gen Y perceive chatbots in different ways?
A conclusion can be drawn that Gen Z and Gen Y have similar opinions about chatbots and how they affect their relationship with a brand or company. However, they do differ slightly looking at specific questions. Both Gen Z and Gen Y seem to be sensitive to the chatbot's functioning and companies need to take this into consideration. Companies need to have a well-functioning chatbot, especially when it comes to Gen Y. A more significant part of Gen Y has had a bad experience with a chatbot and believes that a badly functioning chatbot ruins their relationship with a brand.

*RQ3: How is the customer relationship affected by chatbots?*

Regarding how chatbots affect the relationship with a brand, Gen Z and Gen Y are sensitive when it comes to a chatbot's functioning. No matter if the chatbot is functioning good or bad, it affects their relationship with the brand positively or negatively. What should be considered is that a “badly” or a “well” functioning chatbot is individually defined by each person. One might say that a chatbot is functioning well if it answers a question found in the FAQ, while one might say that it is when the chatbot can answer a more complex question, maybe about a specific product.

To strengthen and not harm the customer relationships with Gen Z and Gen Y, companies need to make sure that chatbots create value for customers and not only for companies themselves regarding cutting down on costs. Chatbots need to keep developing and make progress to be beneficial for customers to use.

6.2 Contribution

The theoretical implications from this study are the conclusions drawn that answer the research questions and the theoretical framework in the frame of reference chapter. Chatbots are still a relatively new and unexplored concept in academic research, and the conclusions fill the gap in existing research. This study can contribute with additional perspectives about chatbots in customer relationships that can be useful for companies and further research. Previous studies have shown what companies liked about using chatbots, but the focus is on the customer perspective.

The practical implications which this study contributes could give benefits for companies. It can be interesting and important for companies to gain an understanding of how customers view chatbots today. The study brings attention to the unexplored issue of Gen Z and Gen Y’s perception in this matter. With the help of this study, companies can understand how they should act to maintain a good relationship with their customers when implementing chatbots. Furthermore, digitization is transforming rapidly, and new technology is developed at a fast speed. The study can contribute by helping companies have the opportunity to keep up with the development of technology.
6.3 Further research

Artificial technology is a current topic with ongoing development, and there are great opportunities for future research in this subject area. This study aimed to increase the understanding of customer's perspective of chatbots, and therefore a survey on customers where implemented. However, it could be interesting to conduct a qualitative study instead of a quantitative one. One further research that could be interesting is to interview companies to understand their perspective and see if it matches the customer's perspective. If customers and companies do not perceive chatbots in a similar way, this could be troublesome for companies in terms of CRM.

Furthermore, this study was conducted on Gen Z and Gen Y. It would have been interesting to study other generational group's perspectives. A suggestion could be to study groups that differ more in terms of age and see if their perception differs as well. Both Gen Z and Gen Y have been growing up with technology, but for the generations that grew up without technology, they might not be as accepting. Such a study could probably have distinguished more similarities and differences regarding generational groups.

Finally, it could be interesting to do a similar study in a year, to see if chatbots have developed for the better, which both our empirical study and previous studies predict. This to be able to conclude if chatbots actually are developing, which the majority seems to think.
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https://jyx.jyu.fi/bitstream/handle/123456789/67758/URN%3aNBN%3afi%3ajyu-202002062004.pdf?sequence=1&isAllowed=y


Appendix

Questionnaire

Chatbots

A chatbot is a computer program that integrates with people over the internet in the same way as a human could do. Today, chatbots can be used in everyday life as the main purpose is to use chatbots in customer service to help customers by answering their questions. A chatbot will answer with a short, structured, and simple message. They will find the answer by searching in a database where they will see previous users’ responses.

1. Age

- 15-25
- 26-38

2. Do you understand what a chatbot is?

- Yes
- No
- Not sure
3. Have you ever interacted with a chatbot?

☐ Yes
☐ No
☐ Not sure

3a. If yes, how has your experience with chatbots been?

1  2  3  4  5

Very bad  ☐  ☐  ☐  ☐  ☐  Very good

4. How comfortable are/would you be with a business using a chatbot to interact with you?

1  2  3  4  5

Very uncomfortable  ☐  ☐  ☐  ☐  ☐  Very comfortable
5. How would you describe what a chatbot can do? You can choose more than one answer.

☐ Think logically
☐ Run surveillance on people
☐ Replace human jobs
☐ Feel emotion
☐ Control your mind
☐ Take over the world
☐ Ability to learn
☐ Solve problems
☐ Ability to replicate human interaction
☐ Övrigt: ____________________________
6. When you need customer service, what is typically your preferred channel of contact? You can choose more than one answer.

☐ Online chat
☐ Live representative on the phone
☐ Social media
☐ Go into a store
☐ No preference - whatever I have access to at the time
☐ Övrigt: ________________________________

7. When you use an online chat for customer service, which do you typically prefer to chat with?

☐ A person
☐ A chatbot
☐ No preference

8. When searching for answers online, would you prefer talking to a chatbot or look in FAQ (Frequently asked questions)?

☐ Chatbot
☐ FAQ
☐ No preference
9. In which situations would you be comfortable with a company using a chatbot to
give you better customer service? You can choose more than one answer.

☐ Online retail "Using a chatbot to provide personalized recommendations on items you
may want to purchase"

☐ Healthcare "A doctor using a chatbot to help make a better diagnosis or
recommendation about your health treatment"

☐ Subscription services (such as telephone subscription or Netflix) "A subscription
provider using a chatbot to make you a better offer on a new or renewed mobile
contract"

☐ Banking "A bank using a chatbot to determine the best banking products to offer you
when opening an account"

☐ Financial advice "A financial advisor using a chatbot to help determine better
investment choices for you"

☐ Insurance "An insurance company using a chatbot to monitor and analyze your daily
activities in exchange for a lower insurance premium"

☐ Car dealership "A car dealer using a chatbot to give you personalized advice on the
best car to buy"

☐ Government "The government using a chatbot to provide you with better and more
personalized public services"
Which of the following statements do you agree or disagree with?
In the following 11 questions we have listed statements where you are asked to answer if you agree, disagree or of you have no preference.

10. “A chatbot is never going to know me and my preferences as well as a human being”
   - Agree
   - Disagree
   - Neither

11. “A chatbot has too much information about me and that scares me”
   - Agree
   - Disagree
   - Neither
12. "Chatbots can change customer services to the better"

- Agree
- Disagree
- Neither

13. "Chatbots can help me to get my inquires solved 24/7"

- Agree
- Disagree
- Neither

14. "If a chatbot can help me in my daily life, I am or would be open to use it"

- Agree
- Disagree
- Neither
15. "Chatbots can answer complex questions"

- Agree
- Disagree
- Neither

16. "I expect chatbots to answer complex question"

- Agree
- Disagree
- Neither

17. "A chatbot can provide the same, if not better, levels of customer service"

- Agree
- Disagree
- Neither
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<thead>
<tr>
<th>Question</th>
<th>Agree</th>
<th>Disagree</th>
<th>Neither</th>
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<tr>
<td>18. &quot;A chatbot has the potential to improve customer service&quot;</td>
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<td>19. &quot;A badly functioning chatbot ruins my relationship with the brand&quot;</td>
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<td>20. &quot;A well functioning chatbot strengthens my trust for the brand&quot;</td>
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